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The emergence of democratic firms in the platform economy: drivers, obstacles, and the path ahead

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The Emergence of Democratic Firms in the Platform Economy: Drivers, Obstacles and the Path Ahead

The Emergence of Democratic Firms in the Platform Economy

Drivers, Obstacles and the Path Ahead

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Previously Published Work

This thesis contains unpublished, original work as well as previously published works, in whole or in part. The thesis contains and/or builds on the following previously published work by the author:

Chapter 2 draws on:

M. Mannan, 'Theorizing the Emergence of Platform Cooperativism: Lessons from Role-Set Theory' (2022) 2 *Ondernemingsrecht Tijdschrift* February issue, 64-71 [double peer review].

M. Mannan and S. Pek, 'Solidarity in the Sharing Economy: The Role of Platform Cooperatives at the Base of the Pyramid' (pp. 249-279) in: I Qureshi, B Bhatt & DM Shukla (eds.) *Sharing Economy at the Base of the Pyramid: Opportunities and Challenges* (Springer 2021). [review by book editors].

Chapter 4 draws on:

M. Mannan and N. Schneider, 'Exit to Community: Strategies for Multi-Stakeholder Ownership in the Platform Economy' (2021) 5 *Georgetown Law Technology Review* 1-71. [review by both student editors and faculty advisors]

Chapter 6 is based on:

M. Mannan, *Everything Old is New Again: Evaluating the Legal and Governance Structures of Shared-Services Platform Cooperatives* (Institute for the Cooperative Digital Economy 2020) [review by series editor].

Chapter 7 is based on:

M. Mannan, 'Fostering Worker Cooperatives with Blockchain Technology: Lessons from the Colony Project' (2018) 11 Erasmus Law Review 190-203. [double-blind peer-review].

Chapters 8 and 9 draws on:

T. Scholz, M. Mannan, J. Pentzien & H. Plotkin, *Policy Recommendations to Support Cooperative Ownership in the Digital Economy* (Berggruen Institute 2021) [review by series editors].

Executive Summary

This PhD research project investigates the emergence of 'democratic' alternatives to capital-managed platform businesses. These 'democratic firms' confer important control and financial rights to the stakeholders that contribute intellectual, social, financial and use value to the firm. This project seeks to understand the drivers for such firms, their limitations, the obstacles they face, as well as how they can be encouraged. In terms of scope, the project specifically focuses on 'prosumption' platforms in Belgium, Canada, the Netherlands, Spain, the United States and the United Kingdom. Prosumption is understood as activities where production and consumption are blurred. This not only accounts for the fact that work such as making stock photography, ride-hailing and food delivery often puts to commercial use the goods that were bought for personal consumption, it also acknowledges new types of value contribution, such as social media use and electric car sharing.

Until now, the creation of such democratic firms in the platform economy – and the obstacles thereto – has received limited attention within legal scholarship. This research project seeks to address this gap by answering the following research question and 2 sub-questions:

How can the democratisation of capital-managed prosumption platforms ameliorate socio-economic concerns raised by platform capitalism, and how can this democratisation process be facilitated?

- What are the main motivations for, and challenges to, the formation and governance of democratic firms as viable alternatives to capital-managed prosumption platforms?
- How can the obstacles to the formation and governance of democratic firms be overcome?

In this summary, I provide an overview of the chapters of this dissertation and reflect on how these questions are answered. Chapter 2 of the dissertation provides an explanation for why the democratisation of platform companies has become a salient issue. It addresses the socio-economic concerns raised by platform capitalism and extensively discusses how and why platform cooperativism emerged as a response to these concerns. I trace the history of platform cooperativism as a movement and provide a state-of-the-art overview of how the movement is currently developing. (This can also be seen in the two annexes to this dissertation, which documents many of the cooperative-run platforms and platform cooperatives that have been created at the time of writing). I use Merton's role-set theory to both understand these socio-economic concerns, as well as to argue that

a change in *status* – from platform prosumer (e.g., as an Uber driver) to cooperative *member* – is an appealing way for resolving role and role-set conflicts that otherwise occur under platform capitalism. That being said, I acknowledge that cooperative members experience their own role and role-set conflicts and present options for resolving these conflicts. I thereby contribute to theory building on why democratic firms, such as platform cooperatives, are beginning to emerge.

Chapter 3 complements chapter 2 by empirically investigating whether there is a latent demand for control and financial rights within platform companies. To that end, this chapter presents the results of a Delphi study that was conducted with the diverse stakeholders of an on-demand food delivery and cleaning platform in the Netherlands. This forecasting method revealed a consensus of opinion among panellists that platform workers should be extended a voice in certain operational decisions, but there was reticence about the granting of financial rights (e.g., allocation of company shares). While this can be interpreted as a call for greater worker representation on such labour platforms, it presents lukewarm support in favour of the collection of rights associated with membership of platform cooperatives. In this chapter I explain how exogenous factors, such as the Netherlands' particular culture of industrial relations, may have had a bearing on these responses. I conclude by evaluating the limitations of conventional forms of worker representation and consultation in the platform economy and argue how this still leaves room for the growth of worker-owned platforms.

Equipped with a better understanding of where, and under what conditions, democratically owned and -managed firms may be attractive, it is possible to turn to strategies on how such firms may be realised. Chapter 4 uses the hypothetical example of a fictitious – yet archetypical – tech start-up to showcase various strategies for converting capital-managed prosumption platforms into democratic firms. Three strategies are presented for such an 'exit to community'. The first strategy involves the acquisition of shares by a trust that represents the company's stakeholders. The second strategy involves the transformation of the centralised platform operator into a federated network with a cooperative that has a coordinating function. The third, and most ambitious strategy, requires the linking of company shares with a 'crypto'-token on a blockchain network and a redistribution to platform stakeholders. The chapter exhaustively discusses how each strategy could be materialised, their implications for stakeholders' control and financial rights, relevant precedents and enabling policy reforms. Importantly, it also lays the groundwork for the second half of the dissertation.

The first two strategies presented in chapter 4 correspond to a distinct organisational form: a trust and a cooperative respectively. The last strategy reflects on the emergence of public, permissionless blockchains as a new institutional technology that allows for the distributed coordination of economic activities in novel ways – cutting across organisational forms.[1]

1 Darcy WE Allen and others, 'Blockchain and the Evolution of Institutional Technologies: Implications for Innovation Policy' (2020) 49 Research Policy 103865.

Chapters 5 to 7 delve into how these two organisational forms and this new institutional technology can be used to support the emergence of democratic firms in the platform economy. As discussed in chapters 4 and 5, the choice of organisational form depends on the stakeholder that is included.

Chapter 5 is primarily concerned with social media users as prosumers and stakeholders of social media companies. I present a three-fold normative argument for why users should be extended control and financial rights in these companies drawing on critical media studies and political theories of the firm. In the absence of regulatory efforts to ensure such rights for users, I build a case for using a shareholding trust or foundation (e.g., *Stichting Administratiekantoor*, STAK) for privately ordering the transfer of such rights. I explain why indirect representation through a 'user trust' or 'user STAK' is most suited to this particular context and set out a mechanism that could be used to transfer shares to either entity. I also discuss how the user representatives serving on the trust protector committee or foundation board can best represent the interest of a global userbase. In view of this, I suggest the use of a 'good governance checklist' to help user representatives know what rights they have, the scope of their decision-making power, and the actions a company needs to take for the representatives to implement those rights. As a corollary to this, a simple diagram is presented to help the global userbase visualise the decision-making process and their potential role in it. I conclude by reflecting on policy reforms that could support the creation of user trusts and user STAKs.

While the preceding chapter concerned prosumption on social media platforms, chapter 6 explores prosumption in the urban mobility sector. In particular, I look at how the creation of primary cooperatives can democratise the governance of a platform and improve the lives of members, as well as how secondary, democratically managed network organisations have begun to emerge in this sector to enable primary cooperatives to collectively develop software. I conduct an in-depth comparative case study of two enterprises for this purpose: (1) Eva Global Corp. and the ride-hailing cooperative, Coop de solidarité Eva in Quebec that licenses technology from the former, and (2) The Mobility Factory, a secondary cooperative in the electric car sharing sector and two of their primary cooperatives, Partago and SomMobilitat, which own the intellectual property for their platform through the former entity. Through elite interviews and a review of primary sources concerning these two enterprises, I examine how these cooperatives provide a preferable alternative to their corporate competitors (e.g., improving the pay of ride-hailing drivers) and how they reduce costs in the absence of – or limitation to – external investment. One important way for cooperatives to pool costs and risks is through the use of 'shared-services' platforms to share the expense of developing software. These network organisations can be structured and governed in different ways. In this chapter, I explain how these shared-services platforms are legally structured and governed in both cases, before evaluating their potential and pitfalls based on earlier research on the governance of cooperative federations, social franchises, as

well as property rights theory. With this analysis in mind, I develop seven hypotheses concerning the choice of legal and governance structure of shared-services platforms and the variables that can determine this choice.

Chapter 7 looks to the contemporary, and fast-evolving, development of blockchain technologies to consider how it may also be deployed for encouraging the formation and governance of democratic firms. As a technology that can be used for the distributed coordination of economic activity at both local and global scales, I took the opportunity to look at the type of prosumption that takes place on high qualification, remote work platforms. In particular, I consider how this technology could be used by cooperatives with transnational operations and a global member base, as such firms have typically had start-up and collective decision-making problems due to their size and geographic scope. To explore this topic, I initially present an overview of worker cooperatives and their appeal, as well as an explanation for why they are relatively scarce. Subsequently, I present the case study of Colony, a case that was selected on the basis that they were among a small set of blockchain projects seeking to address the coordination challenges faced by organizations with widely-dispersed teams. I use this case study to evaluate the potential of blockchain-based technologies to redress coordination and birth-rate problems. In addition to relevant technical explanations, I use elite interviews and primary sources to explore how the reputation-based governance system of projects like Colony manage interactions and resolve disputes in internet organisations. While still being highly experimental and at an early stage of development, in comparison to the existing cooperatives studied in chapter 6, projects like Colony nevertheless offer useful lessons for 'distributed' cooperatives.

The last two chapters of this dissertation conclude with an eye towards the future. The penultimate chapter of this dissertation draws together the social and scientific contributions that have been made, and presents a set of short-term, mid-term and long-term legal and policy recommendations. The conclusion ends with a brief discussion about future research that is needed to continue exploring, and supporting, the emergence of democratic firms in the platform economy. In a bid to contribute to one of the recommendations – creating a more enabling legal framework for platform cooperatives – I present my own legislative 'benchmarking tool' in the final chapter. In contrast to earlier diagnostic and benchmarking tools for cooperative law, my own 'scorecard' focuses on issues that are particularly pertinent to platform cooperatives, such as their need to scale and having a member base that switches between the cooperative and its competitors, and are untethered from a fixed, physical workplace. This tool is not meant to indict systems of cooperative law, which have differences for justifiable reasons, but rather open a conversation with co-operators, cooperative lawyers and policymakers about cooperative law in view of contemporary developments. This tool can be used by legal scholars and cooperative movements to evaluate the 'friendliness' of different jurisdictions towards platform cooperatives.

In sum, all of these chapters contributed to an overarching set of research questions concerning the *socio-economic reasons why* there is an interest in democratic firms in certain segments of the platform economy, the *obstacles* these firms were encountering in the process, and the *options* that are available to help these firms overcome these obstacles.

While social media platforms and online labour platforms are distinct – and thus the bases for arguing for their democratisation is also different – there are driving factors that intersect. These include concerns about corporate unaccountability, weak privacy protection, and stakeholders' inability to shape how these platforms are designed. The remaining driving factors motivating interest in democratic firms are set out in Figure 1 below. These shared concerns were not only revealed by my analysis of the burgeoning secondary literature on the platform economy but also by my Delphi study and case studies.

At the same time, while acknowledging the many social problems and legal gaps that exist in the platform economy, my research shows there exists a degree of trepidation about the potential of democratic firms to address these complex problems. This is due to certain strands of the academic discourse on labour-managed firms and cooperatives, which are sceptical about the viability of such firms operating beyond a narrow niche of the economy. It is also attributable to the lived experiences of persons who I spoke to over the course of my PhD trajectory, people enmeshed in the platform economy, either as officials and stakeholders of corporate platforms or as co-operators seeking to challenge the dominant paradigm. These challenges, very broadly, can be categorised as start-up challenges and governance challenges, as also shown in Figure 1. The drivers and obstacles, identified across the chapters of my dissertation, help answer the first sub-question of this dissertation.

The second sub-question acknowledges the existence of these myriad challenges but does not see this as an insuperable obstacle to the emergence of democratic firms in the platform economy. Alongside identifying the motivations for, and roadblocks to, the growth of such firms, this dissertation presents a wide range of options to overcome these obstacles. A schematic representation of these options is presented on the right hand side of Figure 1. To help the reader work through this diagram, I wish to clarify that it should be read from left to right, following the blue (dark) or green (light) arrows. This would, for instance, show that low, unstable pay is a common concern among persons using such platforms, which makes them open to the idea of seeking alternatives to their precarity. Yet, among various options, there is a concern that cooperativism or employee share ownership would simply lead to wage substitution, i.e., the wage of the individual being reduced as a consequence of receiving (unpredictable) equity. The Delphi study in chapter 3 shows how wages and working conditions can be a material concern in jurisdictions like the Netherlands and how these concerns may prompt workers to instead gravitate towards expanding collective bargaining or consultation rights. However, cooperatives operating such

platforms can also allay this concern by reducing transaction fees below that of their competitors – thereby allowing a greater share of each work-project to be retained by the platform worker. Admittedly, these options are not the only ones available, but I hope that it contributes to dispelling the notion that democratic firms are inherently unviable in the platform economy.

Finally, closely reading the list on the right-side of the diagram reveals that all of these options are not available in every jurisdiction. For instance, in many jurisdictions, virtual shareholders'/members' meetings are the exception and not the norm (at least, pre-COVID). As a consequence, legal reform and policy support will be required to help democratic firms overcome the barriers they face. The last two chapters of this dissertation discuss reform proposals and, presents one approach towards identifying barriers in the law in the context of platform cooperatives in particular. The benchmarking tool I have developed is intended to facilitate the emergence of platform cooperatives by overcoming these legal barriers.

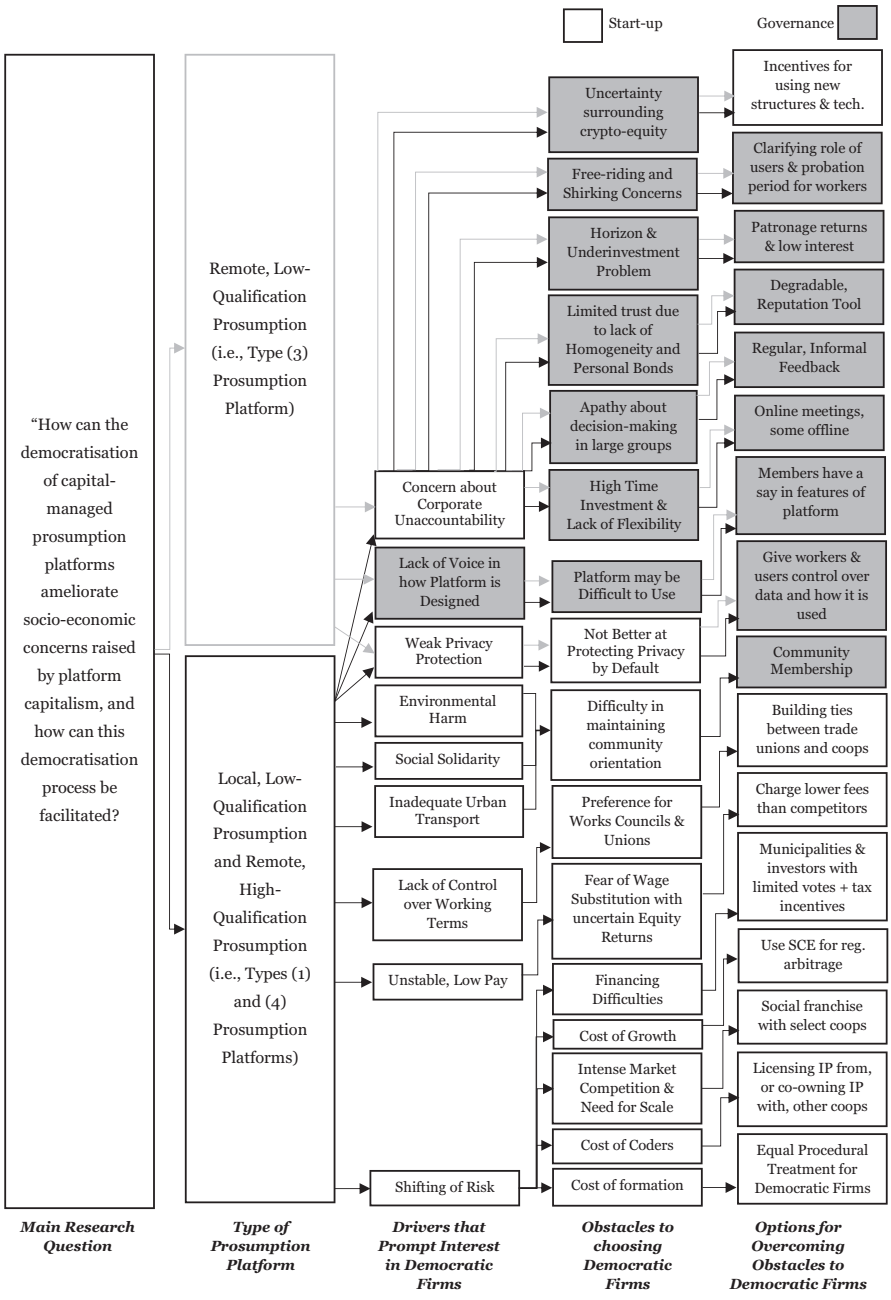

Figure 1: Schematic Representation of the Answers to the Research Questions of this Dissertation

1 Introduction

1.1 Terminology and Research Questions

The past decade has seen the rapid expansion of the 'platform economy'. The platform economy is a capacious term defined by Montalban and colleagues as "economic activities where tangible or intangible resources are exchanged between providers and users by the way of centralised electronic platforms".[2] The platform plays the dual role of being a tool to intermediate exchange, as well as a governance system operated by a private company. An increasing number of economic sectors are experiencing *platformisation* and there are online platforms operating on a planetary scale. While some have viewed this as a positive development, there is also a growing chorus of voices who are critical of the depredations of *platform capitalism*.

For its supporters, the opportunities that social media platforms have offered users to connect with others across the globe are unprecedented. Meanwhile, platform labour is valorised for offering a source of supplemental income with low barriers of entry, while also offering flexibility regarding when and where such work is done. For its detractors, social media and online labour platforms exacerbate the worst excesses of neoliberalism. The concentration of corporate power, dismantling of hard-won protections of standard employment, and the abuse of data extracted from users and workers are among a long list of charges levelled against the major companies operating in the platform economy.

A number of proposals have been made for platform regulation across jurisdictions, particularly within labour & employment law, privacy and consumer protection law, antitrust and competition law, and intermediary liability law.[3] However, the ownership and governance of the companies operating these online platforms have not received the same level of scrutiny. While their employment practices or personal data management may be criticized, the organisation of these platforms as capital-managed firms is taken as a given in contemporary capitalism. Yet, as these platform companies evolve beyond their original activities and take on a prominent role in global and planetary governance, it begins to feel as if there is no exit from

2 Matthieu Montalban, Vincent Frigant and Bernard Jullien, 'Platform Economy as a New Form of Capitalism: A Régulationist Research Programme' (2019) 43 Cambridge Journal of Economics 805, 807.

3 See chapter 1.2.2. below.

the platform. Even non-users are unable to escape Facebook's social graph or Uber's gaze, as these companies are still able to track those who are not on their platforms.

The platform economy cuts across a multitude of economic sectors – from high finance to care work – so it is necessary to indicate which sectors this dissertation concentrates on. As my interest in the topic began with researching the economic precarity and weakness of corporate accountability endemic to the platform economy, I decided to focus on labour platforms and social media platforms. A dilemma posed by this choice is providing a coherent framework through which these platforms, and their diverse challenges, can be compared and contrasted.

One useful categorization of platform labour is according to its geographic proximity – whether the work is done locally or can be done remotely – and the level of specialized qualifications required for such work. This leads to four types of platform labour: (1) local, low-qualification work (e.g., Uber, Deliveroo), (2) local, high-qualification work (e.g., freelance tutoring), (3) remote, low-qualification work (e.g., Amazon Mechanical Turk) and (4) remote, high-qualification work (e.g., UpWork).[4] The emphasis on qualifications is not intended to insinuate that some forms of platform labour, by their very nature, require less knowledge. Even with low entry barriers to certain types of platform labour, specialized knowledge is still valuable, such as deep familiarity with a city's traffic infrastructure.

However, for the purposes of this dissertation, I modify this typology to include 'prosumption' – activities where production and consumption are blurred. This is not only to account for the fact that work such as making stock photography, ride-hailing and food delivery often put to commercial use the goods that were bought for personal consumption, it also acknowledges new types of value contribution, such as social media use and electric car sharing. Hence, the modified typology encompasses the aforementioned examples of work but also includes remote, low-qualification prosumption, such as Twitter and Facebook use. Conversely, electric car sharing would be an example of local, low-qualification prosumption. The revamped typology would be: (1) local, low-qualification prosumption (e.g., Uber, Deliveroo, Helpling, Zipcar), (2) local, high-qualification prosumption (e.g., in-home tutoring, citizen oceanography[5]), (3) remote, low-qualification prosumption (e.g., Twitter use, Amazon Mechanical Turk, citizen archaeology), and (4) remote, high-qualification prosumption (e.g., UpWork). While prosumption provides a helpful heuristic for comparing these activi-

4 Heiner Heiland, 'Workers' Voice in Platform Labour: An Overview' (Hans-Böckler Stiftung 2020) 5.

5 *See, e.g.,* Federico M Lauro and others, 'The Common Oceanographer: Crowdsourcing the Collection of Oceanographic Data' (2014) 12 PLoS Biology e1001947.Citizen oceanographers are recreational sailors with training in sailing and oceanographic data collection that use devices installed in their vessels to collect data each time they are out at sea.

ties, the legal analysis in the chapters of this dissertation does account for the fact that such activities may be regulated by multiple overlapping legal frameworks (e.g., labour law & data protection law).

The emergence of 'democratic firms' presents a promising, emancipatory alternative to corporate platforms by centring the redistribution of control and financial rights as a pathway towards improving platform governance. In the past, democratic firms have been defined as firms "where the people working in the firm are the residual claimants".[6] As the platform economy notably blurs work and consumption, I draw on earlier research on multi-stakeholder ownership,[7] to provide a modified version of this definition. For the purposes of this dissertation, democratic firms are firms where the people contributing intellectual, social, financial and use value are residual claimants and, consequently, enjoy important control and financial rights in the firm. This includes contributions of labour, but also use of a business's services. Such firms can include one non-investor stakeholder or several. Two central differences between a democratic firm and a capital-managed firm are the former's use of democratic governance (e.g., one member, one vote, instead of one share, one vote) and their focus on being run for the benefit of their members who are actively and directly involved in their enterprise rather than *outside* investors.

Alongside the growth of the corporate platform economy, a small, but steadily growing, number of democratic firms have begun to emerge. They are a diverse group, including existing cooperatives who are building their presence in the platform economy to serve the needs of their members, new digitally-native cooperatives (a.k.a., platform cooperatives), community-owned platform companies, stakeholder-controlled trusts, and distributed organisations that redistribute ownership using the affordances of blockchain technology (e.g., decentralised autonomous organisations).

A recent interview of Cirenia Dominguez, one of the worker-owners and board members of Up&Go, a platform cooperative in the cleaning sector in New York City, described the difference in owning a cooperative compared to serving a corporate competitor:

> "From one year to another year we've seen the growth. My personal income has increased by 20%. I can work less hours and make the same amount of money I used to make when I was working an entire day. Now I can save and think about the future."[8]

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6 David Ellerman, 'The Democratic Firm: An Argument Based on Ordinary Jurisprudence' (1999) 21 Journal of Business Ethics 111, 117.

7 Rory Ridley-Duff, 'The Internationalisation of the FairShares Model: Where Agency Meets Structure in US and UK Company Law' in Nina Boeger and Charlotte Villiers (eds), *Shaping the Corporate Landscape: Towards Corporate Reform and Enterprise Diversity* (Hart Publishing 2018) 313.

8 AROUNDTHEWORLD.coop and International Co-operative Alliance, *Up&Go* (2020) <https://www.youtube.com/watch?v=OLD0BghuaHQ>. [translation from Spanish to English by the filmmakers.]

Elsewhere, and worlds apart, the technocratic and nominally independent Facebook Oversight Board has begun ruling on whether the removal of certain content on Facebook's platform amounts to a restriction of freedom of expression under international human rights standards,[9] and suggesting policy recommendations concerning the suspension of users who are also political leaders, such as former US President Donald Trump.[10]

These two vignettes are, of course, distinct. The former is a cooperative comprising 22 worker-owners, concerned with issues such as member pay and the usability of their platform, and the latter is an expert board that is funded by Facebook to deliver decisions and advice on content moderation that affects billions of social media users. Yet both vignettes speak to a shared, underlying aspiration: building a more socially equitable and democratically accountable platform economy, for the benefit of those who makes these platforms valuable by using them.

The onset of the global COVID-19 pandemic has given impetus to this aspiration and underscored why it is one that has to be urgently addressed. If this ambition is realised as part of an agenda to 'build back better', the frontline delivery workers who risked their health in delivering us food would share in the wealth that they generated for food delivery platforms. The ride-hailing drivers who take us where we need to go when public transport is absent or too crowded, would have say in setting the fares they charge and the functionality of the platform that is their source of work. The users of social media platforms, that are now essential sources of news and means of communication, would collectively determine how the revenue of these platforms is reinvested in new services and shape moderation policies and community values. In an economy that strives for broad-based ownership and governance, the Facebook Oversight Board would not be appointed by Facebook and existing board members, but rather the global user base in whose interest they serve.

There are numerous obstacles in the path towards realising this seemingly Panglossian vision. In spite of these challenges, there is much that can be done to translate this vision into reality. This will need a collective effort, not just by co-operators or policymakers, but also by academics, business advisers, and software developers. It will need the engagement of workers and users; to see past the inevitability of the capital-managed model and recognise that alternative models are possible.

However, until now, the creation of such democratic firms in the platform economy – and the obstacles thereto – has received limited attention. This is particularly true of the legal academy. The overarching research project of this dissertation is to contribute to filling this gap. It does so by investigating the following research question and sub-questions, in the context of the United States, Canada, the United Kingdom, the Netherlands and Belgium, jurisdictions which have seen the rapid-rise of corporate

9 Facebook Oversight Board Case Decision 2021-004-FB-UA.
10 Facebook Oversight Board Case Decision 2021-001-FB-FBR.

platforms but have also experienced a counter-movement against such platforms.

These research questions are:
- ▷ How can the democratisation of capital-managed prosumption platforms ameliorate socio-economic concerns raised by platform capitalism, and how can this democratisation process be facilitated?
  - ○ What are the main motivations for, and challenges to, the formation and governance of democratic firms as viable alternatives to capital-managed prosumption platforms?
  - ○ How can the obstacles to the formation and governance of democratic firms be overcome?

The remainder of this introduction is devoted to limiting the scope of this dissertation, both in terms of what segments of the platform economy I will be exploring as well as in terms of how it fits amongst other research on platform regulation. Subsequently, I explain who I think my readers will be and why I chose to write a dissertation through publications, rather than as a monograph. The introduction closes with an overview of how the chapters of the dissertation are arranged.

1.2 Limitations of Scope

1.2.1 Scope of Research on the Platform Economy

While ideas about the sectors where platform cooperatives can operate are as broad as the platform economy itself, this dissertation primarily focuses on specific type (1), (3) and (4) prosumption platforms outlined in the previous sub section. Type (2) platforms have been excluded altogether as it is a category that bears limited relevance in the broader discussion on the platform economy as such locally-based, highly-qualified workers are usually not dependent on platform intermediation.[11] With respect to type (1) platforms, particular attention is devoted to the ride-hailing, electric car sharing, food-delivery and on-demand cleaning sectors in chapters 2, 3, and 6. Short-term rental platforms, such as Airbnb, are sometimes considered to be within the ambit of such local, low-qualification prosumption,[12] but they are excluded from this dissertation as being a short-term landlord is typically a source of supplemental, rather than essential, income.

Turning to type (3) platforms, prosumption in the form of micro-blogging and social networking is studied in this dissertation. However, the completion of crowdwork or microtasks is excluded. Microtasks refer to tasks that

11 Heiland (n 4) 6.

12 Juliet B Schor and others, 'Dependence and Precarity in the Platform Economy' (2020) 49 Theory and Society 833, 843–844.

have broken down into small, online tasks that are completed by a 'crowd' of workers, with examples including image tagging, content moderation and video transcription.[13] This can be for remuneration or recreation. For instance, citizen archaeology can involves splitting up the analysis of a large set of archaeological data into individual tasks (e.g., evaluating satellite images, entering metadata or interpreting handwriting) that are distributed across a large number of persons and completed remotely from a field site.[14] This omission is deliberate as a platform cooperative for micro-taskers has yet to be formed, with attention being devoted towards enabling collective bargaining and co-determination in this sector.[15] Instead, in chapters 4 and 5, I assess how certain types of trusts and foundations could be deployed to enable a broad-based ownership of social media platforms that includes platform users. While the cases discussed in those chapters are for the management of certain types of social media, the arguments presented could be extended to research other globally distributed networks that are heterogeneous and experience a high-degree of rapid turnover, such as blockchain-based networks and crowdworkers.

Finally, type (4) prosumption is covered by this dissertation, particularly in chapter 3 when distinguishing local and remote forms of platform labour, in chapter 4 when building a case for a new type of start-up 'exit' for a corporate platform that fuses elements of social media and remote gig work, and in chapter 7 when discussing the use of blockchain technology to foster transnational cooperatives of highly-skilled workers. This choice was influenced by the fact that a host of platforms has emerged that organise highly-skilled, freelance workers and producers into member-owned businesses (e.g., Colony, Stocksy, dOrg).

1.2.2 Scope of Research on Platform Regulation and Governance

In the years since the aforementioned types of labour and social media platforms rose to prominence, a large number of regulatory options have been presented. Broadly speaking, the regulatory discourse for labour platforms has focused on: (1) doubling-down on the enforcement of existing labour and employment laws, (2) redefining and widening the concept of employment, (3) creating a third employment category between being self-employed and employed, (4) attaching more rights and protections to anyone who works, irrespective of employment status, and (5) reassessing the concept of platforms being employers.[16] Turning to the same discourse with respect to social media platforms, the "policy levers" that most scholars

13 Janine Berg and others, 'Digital Labour Platforms and the Future of Work: Towards Decent Work in the Online World' (International Labour Organization 2018) Report xv.

14 Monica L Smith, 'Citizen Science in Archaeology' (2014) 79 American Antiquity 749, 755.

15 Berg and others (n 13) 105–106.

16 Andrew Stewart and Jim Stanford, 'Regulating Work in the Gig Economy: What Are the Options?' (2017) 28 The Economic and Labour Relations Review 420, 429–431.

and policymakers have focused on are privacy and consumer protection laws, antitrust and competition laws, and intermediary liability laws.[17] The proposed 'Digital Services Act' in the European Union is a recent case in point that, among other things, seeks to improve the content moderation practices of large social media platforms by requiring them to remove flagged illegal content.[18] The specific approaches that have been favoured differ between jurisdictions, but the above provides a concise overview.

The scientific and social contribution of this dissertation is to complement and build on this discourse by making the ownership and governance of the companies that operate these platforms the focal point of analysis. I argue that the *democratisation* of ownership and governance will complement and reinforce the policy objectives pursued by the aforementioned regulatory approaches, including redressing workplace precarity, reducing abuses of market power and ensuring public accountability. In chapters 2.2, 3.1-3.2., 4.1.1., and 5.1.-5.2., an overview of these existing approaches to platform regulation is provided, along with a consideration of how the democratisation of these platforms can support these approaches. The literature and laws that are discussed primarily stem from the Global North, ranging from the United States of America to the United Kingdom and the Netherlands. While this literature has become voluminous during the course of writing this dissertation, the question of broad-based ownership and governance of platforms has received limited attention from lawyers anywhere. Indeed, some of the pathbreaking investigations on this topic were conducted outside of the structures of an academic environment, by free/open-source software advocates and digital 'commoners', reflected in an array of outputs, ranging from 'free' software to peer production software licenses to exhaustive reports. To the extent that this topic has been subject to academic scholarship, it has largely been the preserve of critical media scholars, sociologists, anthropologists, and a handful of computer scientists, heterodox economists and management researchers. The work of this diverse group is introduced throughout the chapters of this dissertation.

As a whole, this dissertation makes a three-fold contribution to the literature. First, it explores the extent to which democratic firms can ameliorate the socio-economic concerns raised by capital-managed online labour and social media platforms. Second, it unpacks the (socio-)legal obstacles that exist to the formation and governance of democratic firms in the platform economy. Third, it charts pathways towards making such firms more viable. To that effect, it examines the legal obstacles involved in the formation of, and transfer to, democratically owned and -managed firms, as well as the

17 Jack M Balkin, 'How to Regulate (and Not Regulate) Social Media' (Knight First Amendment Institute at Columbia University 2020) Essay <https://bit.ly/3wcwzOf>.

18 Proposal for a Regulation of the European Parliament and of the Council on a Single Market for Digital Services (Digital Services Act) and amending Directive 2000/31/EC, COM(2020) 825 final, Brussels, 15.12.2020, recitals 58, arts. 26-27(1)(a).

collective action problems that make the governance of such firms challenging. Decades of research evaluating employee ownership, stakeholder governance, bazaar governance and distributed technologies provided a rich seam of analysis to draw on for this purpose. As there is an absence of specific, enabling legal frameworks for democratic ownership of labour and social media platforms, inspiration for these pathways had to be 'borrowed' from across the globe, from the Employee Stock Ownership Plans (ESOPs) of the United States to the worker buyout legislation of Italy and France to the *keiretsu* and client councils of Japan and the Netherlands. At the same time, the legal uncertainty that pervades this fast-evolving field and the lack of a single exemplary enabling framework prevented the type of comparative, doctrinal research that is common in a legal dissertation. However, these powerful examples of business transfer and stakeholder governance mechanisms provide a foundation for creatively and productively thinking about how a new generation of democratic firms can be encouraged in the platform economy.

1.2.3 Readership

In view of the above, this dissertation can be said to fall within the intersection of organisational law, labour and employment law and science and technology studies. I use the term organisational law because it is broader than corporate/company law as conventionally understood, encompassing the bodies of law governing corporations/companies, partnerships, cooperatives, trusts and nonprofit organisations. While the term 'organisation' acknowledges the importance of legal structure and governance on this topic, this dissertation also draws upon other fields that have a bearing on the attractiveness, viability and survival of an organisation. This includes tax law, competition law and regulations conferring subsidies to certain organisations, ranging from awards given to certain innovative start-ups to preferential policies specified in public procurement regulations.

As the dissertation actively engages with the question of economic democracy,[19] its scope spills over into questions that are typically within the purview of labour and employment law. Indeed, several of the instrumental

19 Economic democracy is a contested term but broadly refers to the idea that "workers and citizens ought to possess control rights over the conditions of production in the economy as a whole" (Vrousalis, 259). While authors like Vrousalis equate economic democracy with socialism, David Ellerman dismisses Marxist socialism as a distraction and instead advances a definition of economic democracy as "universal self-employment". Though there is disagreement on whether the term entails, for example, the abolition of private property, both agree that workplace democracy is an important component of economic democracy. Workplace democracy is the idea that control and financial rights within a firm should be redistributed to a broader array of stakeholders, most notably rank-and-file workers. Nicholas Vrousalis, 'Workplace Democracy Implies Economic Democracy' (2019) 50 Journal of Social Philosophy 259, 259; David P Ellerman, *Property & Contract in Economics: The Case for Economic Democracy* (Blackwell Publishers 1992) 106, 113.

purposes of economic democracy is intended to give voice to workers on *inter alia* health and safety issues, worker turnover and transfer of undertakings, which may overlap with protections already extended to employees under European or national law (as the case may be). While this is alluded to, this dissertation also points out how 'non-standard' workers may fall through the gaps of these existing protections and, instead, may even find themselves on a collision course with certain legal norms, such as restraints on collective action by independent contractors. The focus on recalibrating ownership and governance is not only intended to give stakeholders such as non-standard workers and users ultimate control rights as a powerful form of voice, it is also intended to heighten organizational sensitivity to other issues that are of concern to these stakeholders – such as the management of their personal data.

From a normative standpoint, this dissertation supports the view that workers, regardless of employment status, are the ones in the best position to be involved in day-to-day decision-making and those dependent on a single corporation have more to lose from business failure than an average diversified shareholder,[20] but as a practical matter recognizes that private ordering mechanisms and legal reform is needed to achieve these norms. In other words, this dissertation highlights how industrial citizenship[21] – and the rights of voice that come along with it – is not only sourced directly from the state but can also be gained indirectly from the state through democratic organisations, such as cooperatives, and unincorporated associations, such as trade unions. Indeed, with the growing prominence of users as a distinct category of stakeholders that creates value for platform companies and is affected by its operations, an argument can be made that users too should be brought within the fold of broad-based, multi-stakeholder ownership.

Persons interested in the distribution of organizational control and accountability also find allies in the field of science and technology studies; a field that includes scholars concerned by the social and political implications of concentrating (market) power in certain tech companies and their opaque practices of data collection and use. This is a wide, politically heterogenous group, involving researchers on algorithms, software, platforms, media, and digital geography. These researchers, some of whom are also

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20 This is predicated on the view that, firstly, shareholders of public companies only have nominal control and, secondly, that strengthening shareholders' democracy would be chimeric as it is workers (in particular) who are governed by a company and not shareholders. In recent times, an additional factor has been the cost of shares, which make 'real' shareholder democracy increasingly inaccessible. Andrew R Timming, 'The "Reach" of Employee Participation in Decision-Making: Exploring the Aristotelian Roots of Workplace Democracy' (2015) 25 Human Resource Management Journal 382, 390; Carol Pateman, *Participation and Democratic Theory* (Cambridge University Press 1970); David Ellerman, *Democratic Worker-Owned Firm: A New Model for the East and West.* (Taylor & Francis 2016) 49–50.

21 Alejo José G Sison, 'Aristotelian Citizenship and Corporate Citizenship: Who Is a Citizen of the Corporate Polis?' (2011) 100 Journal of Business Ethics 3, 3.

activists, have greatly inspired this dissertation and their work is cited throughout the text, particularly with respect to P2P technologies, federated networks, protocols and digital commons.

I hope that this dissertation is a stimulating and informative read for persons interested in cooperatives and labour law, but also human resource management scholars, sociologists of work, heterodox economists, and political philosophers investigating autonomy and republicanism at the workplace. Most of all, regardless of background, it hopes to inspire its readers to think about a more equitable, just and democratic future of work and organization.

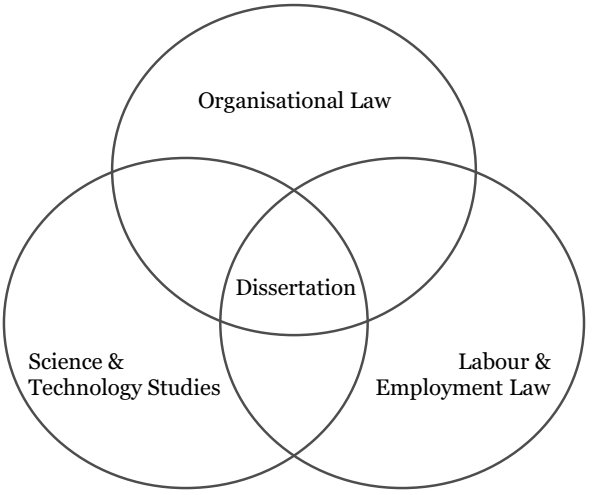

Figure 2: Potential Readership of this Dissertation

1.2.4 Writing a Dissertation through Publications

Writing a PhD dissertation through publications has its advantages and disadvantages. It requires each publication to make a distinct contribution and allows for the ideas expressed therein to reach a wide audience. At the time of writing, the article on which chapter 7 is based, has already been cited 17 times (Google Scholar) and my research collaboration with Nathan Schneider that resulted in the article on which chapter 4 is based has generated interest from media outlets including *WIRED*, *The Baffler* and *Noema*. Dgen, a Berlin-based think tank focused on the sustainable adoption of technology, also recently featured the research I conducted for chapters 6 and 7 as examples of how cooperatives could add blockchain to their technology stack and, conversely, how blockchain projects could benefit from cooperative structures.[22] This publicity has not only been personally

22 Joshua Davila, 'Decentralisation at Work: Cooperatives on the Blockchain' (*dGen Blog*, 27 May 2021) <https://bit.ly/3AjEj4q>.

gratifying, but it has also opened doors to interacting with movement builders in this space and policy makers. This has ranged from becoming a research fellow (now research affiliate) at the Institute for the Cooperative Digital Economy at The New School, led by the pioneer of platform cooperativism Dr. Trebor Scholz, to being invited to act as an expert on matters of cooperative law for the International Cooperative Alliance, the National Cooperative Business Association CLUSA International, and the United Nations Department of Economic and Social Affairs. These opportunities, alongside the conferences, workers' gatherings and blockchain workshops I participated in, from New York City to Buenos Aires to Athens to Florence, all contributed immensely to my thinking on this subject and helped my research take a more practical, constructive turn. This can be seen in the policy-oriented research papers and reports that accompany the articles, book chapters and original contributions that comprise this dissertation. In that way, I hope that the research I began in 2017 can add in a meaningful way to the legal and policy frameworks that have very recently begun to emerge concerning platform cooperativism.

The main disadvantage of writing a dissertation through publications is that as your ideas evolve and mature, a disconnect may appear between the first publications you produce and the last. As research publications, they each have independent research questions/thesis statements and use differing research methodologies. Moreover, there is a risk that in a fast-moving area, a publication that appeared towards the beginning of one's PhD trajectory may age poorly. I believe that in this instance, the advantages outweigh the disadvantages, and I have taken steps to ensure the coherence and currency of the dissertation. For the purpose of preparing this manuscript, cross-referencing was included, so as to show how the chapters interrelate and substantiate an overarching, coherent research project. To the extent that some of the democratic firms or blockchain projects that were surveyed or studied in-depth underwent changes between the time of publication to the time they were included in the dissertation, I made updates to reflect and reconcile these developments. Research for this dissertation ended as of 1 July 2021.

The following section presents a concise overview of how the chapters of this dissertation are arranged.

1.3 Arrangement of Chapters

The overview below concisely sets out the main objective of each subsequent chapter and the research method used to pursue this research objective. A more detailed synopsis of the dissertation was presented in the Executive Summary, while the specific scientific and social contributions of the dissertation are discussed in chapter 8.

	Research Objective	Research Method
Chapter 2	Building Theory on the Emergence of Platform Cooperativism, a Prominent Type of Democratic Firm	Literature Review, Desk-Based Research of Registries and Databases, Socio-Legal Analysis
Chapter 3	Assessing Demand for Greater Control and Financial Rights in Platform Companies	Literature Review, Delphi Study
Chapter 4	Developing Strategies for Platforms to Democratise Ownership and Control Through an Exit to Community	Literature Review, Legal Analysis
Chapter 5	Understanding the Drivers for, and Obstacles and Limitations to, the Representation of Social Media Users in Social Media Platforms. Suggesting how these Obstacles may be Overcome.	Literature Review, Legal Analysis
Chapter 6	Understanding the Drivers for, and Obstacles and Limitations to, the Creation and Governance of Urban Mobility Platform Cooperatives. Suggesting how these Obstacles may be Overcome.	Literature Review, Comparative Case Study, Interviews
Chapter 7	Understanding the Drivers for, and Obstacles and Limitations to, the Creation of High Qualification, Remote Worker Cooperatives. Suggesting how these Obstacles may be Overcome.	Literature Review, Case Study
Chapter 8	Conclusion	Evaluation and Conclusions
Chapter 9	'Legislative Benchmarking' Tool	Evaluation, Construction of a New Tool and Legal Analysis

Overview: Arrangement of Chapters and Research Methods

2 Theorizing the Emergence of Platform Cooperativism: Lessons from Role-Set Theory[23]

Abstract

This chapter explores how Merton's role-set theory provides fresh insight into the characteristics of platform capitalism and why users may seek alternatives such as platform cooperativism. The chapter begins with a tour of platform capitalism by signposting three of its distinguishing features, namely the concentration of power in corporate governance and markets, the construction and exploitation of digital profiles and personae and the cultivation of role and role-set conflicts by the blurring of user statuses. The chapter then applies role-set theory to a particular user – an Uber driver – to reveal the role and role-set conflicts they routinely encounter. Using new data gathered from directories and business registers, it traces the emergence of platform cooperatives and explains how these cooperatives can be seen as an attempt to reconcile aforementioned conflicts by conferring on users the status of 'member'.

2.1 Introduction

In recent years, a significant body of literature has emerged about the depredations of platform capitalism.[24] Two prominent strands of this 'counter-narrative' is that gig work platforms and social media platforms commodify the actions and behaviour of users for profit and, particularly in the case of the former, exert downward pressure on working terms and conditions.[25] This chapter explores how role-set theory, as developed by Merton and subsequent sociologists,[26] can offer a useful theoretical framework for explaining the effect of platforms on their users' identity and, in

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23 This chapter was prepared for the Young Scholars Workshop on Platform Coops at Utrecht University, held on 9 December 2019. A shorter version of this chapter is currently under peer review at *Ondernemingsrecht*.

24 Montalban, Frigant and Jullien (n 2).

25 Paul Langley and Andrew Leyshon, 'Platform Capitalism: The Intermediation and Capitalization of Digital Economic Circulation' (2017) 3 Finance and Society 11.

26 William M Evan and Ezra G Levin, 'Status-Set and Role-Set Conflicts of the Stockbroker: A Problem in the Sociology of Law' (1966) 45 Social Forces 73; Robert K Merton, 'The Role-Set: Problems in Sociological Theory' (1957) 8 The British Journal of Sociology 106; Lance W Roberts and Susanne von Below, 'Role-Set Theory and Modemity: Transforming Experience into Understanding' in Nikolai Genov (ed), *Advances in Sociological Knowledge: Over half a Century* (VS Verlag für Sozialwissenschaften 2004).

turn, the perceptions of users and their preferences when engaging with the platform. In doing so, this chapter subsequently considers if an alternative organizational form, such as a cooperative, can alter these 'affective encounters' between platforms and users to the latter's benefit through a change of their status.[27]

In doing so, two contributions are made to the existing literature. Firstly, the chapter provides a theory for why there is an interest in the formation of cooperatives in the platform economy, grounded in a desire for persons to change their status in relation to online platforms. Secondly, in explaining how the status of cooperative membership changes this relationship, typologies of cooperative-run platforms and platform cooperatives are presented, based on data collected from the Internet of Ownership directory and business registries in the European Economic Area. While the appendices provide a broader overview of these cooperative-run platforms and platform cooperatives, these typologies showcase the sectors of the platform economy these cooperatives operate in as well as the classes of stakeholder brought into the fold of membership.

Following the introduction, the subsequent section of the chapter provides a brief tour of platform capitalism and seeks to distinguish what makes platform capitalism distinct from earlier forms of capitalism. The argument presented will be that platform capitalism has three distinguishing characteristics. First, platform companies in both the gig and social media sectors, to varying extents, concentrate ultimate control over their corporate governance in the hands of a few persons and the more prominent actors exploit their dominant market position for socially harmful ends. Second, through their capacity to collect, process and use personal data to mediate interactions and sell goods and services, platforms are able to reach and create new markets. Thirdly, and crucially for this chapter, it is argued that the business model of platform capitalism seeks to benefit from platform users experiencing what Merton terms 'role conflicts' and 'role-set conflicts'. Thus, this section weaves together a unified critique of platforms' technological apparatus, business model, and corporate governance – aspects that are often studied separately.

Section three provides an overview of the core concepts of role-set theory and applies them to the platform economy, drawing on illustrative examples from a specific gig work platform, Uber, and a particular type of user, its drivers. The fourth section reflects on whether the reconfiguration of decision-making and financial rights in a platform company through cooperative membership can address these role conflicts and role-set conflicts to the user's benefit, while also redressing platforms' accountability crises and data use practices. For the purposes of this reflection, this

27 Affective encounters refer to the effects caused by human bodies, technologies and objects encountering and responding to each other. *See* Yuzhu Peng, 'Affective Networks: How WeChat Enhances Tencent's Digital Business Governance' (2017) 10 Chinese Journal of Communication 264, 265.

section introduces the emergence of the platform cooperativism movement and the types of enterprises that coalesced around this movement. A distinction is drawn between cooperative-run platforms (i.e., pre-existing cooperatives that build online intermediation and communication tools for the benefit of their members) and platform cooperatives (i.e., new enterprises whose primary economic activity is conducted through online intermediation and/or communication tools and who abide by the ICA's (International Co-operative Alliance) Statement of Co-operative Identity). While being a heterogeneous movement, both have an important position within platform cooperativism and share the objective of repositioning users as cooperative members, in single stakeholder or multi-stakeholder configurations.

The chapter then evaluates the opportunities and challenges afforded by the status of cooperative member in addressing the numerous challenges posed by platform capitalism and concludes by summarizing and presenting directions for future research.

2.2 A Brief Tour of Platform Capitalism

In little over a decade, digital platform companies have become major players in the global economy and household names. In contrast to traditional 'pipeline' businesses that sequentially create and transfer value to a single class of consumers, these platform businesses seek to maximize value-creating interactions between external producers and consumers. This is achieved through the technological architecture of the platform, which facilitates these interactions and supplies the governance rules that allow transactions to take place in low-trust environments.[28] As such, platforms can be thought of as an assemblage of socio-technical and capitalist business practices.[29] It is by encouraging and coordinating these exchanges that platforms generate revenue. Burgeoning internet connectivity, the diminishing cost of cloud-computing and smartphones and the lowering of barriers to develop software-coupled with the allure of convenience and sharing-have been among the confluence of factors that have led to the ubiquity of the platform business model.[30] Platform companies stress that their business model allows workers to expand their incomes, enjoy greater work flexibility and maximize under-utilized assets, while consumers can benefit from lower prices as well as a greater variety and quality of services.

While initially bundled with earlier examples of online peer-to-peer production, more critical assessments of the platform business model

28 Geoffrey Parker, Marshall Van Alstyne and Sangeet Paul Choudary, *Platform Revolution: How Networked Markets Are Transforming the Economy - and How to Make Them Work for You* (WW Norton 2016) 5.

29 Langley and Leyshon (n 25) 13.

30 Martin Kenney and John Zysman, 'The Rise of the Platform Economy' (2016) 32 Issues in Science and Technology 61, 61.

acknowledge that platforms are not merely passive 'raised surfaces' that enable parties to find one another but have active roles in curating and capitalizing interactions.[31] Many of the widely-publicized critiques of these platforms, ranging from the legal debate concerning the employment status of Uber drivers and Deliveroo riders[32] to the political discourse on Facebook failing to prevent the posting of hate speech and electoral manipulation,[33] essentially turn on this distinction between being a neutral infrastructure and being a curator steering interactions using the personal data that it draws from its users.[34] Those scholars who have adopted a lens sensitive to the coercive power of platforms have described them as a "political technology",[35] given their capacity to mould the behaviour of user groups in ways that serve the commercial objectives of the platform. This may range from reminding users of the frequency with which they have used a platform and sanctioning the lack of use, to harnessing the personal data of users to enhance the functionality of the platform, so as to stimulate repeated and continuous use.[36]

Some platforms, such as Facebook, have been so adept at expanding their technological affordances and building a loyal base of users, that they have been referred to as data-opolies that can squeeze consumers as they have limited alternative choices.[37] Due to the important societal service they provide (e.g., in communication), they are also said to bear a resemblance to public utilities.[38] The societal influence of these businesses can be seen in the manner in which their executives weigh in on broader issues concerning civil liberties, such as personal privacy protection and freedom of speech.[39] Other platforms which are reliant on temporary outsourced labour can act as a monopsony if they are one of the few firms that can hire in a particular market. This allows for workers, such as Uber drivers, to be squeezed once Uber reaches a dominant position within a geographic market. Given

31 Tarleton Gillespie, 'The Politics of "Platforms"' (2010) 12 New Media & Society 347, 358.

32 Alan Bogg, 'Taken for a Ride: Workers in the Gig Economy' (2019) 135 Law Quarterly Review 219; Nuna Zekic, 'Contradictory Court Rulings on the Status of Deliveroo Workers in the Netherlands' [2019] Comparative Labor Law & Policy Journal.

33 UN Human Rights Council, 'Report of the Independent International Fact-Finding Mission on Myanmar' (UN Human Rights Council 2018) A/HRC/39/64 para 74.

34 José van Dijck, Thomas Poell and Martijn de Waal, *The Platform Society: Public Values in a Connective World* (Oxford University Press 2018) 40.

35 Alex Williams, 'Control Societies and Platform Logic' (2015) 84/85 New Formations 209, 225.

36 Lina M Khan, 'Sources of Tech Platform Power' (2018) 2 Georgetown Law Technology Review 325, 328; Alex Rosenblat and Luke Stark, 'Algorithmic Labor and Information Asymmetries: A Case Study of Uber's Drivers' (2016) 10 International Journal of Communication 3758, 3765–67.

37 Maurice E Stucke, 'Should We Be Concerned About Data-Opolies?' (2018) 2 Georgetown Law Technology Review 275, 280.

38 K Sabeel Rahman, 'The New Utilities: Private Power, Social Infrastructure, and the Revival of the Public Utility Concept' (2018) 39 Cardozo Law Review 101, 149.

39 Mark Zuckerberg, 'Zuckerberg: Standing For Voice and Free Expression' *Washington Post* (17 October 2019) <https://bit.ly/3ya8g4X>.

that several of these platform companies have dual- or multi-class share structures, allowing certain founders and key executives to have disproportionate voting power compared to common shareholders,[40] it becomes apparent that the ultimate authority over key business and socio-economic decisions is highly concentrated.

The purpose of this sweeping description of-what are ultimately quite different-platforms is to highlight a fundamental shared concern raised by the platform economy: *a lack of accountability and good governance*.

It is this overarching theme that permeates the critical discourse on what has come to be known as 'platform capitalism'.[41] On the face of it, platform capitalism can be seen as an evolution of cognitive and cultural capitalism, in which the production of intangible property (e.g., source code) and symbolic goods (e.g., an entertainment product), and the strengthening of intellectual property (IP) protections for IP rights holders, serve as the basis for economic growth.[42] Yet, this is not all. As a diverse set of critics point out, platform capitalism reproduces many of the features of a familiar and pedigreed from of industrial capitalism. Marxist, materialist theorists, including Dyer-Witheford, Fuchs, Terranova and Smythe, emphasise how media and communication technologies, including social media platforms, enable surplus value extraction from unacknowledged forms of work (e.g., by audiences, consumers, users) while simultaneously relying on the exploitation of workers in Coltan mines, electronics assembly factories and the software development industry.[43] Some of these scholars, such as Dyer-Witherford, draw inspiration from earlier autonomist, workerist Marxist philosophers who coined the term 'social factory' to describe the capturing of value from social relations beyond the workplace for the purpose of capital accumulation.[44] Indeed, autonomists such as Virno understood that communicative action is "at the very heart of capitalistic production" and that the turn to intellectual/knowledge labour has taken on the form of performative, artistic activity-with its concomitant instability.[45]

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40 Lucian A Bebchuk and Kobi Kastiel, 'The Perils of Small-Minority Controllers' (2019) 107 The Georgetown Law Journal 1453, 1456–1457.

41 Nick Srnicek, *Platform Capitalism* (Polity Press 2017).

42 Aaron Perzanowski and Jason Schultz, *The End of Ownership: Personal Property in the Digital Economy* (The MIT Press 2016) 23; George Yúdice, *The Expediency of Culture: Uses of Culture in the Global Era* (Duke University Press 2005) 9–10.

43 Nick Dyer-Witheford, *Cyber-Proletariat: Global Labour in the Digital Vortex* (Pluto Press 2015) 92–93; Christian Fuchs, *Digital Labour and Karl Marx* (1 edition, Routledge 2014) 6–7, 247ff; Dallas W Smythe, 'Communications: Blindspot of Western Marxism' (1977) 1 CTheory 1, 6.

44 Rosalind Gill and Andy Pratt, 'In the Social Factory?: Immaterial Labour, Precariousness and Cultural Work' (2008) 25 Theory, Culture & Society 1, 7; David Palazzo, 'The "Social Factory" In Postwar Italian Radical Thought From Operaismo To Autonomia' (PhD, City University of New York 2014) 97.

45 Paulo Virno, *A Grammar of the Multitude for an Analysis of Contemporary Forms of Life* (Isabella Bertoletti, James Cascaito and Andrea Casson trs, Semiotext(e) 2004) 54–55, 107.

In considering work in the gig economy, which overlaps with the platform economy, economists, economic historians and sociologists have traced the genealogy of the 'precariat'[46] riding for Deliveroo, driving for Uber and micro-tasking for Amazon Mechanical Turk to the proletariat in lumberyards, docks, retail service jobs and the factory floor on temporary contracts.[47] Over time, it appears that the working arrangements of a bank teller and a freelance classical pianist have converged-towards becoming transient, unpredictable and constantly assessed.[48] As Standing notes, for those who have slipped into the precariat class, rising anger, anomie, anxiety and alienation is a common experience.[49] While platforms are typically associated with sleek, frictionless software applications and opportunities for supplemental income,[50] the blood, sweat and tears, humiliations and frustrations, needed for gig platforms to function are all too real. Cant, Ravenelle, Rosenblat, among others, have documented the harrowing experiences of drivers being subject to sexual harassment by passengers who are not adequately investigated and penalized, drivers fearing that they are constantly under surveillance, as well as couriers being surreptitiously shifted from hourly wages to a piece-work system.[51] All the while they face the self-imposed pressure to deliver more, with some eschewing bathroom breaks and braving rain and snowstorms to deliver orders in expectation of receiving an extra sum per order.[52] Scholar-activists such as Trebor Scholz have sought to draw together precarious gig work, (involuntary) voluntary work, unpaid internships, user-generated content and data production as various forms of digital work, each "carrying a different degree of violence, its own level of expropriation and cruelty".[53]

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46 Standing explains that the precariat can be identified by their lack of adequate income-earning opportunities, employment security, assurance of the continued existence of their jobs, work security, income security, representation of their interests and skills advancement. This definition includes the involuntarily self-employed. A person who drives for Uber or rides for Deliveroo to earn a supplemental form of income would not be a member of the precariat. *See* Guy Standing, *The Precariat: The New Dangerous Class* (Bloomsbury Academic 2011) 10.

47 Louis Hyman, *Temp: How American Work, American Business, and the American Dream Became Temporary* (Viking 2018) 87, 133–134; Lynne Pettinger, *What's Wrong with Work?* (1st edition, Policy Press 2019) 63; Standing (n 46) 10, 14–15.

48 Walter W Powell, 'The Capitalist Firm in the Twenty-First Century: Emerging Patterns in Western Enterprise' in Paul DiMaggio (ed), *The twenty-first-century firm: changing economic organization in international perspective* (Princeton University Press 2001) 43.

49 Standing (n 46) 24.

50 Schor and others (n 12) 841–842.

51 Callum Cant, 'Precarious Couriers Are Leading the Struggle against Platform Capitalism' (*Political Critique*, 3 August 2017) <https://bit.ly/3h8iqgJ>; Alexandrea J Ravenelle, *Hustle and Gig: Struggling and Surviving in the Sharing Economy* (University of California Press 2019) 106; Alex Rosenblat, *Uberland: How Algorithms Are Rewriting the Rules of Work* (First edition, University of California Press 2018) 139-140,148-149.

52 Sabrina Barr, 'UK Weather: Deliveroo Faces Criticism over Driver Safety in Heavy Snow' *The Independent* (2 March 2018) <https://bit.ly/3dwizZr>.

53 Trebor Scholz, *Uberworked and Underpaid: How Workers Are Disrupting the Digital Economy* (1 edition, Polity 2016) 122.

Some have argued that platform-mediated gig work is simply a by-product and amplification of existing neoliberal economic policy that has been dominant to varying extents in the Western world since the 1980s.[54] Neoliberalism is characterized by the privatization of previously public services, the conversion of public goods like mobility, communications and culture into private goods, the treatment of citizens as clients, and the reorientation of state policy towards encouraging individual responsibility rather than solidarity.[55] While initially understood as being a retreat of the state, the contemporary discourse on neoliberalism argues that that the state is intimately involved in the ideological and theoretical project that seeks to extend market logic to all spheres of human activity.[56] The tacit acceptance of the 'move fast and break things' credo by policy makers in the name of creative destruction is a natural extension of the "markets good, regulation bad" meta-script that has been a legitimating schema of Anglo-American business policy since the Reagan-Thatcher era.[57] In short, the state actively encourages its citizens to monetize more of their time, including through the supply of their labour to gig work platforms.

This support from the state can also be seen in how platform companies, in general, interact with the public sector. Some of the largest platform companies, such as Amazon, receive public subsidies,[58] which allow them to pursue 'moonshot' projects like asteroid mining and sea steading that extract from the global commons.[59] While engaging in tax avoidance and driving up the cost of living in cities where they operate,[60] platforms make heavy use of public infrastructure such as roads, electricity and water to

54 Evgeny Morozov, 'The "Sharing Economy" Undermines Workers' Rights' *Financial Times* (14 October 2013) <https://www.ft.com/content/92c3021c-34c2-11e3-8148-00144feab7de> accessed 25 November 2019.

55 Loïc Wacquant, 'Crafting the Neoliberal State: Workfare, Prisonfare, and Social Insecurity' (2010) 25 Sociological Forum 197, 213–214.

56 Chris Butler and Karen Crawley, 'Forms of Authority Beyond the Neoliberal State: Sovereignty, Politics and Aesthetics' (2018) 29 Law and Critique 265, 266–267.

57 Ronald Chen and Jon Hanson, 'The Illusion of Law: The Legitimating Schemas of Modern Policy and Corporate Law' (2004) 103 Michigan Law Review 1, 11.

58 Good Jobs First, 'Amazon Tracker' (*Good Jobs First*, July 2020) <https://bit.ly/3dzdEXo>.

59 Surabhi Ranganathan, 'Seasteads, Land-Grabs and International Law' (2019) 32 Leiden Journal of International Law 205, 207–208; Cait Storr, '"Space Is the Only Way to Go": On the Evolution of the Extractivist Imaginary of International Law' in Sundhya Pahuja and S Chalmers (eds), *Routledge Handbook of International Law and the Humanities* (Routledge 2021).

60 This includes avoiding tax on profits (in the case of Google and Facebook) and not charging VAT on booking fees (in the case of Uber). *For more, see* Brittany V Dierken, 'Uber's International Tax Scheme: Innovative Tax Avoidance Or Simple Tax Evasion Notes' (2018) 46 Syracuse Journal of International Law and Commerce 223, 233–234; Michèle Finck and Sofia Ranchordas, 'Sharing and the City' (2016) 49 Vanderbilt Journal of Transnational Law 1299, 1303; Christian Fuchs, *The Online Advertising Tax as the Foundation of a Public Service Internet: A Camri Extended Policy Report* (University of Westminster Press 2018) 24–28.

deliver parcels and people, and to power their data centres.[61] This is supplemented by a concerted effort to shape local legislation to their benefit, often arguing that the benefits of their technological affordances (e.g., user-generated ratings) outweigh those of existing legislative protections (e.g., consumer protection of passengers).[62] The most prominent platform companies also reshape the physical geographies around them. In addition to their own immense physical infrastructure,[63] platform companies now sponsor the development of real estate, the refurbishment of commuter rail, fund the salaries of public officials, and the construction of smart cities.[64]

In many respects, these actions can be seen as an extension of past practices. Two-sided and multi-sided markets have been used as a business model for malls, magazines, credit cards and equipment leasing services.[65] Corporations have long lobbied for favourable legislation, with the claim of offering an improved technological service.[66] They have built company towns and even entire cities.[67] Yet, while building on past capitalist practices, there are arguably three distinguishing characteristics of platform capitalism.

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61 Dillon Mahmoudi and Anthony Levenda, 'Beyond the Screen: Uneven Geographies, Digital Labour, and the City of Cognitive-Cultural Capitalism' (2016) 14 tripleC: Communication, Capitalism & Critique. Open Access Journal for a Global Sustainable Information Society 99, 108; Bora Ristic, Kaveh Madani and Zen Makuch, 'The Water Footprint of Data Centers' (2015) 7 Sustainability 11260.

62 Tzur's study found that in 40 US cities only three opposed transport network companies like Uber and 77.5% chose to accommodate them (p. 354). *See* Amit Tzur, 'Uber Über Regulation? Regulatory Change Following the Emergence of New Technologies in the Taxi Market' (2019) 13 Regulation & Governance 340, 344. This form of successful regulatory and institutional entrepreneurship is not universal. For UberPop in the Netherlands, *see* Peter Pelzer, Koen Frenken and Wouter Boon, 'Institutional Entrepreneurship in the Platform Economy: How Uber Tried (and Failed) to Change the Dutch Taxi Law' (2019) 33 Environmental Innovation and Societal Transitions 1, 10. For Germany, *see* Kathleen Thelen, 'Regulating Uber: The Politics of the Platform Economy in Europe and the United States' (2018) 16 Perspectives on Politics 938, 946.

63 Adrian Mackenzie, 'From API to AI: Platforms and Their Opacities' (2019) 22 Information, Communication & Society 1989, 1993.

64 John Tenanes, 'Investing in Menlo Park and the Community' (*facebook Newsroom*, 8 February 2019) <https://bit.ly/2UR2c2V>.

65 David S Evans and Richard Schmalensee, 'The Industrial Organization of Markets with Two-Sided Platforms' (2007) 3 Competition Policy International 151, 162; Richard N Langlois, 'Hunting the Big Five: Twenty-First Century Antitrust in Historical Perspective' (2019) 23 The Independent Review 411, 423.

66 William J Baumol, 'Mega-Enterprising Redesign of Governing Institutions: Keystone of Dynamic Microtheory', *The Microtheory of Innovative Entrepreneurship* (Princeton University Press 2010) 178–179.

67 Margaret Crawford, *Building the Workingman's Paradise : The Design of American Company Towns* (Verso 1995) 13–15.

2.2.1 Concentration of Power in Corporate Governance and Markets

Firstly, there is a growing concentration of power, over markets and corporate governance. When viewing platforms such as Google, Amazon and Facebook from the perspective of market power, a chorus of scholars, lawyers and policymakers have denounced platforms for exploiting their privileged position as the private owner of a social infrastructure to extort users, for favouring their own products as a means of asserting and retaining market dominance and, particularly in the case of Facebook, stifling freedom of expression and spreading disinformation.[68]

More recently, the anti-competitive behaviour of the larger food delivery platforms has also come into focus. In the United States, a class action complaint has been filed alleging that DoorDash, Grubhub, Uber Eats and Postmates are able to lure restaurants into partnerships with their platforms with the promise of increases in sales, but ultimately they burden restaurants with steep commissions (up to 40%) and contractual clauses that prevent them from offering competitor platforms and dine-in customers different prices.[69] These, along with certain deceptive practices such as operating ghost restaurants under fake restaurant names, have enabled one or two out of these four platforms to consolidate and protect their market share in any given geographic market.[70] Now, in half of the US's largest cities, a single platform controls more than 50% of the market for food delivery.[71] This not only contributes to dine-in experiences becoming less popular, it also compels restaurants to charge higher prices and limits their ability to sell directly to end-consumers.

As Tkacik notes, some of these food delivery platforms have common institutional shareholders and cross-holdings and also look to acquire one another, leading to a creeping consolidation of market actors in the US.[72]

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68 Ariel Ezrachi and Maurice E Stucke, *Virtual Competition: The Promise and Perils of the Algorithm-Driven Economy* (Harvard University Press 2016); Khan, 'Sources of Tech Platform Power' (n 36) 329; Frank Pasquale, 'Platform Neutrality: Enhancing Freedom of Expression in Spheres of Private Power' (2016) 17 Theoretical Inquiries in Law 487, 490. This view is not without its critics, particularly in the United States, given their differing visions of antitrust policy. Langlois, Dorsey, Wright and others defend the status quo. They broadly argue that active rivalry is possible even if there is vertical and horizontal integration of businesses and that a focus on consumer welfare has materially improved the lives of people, by offering cheaper, more diverse and innovative products. *See,* Langlois (n 65) 421–424; Joshua D Wright and others, 'Requiem for a Paradox: The Dubious Rise and Inevitable Fall of Hipster Antitrust' (2019) 51 Arizona State Law Journal 293, 358–359.

69 *Davitashvili v. GrubHub Inc.*, No. 1:20-cv-3000, U.S. District Court, Southern District of New York, Class Action Complaint filed on 13 April 2020, paras 75, 81.

70 Maureen Tkacik, 'Rescuing Restaurants: How to Protect Restaurants, Workers, and Communities from Predatory Delivery App Corporations' (American Economic Liberties Project 2020) No. 7 12, 16–17. Also see, ibid, paras 37-41.

71 ibid 10.

72 ibid 6.

This consolidation is also a feature on the other side of the Atlantic, with Takeaway.com acquiring Just Eat, shortly before the continuing Just Eat Takeaway.com announcing its intention to acquire Grubhub on 10 June 2020.[73] This consolidation will create the largest food delivery company outside of China in 2021.[74] This has precipitated calls to 'break up' the largest platform companies or, in the case of social media companies, regulate them as public utilities.[75] While this refrain echoes past attempts to reform US railroad trust companies in the late 19th-early 20th century, it is now extended to a truly global scale.

A complement to this growth in market power has been the concentration of voting power in the hands of a few individuals and institutional investors. This is typically the case when a platform company is still a privately held start-up where founders and early-stage investors have the majority of control rights, but it also remains true when some of these platform companies decide to undertake an initial public offering and become listed on a stock exchange. The use of dual or multi-class share structures permits a certain person or group of persons-typically founders-to have voting power that is disproportionate to the number of shares they own. Thus, while an ordinary shareholder may have one vote per share, this select coterie are issued a separate class of non-tradable shares that has 10 or even 20 votes per share. As Bebchuk and Kastiel note, since the IPO of Google with such a share structure in 2004, the number of listed companies with dual class shares have grown from 1% in 2005 to 19% in 2017.[76] My own research of the Annual Reports, IPO Registration Statements and business reportage regarding the 16 largest listed social media and gig companies (by revenue), reveals that one or two persons/entities hold majority voting power in seven of them (see Figures 3 and 4). This is particularly notable in the case of social media companies where 5 out of 8 companies experience this. However, even where the >50% threshold has not been met, it is illuminating that a single individual or entity has between 10%-30% voting power in companies that are ostensibly publicly held. As Doorn and Badger observe, even institutional investors with less eye-catching voting power in individual companies can still exercise significant control over entire markets (e.g., ride-hailing) due to the size of their portfolios and the facilitation of partnerships across portfolio companies.[77]

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73 Just Eat Takeaway.com, 'Just Eat Takeaway.Com to Combine with Grubhub to Create a Leading Global Online Food Delivery Player' (*Takeaway.com*, 10 June 2020) <https://bit.ly/364k5O9>.

74 Just Eat Takeaway.com, 'Just Eat Takeaway.Com Receives All Regulatory Approvals Required in Respect of Its Proposed Acquisition of Grubhub' (*Takeaway.com*, 4 September 2020) <https://bit.ly/3duttyC>.

75 Khan, 'Sources of Tech Platform Power' (n 36) 326; Langlois (n 65) 414–415; Tkacik (n 70) 19.

76 Bebchuk and Kastiel (n 40) 1463.

77 Niels van Doorn and Adam Badger, 'Platform Capitalism's Hidden Abode: Producing Data Assets in the Gig Economy' (2020) 52 Antipode 1475, 1490.

While this distribution of voting power is evident from the prospectuses of these companies when they go public, the significance of this disparate power becomes apparent once these companies begin to exercise power over public and private life in the manner as described in this sub-section. Yet, in the absence of constraints such as sunset clauses to trigger the expiry of multi-vote arrangements, this disparity of power continues unchecked.

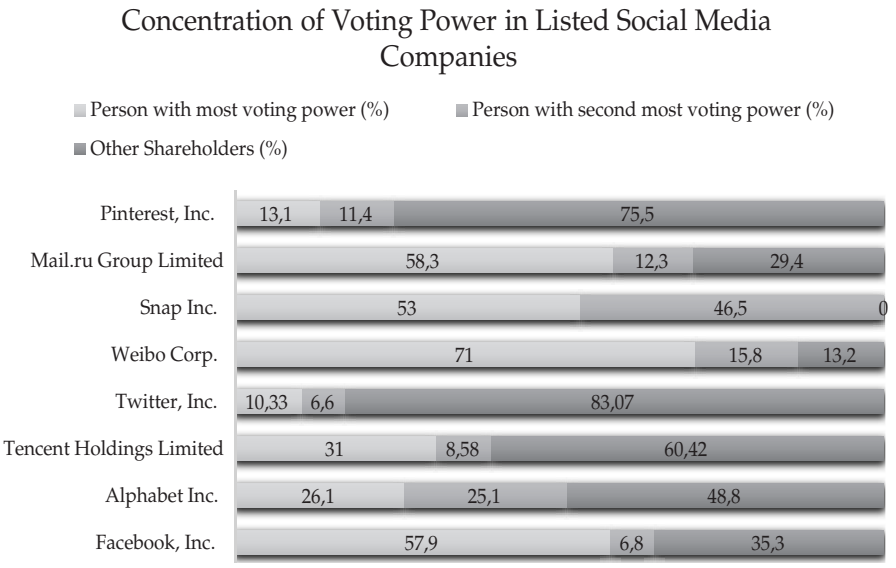

Figure 3: Concentration of Voting Power in the Largest, Listed Social Media Companies (by revenue)

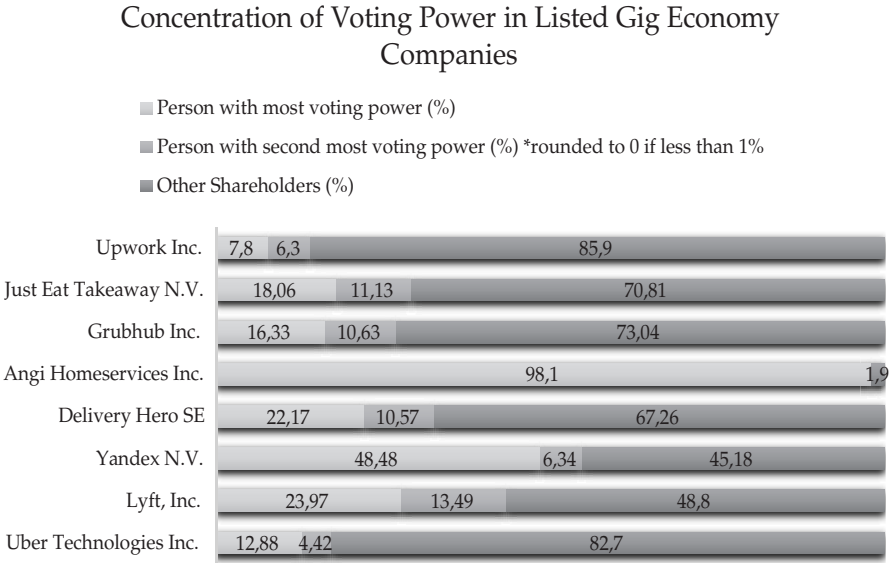

Figure 4: Concentration of Voting Power in the Largest, Listed Gig Economy Companies (by revenue)

2.2.2 Creation and Exploitation of Digital Profiles and Personae

A second key distinguishing characteristic of platform capitalism is the manner and ends to which it can use personal data to recognize patterns of behaviour and curate interactions on a platform.[78] Depending on the nature of the platform, the data collected can be used for a vast array of descriptive information to be attached to an individual,[79] while also allowing for aggregate analyses.[80] This is as much a feature of gig platforms as social media platforms,[81] and is made possible by the first distinguishing characteristic, as the concentration of market power and extensive cross-holdings allows for the costs of complex data collection and processing to be cross-subsidized.[82] Indeed, the collection and (re)use of personal data has been a focal point of political, legal, academic and popular critique of platforms. This has been motivated by concerns about platforms accumulating personal data from users voluntarily (e.g., creating a Facebook page or work account) and involuntarily (e.g., through the use of smartphone sensors), so as to create projected and imposed 'digital personae' of individuals, as well as to compile digital profiles.[83] These personae and profiles assist platforms in their personalization and matchmaking service but also have other uses depending on the revenue model of the platform.

For social media companies reliant on advertising, they help develop more targeted advertisements for third parties. For gig platforms, which are reliant on the number of transactions that are successfully completed, the digital personae and profiles contribute to finding the locations where there

78 Mireille Hildebrandt, 'Primitives of Legal Protection in the Era of Data-Driven Platforms' (2018) 2 Georgetown Law Technology Review 252, 255; Nikos Koutsimpogiorgos and others, 'Conceptualizing the Gig Economy and Its Regulatory Problems' (2020) 12 Policy & Internet 525, 532.

79 Gary T Marx, 'Genies: Bottled and Unbottled' in Mireille Hildebrandt and Bibi van den Berg (eds), *Information, Freedom and Property* (Routledge 2016) 18–20.

80 Marion Fourcade and Kieran Healy, 'Seeing like a Market' (2017) 15 Socio-Economic Review 9, 11.

81 Doorn and Badger (n 77) 1475–1476.

82 Frances Flanagan, 'Theorising the Gig Economy and Home-Based Service Work' (2019) 61 Journal of Industrial Relations 57, 64.

83 Doorn and Badger (n 77) 1482; Arnold Roosendaal, *Digital Personae and Profiles in Law: Protecting Individuals' Rights in Online Contexts* (Wolf Legal Publishers 2013) 8–9. Hildebrandt explains that a profile can be seen as hypotheses about an unknown/potential user traits, behaviour and actions that emerges inductively through the use of profiling technologies, which commonly make "use of algorithms or other techniques to create, discover or construct knowledge from huge sets of data". These hypotheses are tested through the application of profiles, which lead to the individuation and representation of a subject or the identification of a subject as a member of a group or a category. Mireille Hildebrandt, 'Defining Profiling: A New Type of Knowledge?' in Mireille Hildebrandt and Serge Gutwirth (eds), *Profiling the European Citizen* (Springer Netherlands 2008) 17–19. In other words, a digital profile can become an imposed digital persona once an individual is deemed to match the profile. Roosendaal 35.

is a surge in demand and monitoring active use of a platform.[84] While the fastening[85] of 'shadow' digital profiles to individuals has received particular attention for its potential to violate privacy (e.g., tracking purchases and content viewed, accumulating call records and text messages, etc.), the creation of digital personae also raise questions about the opaque purposes for which the voluntarily given personal data is processed and reused. The data gathered through both means can be used to discriminate against users based on gender, race or ethnicity or alternatively can be used to dilute cultural differences entirely to best serve the interests of the platform.[86] In short, data once collected begins to develop a life of its own, largely unbeknownst to the person from whom it was gathered. Given the speed with which policies are changed about how this data is used, owing to frequent pivots of platforms' business model and their reliance on 'lean start-up' methods, these uses are also difficult to challenge.[87] Moreover, this characterization of the labour-power needed to generate these data points as mere 'bits of code', allows for the commodification of labour by the platform and for programmers "to think of themselves as builders, not managers" of people.[88]

2.2.3 Cultivation of Role and Role-Set Conflicts by blurring Statuses

I argue that based on capital-managed platforms' ontological premise that users are "amalgams of ever-changing, dynamic, lively data points",[89] platform capitalism exploits the re-purposing, blurring, and mischaracterization of users' statuses through its socio-technical and business strategies to serve the platforms' own ends.[90] This is in contrast to the past when users, partic-

84 Stephen R Miller, 'Urban Data and the Platform City' in Stephen R Davidson, Michèle Finck and John J Infranca (eds), *The Cambridge Handbook of the Law of the Sharing Economy* (Cambridge University Press 2018) 196–197.

85 Koopman uses fastening in the dual sense of pinning down aspects of ourselves as well as accelerating our interactions and informatization. C Koopman, *How We Became Our Data: A Genealogy of the Informational Person* (University of Chicago Press 2019) 14.

86 Yanbo Ge and others, 'Racial and Gender Discrimination in Transportation Network Companies' (National Bureau of Economic Research 2016) Working Paper 22776; Dan M Kotliar, 'Data Orientalism: On the Algorithmic Construction of the Non-Western Other' (2020) 49 Theory and Society 919, 928.

87 Sohaib Shahid Bajwa, 'Pivoting in Software Startups' in Anh Nguyen-Duc and others (eds), *Fundamentals of Software Startups: Essential Engineering and Business Aspects* (Springer International Publishing 2020); Sangeet Paul Choudary, 'The Architecture of Digital Labour Platforms: Policy Recommendations on Platform Design for Worker Well-Being' (ILO 2018) Research Paper 3 6.

88 Lily Irani, 'Justice for "Data Janitors"' [2015] *Public Books* <https://bit.ly/3jsmOc9>.

89 Eran Fisher and Yoav Mehozay, 'How Algorithms See Their Audience: Media Epistemes and the Changing Conception of the Individual' (2019) 41 Media, Culture & Society 1176, 1188.

90 Jack M Balkin, 'Fixing Social Media's Grand Bargain' (Hoover Institution 2018) Essay 1814 4 <https://perma.cc/8UBR-YXA6>; Daniel Neyland, 'On Organizing Algorithms' (2015) 32 Theory, Culture & Society 119, 122.

ularly of mass media, were conceived as a standard, universal person.[91] The 'digital hyperconnectivity' enabled by these platforms has contributed to new constructions and configurations of the self, across social media and gig platforms and beyond.[92] Yet, the deliberate, targeted effort at sowing confusion about users' statuses has been underexplored. This is particularly important for understanding why there is a growing appeal for alternatives to platform companies that would change the statuses of users.

The next section will elaborate on how role-set theory can help reveal and conceptualize this third, distinguishing feature of platform capitalism and explain how platform companies in particular benefit from the conflicts that ensue.

2.3 Applying Role-Set Theory to Platform Users

In this section, I will draw on role-set theory,[93] to explain the development of digital status sets by individuals and the consequent expectations and responsibilities that such statuses entail. My claim is that the growing capacity of platforms to 'see' the habits, tastes and preferences of both users and (to a certain extent) non-users,[94] enables them to shape an individual's 'status set' and consequently, the conflicts they experience both online and offline. While the construction of such status sets is a ubiquitous experience, platform companies deliberately seek to sow confusion about what users' statuses are as they financially benefit from users experiencing conflicts between the statuses they hold simultaneously and the conflicts they engage in with others. In Touraine's words, sociology has been relatively "complacent about the notions of status and role",[95] and how power centres define and sanction roles.[96] In view of this, role-set theory enables a better understanding of how the ordered expectations of others affects an individual's subjectivity.

91 Fisher and Mehozay (n 89) 1179.

92 Rogers Brubaker, 'Digital Hyperconnectivity and the Self' (2020) 49 Theory and Society 771, 772; Doorn and Badger (n 77) 1479; Beverley Skeggs and Simon Yuill, 'Capital Experimentation with Person/a Formation: How Facebook's Monetization Refigures the Relationship between Property, Personhood and Protest' (2016) 19 Information, Communication & Society 380, 391.

93 Merton (n 26) 110–112; Roberts and von Below (n 26) 112.

94 Benjamin H Bratton, *The Stack: On Software and Sovereignty* (1st Edition, The MIT Press 2016) 49; Fisher and Mehozay (n 89) 1177.

95 Alain Touraine, *Critique of Modernity* (Wiley 1995) 229.

96 ibid 233.

Status[97] refers to a social position that an individual is recognised as occupying, entailing particular rights and obligations, in a social structure,[98] while a status set refers to a collection of all the statuses that one may hold.[99] Statuses may be ascribed, for instance through birth, or achieved, through training or by entering into contractual agreements.[100] A status-set conflict arises due to conflicts emerging from the multiple statuses held by one person.[101] The related concept of role, is described as being the "dynamic aspect of a status", as it involves the performance of the rights and duties attached to a status.[102] Thus, a role involves displaying a set of behaviours and attitudes that are oriented to the expectations of others – role partners – about said status. The various, relevant audiences of a role are together referred to as a 'role-set'.[103] For instance, a person performing their status as a corporate lawyer will have a role-set that includes their clients, their colleagues and partners of their firm.

A role conflict takes place when a person performing the role of one status finds that it is incompatible with another status that the person holds, while role-set conflicts take place when a person has conflicting obligations to different role-set partners within a single status.[104] Evan and Levin explain this distinction using the example of the stockbroker profession.

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97 Considerations of societal status–or prestige–is beyond the scope of this article. Searle, known for his work on status function declarations, provides a theory on how status emerges. He explains when expanding on his theory of collective intentionality that when a person engages in a collective intention-in-action (e.g., a football game, arranging a ride), they take the singular intentionality of other participants in the collective action for granted. In the case of a ride-hailing platform, from the company's perspective, the collective intention-in-action is to have constant mobility of people and products. The fact that drivers often subject themselves to this mode of work – for broader socio-economic reasons as discussed above – gives the appearance of there being collective intentionality and contributes to the collective recognition of ride-hailing drivers being entrepreneurs. In Searle's view, this conjunction of collective intentionality and collective recognition of a status, that is typically represented in some manner, gives rise to status functions: Person X counts as status Y in context C. He argues that an explicit speech act declaring the existence of a status is not necessary, as even a "grudging acquiescence" can be seen as collective recognition and declaration of a status function. In this section I argue that this seemingly epistemologically objective statement that a certain collective intention or status exists is actually subjective, given the existence of status-set conflicts. John R Searle, *Making the Social World: The Structure of Human Civilization* (Oxford University Press 2010) 54, 59, 104.

98 William E Thompson, Joseph V Hickey and Mica L Thompson, *Society In Focus: An Introduction To Sociology* (8th edn, Rowman & Littlefield 2017) 118.

99 Gottfried Lang, 'The Concepts of Status and Role in Anthropology: Their Definition and Use' (1956) 17 The American Catholic Sociological Review 206, 206.

100 ibid 207.

101 Evan and Levin (n 26) 76.

102 Ralph Linton, *The Study of Man: An Introduction* (D Appleton-Century Company 1936) 114.

103 Erving Goffman, *Encounters: Two Studies in the Sociology of Interaction* (Penguin 1961) 75–76.

104 Evan and Levin (n 26) 77.

A stockbroker may have five statuses in their status-set, as an agent when conducting transactions with a client's shares, as an investment advisor, a securities dealer when conducting transactions for themselves, as an underwriter for a company's initial public offering, and as a director (i.e., elected by the public shareholders he sold shares to).[105] A role conflict arises when a stockbroker uses inside information concerning investee companies obtained through personal connections obtained through their status as a director to benefit certain professional clients when acting on their behalf in the capacity of an agent. In contrast, a role-set conflict emerges when a stockbroker is torn between their commitment to the investing public and to their employer while acting in their capacity as an advisor.[106] In Merton's view, the patterned arrangement of role-sets, status-sets and gradual changes in statuses comprises the social structure.[107]

Role and role-set conflicts are rife in the platform economy. As Parker and colleagues note,[108] one of the main ways in which a platform can grow is through the encouragement of side-switching, in which users switch between being producers and consumers repeatedly. They contend that a "well-designed platform makes it easy for users to move from role to role".[109] Indeed, platforms measure the rate at which users side-switch, as it allows them to monitor the health of their user base and maintain a balance of user acting in each role across the network.[110] While Parker and colleagues entreat platform companies to consider users as "value-creating partners to be wooed, celebrated, and encouraged to play multiple roles",[111] this view neglects the tensions caused by performing these multiple roles, which often manifest in legal disputes. As Savin explains, while the producer status and consumer status may be blurred online due to the black box nature of a platform, their status for legal purposes remains distinct.[112]

Figure 5 indicates some of the major statuses that a natural person may have in the platform economy. The citizen status is included as certain rights inhere to a person through constitutions and human rights legislation.[113] This status acknowledges how a natural person retains their citizenship of a state (if any) when they are logged onto a platform, while also appreciating that they can also be seen to be new 'citizen-users' of the planetary cloud, "built not only of buildings and roads, but also perplexing grids and dense,

105 ibid 74.
106 ibid 76–77.
107 Robert K Merton, *Social Theory and Social Structure* (1968 Enlarged Ed edition, Free Press 1968) 424.
108 Parker, Van Alstyne and Choudary (n 28) 26.
109 ibid 39.
110 ibid 198.
111 ibid 212.
112 Andrej Savin, 'Liability of Intermediaries', *EU Internet Law* (Edward Elgar Publishing 2017) 143.
113 Searle (n 97) 186.

fast data archipelagos".[114] Relatedly, data subject refers to the rights that protect a person's data, depending on where an individual and platform is located. Inventor, volunteer, customer and entrepreneur captures the statuses that individuals may hold while using various platforms for their creative, philanthropic and commercial endeavours.[115] The inventor status acknowledges the contribution of user innovation to networked society,[116] and investor notes that several users invest in causes and organizations through online platforms.[117] Finally, owner refers to the ownership of physical assets, such as a smartphone, cars and bicycles, that allows the performance of certain roles through a platform, as well as to digital assets that one may acquire through a platform.

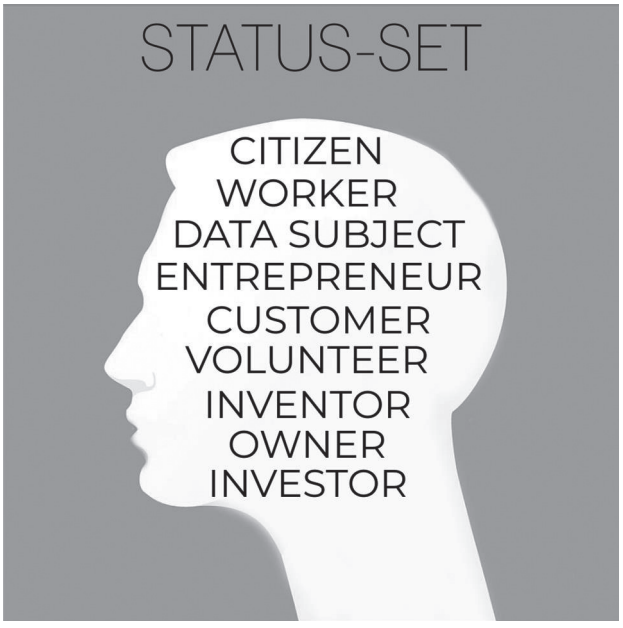

Figure 5: Status-Set in the Platform Economy

114 Bratton (n 94) 10.

115 Yochai Benkler, *The Penguin and the Leviathan: How Cooperation Triumphs over Self-Interest* (Crown Business 2011) 199; Christian Fuchs, *Culture and Economy in the Age of Social Media* (Routledge 2015) 321, 342–343.

116 Yochai Benkler, 'Law, Innovation, and Collaboration in Networked Economy and Society' (2017) 13 Annual Review of Law and Social Science 231, 232.

117 Garry Bruton and others, 'New Financial Alternatives in Seeding Entrepreneurship: Microfinance, Crowdfunding, and Peer–to–Peer Innovations': (2015) 39 Entrepreneurship Theory and Practice 9.

Focusing on the factual statuses that users hold reveals the partners that comprise their role-set, as well as the fact that the status they are deemed to have on a platform may not accord with their legal status.[118] One such example is that of an Uber driver, who may be categorized as an entrepreneurial self-employed person by the platform but be recognized as workers with employment rights by courts.[119]

While operating the Uber platform, certain statuses come to the fore. Merton acknowledges the possibility of this by pointing out that all of the members of a status-occupant's role-set are not engaged at the same time; their ties to, and power over, the status-occupant can vary in terms of intensity.[120] This is not to say that the other statuses of a person 'disappear', instead they recede to the background when the person logs on to the Uber app and makes themselves available for work. During that time, the observable status-set of the driver is as a citizen, worker, entrepreneur, customer, owner and data-subject. Of these, the statuses of worker and entrepreneur are most contentious. The status-set of an Uber driver and the role-partners of their 'worker' and 'entrepreneur' statuses are indicated in Figure 6.

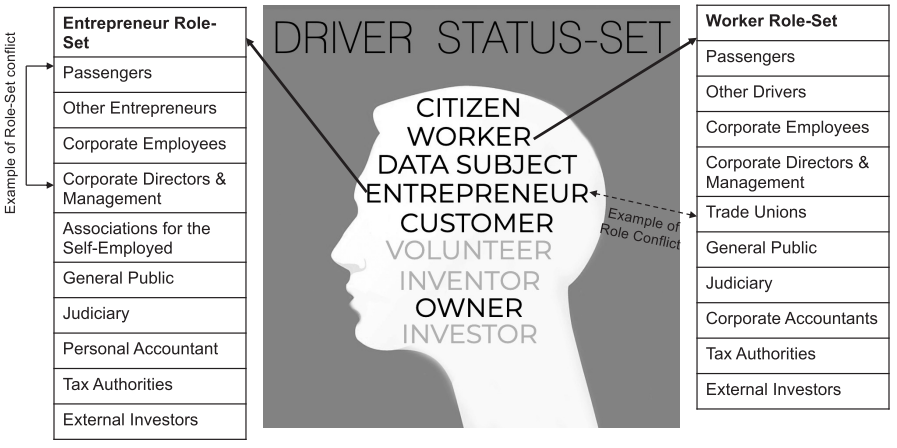

Figure 6: Role-Conflicts and Role-Set Conflicts with Role-Partners

Uber emphasizes the independence and freedom of drivers in its advertisements and specifies that a driver is an "independent company in the business of providing Transportation services" and a (corporate) "customer".[121]

118 James S Coleman, *Foundations of Social Theory* (Harvard University Press 1994) 541.

119 *See, e.g., Uber BV and others (Appellants) v Aslam and others (Respondents)* [2021] UKSC 5, at [119].

120 Merton (n 107) 425–427.

121 Alan Bogg and Michael Ford Q.C., 'Between Statute and Contract: Who Is a Worker?' (2019) 135 Law Quarterly Review 347, 347.

At the same time, Uber controls key information about passengers that are picked up and their destination, algorithmically nudges drivers to use a specified route, subjects drivers to a rating system, and restricts their ability to set their own fares and accept tips, among a host of other requirements – which leads to drivers offering and accepting trips on Uber's terms.[122] It is thus necessary to parse fact from (contractual) fiction as the difference between being a (self-)entrepreneur or an employee or a third category of worker is the difference between having a right to a minimum wage, paid leave and collective bargaining – or not.[123]

In this example, role conflict emerges from whether the driver works for Uber or Uber works for the driver as an agent.[124] The holding of both these statuses is considered to be inconsistent as it is considered to be contradictory that an entrepreneur who purchases the platform company's services is also its worker.[125] This is because in the view of corporate directors and professional management, arguably the most dominant members of a driver's role-set,[126] the 'master status' of the driver is that of an entrepreneur. In other words, all other statuses are subordinate to this status. This assumption is clear not only from the numerous employment misclassification cases on this question, but also from the competition law concerns that have been raised that the collective organization of gig workers amounts to a price-fixing cartel, based on the assumption that they are self-employed.[127]

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122 *See, e.g., Aslam, Farrar & Others v. Uber B.V. et al.* [2016] EW Misc B68 (ET) (28 October 2016), at [90]-[92]. The full list of factors that led the Employment Tribunal to assess that Uber drivers are 'workers' is mentioned at [92]. The majority in the Court of Appeal largely concurred with the Employment Tribunal about the significance of these factors in determining that drivers work for Uber–rather than the other way around. See *Uber BV v. Aslam* [2018] EWCA Civ 2748, at [96].

123 In the UK, for example, 'limb (b)' workers enjoy collective bargaining rights, as they fall within *Trade Union and Labour Relations (Consolidation) Act, 1992* (c. 52), s. 296.

124 Other examples of role conflict in the gig sector involve passengers being encouraged by Uber to become petitioners in their status as citizens, advocating the reform of legislation that (at least originally) was intended for the passengers' benefit. Tzur (n 62) 355.

125 Thompson, Hickey and Thompson (n 98) 119.

126 Merton (n 26) 113.

127 Sanjukta Paul and Nathan Tankus, 'The Firm Exemption and the Hierarchy of Finance in the Gig Economy' (2019) 16 University of St. Thomas Law Journal 44, 46–47; Dagmar Schiek and Andrea Gideon, 'Outsmarting the Gig-Economy through Collective Bargaining – EU Competition Law as a Barrier to Smart Cities?' (2018) 32 International Review of Law, Computers & Technology 275, 282. Some authors have argued that such rights to collectively organise and bargain should not be seen to be attached to employment status, but rather treated as a human or constitutional right enjoyed by platform workers. Annamaria Donini and others, 'Towards Collective Protections for Crowdworkers: Italy, Spain and France in the EU Context' (2017) 23 Transfer: European Review of Labour and Research 207, 214–215.

It is therefore apparent that this attribution of master status is "observer relative", as it only exists relative to the attitudes of certain observers.[128] Clearly, when drivers do not act in the manner expected of an independent entrepreneur, by going on strike or seeking to collectively bargain,[129] the attribution of such a master status is called into question.

The problems caused by these role conflicts can be seen if one considers the expectations of a driver's role-set. If a driver internalizes the expectations of a platform company and performs as an entrepreneur,[130] they risk disappointing other drivers who see themselves as workers and trade unions. Conversely, if they claim rights typically associated with being a worker in a subordinate relationship to a company (e.g., a minimum wage, paid leave, collective bargaining), they run afoul of the expectations of directors, management, consumers, drivers who consider themselves to be entrepreneurs, and possibly the judiciary, who may consider drivers to be engaged in cartel-like behaviour, due to their perception of drivers being self-employed.[131]

Even in the absence of a role conflict, where there is an alignment of views on the status a driver has, the driver may still experience role-set conflicts. Performing the role of an entrepreneur as management anticipates would create expectations among customers that Uber drivers should have the freedom to set their own fares, which they do not have. Conversely, performing the role of a worker in a public demonstration for employment-related rights would create expectations among corporate accountants and tax authorities that if drivers are truly employees, they will be able to withhold drivers' payroll taxes, as with other employees.[132] The driver in both instances is not meeting the expectations of different partners within the role-set of a single status.

The platform company can financially benefit from drivers who experience confusion over their status, as framing them as entrepreneurs allows them to be pressured to pay a portion of each fare to the company. At the same time, as companies operating panoptic systems of surveillance in which drivers are always 'visible' while working, drivers constrain themselves in the routes they take, the music they play, the amenities they offer passengers – all in anticipation of the ratings or punishments they may receive. Given that passengers rate drivers on the completion of a trip, even factors that are beyond the control of a driver and are more directly attributable to the platform may lead to a low rating for the driver, while

128 Searle (n 97) 11.

129 Jamie Woodcock and Mark Graham, *The Gig Economy: A Critical Introduction* (1st Edition, Polity 2020).

130 Brubaker (n 92) 11.

131 VB Dubal, 'An Uber Ambivalence: Employee Status, Worker Perspectives, and Regulation in the Gig Economy' in Deepa Das Acevedo (ed), *Beyond the Algorithm: Qualitative Insights for Gig Work Regulation* (Cambridge University Press 2020) 36.

132 Shu-Yi Oei and Diane M Ring, 'The Tax Lives of Uber Drivers: Evidence from Internet Discussion Forums' (2017) 8 Columbia Journal of Tax Law 56, 64.

keeping the platform's general reputation intact.[133] The company thereby benefits from the driver performing their two statuses, by making the driver the subject and the principal of their own subjection.[134] This is key to a platform's growth. Most importantly, the uncertainty stemming from the role and role-set conflicts caused by the confusion about status allows the company to deny drivers a minimum wage, paid leave and collective bargaining rights, as well as burden them with accounting and tax administration costs.

The objective of misclassification suits can be seen as an effort to dissolve this inconsistency and provide clarity as to a drivers' 'true' status, role and role-set. Yet, making such an *ex-post* determination of a single status may not always be desirable. Some drivers may wish to be independent, value flexibility and consider Uber as a poor potential employer – while still wishing for some form of safety-net.[135] This internal conflict is perhaps to be expected according to Dufays and colleagues, as the process of commodifying the 'lifeworld' – societies, personalities and cultures – contributes to the lifeworld participants' adopting the aspirations of systems like the economy, while becoming unsure of their own.[136] The tension this generates creates a febrile atmosphere, ripe for agitation and a search for alternatives that can resolve these role-set and role conflicts.

According to Carlota Perez, each technological revolution is characterized by such periods of frenzy, where there is an intensive investment in companies, leading to a decoupling of the market value and real value of businesses, and a polarization of rich and poor. This period predates a burst of a financial bubble that marks a 'turning point', following which appropriate technological regulation is introduced.[137] The platform cooperativism movement emerged as a response to just such a frenzy period. It has coalesced to build "alternatives to the dominant Silicon Valley model" of platform capitalism by 'recoupling' financial capital with the labour (and other forms of capital) that are needed to produce new goods and services, as well as by serving the interests of those producing the latter rather than the caprices of those who hold the former.[138]

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133 Choudary (n 87) 16.

134 Michel Foucault, *Discipline and Punish* (Vintage 1977) 202–203.

135 Thor Berger and others, 'Uber Happy? Work and Well-Being in the "Gig Economy"' (2019) 34 Economic Policy 429; Dubal, 'An Uber Ambivalence' (n 131) 35.

136 Frédéric Dufays and others, 'Resisting Colonization: Worker Cooperatives' Conceptualization and Behaviour in a Habermasian Perspective' (2020) 34 Work, Employment and Society 965, 967–968.

137 Carlota Perez, *Technological Revolutions and Financial Capital* (Edward Elgar 2002) 47–48, 50–52, 105–106.

138 Trebor Scholz and Nathan Schneider (eds), *Ours to Hack and to Own: The Rise of Platform Cooperativism, A New Vision for the Future of Work and a Fairer Internet* (OR Books 2016) 11; Perez (n 137) 76.

A cooperative, according to the International Co-operative Alliance's Statement on the Cooperative Identity (1995), is "an autonomous association of persons united voluntarily to meet their common economic, social, and cultural needs and aspirations through a jointly owned and democratically-controlled enterprise". As such, a cooperative is a legal entity that undertakes economic (and non-economic) activities in the interest of their members instead of shareholders. Members typically contribute a one-off monetary sum when they join and ongoing labour and/or monetary contributions (e.g., work hours in the case of a workers' cooperative). If the cooperative's economic activities generate a surplus and its bylaws allow it, a patronage refund may be returned to the members in proportion to their own contributions to the cooperative. While it is possible to receive remuneration on capital contributions in some countries, this is not a substitute for a patronage refund. While not being a universal feature of cooperative law, to further distinguish corporations from cooperatives some countries require residual assets of a cooperative to be distributed in a disinterested manner to other cooperatives upon dissolution.[139] As a democratic enterprise, members have the right to democratically participate in the control and management of the cooperative on a 'one-person, one-vote' basis, though the extent to which members are involved in day-to-day governance differs case by case. In some jurisdictions, members make a contribution to indivisible funds for cooperative development to ensure the cooperative's longevity and independence from non-cooperative third parties,[140] or to promote other cooperatives.[141] It is this ideal type understanding of a cooperative that undergirds the definition of a platform cooperative.

Among various definitions, an influential definition of platform cooperative is: "an enterprise that operates primarily through digital platforms for interaction or the exchange of goods and/or services and is structured in line with the International Cooperative Alliance Statement on the Cooperative Identity".[142] In other words, platform cooperatives include businesses registered as cooperatives, as well as businesses that are not registered as a cooperative but nonetheless adhere to the 7 cooperative principles and

139 Gemma Fajardo, 'Spain' in Gemma Fajardo and others (eds), *Principles of European Cooperative Law: Principles, Commentaries and National Reports* (Intersentia 2017) 588; Antonio Fici, 'Italy' in Gemma Fajardo and others (eds), *Principles of European Cooperative Law: Principles, Commentaries and National Reports* (Intersentia 2017) 380.

140 Antonio Zanotti, 'Italy: The Strength of an Inter-Sectoral Network' in Alberto Zevi and others (eds), *Beyond the Crisis: Cooperatives, Work, Finance. Generating Wealth for the Long Term* (CECOP 2011) 80.

141 Fici (n 139) 368.

142 Ed Mayo, 'Digital Democracy? Options for the International Cooperative Alliance to Advance Platform Coops' (International Co-operative Alliance 2019) 20.

cooperative values.[143] In this way, platform cooperatives sometimes blur into other enterprises and organizations of the social & solidarity economy, such as associations, foundations and social enterprises.[144] Irrespective of legal entity form chosen, organizations that identify with platform cooperativism aspire to become community-managed.[145] This choice of choosing a cooperative legal entity form or not is often driven by restrictions that exist in cooperative law for start-up cooperatives (such as registration costs), requiring a high number of members to register,[146] or needing to pay a minimum wage to worker-members and employees immediately upon registration.[147] Moreover, the term platform is a signifier for more than the platform business model or technological system. It signifies a tool for intermediation between two or more parties for the exchange of goods and services, as well as a communication tool built for use by members.

The origins of this movement for platform cooperatives are briefly discussed in the next section, with particular attention devoted to how platform cooperatives and cooperative-run platforms seek to reconcile status-set, role-set and role conflicts.

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143 Cooperatives are also expected to abide by 7 cooperative principles: (1) Voluntary and Open Membership, (2) Democratic Member Control, (3) Member Economic Participation, (4) Autonomy and Independence, (5) Education, Training and Information, (6) Cooperation among Cooperatives and (7) Concern for Community.

144 The Social and Solidarity Economy "refers to enterprises and organizations, in particular co-operatives, mutual benefit societies, associations, foundations and social enterprises, which specifically produce goods, services and knowledge while pursuing economic and social aims, and fostering solidarity." Bénédicte Fonteneau and others, *Social and Solidarity Economy: Our Common Road towards Decent Work : The Reader 2011* (International Training Centre of the ILO 2011) vi.

145 Rory Ridley-Duff and Mike Bull, 'Common Pool Resource Institutions: The Rise of Internet Platforms in the Social Solidarity Economy' (2021) 30 Business Strategy and the Environment 1436, 1438.

146 Nowadays, this holds more true for countries influenced by the so-called British Indian Pattern of Co-operation, with a tradition of large credit and agricultural cooperatives, than for Western European or Canadian cooperatives. For example, in Bangladesh, at least 20 individual founders are needed to form a primary cooperative. Section 8(1)(a), Co-operative Societies Act, 2001.

147 While fairer pay is one of the main drivers for cooperative formation, it is difficult to guarantee this at the initial stages of a business and can make the choice to be employed by a cooperative an expensive one for the business. If the member is also a director and acts independently, it is possible to avoid minimum wage requirements. For the UK, *see* Footprint Workers' Co-operative Ltd. and Seeds for Change Lancaster Co-operative Limited, *How to Set Up a Workers' Co-Op* (Fourth, Radical Routes Ltd 2015) 90, 104.

2.4 The Coalescence of the Platform Cooperativism Movement

2.4.1 Origins

Seven years ago, Trebor Scholz and Nathan Schneider published 'Platform Cooperativism vs. the Sharing Economy' and 'Owning is the New Sharing' respectively.[148] The former provided a theoretical framework for the movement and the latter showcased the cooperative alternatives that were beginning to emerge. With the ambition of connecting and mutually reinforcing these disparate efforts, from 2015 onwards, Scholz began convening annual conferences on platform cooperativism, primarily at The New School in New York City. These conferences brought together platform workers, software developers, labour rights activists, cooperative entrepreneurs, academics, policy makers and (even) the odd CEO and venture capital investor. Over multiple days, the participants discussed practices to resist platform capitalism, presented extant and new instantiations of platform cooperatives, reflected on their legal challenges, explored collaboration between trade unions and cities with these cooperatives, considered options for financing such businesses, speculated on the potential of technologies such as distributed ledgers to foster platform cooperatives, and learned about global efforts to develop supportive policy.[149] Several of these contributions are contained in the edited collection, *Ours to Hack and to Own (2017)*. Scholz and Schneider's individual books, *Uberworked and Underpaid (2016)* and *Everything for Everyone (2018)*, as well as other academic and popular publications, provide more nuanced insight into how the movement is evolving, the challenges these nascent businesses face, and the manner in which they overcome them.

According to Scholz, platform cooperativism seeks to (1) clone or creatively alter the technological heart of the sharing economy and put it to work under a different ownership model, (2) foster solidarity and (3) reframe concepts such as efficiency and innovation for the (financial) benefit of the many, not the few.[150] While focusing primarily on cooperatives created *ex nihilio*, in recent years, the movement has branched out towards calling for the conversion of existing platform companies, such as Twitter,

148 Nathan Schneider, 'Owning Is the New Sharing' (*Shareable*, 21 December 2014) <https://bit.ly/2UUJvLU>; Trebor Scholz, 'Platform Cooperativism vs. the Sharing Economy' (*Medium*, 5 December 2014) <https://bit.ly/3639SkS>. However, as Schneider notes, the Spanish collective Las Indias were the first to recognize platforms as a distinct type of cooperative. *See* Nathan Schneider, 'An Internet of Ownership: Democratic Design for the Online Economy' (2018) 66 The Sociological Review 320, 323.

149 Video recordings of sessions from these conferences are available online. Platform Cooperativism Consortium. Retrieved October 28, 2020, from https://archive.org/details/@platform_coop.

150 Scholz, *Uberworked and Underpaid* (n 53) 174.

into cooperatives and member-owned businesses,[151] and exploring related transfer strategies, including creating a shareholding trust for users and the issuance of crypto-tokens with governance rights.[152] In early 2018, Scholz and the Platform Cooperativism Consortium were awarded a US$1 million grant by Google.org to build a platform co-op development kit, which among other things is designing open-source tools to support platform cooperatives in the United States, Brazil, Australia, Germany and India. This was followed by the establishment of the Institute for the Cooperative Digital Economy in April 2019, dedicated to building knowledge about the democratic ownership and governance of platforms.

2.4.2 Positioning Platform Cooperativism in the Context of Earlier Movements

In their work, Scholz and Schneider have deliberately sought to position platform cooperativism within existing efforts at building alternatives to platform companies and connect the movement to the long-standing tradition of cooperative and employee-owned business as well as earlier social and labour movements, including Occupy Wall Street and Movimiento 15-M in Spain.[153] This stems from an understanding that the maladies of platform capitalism are intimately tied to those of neoliberal capitalism and as such, require structural changes that extend beyond the challenges presented by any one platform company. This historical positioning appeals to the typicality of cooperatives in certain sectors that are predecessors to

151 Danny Spitzberg, 'How the #BuyTwitter Campaign Could Signal a New Co-Op Economy.' (2017) Summer *The Cooperative Business Journal* 12; Iris Wuisman, 'Twitter: Naar Een Multi-Stakeholder Coöperatie En de Commons' in M Bedeuker and others (eds), *De coöperatie anno 2017* (Wolters Kluwer 2018).

152 Morshed Mannan, 'Business Transfer to Users: A Case for Recognizing Subjective Contributions and User Stock Ownership Plans (USOPs)?' (2017); Morshed Mannan, 'Fostering Worker Cooperatives with Blockchain Technology: Lessons from the Colony Project' (2018) 11 Erasmus Law Review 190; Morshed Mannan and Nathan Schneider, 'Exit to Community: Strategies for Multi-Stakeholder Ownership in the Platform Economy' (2021) 5 Georgetown Law Technology Review 1.

153 Stacco Troncoso and Ann Marie Utratel, 'If I Only Had a Heart: A DisCO Manifesto' (Timothy McKeon and Susa Oñate eds, DisCO.coop, Transnational Institute and Guerilla Media Collective, 2019) 39 <https://bit.ly/2UzsPtB>; Scholz, *Uberworked and Underpaid* (n 53) 106. This includes acknowledging the related work of David Bollier, Michel Bauwens, Geert Lovink and other fellow travelers who had long been engaged in a critique of informational and network capitalism and working on alternatives such as (digital) commoning, open cooperativism and organized networks Michel Bauwens and Vasilis Kostakis, 'From the Communism of Capital to Capital for the Commons: Towards an Open Co-Operativism' (2014) 12 tripleC: Communication, Capitalism & Critique. Open Access Journal for a Global Sustainable Information Society 356; David Bollier, *Silent Theft* (Routledge 2003) ch 7; Geert Lovink and Ned Rossiter, 'Dawn of the Organised Networks' [2005] The Fibreculture Journal.

contemporary platforms (e.g., newspaper cooperatives),[154] so as to make platform cooperativism appear to be an organic extension from the past, while also highlighting the tendency of cooperatives to emerge in waves following anti-corporatist protests, as has been the case in the US insurance, dairy, grain, electricity and ethanol industries.[155]

The connection of cooperatives to social movements is unsurprising as such movements have historically been "the producers of new values and goals around which the institutions of society are transformed".[156] While established actors may seek to exert power by foreclosing the options of what is possible and thereby present their agenda as being most attractive,[157] as Graeber points out when discussing the experience of the Occupy movement, once people's political horizons are broadened, a sense of what is possible is changed irrevocably, even if the touchstone movement itself dissipates.[158] As such, these counter-movements can also inspire a new class of entrepreneurship, despite being risky.[159] In Hegelian terms, the appeal of platform cooperativism can be seen as the culmination of a dialectical process by which platform workers (and users/consumers) recognize their subjecthood – their status – as 'bondsmen' and that their lords as being dependent on them.[160] It is only by seeking to rebel against this position, even with considerable risk and sacrifice, that "freedom is won".[161]

However, if considered only as a movement, it becomes difficult to analytically distinguish platform cooperativism from other forms of 'counter power' against platform capitalism. These range from the types of collective action that are within the toolbox of trade unions – representative litigation, protest marches, occupation of platform company headquarters, boycotts – to innovative forms of technological subterfuge, such as application hacking, self-tracking and code obfuscation.[162] While varying in

154 Teresa Nelson and others, 'Emergent Identity Formation and the Co-Operative: Theory Building in Relation to Alternative Organizational Forms' (2016) 28 Entrepreneurship & Regional Development 286, 294.

155 Christophe Boone and Serden Özcan, 'Why Do Cooperatives Emerge in a World Dominated by Corporations? The Diffusion of Cooperatives in the U.S. Bio-Ethanol Industry, 1978–2013' (2013) 57 Academy of Management Journal 990; Marc Schneiberg, 'Movements as Political Conditions for Diffusion: Anti-Corporate Movements and the Spread of Cooperative Forms in American Capitalism': (2013) 34 Organization Studies 653, 659–660.

156 Manuel Castells, *Networks of Outrage and Hope: Social Movements in the Internet Age* (2 edition, Polity 2015) 9.

157 Steven Lukes, *Power: A Radical View* (2nd Edition, Red Globe Press 2005) 28.

158 David Graeber, *The Democracy Project: A History, a Crisis, a Movement* (Penguin UK 2013).

159 Boone and Özcan (n 155) 994.

160 GWF Hegel, *Phenomenology of Spirit* (Oxford University Press 1977) 118.

161 ibid 114.

162 Finn Brunton and Helen Nissenbaum, *Obfuscation: A User's Guide for Privacy and Protest* (1st edn, The MIT Press 2015) 33; Sam Sweeney, 'Uber, Lyft Drivers Manipulate Fares at Reagan National Causing Artificial Price Surges' *WJLA* (16 May 2019) <https://bit.ly/3dyhIqZ>; WeClock, 'About' (*About | WeClock*, 2020) <https://bit.ly/3h6jjq8>.

methods, all of these types of collective action are engaged in a critique of platform capitalism, but they either address specific issues (e.g., wage theft) or are transient in nature. What makes platform cooperativism different is that its focus is not on short-term changes, but instead seeks to aid and promote over the long-term the constellation of actors that are building and operating cooperatives in the platform economy.

2.4.3 Distinguishing Platform Cooperatives from Cooperative-Run Platforms

There have long been worker cooperatives in the tech sector, from developing healthcare software to webhosting to conducting industrial research.[163] The difference now is that (worker) cooperatives not traditionally associated with new technologies are also building their own intermediation tools, including online platforms, for adding value to their members' work. These are described as cooperative-run platforms, since these cooperatives were providing services and acting for the benefit of their members prior to there being any online platform available and a platform is not central for their operations.[164] In other words, they are innovating their process, rather than their core services.[165] Taxi driver cooperatives, such as Cotabo in Bologna and Gescop in Paris, have been in operation since 1967 and 1977 respectively and creative workers' cooperatives, such as Doc Servizi (Italy) and SMart (Belgium) have been serving their members since 1990 and 1998 respectively. All four have crafted responses to the rise of the platform economy for their members. Cotabo and Gesscop have developed their own taxi-hailing app (TaxiClick, AlphaTaxi). DocServizi has an e-commerce platform for its members to market their services and organize their business and SMart has a networking platform for its members.

In the case of the latter two organizations, the tools to facilitate intermediation between members and their clients are not limited to an online matchmaking platform. These include (online) tools for invoice, payroll and tax administration which reduce bureaucratic barriers for e.g., creative workers to find and engage in projects with clients. In differing ways, both Doc Servizi and SMart have sought to extend social security protections to

163 Alma scop, 'About Us' (*Alma*, 2019) <https://bit.ly/360Kgp0>; Andrew Bibby, 'Case Study: Poptel' (*Andrew Bibby | Writer and Journalist*, 2001) <https://bit.ly/3Ac5LRH>; William Foote Whyte and Kathleen King Whyte, *Making Mondragón, The Growth and Dynamics of the Worker Cooperative Complex* (Second Edition, Cornell University Press 2014) 64.

164 Mayo (n 142).

165 Davide Arcidiacono and Ivana Pais, 'Re-Embedding the Economy within Digitalized Foundational Sectors: The Case of Platform Cooperativism' in Filippo Barbera and Ian Reese Jones (eds), *The Foundational Economy and Citizenship: Comparative Perspectives on Civil Repair* (Bristol University Press 2020) 27.

their members which they may otherwise have been excluded from given the intermittent nature of work in the cultural sector – a part of the economy that has long featured gig work. Instead of being self-employed, members of Doc Servizi are part of Italy's third category of worker – para-subordinate workers – who simultaneously retain the capacity to negotiate their own agreements with clients while benefiting from unemployment, sickness, maternity and family benefits which are similar to those of an employee.[166] In Belgium, where SMart originated, in lieu of this third worker category, a different arrangement is made. Self-employed persons find and negotiate with their own clients, with the cooperative taking over the responsibility of ensuring that the client pays invoices. While the contract is being performed, the cooperative hires the freelancer on a short-term contract, thereby giving them access to minimum working conditions, a minimum wage and social security protections.[167] In the case of SMart, this service is not limited to creative workers. At one stage it had a joint agreement with a Deliveroo that allowed it to employ its members that work for Deliveroo on a very short-term basis for a fee of 6.5% of the total invoice.[168] What the examples of DocServizi and SMart highlight is that enhancing wages and social security protections and practicing workplace democracy are not mutually incompatible, even for those engaged in ostensibly low-qualification work (e.g., SMart members who ride for Deliveroo).

In addition, there are cooperatives that have built platforms as an extension of their existing business (e.g., renewable energy, consumer retail) as well as those who provide internet and connectivity services that are essential for platforms to run, such as web hosting and cloud services. Figure 7 provides an illustrative typology of cooperative-run platforms, organized by their types of membership and prominent sectors they've emerged in. Appendix No. 1 provides a more comprehensive, but not exhaustive, overview of the cooperative-run platforms emerging in the platform economy in Europe (including the United Kingdom). This data was initially gathered from the Internet of Ownership directory (the largest crowdsourced directory of cooperatives operating in the platform economy) and supplemented by manual searches in other cooperative databases (e.g., the Cooperatives UK data explorer), as well as the business registers of Austria, Belgium, Denmark, France, the Netherlands, Sweden and the UK, by using the search terms "digital", "platform" and "cooperative" in the national language of each jurisdiction. In addition, Google searches were done using the terms "digital", "platform" and "cooperative" in the national language of the

166 Francesca Martinelli and others, 'Platform Cooperativism in Italy and in Europe' (CIRIEC International 2019) No. 2019/27 9.

167 CECOP, 'All for One: Response of Worker-Owned Cooperatives to Non-Standard Employment' (CECOP 2019) 26.

168 Jan Drahokoupil and Agnieszka Piasna, 'Work in the Platform Economy: Deliveroo Riders in Belgium and the SMart Arrangement' (etui 2019) 2019.01 8.

other EU Member States to find examples that were not available in the aforementioned registries and databases. This data was then cross-checked by sharing the appendix with a wider community of platform cooperative experts with knowledge of the ecosystem. While still being far from complete and acknowledging that some of these cooperatives may have ceased operation, this investigation revealed a greater array of cooperative-run platforms than previously available in any one source.

These cooperatives are complemented by a host of others whose primary economic and governance activity is intermediated by an online platform. It is these organizations that are considered the archetype of a platform cooperative, as the existence of an online platform is central to their operations and business model. They include cooperative alternatives to Deliveroo (e.g., Mensakas and many others under the umbrella of CoopCycle), Airbnb (Fairbnb.coop), Spotify (Resonate), Zoom (Meet.Coop) and Amazon Web Services (e.g., Commons Cloud) and Google Docs (e.g., Collective Tools). Figure 8 provides an illustrative typology of platform cooperatives,[169] organized by their types of membership and prominent economic sectors they've emerged in using the same research method as Figure 7. Appendix No. 2 provides a more comprehensive, but not exhaustive, overview of the platform cooperatives that have emerged in Europe.[170]

169 This is based on the typology developed for this chapter, but with European or global examples: Morshed Mannan and Simon Pek, 'Solidarity in the Sharing Economy: The Role of Platform Cooperatives at the Base of the Pyramid' in Israr Qureshi, Babita Bhatt and Dhirendra Mani Shukla (eds), *Sharing Economy at the Base of the Pyramid: Opportunities and Challenges* (Springer 2021).

170 It is important to note that in other contexts, such as the Global South, additional membership categories may be present, such as women's cooperatives. FairBnB is an example of a workers' cooperative that is currently seeking to transition to a multi-stakeholder cooperative structure that will include local hosts and guests, but potentially other stakeholder categories as well. Thank you to Jonathan Reyes, Co-Founder of FairBnB for this point. *Also see*, ibid; Joël Foramitti, Angelos Varvarousis and Giorgos Kallis, 'Transition within a Transition: How Cooperative Platforms Want to Change the Sharing Economy' (2020) 15 Sustainability Science 1185.

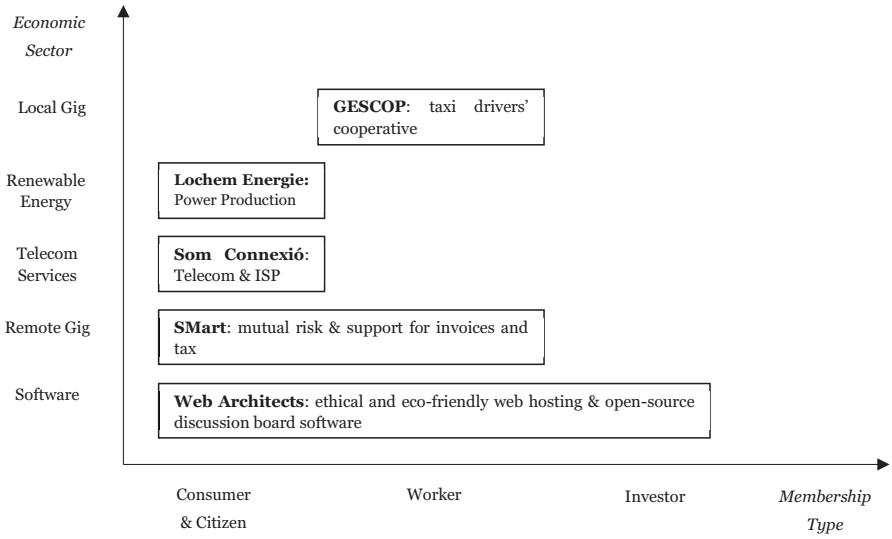

Figure 7: An illustrative typology of cooperative-run platforms

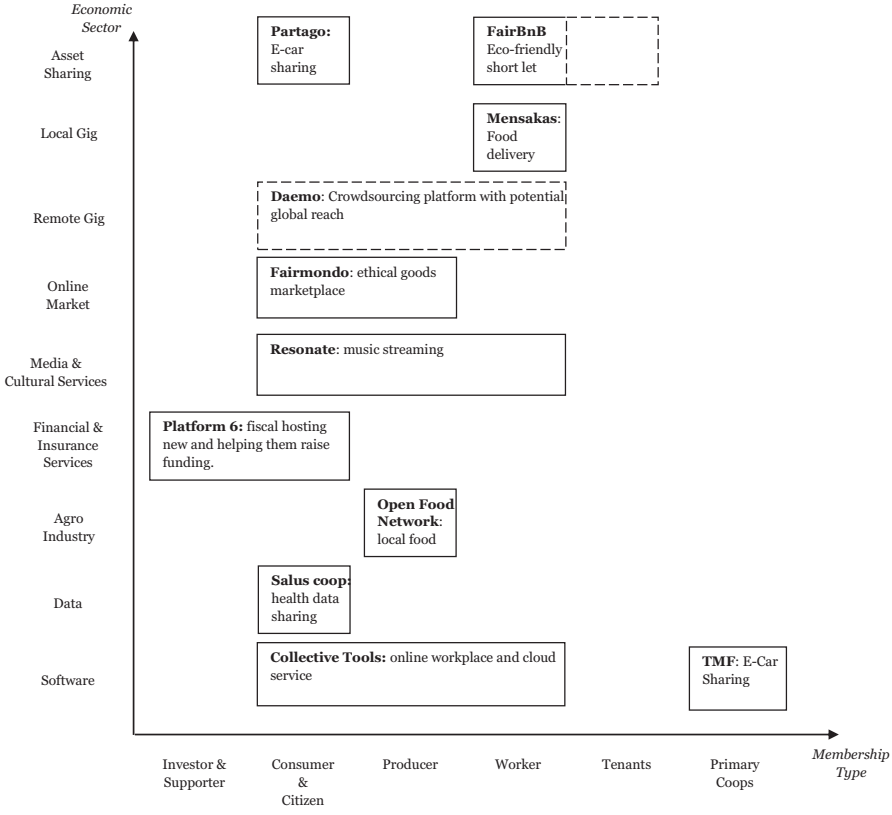

Figure 8: An illustrative typology of platform cooperatives (N.B. The dashed line indicates this platform, or a particular membership category, is not in operation at the time of writing).

Again, while efforts were made to ensure that these platform cooperatives are still operational, it is possible that some of them have ceased operating during the writing of this chapter.

These typologies reveal the broad range of economic activities in which these cooperatives are involved, in terms of industry and in terms of access they provide. Firstly, these cooperatives are present in sectors in which corporate platform competitors have long been present – such as bicycle courier services – as well as those in which they are more marginal, such as care for the Deaf (e.g., Signalise) and health care data management (e.g., Salus.coop). Secondly, while cooperatives such as Som Connexió provide access to the internet, Web Architects provide access to eco-friendly data centres, message boards and webhosting. These, in turn, may be used by cooperatives building their own web services and smartphone applications, whether this is in citizen organizing (e.g., Stadmakers Cöoperatie) or electric car rental (e.g., Partago).

What both platform cooperatives and cooperative-run platforms have in common is an explicit goal to pursue objectives other than profit and to redistribute governance rights. This social orientation can have a number of benefits for members, as shown in the earlier literature on worker cooperatives to which many of these cooperatives have a filial connection. Dufays and colleagues argue that a transition to worker cooperativism permits individuals to reclaim lifeworld resources, such as society, personality and culture. Worker cooperatives that adhere to the cooperative principles can engender trust and build social capital, cultivate new individual and collective identities in settings where workers are often excluded (e.g., boardrooms) as well as preserve local cultures and build a greater capacity to determine how they live.[171] Though platform cooperatives, like other platform businesses, are concerned with scaling out their activities and membership, the difference is they also wish to scale deep (i.e., "changing relationships, cultural values and beliefs, 'hearts and minds'").[172]

Crucially, worker and multi-stakeholder cooperatives can open two streams of income, in terms of a wage/payment according to the work completed, as well as a patronage dividend in proportion to their contributions to a cooperative. Established platform cooperatives, such as the photographers' cooperative Stocksy, have already indicated the possibility of this.[173] Moreover, worker cooperatives have also shown a capacity for protecting employment compared to capital-managed firms.[174]

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171 Dufays and others (n 136) 972–975.

172 Arcidiacono and Pais (n 165) 40, 45.

173 Juliet B Schor, *After the Gig: How the Sharing Economy Got Hijacked and How to Win It Back* (First Edition, University of California Press 2020).

174 Gabriel Burdin and Andrés Dean, 'New Evidence on Wages and Employment in Worker Cooperatives Compared with Capitalist Firms' (2009) 37 Journal of Comparative Economics 517.

In contrast to platform companies, the redistribution of governance rights is done by allowing individuals, and in some cases legal persons, to become members in the cooperative. As indicated in Figures 7 and 8, this is often in the form of worker-, consumer- or producer-membership. These membership classes typically are allowed to vote on a one-member, one-vote basis, unlike the concentration of voting power in private and public platform companies. In cooperatives such as Partago and Web Architects, this is coupled with a class of investor-member who may see a preferred (though capped) return on their investment but have different voting rights from other members.

In some of these cooperatives, members may have voting power only on major governance issues such as the appointment/removal of directors, its dissolution or other issues raised during an annual general assembly. For others, membership can entail a say in day-to-day decisions as well as the design of the application (e.g., Equal Care Coop) and the management and use of member data (e.g., Salus.coop). In the case of social media platform cooperatives (e.g., Chaos.social), this can extend to the co-creation of content moderation policies. It is these platform cooperatives that hue closely to Scholz's 10 principles of platform cooperativism, which includes involving workers and users in co-designing a platform.[175] In short, the idea behind conferring voting power is to address the accountability shortcomings of corporate competitors and improve data management practices as discussed in chapter 2.2. above. The fact that this is possible is due to the new status of being a cooperative member.

The legal concept of membership has been relatively undertheorized,[176] but is key in distinguishing cooperatives from companies. Pönkä argues that it is the personal, patronage-based relationship between cooperatives and its members that is a central distinguishing feature from companies and their shareholders. This, and other salient differences, between the platform companies discussed in section 2.2 and the cooperatives discussed in this section is presented in Table 1.[177] While the description of closely held companies, publicly held companies and cooperatives are stylised, the intent of the table is to show how they differ in terms of ownership structures, financing, transferability of shares, etc.

175 Scholz, *Uberworked and Underpaid* (n 53) 180–185.

176 Ville Pönkä, 'The Legal Nature of Cooperative Membership' (2018) 7 The Journal of Entrepreneurial and Organizational Diversity 39.

177 A similar distinction is drawn in Arcidiacono and Pais (n 165) 45. However, they focused on governance, funding, business model, market type, scale, digital infrastructure, data, users and economic value strategy instead of the categories used in Table 1.

Table 1: Comparison of 'ideal'-type platform companies, before and after IPO, and platform cooperatives

	(Closely Held) Platform Company	**(Publicly Held) Platform Company**	**Platform Cooperative**
Ownership Structure	Founder and Sophisticated Investor	Founder and Public Investors.	Member-Owned
Involvement of *Member*	Capital contribution and knowledge	Capital contribution	Capital contribution and patronage of firm
Sources of Equity Financing	Venture Capital or Private Equity (PE)	Public Subscription of Shares and Secondary Market	Members, Cities, Communities, Other Cooperatives, Value Investors
Withdrawal of Share Capital	Not Withdrawable	Not Withdrawable	Withdrawable in certain cooperatives (e.g., in the UK)
Transferability	Limited Transferability (UK), Free Transferability (NL)	Full and Free Transferability	Non-transferable usually
Forms of Financial Return for Equity Holders	Transfer of Equity/ Sale of Business/ Initial Public Offering	Dividends and transfer of shares	In distributing cooperatives, patronage returns. In non-distributing cooperatives, reinvest surplus.
Control Rights	VC /Founders/ Other Early Shareholders. VC may have additional rights depending on term sheet	Dual or Multi Class Share Structure. Founder(s) have outsized control rights.	One member, one vote as a default
Power to Request Disclosures	Shareholders, Works Councils (where applicable)	Shareholders, Works Councils (where applicable)	Members
Executive Remuneration	Exponential, depending on IPO, sale terms, VC / PE view.	Often tied to the performance of company shares	Capped/ low ratio between top and lowest paid worker
Environment, Social and Governance Concerns	Voluntary (Corporate Social Responsibility) and Sectoral	Same as above, plus requirements of any corporate governance code and listing rules	Concern for Community as part of ICA Cooperative Principle 7.
Education of *Members*	None or Voluntary	None or Voluntary	Expected of Members as part of ICA Cooperative Principle 5.
Cooperation with Other Platforms	None or Voluntary	None or Voluntary	Cooperation with other Cooperatives as part of ICA Cooperative Principle 6.

2.4.4 Applying Role-Set Theory to Platform Cooperatives

In terms of role-set theory, the choice of a cooperative over a company in organizing a platform entails the recognition of a new status for individual users and a distinct role-set, as indicated in Figure 9.

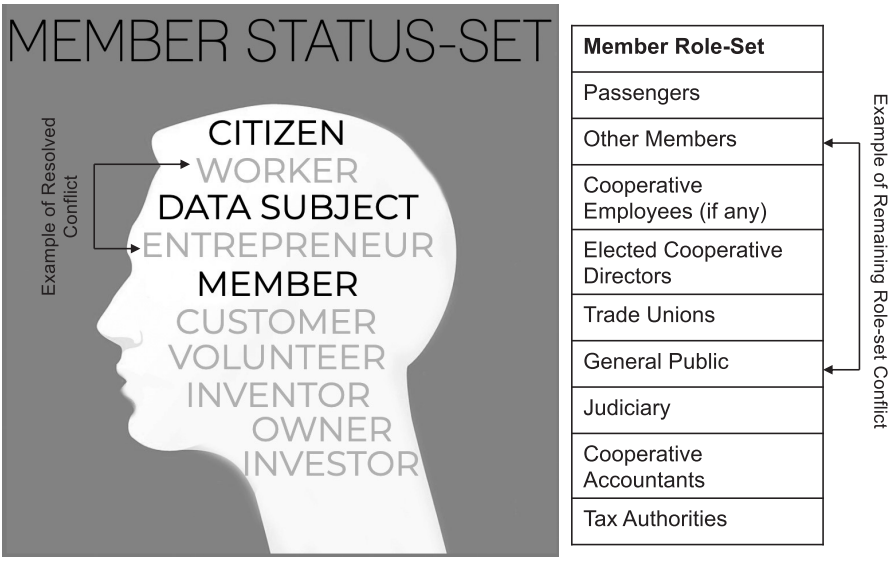

Figure 9: Role conflicts that are mitigated and remaining role-set conflict

By becoming a member of a cooperative, it is expected that role and role-set conflicts encountered by a person in the platform economy would be mitigated. The 'master status' of member helps reconcile previously inconsistent statuses, such as worker and entrepreneur.[178] This is due to the malleability of how a cooperative can be organized and their democratic governance, which at least in principle, gives members more control over their legal employment status (even if this determination still remains fact-specific).[179] The constitutional documents and membership agreement of a cooperative explicitly state what rights and duties of a member are, including any requirements of a member as to work and governance contributions. While each cooperative has to adjust to the conditions of the economic sector they operate in, for setting wages or transaction fees, they seek to do this in the interest of their members. As a consequence, in the case of platform

178 Nelson and others (n 154) 295; Elena Mamouni Limnios and others, 'The Member Wears Four Hats: A Member Identification Framework for Co-Operative Enterprises' (2018) 6 Journal of Co-operative Organization and Management 20; Dufays and others (n 136) 974.

179 Adam Stocker and Sara Stephens, 'Evaluating the Potential of Cooperative Ridesourcing: A Case Study of Arcade City in Austin, Texas' (Sustainable Economies Law Center 2019) Case Study 100–102.

cooperatives such as Taxiapp, taxi driver-members are entrepreneurs, while in cooperatives such as SMart, their members are short-term employees of their cooperatives. Having control over how employment relations are designed in a cooperative allows for a choice between receiving the benefits of employment or, alternatively, foregoing them so as to avoid, for instance, employment-related insurances. In the case of ride-hailing platforms this may be due to drivers being allowed to have the freedom to drive for other platforms, while in cooperatives like Smart, where there is a pooling of mutual risk, this is to allow individuals to act autonomously in their intellectual and creative activities while having a safety net. In other words, theoratically in a cooperative a person's statuses as worker and entrepreneur are subsumed and reconciled by their status as a member.

Even the distinct statuses of worker and consumer would be brought under the 'organizational umbrella' of a cooperative by way of their membership, entailing their equality in at least certain decision-making and financial matters.[180] Certainty about the status one occupies also allows the formation of a group identity with other occupants of the same status who experience similar role-set conflicts. This can be seen with associations for lawyers and librarians and would arguably be seen among cooperative members.[181]

It is anticipated that this certainty of status will prevent conflicting expectations of role-set partners about how an individual performs their status and consequently, lead to fewer role conflicts. For instance, the management of a ride-hailing cooperative as well as its other driver-members will both understand if driver-members meet with other members and voice their concerns to the cooperative, without the former considering this activity to be a form of illegal collusion. In contrast to drivers of a platform company, it will be expected that members will be involved in at least major strategic decisions of a cooperative. Similarly, data access requests about personal driving records will be viewed as requests by a member about their own information or about the business they have ownership rights in, rather than as a data subject seeking personal data from a data controller – which the controller may be reluctant to grant, if it entails divulging a trade secret.[182] As a member, they may expect that such access requests will be handled more expeditiously than in the case of platform companies.[183] Diminishing these conflicts would both improve the material well-being of individuals, such as drivers, and increase stability in the social structure.

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180 Maurie J Cohen, 'Workers – and Consumers – of the World Unite! Opportunities for Hybrid Co-Operativism' in Jonathan Michie, Joseph R Blasi and Carlo Borzaga (eds), *The Oxford Handbook of Mutual, Co-Operative, and Co-Owned Business* (Oxford University Press 2017) 378.

181 Merton (n 26) 116–117; Merton (n 107) 432.

182 Michael 'Six' Silberman and Hannah Johnston, 'Using GDPR to Improve Legal Clarity and Working Conditions on Digital Labour Platforms' (ETUI 2020) Working Paper 05 21.

183 Doorn and Badger (n 77) 1486.

There are, however, limitations to this analysis as members can have heterogeneous preferences,[184] and experience their own role-set conflicts due to the 'role concentration' inherent in the member status. Firstly, they can experience a role-set conflict between being a patron of a cooperative and an investor in its share capital. This relates to cooperatives perennially lacking capital and members allegedly having an underinvestment problem and preferring employment retention (discussed further in chapter 7.2). Secondly, they may be conflicts between (elected) cooperative directors and the remaining members. This relates to the emergence of hierarchy in cooperatives and the need to avoid degeneration. Thirdly, there can be a conflict between an existing member of a cooperative and a worker on probation prior to becoming a member. This refers to the reluctance of existing members to admit new members on the basis that the latter may freeride on the efforts of earlier members, shirk responsibilities and damage the ethos of the cooperative.[185] Fourthly, there can also be a role-set conflict between being the owner of a cooperative committed to the future of the business and being part of a community and serving its interests. The fourth conflict alludes to the disadvantage of maintaining commitments to the community in a manner that can intrinsically motivate members and spurs voluntary participation,[186] while furthering the business's own commercial objectives. This is particularly challenging for platform cooperatives as they are not outside the capitalist system they are against and experience financing challenges even more acutely than their capitalist counterparts.[187] These conflicts concern long-discussed disadvantages of the cooperative form.

That being said, there are options for addressing these shortcomings. The status of member could reconcile the patron and investor roles of membership by diminishing identification with the investor role by not distributing returns based on investment but tying it to patronage.[188] The tensions between the roles of director and voter could be addressed in a number of ways, ranging from modest proposals like short term limits and agile management practices to more ambitious commitments such as the adoption of a role rotation policy. The cooperative could strike a balance between open and voluntary membership and the need for knowing new

184 Julia Höhler and Rainer Kühl, 'Dimensions of Member Heterogeneity in Cooperatives and Their Impact on Organization – a Literature Review' (2018) 89 Annals of Public and Cooperative Economics 697.

185 Elvira Cicognani and others, 'Social Identification and Sense of Community Among Members of a Cooperative Company: The Role of Perceived Organizational Values' (2012) 42 Journal of Applied Social Psychology 1088, 1109.

186 Isabella Hatak, Richard Lang and Dietmar Roessl, 'Trust, Social Capital, and the Coordination of Relationships Between the Members of Cooperatives: A Comparison Between Member-Focused Cooperatives and Third-Party-Focused Cooperatives' (2016) 27 VOLUNTAS: International Journal of Voluntary and Nonprofit Organizations 1218, 1234.

187 Marisol Sandoval, 'Entrepreneurial Activism? Platform Cooperativism Between Subversion and Co-Optation' (2020) 46 Critical Sociology 801.

188 Mamouni Limnios and others (n 178) 23–24.

members by carefully calibrating a probation period that is suitable to the business model of the cooperative. This could vary from membership beginning as soon as someone completes a minimum number of transactions with the cooperative to periodically freezing admissions based on the availability of work. Finally, in seeking to balance commercial and community needs, other classes of stakeholders – such as local citizens and community representatives – could be consulted on important decisions or, if appropriate, extended membership. Several of the aforementioned platform cooperatives have sought to transition from single stakeholder to multi-stakeholder membership with this objective in mind.

2.5 Conclusion

In this chapter, three distinguishing features of platform capitalism were identified. It is characterized by (1) the concentration of corporate power in the hands of a few individuals (particularly in social media and to an extent in the gig economy) and the exploitation of platforms' dominant market position for socially-harmful ends, (2) the reaching and construction of new markets through the collection, processing and use of personal data, and (3) the deliberate creation of role and role-set conflicts with socio-technical and business strategies to further platforms' business model. This third dimension was explored further through an explanation of Robert Merton's role-set theory and its application to the ride-hailing sector to understand the conflicts encountered by drivers. The most prominent example of this is the role conflict between the worker and the entrepreneur statuses and the role-set conflicts encountered by drivers while interacting with the partners of each status. These conflicts are at the heart of many of the legal disputes in the gig economy and a focus on identifying statuses, role-sets and role-set partners can highlight other emerging conflicts, for instance, between being a consumer and a citizen, when the public is mobilized to advocate for corporate-friendly regulations.[189] It also raises the possibility of considering whether a change in status can resolve some of these conflicts. The remainder of the chapter discussed the platform cooperativism movement as an attempt towards such a transition, by enabling persons experiencing the aforementioned conflicts to adopt the new master status of member. Based on the cooperative-run platforms and platform cooperatives that have emerged till date, the possibilities of membership reconciling statuses such as worker and entrepreneur in this new context was weighed. The cooperative management literature gives some grounds for optimism about this, while also flagging some of the problems with role concentration and role-set conflict that cooperative members will also have to overcome.

189 Tzur (n 62) 355.

This opens up the possibility of applying role-set theory in empirical studies, so as to evaluate whether persons joining a platform cooperative experience less role-conflicts and role-set conflicts than when they worked for a platform company. Future research could also look at how this switch affected the economic, social and cultural capitals of the individuals navigating the online 'field'.[190] While this article focused primarily on the gig economy, it would be illuminating to see role-set theory applied to other sectors, such as social media.

Merton's role-set theory has proven to be useful as it allows us to understand how social structures are experienced differently depending on one's status, while also providing an explanation for how an individual may seek to escape the conflicts inherent to this by changing one's status.[191] Coser has sought to extend this framework by adding class analysis, arguing that those belonging to lower strata of society have a more restricted role-set and thereby, have less scope for autonomously articulating their own statuses.[192] Thus, one of the most important reasons for why platform cooperativism merits support is because individuals may struggle to articulate and change their own status autonomously and cooperatives potentially provide a collective action mechanism for individuals to move towards a new status.

190 Barbara Townley, 'Bourdieu and Organizational Theory' in Paul Adler and others (eds), *The Oxford Handbook of Sociology, Social Theory, and Organization Studies* (Oxford University Press 2014).

191 Roberts and von Below (n 26) 117.

192 Rose Laub Coser, 'The Complexity of Roles as a Seedbed of Individual Autonomy' in Lewis A Coser (ed), *The Idea of Social Structure: Papers in Honor of Robert K. Merton* (Harcourt Brace Jovanovich 1975) 244.

3 Enhancing Platform Worker Participation in Platform Companies: A 3-stage Delphi Study[193]

Abstract

Through an anonymous, mediated dialogue among stakeholders who have special knowledge about local gig work platforms in the Netherlands, this Delphi study built consensus about different decisions and forms of participation that platform workers should be informed, consulted or involved in. The panellists reached consensus that: new modes of communication are needed between platform workers and platform companies, workers need to be informed and consulted about a greater variety of work-related and strategic changes than they are at present (e.g., the design of an application's user interface) and there is diffidence about such workers financially participating in platform companies.

3.1 Introduction

There is, at present, a growing interest in improving the workplace protections and rights of workers who use online platforms to find on-demand jobs ('platform workers').[194] An important dimension of this is enabling platform workers to collectively organize and have greater say at their workplace,[195] as they are a class of 'non-standard' workers who have long had less of a voice in decision-making compared to workers on standard employment contracts.[196] Proposals in the sociological and legal literature have ranged from extending them the right to collectively bargain to encouraging the formation of cooperatively-run platforms in which platform workers would have both decision-making and financial participation rights.[197]

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193 A draft of this chapter was presented at the 6th Regulating for Decent Work Conference, 8-10 July 2019, ILO Geneva.

194 Valerio De Stefano, 'The Rise of the "Just-in-Time Workforce": On-Demand Work, Crowdwork and Labour Protection in the "Gig Economy"' (International Labour Office 2016) 71.

195 Hannah Johnston and Chris Land-Kazlauskas, 'Organizing On-Demand: Representation, Voice, and Collective Bargaining in the Gig Economy' (ILO 2018) Working paper No. 94.

196 Mick Marchington and Andrew R Timming, *Participation Across Organizational Boundaries*, vol 1 (Adrian Wilkinson and others eds, Oxford University Press 2010).

197 Bronwen Morgan and Declan Kuch, 'Radical Transactionalism: Legal Consciousness, Diverse Economies, and the Sharing Economy' (2015) 42 Journal of Law and Society 556, 560–561; Ruth Dukes and Wolfgang Streeck, 'Labour Constitutions and Occupational Communities: Social Norms and Legal Norms at Work' (2020) 47 Journal of Law and Society 612, 632.

Such proposals respectively advance the possibility of there being distributions of ownership and control other than what neoliberal economic imaginaries deem possible,[198] and explain the extent to which "occupational communities" can contribute to the conditions that make collective representation for non-standard workers feasible,[199] but what this chapter contributes is a more nuanced understanding of the decisions that are most important for platform workers to have a say in. To contribute to this line of inquiry, this chapter presents a Delphi study that was undertaken in the Netherlands to explore the question: "What are the views of platform stakeholders on the availability of workplace voice and financial participation for platform workers, and should such rights be extended to them in the future"? The sector of the platform economy that is studied in this chapter is specifically local gig work, given the centrality of such workers in leading protests for improved working conditions and the search for alternative platforms.

The second section of the chapter provides a concise review of the literature on platform labour, focusing on the emergence of a nascent interest in workplace voice and collective organization, particularly among local gig workers. The third section elaborates on the rationale for choosing the Delphi method by providing a summary of the methods employed by other empirical studies to investigate platform work and worker representation in the platform economy. Based on this earlier research, this section also develops two hypotheses concerning the type of decisions that local gig workers will wish to be involved in an 'ideal' platform economy and the appropriate institutional mechanisms for realizing this involvement. The fourth section explains what the Delphi methodology involves and how it is distinct from other qualitative research methods before proceeding to detail how this method was implemented in this research project. Section five categorizes and presents the main results of the 3-stage Delphi study and section six discusses the implications of these findings on the two hypotheses and on potential legal reform. Section seven concludes by considering the limitations of this study and raises certain issues that merit further research.

3.2 Platform Worker Organization and Representation: A Review

The platform economy is "a set of initiatives that intermediate decentralized exchanges among peers through digital platforms", which together with the access economy and the community-based economy comprise the sharing economy.[200] The 'gig economy' is a sub-category of the platform economy

198 Morgan and Kuch (n 197) 558.

199 Dukes and Streeck (n 197) 626–627.

200 Aurélien Acquier, Thibault Daudigeos and Jonatan Pinkse, 'Promises and Paradoxes of the Sharing Economy: An Organizing Framework' (2017) 125 Technological Forecasting and Social Change 1, 5.

as it involves the "exchange of labour for money between individuals or companies via digital platforms that actively facilitate matching between providers and consumers",[201] usually on a short-term basis. Platform work is typically in the form of remote gig work via platforms such as Upwork and Fiverr or local gig work via platforms such as Uber and Deliveroo, with the distinction being that the latter requires physical presence of the worker when providing a service to a client and some form of manual labour.[202] The gig economy, as a whole, is a global phenomenon involving roughly 70 million workers,[203] with the Oxford Internet Institute's Online Labour Index indicating that citizens in countries as varied as Bangladesh, Kenya, the United Kingdom and Germany are active in remote gig work (e.g. writing, translation and data entry).[204] While present globally, the degree of participation in the gig economy differs considerably across countries: 4.4% of adults in Britain have worked in this sector in 2017[205] as compared to 0.4% in the Netherlands.[206]

In broad terms, the appeal of platform labour for workers is the flexibility and freedom that it ostensibly affords, the reduced search and information costs for being matched with high-quality clients through a given platform's application and the lower costs of operating a one-person business. For clients, the platform labor market provides access to an abundant pool of labor with a wide variety of skills, which is made available at a competitive price.[207] Along with developing and maintaining the underlying technology which makes such online labor markets possible, the promotion and performance of this win-win relationship [208] is a core component of the archetypical for-profit platform business model. The extent to which these benefits are realized – and the type of collective representation sought by these workers – understandably differs according to the type of platform work performed. As Jansen finds, highly-skilled, voluntarily

201 Katriina Lepanjuuri, Robert Wishart and Peter Cornick, 'The Characteristics of Those in the Gig Economy' (Department for Business, Energy & Industrial Strategy 2018) 12.

202 Ursula Huws, Neil H Spencer and Simon Joyce, 'Crowd Work in Europe: Preliminary Results from a Survey in the UK, Sweden, Germany, Austria and the Netherlands' (Foundation for European Progressive Studies 2016) 2.

203 Richard Heeks, 'Decent Work and the Digital Gig Economy: A Developing Country Perspective on Employment Impacts and Standards in Online Outsourcing, Crowdwork, Etc' (Centre for Development Informatics, Global Development Institute, SEED 2017) Working Paper Paper No. 71 5.

204 Otto Kässi, Martin Hadley and Vili Lehdonvirta, 'Online Labour Index: Measuring the Online Gig Economy for Policy and Research' <https://bit.ly/3dydNdH>.

205 Lepanjuuri, Wishart and Cornick (n 201) 13.

206 Bas ter Weel and others, 'De opkomst en groei van de kluseconomie in Nederland' (SEO Economisch Onderzoek 2018) 2018–30 27 <http://www.seo.nl/uploads/media/2018-30_De_opkomst_en_groei_van_de_kluseconomie_in_Nederland.pdf>.

207 Greetje F Corporaal and Vili Lehdonvirta, 'Platform Sourcing: How Fortune 500 Firms Are Adopting Online Freelancing Platforms' (Oxford Internet Institute 2017) 10 <https://bit.ly/3hE1Ft9>; Jeremias Prassl, *Humans as a Service: The Promise and Perils of Work in the Gig Economy* (Oxford University Press 2018) 7.

208 Lizzie Richardson, 'Performing the Sharing Economy' (2015) 67 Geoforum 121, 127.

self-employed persons who engage in relatively well-remunerated project work may be more interested in joining organizations that specifically represent 'solo entrepreneurs', such as FNV Zelfstandigen and PZO-ZZP, so as to improve their tax position and obtain mortgages, pensions and health, liability and disability insurances on favourable terms, than a traditional trade union.[209] This study, in contrast, is concerned with local gig work, and in particular includes stakeholders of the on-demand food delivery and domestic cleaning industry. These two industries share important characteristics, as well as some notable differences, which is likely to drive interest in different forms of collective organization.

In contrast to earlier modes of food delivery, platform companies that are involved in this sector typically began as a smartphone application, instead of a website, and on-board an array of low-to-high-end restaurants.[210] Along with offering users the option to select, order and pay for meals, the application also intermediates the delivery of the meal by matching couriers with consumers, with the couriers picking up meals from restaurants for the consumers (usually) using their own equipment.[211] The platform company has to dynamically coordinate the customers, restaurants and couriers, as the demand of customers for meals, the couriers for work, and the availability and proximity of all three actors are determinative of the platform's success.[212] The consequence of the platform altering demand and supply is usually the burdening of couriers with greater risk (e.g., the risk of a late cancellation, variable availability of work and earnings, costs of maintenance), the whittling away at the working terms and conditions that are initially used to lure workers to the platform, and the fanning of conflict between couriers for desirable time-slots.[213] The importance of workplace protections for this sector is apparent from research that records the common grievances of platform workers about shifts from an hourly wage system to a piecework system, unexplained dismissals, poor working conditions, health and safety risks, the granting of privileges based on performance, and the collaboration of platform companies and restaurants with immigration authorities.[214]

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209 Giedo Jansen, 'Solo Self-Employment and Membership of Interest Organizations in the Netherlands: Economic, Social, and Political Determinants' (2020) 41 Economic and Industrial Democracy 512, 515–516.

210 Trappmann and colleagues have found 19 companies to be active in this sector across 95 countries. Vera Trappmann and others, 'Global Labour Unrest on Platforms: The Case of Food Delivery Workers' (Friedrich Ebert Foundation 2020) 4.

211 Lizzie Richardson, 'Platforms, Markets, and Contingent Calculation: The Flexible Arrangement of the Delivered Meal' (2020) 52 Antipode 619, 622.

212 ibid 626–627.

213 ibid 629–630.

214 Callum Cant, *Riding for Deliveroo: Resistance in the New Economy* (1 edition, Polity 2019) vii; Arianna Tassinari and Vincenzo Maccarrone, 'Riders on the Storm: Workplace Solidarity among Gig Economy Couriers in Italy and the UK' (2020) 34 Work, Employment and Society 35; Trappmann and others (n 210) 9.

Similarly, domestic cleaning platforms enable customers to find and select pre-vetted cleaners through a smartphone application. In general terms, these platforms display the ratings, reviews and cleaning experience of each worker, allowing customers to choose between them and/or have the platform make a match based on their location and availability. The workers then accept the assignment and visit a location (e.g., a home) at a predesignated time with cleaning material that they personally supply or is provided by the consumer. The rate that workers are paid is either set by themselves or is based on an evaluation of their work and jobs completed over a certain period. The primary way in which these workers are controlled are through punitive fines.[215] While the conditions of on-demand domestic cleaners have been relatively understudied compared to food delivery workers, the research that has been conducted shows that they are aggrieved by the high transaction fees levied by these platforms, the propensity of platforms to regularly delete job-related information, a price-setting system that compels cleaners to accept low pay and the imposition of costly financial sanctions for 'slow' responses or advance cancellations.[216] Just as on-demand couriers are often migrants, on-demand cleaners are typically immigrants and "working-class men and women of color".[217] The precarity of their position is heightened by the isolated nature of their work and lack of options to meet other cleaners in person, depriving them of the opportunity to build connections based on their shared condition. These individualized working conditions may make collective organization appear out of reach, unless unions or other organizations take steps to recruit and support these workers to build solidaristic ties.[218]

The characteristics of both forms of local gig work undermine their marketplace bargaining power as the nature of the work is considered to need simple, easily substitutable skills. A potentially large pool of persons are available to fill these positions.[219] This leaves such categories of workers particularly vulnerable to workplace abuses, as exit from the platform is

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215 Niels van Doorn, 'Stepping Stone or Dead End? The Ambiguities of Platform-Mediated Domestic Work under Conditions of Austerity. Comparative Landscapes of Austerity and the Gig Economy: New York and Berlin' in Donna Baines and Ian Cunningham (eds), *Working in the Context of Austerity: Challenges and Struggles* (Bristol University Press 2021) 54, 56.

216 Flanagan (n 82) 71; van Doorn (n 215).

217 van Doorn (n 215) 53, 56; Niels van Doorn, 'Platform Labor: On the Gendered and Racialized Exploitation of Low-Income Service Work in the "on-Demand" Economy' (2017) 20 Information, Communication & Society 898, 907.

218 Susanne Pernicka, 'Organizing the Self-Employed: Theoretical Considerations and Empirical Findings' (2006) 12 European Journal of Industrial Relations 125, 132; Kurt Vandaele and Janine Leschke, 'Following the "Organising Model" of British Unions? Organising Non-Standard Workers in Germany and the Netherlands' (ETUI 2010) Working Paper 2010.02 16.

219 Kurt Vandaele, 'Collective Resistance and Organizational Creativity amongst Europe's Platform Workers: A New Power in the Labour Movement?' in J Haidar and M Keune (eds), *Work and Labour Relations in Global Platform Capitalism* (Edward Elgar 2021).

difficult due to the existence of few meaningful alternatives, while simultaneously there is a lack of institutionalized channels of workplace voice.[220] Instead of genuine flexibility and decent wages, this 'radical responsibilization' is more likely to contribute to overwork, burnout and hypertension.[221] These tangible pressures have been the cause of protests, acts of micro-resistance by informal bodies of workers (e.g., rank-and-file, 'indie' unions) and efforts to 'game' platform algorithms.[222] However, as Heiland observes, platform companies suffer from 'deaf-ear syndrome', where they either refuse to negotiate with workers or see (informal) bodies of workers as being illegitimate bargaining partners.[223] As a consequence, those who rely on local gig work platforms as a primary source of income and experience difficulties due to algorithmic control have shown a renewed interest in the role that formal mechanisms of collective organization (e.g., trade unions, online forums for workers, worker centers) and alternative business entities (e.g., worker cooperatives) can have in improving working conditions.[224]

'Genuine' self-employed persons have typically been excluded from collective bargaining, with Denmark, France, Germany, Italy and Spain permitting the inclusion of such persons in collective agreements in only limited situations.[225] While this has not entirely excluded the activity of traditional trade unions – with unions in Italy, France, Spain and Belgium creating online tools to inform and advise platform workers about their rights[226] – it does present challenges for bringing these workers within the fold of collective agreements.

Collective organizing may not only arise from a desire to improve working terms and conditions or increase feelings of engagement,[227] but may also stem from a wish to have greater voice in "important organizational choices".[228] The literature on workplace democracy provides numerous examples of the epistemic benefits that can be gained by providing workers with a say on a greater range of organizational issues,

220 Stanislas Richard, 'Democratic Equilibria: Albert Hirschman and Workplace Democracy' (2020) 78 Review of Social Economy 286, 300.

221 Peter Fleming, 'The Human Capital Hoax: Work, Debt and Insecurity in the Era of Uberization' (2017) 38 Organization Studies 691, 700.

222 Ngai Keung Chan and Lee Humphreys, 'Mediatization of Social Space and the Case of Uber Drivers' (2018) 6 Media and Communication 29, 35.

223 Heiland (n 4) 27.

224 Christina Purcell and Paul Brook, 'At Least I'm My Own Boss! Explaining Consent, Coercion and Resistance in Platform Work' [2020] Work, Employment and Society 0950017020952661, 11; Tassinari and Maccarrone (n 214) 38.

225 Isabelle Daugareilh, 'France' in Isabelle Daugareilh, Christophe Degryse and Philippe Pochet (eds), *The Platform Economy and Social Law: Key Issues in Comparative Perspective* (ETUI 2019) 57; DG IPOL, 'The Social Protection of Workers in the Platform Economy' (European Parliament 2017) 79–80.

226 Vandaele (n 219).

227 Fleming (n 221) 703.

228 George Cheney, 'Democracy in the Workplace: Theory and Practice from the Perspective of Communication' (1995) 23 Journal of Applied Communication Research 167, 171.

such as the aggregation of knowledge from across a firm, inclusion of diverse perspectives without fear of repercussions, and reflexive and rapid responses to issues that are critical to a company.[229]

As will be demonstrated in the subsequent section in the context of the research method used for this paper, while there has been considerable empirical research on the demographics and motivations of platform workers, relatively less is known about their feelings about the future, particularly about the role that platform workers should have in making important organizational choices.

3.3 Rationale for Research Methodology

This section provides an overview of the main qualitative research methods that have been used till date to study remote and local platform work and the rationale behind their use. This contributes to explaining why a Delphi study is a useful method for exploring the future of the platform labour market.

Surveys have been a common method for developing a clearer picture of who the participants in the platform economy are: identifying the number of people involved (relative to the working age population), their demographics, the working arrangements used, their motivations and overall experiences.[230] Certain studies supplement surveys with focus groups and in-depth individual interviews.[231]

Other researchers have used ethnographic approaches involving interviews with, and observations of, platform workers to show the lived experience of platform work,[232] the job quality of remote work,[233]

229 Felix Gerlsbeck and Lisa Herzog, 'The Epistemic Potentials of Workplace Democracy' (2020) 78 Review of Social Economy 307.

230 Huws, Spencer and Joyce (n 202) 19–21; Lawrence F Katz and Alan B Krueger, 'The Rise and Nature of Alternative Work Arrangements in the United States, 1995-2015' (National Bureau of Economic Research 2016) Working Paper 22667; Lepanjuuri, Wishart and Cornick (n 201) 9–10; Annarosa Pesole and others, 'Platform Workers in Europe Evidence from the COLLEEM Survey' (Publications Office of the European Union 2018) EUR - Scientific and Technical Research Reports.

231 Maria Aleksynska, Anastasia Bastrakova and Natalia Kharchenko, 'Work on Digital Labour Platforms in Ukraine: Issues and Policy Perspectives' (International Labour Organization 2018) Report 11.

232 Neha Gupta and others, 'Turk-Life in India', *Proceedings of the 18th International Conference on Supporting Group Work* (ACM 2014) 2–3; Alexandrea J Ravenelle, 'Sharing Economy Workers: Selling, Not Sharing' (2017) 10 Cambridge Journal of Regions, Economy and Society 281, 285.

233 Alex J Wood and others, 'Good Gig, Bad Gig: Autonomy and Algorithmic Control in the Global Gig Economy' (2019) 33 Work, Employment and Society 56, 62–63.

and nascent forms of platform worker organization and solidarity.[234] For Waters and Woodcock, this involved a workers' inquiry method in which academics were paired with workers who would share their accounts and revise the documents that resulted.[235] Gregory and Maldonado invited couriers to install a free GPS-tracking application on their smartphones to help visualize their movement across the city of Edinburgh and to help couriers develop a better understanding of how their data is collected and processed by on-demand food delivery platforms such as Deliveroo.[236] This anonymized, aggregated data also revealed how couriers demonstrate their superior knowledge of their city, through the way they navigated the terrain and pushed back on routes suggested by the platform's routing algorithm, so as to deliver orders safely and expeditiously.[237]

Understandably, as the internet is central to the operation of online platforms and provide the means by which platform users can communicate, it is also a vibrant source of information on platform work. To understand the feelings and responses of platform workers towards their work and their 'community', researchers have systematically read, and coded posts made on online forums so as to distinguish themes emerging in that space.[238]

3.3.1 Forecasting by Platform Workers about the Future of Platform Work

Some studies have asked platform workers about their views on their working conditions and how they imagine their work will evolve in the future. Professor Schor and her collaborators have conducted in-depth interviews of sharing platform participants in the Northeast USA to gauge their subjective views of platforms and the 'moral meanings' and logics they attach to engaging in the sharing economy (for instance, constructing an alternative to neoliberal markets). This first involved a round of open coding to establish descriptive categories (e.g., reason a participant began using the platform) and secondly a round of theoretical coding according to the rationale used (e.g., rejecting neoliberalism), so as to understand what

234 Lilly C Irani and M Six Silberman, 'Turkopticon: Interrupting Worker Invisibility in Amazon Mechanical Turk', *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems* (ACM 2013) 611; Alex Wood and Vili Lehdonvirta, 'Platform Labour and Structured Antagonism: Understanding the Origins of Protest in the Gig Economy', *Oxford Internet Institute Platform Economy Seminar Series* (Oxford Internet Institute 2019) 9–11.

235 Facility Waters and Jamie Woodcock, 'Far From Seamless: A Workers' Inquiry at Deliveroo' [2017] *Viewpoint Magazine* <https://bit.ly/3dxi7dk>.

236 Karen Gregory and Miguel Paredes Maldonado, 'Delivering Edinburgh: Uncovering the Digital Geography of Platform Labour in the City' (2020) 23 Information, Communication & Society 1187, 1191.

237 ibid 1195.

238 Chan and Humphreys (n 222) 32–33; David Martin and others, 'Being a Turker', *Proceedings of the 17th ACM Conference on Computer Supported Cooperative Work & Social Computing* (ACM 2014) 225–226.

people want from their economic activities".[239] In a recent study by Wood and Lehdonvirta, they identified recurring themes in their interviews with dozens of remote gig workers in New York City, London, Los Angeles, San Francisco and Manila, which can be seen as factors that lead to 'structured antagonism' towards labour platforms. Among the factors identified were the lack of channels for platform workers to voice grievances about their work or their reputation on the platform.[240] Several of their interviewees also expressed an interest in some form of collective organization, despite the fragmented nature of the platform's workforce and the relatively high degree of autonomy enjoyed by the platform workers. In the words of one of their interviewees residing in the UK:

> "I think it would be more useful to have some sort of other ways of communicating with these companies because… they are so important to so many people making a living, and that's only going to… grow… Like a conference where you can go and… speak to a board… Or people to represent us as a group, so that we can have some sort of protection and representation…".[241]

The method for collective organization that the interviewees expressed an interest in was a freelancers' trade union, that would be able to represent their collective interest on issues such as fairer payment terms and collaboration among freelancers (p. 25).[242] The need for a common class consciousness and a transnational trade union has also been echoed by other researchers.[243] In the absence of these formal channels for worker voice, platform workers – whether remote or local – have primarily been limited to mobilizing and venting their grievances through 'log-off' protests, wildcat strikes, formation of rank-and-file unions, lawsuits, online petitions and posts on online forums.[244] As Scott has shown, these forms of voice under domination necessitate the use of "elementary techniques of

239 Connor J Fitzmaurice and others, 'Domesticating the Market: Moral Exchange and the Sharing Economy' (2020) 18 Socio-Economic Review 81, 86.

240 Wood and Lehdonvirta (n 234) 18, 20, 22–23.

241 ibid 24.

242 ibid 25.

243 Mark Graham, Isis Hjorth and Vili Lehdonvirta, 'Digital Labour and Development: Impacts of Global Digital Labour Platforms and the Gig Economy on Worker Livelihoods' (2017) 23 Transfer: European Review of Labour and Research 135, 155; Gemma Newlands, Christoph Lutz and Christian Fieseler, 'Power in the Sharing Economy' (2017) EU H2020 Research Project Ps2Share: Participation, Privacy, and Power in the Sharing Economy ID 2960938 12–13 <https://papers.ssrn.com/abstract=2960938> accessed 31 May 2019.

244 Simon Joyce and others, 'A Global Struggle: Worker Protest in the Platform Economy' (ETUI 2020) Policy Brief 3; Trappmann and others (n 210) 9; UNI Global Union, 'Success for Deliveroo Riders in the Netherlands as Strike Action Forces Investigation' (*UNI Global Union*, 9 February 2018) <https://bit.ly/3dwyWoH>.

disguise" to avoid retaliation, from hiding faces behind masks to anonymizing identifying information online.[245]

Beyond unionization, in jurisdictions which have a long-established culture of workplace representation, there have been efforts towards establishing works councils,[246] which would have a consultative role with management with respect to workplace conditions and personnel matters (including platform worker redundancies).[247] This has been seen in Vienna and Cologne with the formation of works councils of Foodora couriers in 2017, followed by the creation of further councils in other German cities.[248] The information, consultation and co-determination rights that these works councils are granted enable them to challenge new working practices, such as the privileging of couriers based on their work performance.[249] There has even been an appointment of a (former) food delivery courier to the supervisory board of the platform company Delivery Hero.[250] This interest in extended workplace voice and representation has been complemented by the emergence and growth of the platform cooperative movement,[251] which seeks to foster the creation of platform enterprises that operate in accordance with the International Co-operative Alliance's Statement on the Cooperative Identity and its 7 Cooperative Principles. As explained in chapter 2, cooperative governance, decision-making power is not solely tied to the input of financial capital. Cooperative members, including workers, can have a say and a vote in a wide range of corporate and operational decisions depending on how the cooperative is structured. Typically, if the cooperative prospers, the member may receive a return based on their patronage, thereby opening up a second source of income in addition to a wage.[252]

The empirical studies referred to above stop short of asking what decision-making and financial rights gig workers wish for. This is important as there are clearly several forms of workplace voice that can be directed to achieve an objective such as drawing attention to poor working conditions or having a say in how working terms are changed. These studies also do

245 James C Scott, *Arts of Resistance: Hidden Transcripts* (Yale University Press 1990) 138; Heiland (n 4) 31; Johnston and Land-Kazlauskas (n 195) 14.

246 Rebecca Gumbrell-McCormick and Richard Hyman, 'Works Councils: The European Model of Industrial Democracy?' in Adrian Wilkinson and others (eds), *The Oxford Handbook of Participation in Organizations* (Oxford University Press 2010) 286; Joel Rogers and Wolfgang Streeck, 'The Study of Works Councils: Concepts and Problems' in Joel Rogers and Wolfgang Streeck (eds), *Works Councils: Consultation, Representation and Cooperation in Industrial Relations* (The University of Chicago Press 1995) 6.

247 Johnston and Land-Kazlauskas (n 195) 28–29.

248 Vandaele (n 219).

249 Heiland (n 4) 31–32.

250 Delivery Hero, 'Q3 Financial Report (2018)' (Delivery Hero 2018) 26; Barbara Woolsey, 'David vs. Goliath: Delivery Hero Court Case a Litmus Test for Startup Governance' *Handelsblatt Today* (12 April 2018) <https://bit.ly/3hmeEPY>.

251 Scholz, *Uberworked and Underpaid* (n 53) 110.

252 International Co-operative Alliance, *Guidance Notes to the Co-Operative Principles* (International Co-operative Alliance 2015).

not explore the views of other relevant stakeholders (i.e., platform representatives, trade unions, employers' associations, regular consumers, policy makers, lawyers) on the decision-making and financial participation rights gig workers should have. For there to be legal and policy reform in support of platform cooperatives, or indeed other forms of workplace representation for platform workers, a more nuanced understanding of the views of all of these platform stakeholders is necessary as they have a constitutive role in securing these rights for gig workers.

While the moment is ripe to consider new configurations of decision-making and financial participation rights for platform workers, legitimate questions can be asked about the extent to which any of these financial participation and governance mechanisms fit the realities of platform work, and if the emphasis should instead be on a baseline of workplace protections, while ensuring a maximum degree of flexibility to work. Based on the review of the literature on local gig work and platform worker representation in sections two and three, the first hypothesis of this chapter is that:

> Stakeholders will prioritize collective bargaining, information and consultation rights over decision-making rights in, for example, the design and governance of platforms (H1).

As a corollary to this, the channels of workplace voice that are therefore likely to be attractive to this category of platform workers are those that are traditionally associated with the securing of such rights, such as trade unions, and rank-and-file bodies that enjoy such information and consultation rights, such as works councils. In EU Member States such as the Netherlands, with a history of coordinated industrial relations and a small worker cooperative movement,[253] the second hypothesis of this paper is that:

> Forming platform cooperatives will present a less attractive option for stakeholders than expanding the role of trade unions and works councils (H2).

To my knowledge, these hypotheses have not been investigated until now and the Delphi method provides a promising means for testing these hypotheses and forecasting which categories of decision-making rights and mechanisms of workplace voice are desirable for these types of platform workers.[254]

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253 NCR, 'Typen Coöperaties' (2021) <https://www.cooperatie.nl/informatie/typen-cooperaties/> accessed 1 June 2021; Erik Nijhof and Annette van den Berg, 'The Dutch "Polder Model": The Prosperity of a Consultative Economy in an Era of Neoliberalism – A Paradox?' in Keetie E Sluyterman (ed), *Varieties of Capitalism and Business History: The Dutch Case* (1st edn, Routledge 2015).

254 Calzada has also used the Delphi method to study platform cooperatives, but their research specifically focused on approaching five experts on platform and data cooperatives concerning the "trends of digital co-operativism". Igor Calzada, 'Platform and Data Co-Operatives amidst European Pandemic Citizenship' (2020) 12 Sustainability 8309, 12.

3.4 The Delphi Method

The Delphi method is an appropriate technique for such an investigation as it has been deployed over the past 70 years to study future scenarios and scenarios in which there is scarce data. It has been used in over 2,600 academic papers between 1975 and 2017, primarily in the fields of healthcare, education and business, and it appears to be growing in popularity in recent years.[255] Researchers have identified the Delphi method as being particularly appropriate for community-based research,[256] specifically for studies in labour law,[257] cooperatives,[258] and platform-mediated collaborative consumption[259] as the use of online surveys and an anonymous process allows participants to be from different geographic areas, levels of power and vulnerability. This anonymity allows participants to openly express themselves, without being concerned that a particular comment will be traced back to them. At the same time, it enables groups of participants to constructively converse with each other on sensitive questions such as information & consultation rights, without the flaring of tensions. This is why the Delphi method is preferable to other high-performing group decision analysis methods such as focus groups, nominal group technique and social judgment analysis, which do not provide such anonymity.[260] It is also particularly appropriate in situations where knowledge is imperfect as the process helps in achieving group consensus on certain issues and also identifies entrenched divergences of opinion with respect to others.[261] This is particularly useful when trying to craft policy proposals, a purpose for which Delphi studies have been used frequently in the past.[262]

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255 Andrew Flostrand, Leyland Pitt and Shannon Bridson, 'The Delphi Technique in Forecasting– A 42-Year Bibliographic Analysis (1975–2017)' (2020) 150 Technological Forecasting and Social Change 119773.

256 Shane R Brady, 'The Delphi Method' in Leonard A Jason and David S Glenwick (eds), *Handbook of Methodological Approaches to Community-Based Research: Qualitative, Quantitative, and Mixed Methods* (Oxford University Press 2016) 62.

257 Alysia Blackham, 'Using the Delphi Method to Advance Legal Reform: A New Method for Empirical Labour Law Research?' in Amy Ludlow and Alysia Blackham (eds), *New frontiers in empirical labour law research* (Hart Publishing 2015) 140.

258 Vanessa Campos-Climent, Rafael Chaves-Ávila and Andreea Apetrei, 'Delphi Method Applied to Horticultural Cooperatives' (2012) 50 Management Decision 1266, 1267.

259 Stuart J Barnes and Jan Mattsson, 'Understanding Current and Future Issues in Collaborative Consumption: A Four-Stage Delphi Study' (2016) 104 Technological Forecasting and Social Change 200.

260 Chitu Okoli and Suzanne D Pawlowski, 'The Delphi Method as a Research Tool: An Example, Design Considerations and Applications' (2004) 42 Information & Management 15, 18.

261 Erik van de Linde and Patrick van der Duin, 'The Delphi Method as Early Warning: Linking Global Societal Trends to Future Radicalization and Terrorism in The Netherlands' (2011) 78 Technological Forecasting and Social Change 1557, 1562.

262 Jon Strand and others, 'Using the Delphi Method to Value Protection of the Amazon Rainforest' (2017) 131 Ecological Economics 475.

Delphi studies typically have a sample of 10-20 participants, where 'gatekeepers' may be used to identify persons who have specific knowledge or expertise. While Delphi studies can have a homogenous group of experts, following Hussler et al., this study has opted for heterogeneity as it allows for a greater diversity of responses in the first round and consequently require participants with technical expertise (i.e., in law, in platform business models, workers' rights etc.) to prepare additional arguments for justifying their responses.[263] This can help address concerns about some participants giving self-serving responses and there being a lack of inclusivity when making policy choices. As a consequence, this study has eschewed the use of the term 'expert'[264] in favour of a pre-defined knowledge criteria and/or demonstrated experience of the subject. While having differing frames of reference for platform work, the views of all these groups were given equal weight.

The focus of the Delphi study was on the local gig working economy in the Netherlands. Potential participants were identified by the author, based on his own familiarity with the platform ecosystem in the Netherlands and the involvement of these persons in workshops and conferences on the subject. Platform workers, by being directly involved in the production process, have developed an in-depth knowledge of how the firm functions and their own working conditions, which gives them a useful perspective on long-term strategic decisions, even if others are better equipped at positing solutions.[265] In addition to platform workers themselves, mainstream unions, as well as riders who were part of indie unions were considered to be particularly important participants to involve as they have been at the forefront of disputes to improve the working conditions and representation of platform workers.[266] Platform company representatives, as well as employers' associations, policy makers involved in labour law reform and lawyers who represent both platform workers and platform companies were also added as they will have an important say in any future reform with respect to worker voice. The consumer category was identified on the basis of the frequency with which they use local gig work platforms, with the threshold being set at a minimum of 5 transactions in the past 12 months. Exploring the consumers' perspective was seen to be important as consumers may be caught between their own personal interest (e.g., for low

263 Caroline Hussler, Paul Muller and Patrick Rondé, 'Is Diversity in Delphi Panelist Groups Useful? Evidence from a French Forecasting Exercise on the Future of Nuclear Energy' (2011) 78 Technological Forecasting and Social Change 1642, 1651; van de Linde and van der Duin (n 261) 1560.

264 Esmé G Trevelyan and Prof Nicola Robinson, 'Delphi Methodology in Health Research: How to Do It?' (2015) 7 European Journal of Integrative Medicine 423, 425.

265 John Dewey, *The Public and Its Problems: An Essay in Political Inquiry* (Gateway Books 1946) 207; Gerlsbeck and Herzog (n 229) 325.

266 Joyce and others (n 244) 5.

costs) and that of platform workers (e.g., higher pay), with reform in this space requiring consumers to empathize with the workers' cause.[267]

There are usually three rounds of data collection in a Delphi study, starting with an initial questionnaire, followed by a second round in which the participants rank the relative importance of issues identified in the first round and provide feedback on the response of others, concluded by a third round where the researcher tries to find whether there is consensus about certain outstanding issues or if dissensus remains.[268] During the course of the study, it is anticipated that there will be an initial diversity of views but there will be a gradual shift in these views, with those who are less 'expert' moving closer to the views held by experts who are nearer the 'truth' (whatever that may be in a given research context).[269]

Approximately 30 potential participants were emailed to enquire whether they would be willing to participate in a Delphi research project on platform labour. This was followed up with phone calls to the offices of the participants to confirm their participation.

3.4.1 Round 1

Initially, 16 stakeholders expressed a willingness to participate in the Delphi study, as indicated in Table 2. An email was sent to the respondents to set out the timeframe of the Delphi study and when the first round of surveys would be distributed via the Qualtrics software. As the Delphi process is anonymous, the only identifying information they provided at the start of Round 1 was a confirmation that they are resident in the Netherlands and a self-identification of a role they occupy in the platform economy.

Table 2

Stakeholder Background	Number
Platform Worker (Local Gig Work)	3
Platform Company Representative	2
Regular Consumers	4
Lawyer	2
Trade Union Official	2
Employers' Association Representative	2
Policy Maker	1

267 J Healy and A Pekarek, 'Work and Wages in the Gig Economy: Can There Be a High Road?' in A Wilkinson and M Barry (eds), *The Future of Work and Employment* (Edward Elgar 2020); Steven Henry Lopez, 'Workers, Managers, and Customers: Triangles of Power in Work Communities' (2010) 37 Work and Occupations 251, 255, 257.

268 Brady (n 256) 62–63; Master Mushonga, Thankom G Arun and Nyankomo W Marwa, 'Drivers, Inhibitors and the Future of Co-Operative Financial Institutions: A Delphi Study on South African Perspective' (2018) 133 Technological Forecasting and Social Change 254, 258.

269 Fergus Bolger and George Wright, 'Improving the Delphi Process: Lessons from Social Psychological Research' (2011) 78 Technological Forecasting and Social Change 1500, 1503, 1506–1507.

The survey they had to complete was in Dutch and in English and had been previously tested with two senior colleagues to check for clarity.

With respect to worker participation, the first survey contained a combination of 3 open-ended questions and 6 closed-ended questions, so as to ensure a focused discussion. To develop an appreciation of the existing 'voice' options, one set of questions concerned the sufficiency of existing channels of communication between a platform and a platform worker. These questions sought to understand whether platform stakeholders were of the view that these channels of communication were sufficient for platform workers to express their views, on issues ranging from the improvement of their workflows to the governance and commercial activities of the platform. It also sought responses on how such communication could be improved. This is based on earlier studies that have found platform workers to be frustrated with the lack or poor quality of response from platforms when issues were communicated to them.[270] This reflection on communication options also helped reveal whether there are opportunities for platform workers to virtually interact with each other so as to overcome their spatial dispersion and build digital solidarity.[271] Previous research with ride-hailing drivers show that frequent virtual interactions have been "significantly associated with greater interest in collective representation", including unionization.[272]

Subsequent questions in the survey enquired whether gig workers should be entitled to financial participation in the profits of the platform company and asked respondents to indicate if any or all of ten governance and financial participation options were important, on a 5-level Likert scale ranging from very unimportant (1) to very important (5) (see options in Table 3 below). These options originated from the literature discussed above and represent options that could be implemented in an 'ideal' platform economy (i.e., irrespective of the current state of the law). If the respondent indicated that several options were very important or important, they also had to rank which of these topics were most important in their view in relation to others. To better understand the categories of decisions platforms workers should be involved in, according to platform stakeholders, 12 operational and strategic decisions (see Figure 11) were presented for respondents to indicate whether a "platform company, a platform worker, both groups or neither" should participate in making them. Within the EU, there is already a "rich palette" of information and consultation rights with respect to decisions such as health and safety[273] and

270 Michael David Maffie, 'The Role of Digital Communities in Organizing Gig Workers' (2020) 59 Industrial Relations: A Journal of Economy and Society 123.

271 Tassinari and Maccarrone (n 214) 40.

272 Maffie (n 270) 125.

273 Council Directive 89/391/EEC of 12 June 1989 on the introduction of measures to encourage improvements in the safety and health of workers at work [1989] OJ L 183, art 11.

transfers of undertakings,[274] but the intention here was to see whether there is an interest in co-determination of these decisions as well as an interest in becoming involved in a greater ranger of decisions, such as policies concerning the collection and management of personal data and the design of the application's graphical user interface. [275] The issue of application design and transparency of data collection and use has gained significance due to the opacity of platforms' internal systems in handling incoming orders, allocating work, rating workers, managing performance, refusing payments and closing accounts.[276] While the General Data Protection Regulation[277] can be used to improve the transparency and reliability of ratings, receive an explanation for an account has been suspended,[278] and demand human intervention in a fully-automated rating system,[279] this falls short of general information and consultation rights concerning these procedural matters. The final closed questions sought to unpack which of nine factors the participants viewed as being most significant for determining whether gig workers have a right to workplace voice and/or financial participation (see factors listed in Table 5). This question used a 5-level Likert scale ranging from very insignificant (1) to very significant (5). The respondents could also rank which of the factors they deemed to be most significant.

3.4.2 Rounds 2 & 3

The second survey built on the responses of the platform stakeholders from the first round regarding communication options, financial participation and governance participation. To facilitate virtuous opinion change and (potentially) consensus on certain issues, the 11 closed questions and statements in the second round indicated how participant groups responded to a particular question from the first round, in addition to the percentage of overall participants that responded in a similar manner or held the same view.

The purpose of the third survey was to see if consensus could be reached on points where views continued to be strongly divided, among the participants as a whole or among particular group of participants. By rearticulating some of these issues as nine statements which the participants

274 Council Directive 2001/23/EC of 12 March 2001 on the approximation of the laws of the Member States relating to the safeguarding of employees' rights in the event of transfers of undertakings, businesses or parts of undertakings or businesses [2001] OJ L 082, art 7.

275 ETUI, 'One Step Forward, Two Steps Back? Taking Stock of Social Dialogue and Workers' Participation', *Benchmarking Working Europe 2017* (ETUI 2017) 55.

276 Silberman and Johnston (n 182) 5; Tassinari and Maccarrone (n 214) 44.

277 Council Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation) [2016] OJ L 119 ['GDPR'].

278 ibid, arts. 15-16.

279 Silberman and Johnston (n 182) 7.

could agree or disagree with, individual participants were compelled to take a stance – which would either establish a consensus or confirm that consensus on the topic was not possible. The survey was concluded with two, final open-ended questions on what their views were on the potential and possibilities of alternative corporate structures such as platform cooperatives and whether they foresaw such changes materializing in the future. The 'neutral' option was deliberately removed from 'follow-up' questions in both rounds as it would require the respondents to think more carefully about a non-neutral stance and as neutrality is not useful for survey analysis.[280]

To encourage stakeholders to respond, individual follow-up emails were sent, reminding them of the importance of each of their contributions. While the level of attrition in Delphi studies are generally low, given that the participants commit in advance to completing the surveys over a set timeframe, it is not unusual for it to take place given the length of time over which the surveys are sent out.[281] Figure 10 shows this process flow of the Delphi study.

Round 1 (#16 Participants) 8 February 2019	• 3 open-ended questions and 6 closed-ended questions. Responses to closed-ended questions could be explained. • The few items that had consensus (>60% support, <1 IQR) were omitted from round 2.
Round 2 (#15 Participants) 18 March 2019	• Participants were asked to give 1-4 and 1-5 Likert scale ratings for options, statements and hypothetical scenarios generated and elaborated from open-ended participant responses. • Participants were asked to strongly disagree, disagree, agree or strongly agree with statements that had divergent views in round 1. • The few items that had consensus (>60% support, <1 IQR) were omitted from round 3.
Round 3 (#13 Participants) 19 April 2019	• Participants were asked to agree or disagree with the remaining statements that had divergent view from round 2. • Participants were allowed to forecast changes to the financial and governance rights of platform workers.

Figure 10: Process Flow of the Delphi Study

280 Blackham (n 257) 150.

281 Richard T Carson, Michael B Conaway and Ståle Navrud, 'Preliminary Valuation of a Cultural Heritage Site of Global Significance: A Delphi Contingent Valuation Study' in Ilde Rizzo and Anna Mignosa (eds), *Handbook on the Economics of Cultural Heritage* (Edward Elgar Publishing 2013) 601; van de Linde and van der Duin (n 261) 1560.

3.5 Results

3.5.1 Round 1

At the end of the first round, the responses to open-ended questions were coded to identify themes. This was done to both identify commonly shared views among respondents as well as opinions that were presented by only a minority of respondents but merited consideration by the entire group in a subsequent round. This would present respondents the opportunity to reflect on issues with policy implications they had not considered previously. The answers to the closed-ended questions were categorized according to response, which allowed the identification of issues on which there was already a consensus and those where there was not and thereby required further investigation in round 2. For the questions where the responses could be "yes, no, or I don't know", this identification was done based on whether a response was made by more than 60% of respondents. If not, the issue was to be considered for the second round. For the responses to questions that used a Likert-scale, the median score was also calculated to identify the median response as well as the inter-quartile range (IQR) to measure the dispersion of the median response, as had been previously done with earlier Delphi studies.[282] It was held that group consensus had been reached when the inter-quartile score was 1 or less and/or greater than 60% of responses fell within two related categories on the Likert scale (e.g. very important and important or insignificant and very insignificant).[283]

3.5.1.1 Communication

On the "yes, no, I don't know" question whether the existing channels of digital and face-to-face communication were sufficient in raising certain issues, views were largely divided as summarized in Table 3.

282 Stanislav Birko, Edward S Dove and Vural Özdemir, 'Evaluation of Nine Consensus Indices in Delphi Foresight Research and Their Dependency on Delphi Survey Characteristics: A Simulation Study and Debate on Delphi Design and Interpretation' (2015) 10 PLOS ONE e0135162, 4.

283 Cheng-Fei Lee and Brian King, 'A Determination of Destination Competitiveness for Taiwan's Hot Springs Tourism Sector Using the Delphi Technique' (2009) 15 Journal of Vacation Marketing 243, 250.

Table 3

Are these channels of communication channels sufficient for:	No (%age of respondents)	I Don't Know	Yes	Consensus (>60%)
Communicating comments and suggestions on how to improve workflow for tasks and projects?	37.5%	12.5%	50%	No
Communicating grievances and complaints?	25%	18.75%	56.25%	No
Communicating information regarding the operational activities of the platform company?	0%	12.5%	87.5%	Yes
Considering the views of platform workers regarding the commercial activities of the platform?	37.5%	31.25%	31.25%	No
Receiving input from platform workers about the governance of the platform (e.g., board appointments)?	50%	25%	25%	No

Consensus on the existing channels of communication being sufficient for communicating information regarding the activities of the platform company meant that the issue was excluded from consideration in later rounds while the others were not. In their comments, the participants added that face to face communication, the hosting of meetings between platform workers and consumers, the creation of a works council for platform workers, as well as periodic 'live' digital chats and Q&As involving the platform company, platform workers and consumers would improve communication.

3.5.1.2 Workplace Engagement and Financial Participation

The next set of questions concerned identifying the workplace engagement mechanisms and financial participation options that the stakeholders believe are important for platform workers. As indicated by Table 4, the only form of engagement on which there was a strong consensus was the importance of platform workers being informed about significant work-related changes by the platform company, such as developments that could affect the availability and organization of work. The issue of collective bargaining, individual and collective consultation of platform workers concerning such changes was also considered to be important or very important by the majority of respondents, but the IQR indicates that there were respondents who strongly disagreed. While the panel of respondents were ambivalent about the platform workers being involved in corporate governance decisions or individually consulted about strategic decisions made by the platform company (e.g., the launch of a new service), a large percentage of the panel were of the view that collective consultation on strategic decisions was important or very important. Questions on corporate governance involvement were therefore included in round 2.

In comparison to worker voice, the results indicate that the median view was ambivalence regarding financial participation and the overwhelming majority of participants did not think it was important or very important to receive equity or profit-share in the platform company's profits. Ordinarily, this would be sufficient to demonstrate there was broad agreement that financial participation is of negligible importance but the fact that the median response was neutral invited further exploration in subsequent rounds.

Table 4

Importance of these elements of worker engagement for platform workers	**Important or Very Important (%age of respondents)**	**Mdn[284]**	**IQR**
Information regarding important work-related changes by the Platform Company (e.g., developments that could affect the availability and organisation of work)	87.5%	4.5	1
Information regarding strategic changes by the Platform Company (e.g., new services/products, new office locations)	37.59%	3	2
Participation in corporate governance decisions (e.g., appointment and removal of directors)	37.59%	3	2
Individual consultation regarding important work-related changes by the Platform Company (e.g., developments that could affect the availability and organisation of work)	68.75%	4	2
Individual consultation regarding strategic changes by the Platform Company (e.g., new services/products, new office locations)	37.5%	3	2
Collective consultation regarding important work-related changes by the Platform Company (e.g., developments that could affect the availability and organisation of work)	68.75%	4	2
Collective consultation regarding strategic changes by the Platform Company (e.g., new services/products, new office locations)	56.25%	4	2
Participation in collective bargaining (e.g., industry wages, working conditions)	68.75%	4	2
Receiving equity shares in the Platform Company as part of the workers' remuneration	18.75%	3	1
Profit-sharing in the Platform Company's Profits as part of the workers' remuneration	25%	3	1.5

Following up on the mechanisms for workplace voice, the next set of questions concerned the corporate decisions that a platform worker should be involved in, if an ideal agreement between platform company and platform worker were reached.

284 Scale from 1=very unimportant to 5=very important. 3 is a neutral response.

As indicated in Figure 11, the majority of the panel felt that both the platform company and platform workers should be involved in decisions pertaining to the creation of a health and safety policy and decisions to close or sell the company. On decisions regarding the issuance of new shares and the pay-out of dividends, the majority of panellists were of the view that only the platform company should be involved in making this decision. There was also a strong consensus that only the platform company should be involved in making decisions concerning the creation of a subsidiary. On issues such as the collaborative design of the platform applications' user interface, as well as the remaining decisions, there was no consensus on who should be involved in making them and were incorporated into round 2.

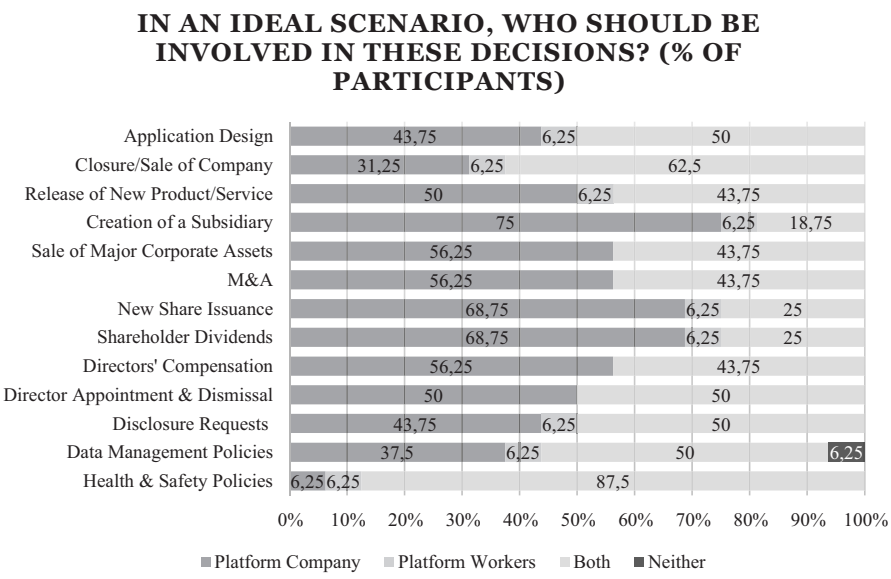

Figure 11: Participation in Operational and Strategic Decisions of a Platform Company

The final set of questions in round 1 concerned the respondents' perceptions regarding barriers to financial participation and workplace voice, which is summarized in Table 5. As with the mechanisms for workplace voice, the median response was that several of these factors were significant, however the IQR for all of the factors was above 1 which indicates that there was a strong divergence of opinion. That being said, the platform business model, the legal framework, the legal structure of the platform and knowledge about the availability of workplace engagement and financial participation options were flagged as being particularly significant in determining whether workplace voice and financial participation exists. The divergence of opinion led to these items being included in the subsequent rounds.

Table 5

Significance of barriers to workplace voice and financial participation	Significant or Very Significant (%age of respondents)	Mdn (1 = very insignificant, 5 = very significant)	IQR
The Platform Business Model	56.25%	4	2
The Legal Structure of the Platform	56.25%	4	2
The Legal Framework in which the Platform Company Operates	68.75%	4	2.5
Knowledge about the Voice and Financial Participation Options Available to Platform Workers	50%	3.5	2
Interest of Platform Workers in Workplace Voice and/ or Financial Participation	43.75%	4	1.5
Support from Platform Workers from Organisations that are supposed to represent the interests of Platform Workers as a whole	68.75%	4	1.5
Existence of Organisations to represent the interests of Platform Workers as a Whole	56.25%	4	1.5
Interest and/or Will on the Part of Policy Makers on this Issue	62.5%	4	2
Current Job Market/Economic Climate	56.25%	4	1.5

3.5.2 Round 2

The questions and statements presented in the second round gave the panel an opportunity to reflect on the answers of their fellow panellists regarding issues on which there was no consensus. To observe whether this prompted a change in views, an indication was given of how the total panel had responded or how certain stakeholder groups had responded. In addition to this, the survey allowed the respondents to reflect on, for the first time, a series of statements made by other respondents during the course of the first round.

Both four-level and five-level Likert scales were used during this round, with the former not offering a 'neutral' option. A four-level scale between strong disagreement (1) and strong agreement (4) was used for questions concerning issues that had been addressed in a previous round, but had resulted in ambiguous answers, as well as statements made by participants in round 1. Table 6 summarizes these results.

Table 6

	Strongly Agree or Agree (%age of respondents)	**Mdn**[285]	**IQR**
Sufficiency of Existing Communication Options with Platform Company			
For communicating comments and suggestions on improving the workflow of tasks.	46.67%	2	1
For considering the views of platform workers regarding the commercial activities of the platform.	53.33%	3	1
Participant statements concerning worker voice and financial participation			
"The issue is not with communicating with platform companies, it is getting them to listen and follow-up on what is communicated to them"	73.33%	3	1
"Platform Workers are not interested in workplace voice and/or financial participation in platform companies"	40%	2	1
A lack of knowledge of workplace voice and financial participation in platform companies discourages the use of such options by platform workers.	80%	3	0
In an ideal scenario, platform companies and platform workers should both be involved in decisions to release a new product or service.	53.33%	3	1
"Profit Sharing sounds like a fun idea, but it only becomes relevant when proper pay and insurance are ensured for platform workers"	80%	3	0
"Platform companies rely on network effects to generate revenue. Platform companies should extend financial participation schemes to platform workers for their hard work and their direct contribution to this network effect".	46.67%	2	1
Panel's collective view on the external factors that are most significant for determining whether platform workers have the right to workplace voice or financial participation			
1. The Platform Business Model 2. The Legal Framework in which the Platform Company Operates 3. The Legal Structure of the Platform 4. Knowledge about the Workplace Voice and Financial Participation Options Available to Platform Workers.	66.67%	3	1
Involving both Platform Company and Workers in the Design of the Application's GUI			
Social media	46.67%	2	2
Open forums/wikis	46.67%	2	1
Live chats	53.33%	3	1
Email	53.33%	3	1
In-app feedback	73.33%	3	2
Face-to-face meetings	60%	3	2

285 Mdn: 1=strongly disagree, 2=disagree, 3=agree, 4=strongly agree.

After removing the neutral option, the panel's position on a number of these issues became clearer. While there was mild disagreement or mild agreement about the sufficiency of existing options for communicating different issues, there was strong agreement that the main concern is getting platforms to take follow-up actions. Notably, there was strong agreement that there was a lack of knowledge about options for platform workers' voice and financial participation, which discouraged the demand for such options, and there was disagreement with the idea that platform workers are not interested in voice or financial participation. There was also an acknowledgment that the platform business model and the legal framework in which these companies operate were key in determining whether such rights to voice or financial participation exist. One such issue is the design of a platform's user interface, with the panel agreeing that both the company and workers should be involved in this decision, through in-app feedback, face-to-face meetings, email and live digital chats. However, there continued to be a dispersion of views on which method of involvement in this decision is best and an ambivalence about the normative desirability of financial participation, particularly in comparison to more immediate concerns such as proper pay and insurance. These, along with remaining ambivalent responses on certain corporate decisions, were included in round 3.

Table 7 presents the panel's suggestions for generally improving communication between a local gig work company, platform workers and consumers, as well as their responses to two hypothetical scenarios about the involvement of platform workers in strategic corporate decisions. The use of a 5-level Likert scales allowed for a neutral response in this round. The scenarios were introduced to explore the panel's responses to worker involvement in corporate governance in round 1.

There was a consensus that a periodic live digital chat that involve the platform, workers and consumers would be important for improving communication. There was a dispersion of responses concerning the importance of establishing a works council, but the median response was that it was important, and 60% respondents considered it to be important or very important. The median response for the other options was a neutral one and there was no clear consensus. With respect to decisions that typically fall within the remit of a corporate board, there is an unambiguous view that platform workers be informed about the launch of a new service and, to a lesser extent, be informed and consulted about the appointment of a new director. However, there was ambivalence about stronger forms of co-determination.

Table 7

		Very Important or Important (%age of respondents)	Mdn[286]	IQR
Panel Suggestions to Improve Communication between Platform Company, Platform Workers and Consumers				
Face to Face Communication		46.67%	3	1
Meetings of Platform Workers with Consumers		26.67%	3	2
Creation of a Works Council		60%	4	2
Periodic, Live Digital Chat and Q&A between Company, Workers and Consumers		73.33%	4	1
Platform Worker Involvement in Corporate Governance				
	Type of Worker Involvement			
Platform XYZ decides to launch a new service targeted at public bodies, so as to expand their user base from individual customers to corporate clients (e.g., delivering food for the workers in a municipality office…or cleaning public buildings. Irrespective of factual employment status with respect to the platform, please rate your impression on the importance of:	Informed about this Decision	73.33%	4	1
	Consulted about this Decision	40%	3	1
	Co-determination of this Decision	50%	3	2
Platform XYZ is incorporated and headquartered in the Netherlands. The company is considering an appointment of a new Director to its Management Board. Irrespective of factual employment status with respect to the platform, please rate your impression on the importance of:	Informed about this Decision	46.67%	4	2
	Consulted about this Decision	53.33%	4	2
	Co-determination of this Decision	26.67%	3	2

As indicated in Table 8, with respect to financial participation, the median response towards platform workers having the opportunity to buy shares in the platform, receiving a bonus based on company performance, or being included in a 'broad-based share ownership plan' was neutral. While the median score for the performance bonus and deferred savings plans options was 4, indicating a higher degree of approval of such forms of financial participation, neither option met the 60% threshold. As with Round 1, this meant that there continued to be ambiguity about perceptions of financial participation in platform companies.

286 Scale from 1=not at all important to 5=very important. 3 is a neutral response.

Table 8

	Strongly Agree or Agree (%age of respondents)	Mdn[287]	IQR
Elaborated Suggestions on Financial Participation Options for Platform Workers			
Share-Purchase Plan for Loyal Platform Workers	46.67%	3	2
Performance Bonuses	53.33%	4	1
Bonuses based on Company Performance	40%	3	2
Contributions to a Deferred Savings Plan for Loyal Platform Workers	53.33%	4	2
Broad-Based Share Ownership Plan	40%	3	2

3.5.3 Round 3

The objective of the final survey was two-fold. First, to explore how the panel would respond to statements that had received ambiguous responses in earlier rounds, if presented with a set of rearticulated, concise statements and binary options (agree/disagree). This required respondents to reflect on and take a stance on issues that they may have previously avoided as a 'neutral' choice was available. As the options were binary, consensus was determined by the response which was given by >60% of respondents. Table 9 summarises the statements on which there was consensus and those on which there was not. While the panel clearly felt that platform workers should be extended greater information and consultation rights on matters that might directly affect their work, such as the launch of a new service or the financial performance of the company, there continued to be ambivalence or outright antipathy towards financial participation or platform workers being granted a say in decisions that are typically within the purview of a board of directors.

The study concluded with open-ended questions about alternative corporate structures in the platform economy and the prospects for changes in the financial and governance participation of platform workers, which is discussed along with the results in the next section.

287 Mdn: 1=strongly disagree, 2=disagree, 3=neutral, 4=agree, 5=strongly agree.

Table 9

	Consensus	No Consensus
Face to Face Communication between platform workers and platform companies will improve communication between these two groups.	76.9% agreement	
Meetings between Platform Workers and Consumers will not improve communication between these two groups.	69.2% agreement	
Both Platform Workers and Shareholders of Platform Companies should receive (detailed) annual accounts and annual reports from the Platform Company.	61.5% agreement	
Platform companies are not obliged, legally or ethically, to extend financial participation schemes to platform workers. It is a purely discretionary decision by the company.	76.9% agreement	
Platform workers should be allowed to buy Shares in Platform Companies after demonstrating commitment to the Platform for a certain period of time.		46.15% agreed, 53.85% disagreed.
Platform workers should receive bonuses based on the financial performance of the Platform Company they work for.	61.5% agreement	
Platform workers should have access to a Broad-Based Share Ownership Plan, set up by the Platform Company.	61.5% disagreement	
It is more important for platform workers to be consulted about, for example, the launch of a new service than being involved in making this decision.	84.6% agreement	
Is not important for platform workers to be involved in the appointment of a new Director to the Management Board of a Platform Company.		53.85% disagreed and 46.15% agreed.

3.6 Discussion

In section 3.3, a brief overview was given of the empirical studies in which a nascent wish for representation and participation was expressed by platform workers. The objective of this Delphi study was to gain deeper insight into how workers and other stakeholders envisioned such engagement will take place and the decisions in which platform workers should take part in within an 'ideal' relationship. The surveys did not require making shared predictions about when certain forms of workplace voice will become available to platform workers but instead, by laying bare the many roles and decisions in which platform workers can potentially be engaged in, it sought to develop a more granular understanding of how workplace voice and financial participation will develop and should develop. As such, both consensus and dissensus among participants is illuminating.

By asking the panellists to consider the existing means of communication between a platform worker and a platform, in conjunction with the workplace voice rights that the panellists view as being important for platform workers, the inadequacy of the former to secure the latter came into sharp relief. As one platform worker commented, while the current forms of communication are adequate for 'simple problems', they are insufficient for more complex problems such as occupational disability, for which face-to-face communication is needed. As the responses in round 2 indicate, getting platforms to follow-up on issues communicated to them also presents a challenge.

While there was a consensus that the existing means of communication were adequate for being informed about a platform launching new activities, it became apparent that a formalised collective bargaining and consultation dimension (whether individually or collectively) were missing. This is evident from the support for the creation of works councils among 60% of participants and the consensus support for platform workers being consulted rather than simply being informed. The importance of consultation was emphasized with regard to work-related decisions during the first round but, after being presented a fictitious scenario indicating a possible strategic decision, there was strong consensus that platform workers should be consulted about certain strategic changes as well. For such a view to be held by a panel in the Netherlands is perhaps unsurprising. While collective bargaining and works council formation has only been a small feature of global platform worker protests over the past five years, these demands have primarily been concentrated in Europe.[288]

An illuminating example of an interest in consultation was the panel's views on whether platform workers should be involved in decisions concerning the design of a platform's user interface. In the first round, half of the panel were of the view that platform workers should work together with platform companies in this design. While this elicited diverging views, it was decided to explore this topic further as earlier research among on-demand food couriers found that the platform company did not promptly or sufficiently inform them about changes to the application.[289] Also, in the platform cooperative space in particular, there is an interest in the question of how users, including workers, can collaborate in the design of technologies – drawing inspiration from practices in the open-source software community.[290] This question was included in round 2 to explore how such input could be given. The options were derived from their own open-ended responses in round 1 on how communication with the platform could be improved, as well as channels used by open-source communities

288 Joyce and others (n 244) 4; Trappmann and others (n 210) 7.

289 Heiland (n 4) 28.

290 Eric von Hippel, *Democratizing Innovation* (The MIT Press 2006); Trebor Scholz, 'Platform Cooperativism: Challenging the Corporate Sharing Economy' (Rosa Luxembourg Stiftung, New York Office 2016) 23.

to give feedback. In-app feedback and face to face meetings were considered to be two particularly relevant mechanisms for giving feedback. While a lack of consensus on the modes of feedback continued in the second round, these answers indicate that there is some support for platform workers being involved in these decisions.

Notably, in round 3, 84.6% of the panel agreed that consultation regarding a strategic decision is more important than being involved in making a decision. This would indicate that the stakeholders of the platform, including platform workers themselves, would be reluctant to see platform workers be part of corporate governance at a higher level, especially if they are already consulted about matters that directly relate to their work. A possible explanation for this may be the realization of the amount of time and labour that would be involved in such collective decision-making processes, detracting from the flexibility and autonomy which makes local gig work appealing.[291] This realization may have been prompted, at least to an extent, by the successive survey rounds which made explicit the range of organizational choices platform workers may be involved in if, for example, they were to be appointed to a platform company's board of directors.

There was also diffidence towards the idea of platform workers being extended equity participation in platform companies. While a weak consensus was reached in the third round that platform workers should be given cash bonuses on the basis of company performance, other forms of profit sharing and equity participation either did not achieve consensus or there was a consensus against their use (e.g., broad-based share ownership plans). The secondary importance of financial participation is illustrated by the comments of the participants, that profit sharing has less priority than improved pay and insurance. This corresponds with the earlier research of Kaarsemaker and Poutsma which found that unions and other workers' organisations did not wish for wages to be affected or substituted by share contributions.[292] The consensus view was that platform companies are not ethically or legally obliged to extend financial participation to platform workers. The question of priorities is an important one, as the responsibility for securing health and accident insurances typically fall on the worker and the need for higher earnings is more immediate than the promise of future dividends.[293]

At the same time, share programs for loyal platform workers is a likely means for extending financial participation in the near future. The food delivery company DoorDash, for instance, is among a group of platform

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291 Mirela Ivanova and others, 'The App as a Boss? Control and Autonomy in Application-Based Management.', *Arbeit | Grenze | Fluss - Work in Progress interdisziplinärer Arbeitsforschung Nr. 2* (Viadrina B/Orders in Motion 2018) 18.

292 Eric Kaarsemaker and Erik Poutsma, 'Aandelenbezit van werknemers en de Nederlandse arbeidsverhoudingen' (2016) 32 Tijdschrift voor Arbeidsvraagstukken 198, 205, 207.

293 Marion Schmid-Drüner, 'The Situation of Workers in the Collaborative Economy : In-Depth Analysis.' (European Parliament 2016) In-depth Analysis.

companies seeking to offer couriers part of their remuneration as stock.[294] It is possible that this disillusionment with share ownership as a means of financial participation is attributable to the IPO of Uber, which was in the news at the time of the last survey round, amidst revelations that it had been running at a loss for several years. This was, indeed, alluded to by one of the platform workers when they reflected on whether the financial and governance participation of platform companies will change in the near future:

> "No. The platforms are now owned by huge investement [sic] funds. They do not care about the workers. And they do not see any upside in sharing the profit with the workers. They only care about a sucesful [sic] IPO. I am quite cynical about this."

This cynicism was shared by at least one platform representative, who opined that platform companies are "no different from other companies" and knowledgeable investors expect a return on their investment as with all companies. This, in turn, raises questions about the sustainability of the platform business model and whether alternative business structures such as platform cooperatives can offer a durable alternative unless they secure adequate financing.[295] It is also possible that there is a concern that the focus on financial rights and high-level control rights distracts from the bigger picture; that such initiatives entrench fundamentally exploitative business models and precarious working conditions that can't be escaped while still acting within a capitalist market.[296]

Given the type of decisions that platform stakeholders, including platform workers, identify as being important for platform workers, and the overall ambivalence regarding platform worker engagement in several aspects of higher-order corporate governance decision-making and financial participation, it would appear that the support of trade unions and the formation of works councils would meet the needs for extended worker voice, at least in the Netherlands where these forms of representation has a long history. Given the practicalities of local gig work, digital technologies will have to be integrated into discussion and consultation processes in addition to face-to-face meetings. These different forms of workplace voice may be beneficial as they can complement each other.[297] Forming a platform

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294 Benjamin Bain, 'DoorDash, Instacart Drivers Could Get Stock Under SEC Proposal' *BloombergQuint* (Mumbai, 25 November 2020) <https://www.bloombergquint.com/onweb/doordash-instacart-drivers-could-get-stock-under-sec-proposal> accessed 1 December 2020.

295 Simon Borkin, 'Platform Co-Operatives – Solving the Capital Conundrum' (Nesta and Co-operatives UK 2019).

296 Marisol Sandoval, 'From Passionate Labour to Compassionate Work: Cultural Co-Ops, Do What You Love and Social Change' (2018) 21 European Journal of Cultural Studies 113, 123.

297 Matthew MC Allen, 'Hirschman and Voice' in Adrian Wilkinson and others (eds), *Handbook of Research on Employee Voice* (Edward Elgar 2014) 41.

cooperative, in contrast, would require platform workers to be involved in a wide array of corporate governance and strategic decisions as well as accepting greater financial risk of being invested in the platform enterprise.[298] This is due to the fact that the platform cooperatives that have been studied in this dissertation have emphasized the participation of members in decisions from the design of smartphone applications to expansion into new geographical territories. Naturally, as explained in chapter 2.4.4., being a cooperative member also entails being an entrepreneur – with all the risks involved in running a business. With the caveat that stakeholders are of the view that platform workers should also be involved in the design of a platform's user interface, these findings thereby substantiate the two hypotheses of this Delphi study.

That being said, the fact that several of the works councils formed in Austria and Germany experienced hostility from management (e.g., disabling internal communication between couriers) and were dissolved following a shift to 'zero-hour' contracts, raises concerns about their durability as a mechanism for exercising worker voice. The threat of companies restructuring around statutory voice mechanisms was also realized when the first on-demand food courier to be appointed to the supervisory board of a platform company was replaced within a year of his appointment, due to the sale of the German operations of its business to Takeaway.com.[299] This adversarial stance towards traditional mechanisms of workplace voice can also be seen in platform companies' reluctance to participate in tripartite dialogues and collective agreements.[300] In the case of domestic cleaners, there is an additional challenge that their work in homes provides limited opportunities to organically build solidaristic connections, as they occupy a less visible, strategic position within distribution networks compared to food delivery couriers.[301] In view of these shortcomings, there will continue to be an interest in exploring various options for workplace voice that offers workers information and consultation rights, as well as a say in certain strategic decisions. This may be through seeking the tightening of statutory rules relating to workplace voice (e.g., transparency about trips, price and revenue, refusing work without penalty)[302] or supporting worker-oriented, democratically governed alternatives such as 'indie' unions and platform cooperatives.[303]

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298 Inigo Gonzalez-Ricoy, 'Ownership and Control Rights in Democratic Firms – a Republican Approach' (2020) 78 Review of Social Economy 411, 425.

299 Delivery Hero, 'Delivery Hero Completes Sale of Its Food Delivery Operations in Germany to Takeaway.Com' (*Delivery Hero Investor Relations*, 1 April 2019) <https://bit.ly/3duzn2E>.

300 Heiland (n 4) 35–37.

301 Vandaele (n 219).

302 See, e.g., Article 44, Loi d'orientation de mobilités (LOM) [France's Mobility Orientation Law] dated 24 December 2019 and enacted on 27 December 2019; Article L. 1326-2. Code des transports [France's Transport Code].

303 Davide Però, 'Indie Unions, Organizing and Labour Renewal: Learning from Precarious Migrant Workers' (2020) 34 Work, Employment and Society 900.

3.7 Conclusion & Future Research

This Delphi study explored the views of a panel of stakeholders of local gig work platforms in the Netherlands on the workplace voice and financial participation of platform workers. This study does not claim to be representative of the views of all stakeholders but rather offered insight into these two contentious topics from selectively sampled participants who are knowledgeable about various aspects of the platform economy. Having a clearer understanding of the decisions and worker involvement mechanisms that a panel of knowledgeable stakeholders deem to be important for the future of local gig work highlights the importance that works councils and trade unions have as institutionalized mechanisms for non-standard workers' voice in this sector, as well as the expanded roles they will have to take on in contemporary workplaces. In the absence of legislative reform, for the time being, platform companies themselves will have to evince a willingness to accommodate these forms of voice. The points on which consensus were reached reveal potential for this. This can be examined more fully by complementing this Delphi study with follow-up interviews with trade unions and labour lawyers.

This is not to say that alternatives such as platform cooperatives do not have space in this sector, but it is argued that their demand will be shaped by the willingness of workers to take on financial risks, to co-determine a wide range of operational and corporate governance decisions, the availability of alternative forms of workplace voice and the local industrial relations system. As the panel was drawn from the Netherlands, their frame of reference was a coordinated system of industrial relations. To test this argument, a similar Delphi study could be conducted in a jurisdiction with an adversarial industrial relations system, such as the United States, for the purpose of comparison.

4 Exit to Community: Strategies for Multi-Stakeholder Ownership in the Platform Economy[304]

Abstract

Online platform regulation has been the subject of heated debate for a number of years, as shown in chapters 1 and 2. In addition to considering different forms of legislative action, the discourse on platform regulation has, in recent times, expanded to include private efforts to build alternative platforms and popular initiatives to convert existing platform companies into cooperative alternatives as ways in which platform businesses can be held accountable. Yet, guidance and mechanisms for how such a transition can be achieved are in short supply. The purpose of this chapter is to make a contribution to filling this gap. Using the example of an archetypical fictitious technology start-up that uses the multi-sided, matchmaking business model to operate a social media and gig platform ('CoSocial'), three strategies for 'exiting' to community are proposed: transferring stock to a non-charitable perpetual purpose trust, federating the platform and tokenizing corporate stock. The implications of each strategy in terms of control rights, financial rights, and public policy are considered in turn, before a general discussion and conclusion looking towards the future.

4.1 Introduction

The platform economy is facing a crisis of accountability.[305] Large Internet platforms, once regarded as sources of hope for democratic social movements or engines of a promising new economy – or, at worst, just superficial distractions – are now facing serious public scrutiny across the globe. The executives of Facebook, Google, and Twitter have been called before the U.S. Congress to account for their roles in enabling foreign election interference. Scholars have raised concerns about algorithmic, data-driven

304 This chapter has been published, in slightly shortened form, in M. Mannan and N. Schneider, 'Exit to Community: Strategies for Multi-Stakeholder Ownership in the Platform Economy' (2021) 5 Georgetown Law Technology Review 1-71.

305 Kenney and Zysman (n 30); Parker, Van Alstyne and Choudary (n 28).

business models,[306] the exploitation of digital labour,[307] the abuse of market power,[308] corporate governance failures,[309] manipulation by oppressive governments,[310] opacity and arbitrariness in content moderation,[311] and corporate surveillance,[312] to name just a few in an ever-growing body of literature on the depredations of the platform economy.

Part of the urgency surrounding such concerns lies in the fact that some platforms are near-impossible to escape. Internet users, and societies as a whole, have difficulty opting out of their services.[313] Companies like Facebook, for instance, track users across the Web and create shadow user profiles even when the user does not have an account on their platforms.[314] Not using such platforms means foregoing essential opportunities for work and social life – even access to basic services.[315] By not using social media platforms such as Facebook, people deprive themselves of one of the "most

306 Balkin alludes to this in the social media context as social media's "grand bargain" – free communication technology in exchange for user data and loyalty – but such trade-offs can be seen in the gig economy as well (e.g., with respect to workers' rights). *See* Balkin, 'Fixing Social Media's Grand Bargain' (n 90); Frank Pasquale, *The Black Box Society: The Secret Algorithms behind Money and Information* (2016) 8, 30ff; Nick Couldry and Ulises A Mejias, *The Costs of Connection: How Data Is Colonizing Human Life and Appropriating It for Capitalism* (Stanford University Press 2019) 56–58; Safiya Umoja Noble, *Algorithms of Oppression: How Search Engines Reinforce Racism* (New York University Press 2018) 29.

307 Juliet B Schor, 'Does the Sharing Economy Increase Inequality within the Eighty Percent?: Findings from a Qualitative Study of Platform Providers' (2017) 10 Cambridge Journal of Regions, Economy and Society 263; Scholz, *Uberworked and Underpaid* (n 53).

308 Lina M Khan, 'Amazon's Antitrust Paradox' (2017) 126 Yale Law Journal 710; Carl Shapiro, 'Protecting Competition in the American Economy: Merger Control, Tech Titans, Labor Markets' (2019) 33 Journal of Economic Perspectives 69, 70, 75–76, 80–86; Tim Wu, *The Curse of Bigness: Antitrust in the New Gilded Age* (2018) 133. Shapiro argues for the need for skepticism about horizontal mergers involving "superstar" firms given the growing body of evidence that the largest U.S. firms have increasing market power, while conceding that the narrow interpretation of U.S. antitrust laws in recent years diminishes the likelihood of successful antitrust enforcement against "tech titans" unless a particularly strong case emerges against them.

309 David Larcker and Brian Tayan, 'Governance Gone Wild: Epic Misbehavior at Uber Technologies' (2017) Closer Look Series: Topics, Issues and Controversies in Corporate Governance 70 <https://perma.cc/F7LB-NG2G>; Robinson Meyer, 'Twitter's Famous Racist Problem' (*The Atlantic*, 21 July 2016) <https://perma.cc/6GHS-UMNY>.

310 Zeynep Tufekci, *Twitter and Tear Gas: The Power and Fragility of Networked Protest* (Yale University Press 2017) 225–226.

311 Thomas E Kadri and Kate Klonick, 'Facebook v. Sullivan: Public Figures and Newsworthiness in Online Speech' (2019) 93 Southern California Law Review 37, 90–91.

312 Shoshana Zuboff, *The Age of Surveillance Capitalism: The Fight for a Human Future at the New Frontier of Power* (1 edition, PublicAffairs 2019) 8, 512–516.

313 Erin Bernstein and Theresa J Lee, 'Where the Consumer Is the Commodity: The Difficulty with the Current Definition of Commercial Speech' (2013) 2013 Michigan State Law Review 39, 40. ("Companies like Facebook ... and Twitter offer services used by billions of users that have become central to our day-to-day lives.")

314 Skeggs and Yuill (n 92) 382.

315 *See generally*, Virginia Eubanks, *Automating Inequality: How High-Tech Tools Profile, Police, and Punish the Poor* (St Martin's Press 2018).

powerful mechanisms" to make their voices heard.[316] Conversely, for those who use such services, exit is not a costless exercise, as it involves the irrecoverable loss of social capital, reputational cachet, and assets.[317]

Additionally, users suffer from an extreme degree of information asymmetry with respect to platforms, in terms of the technology used, the manner and ends to which information about users is collected and, especially in the case of pre-initial public offering (IPO) start-ups, about the business itself.[318] In Hirschman's terms,[319] the platform economy presents diminishing possibilities of "exit" as a realistic option for participants, while also offering little in the way of "voice" for shaping platforms' behaviour from within. For instance, aside from independent advocacy groups, there are no meaningful blocs to represent user concerns that correspond to the role of labour unions in twentieth-century industrial firms.

This chapter suggests that platform stakeholders, including its users, might find such a bloc through the tools offered by corporate ownership, and that founders and early investors in platform companies might see reasons to seek such an arrangement. The remainder of this section is devoted to briefly reviewing existing proposals for improving platform regulation and governance, including the budding platform cooperative movement. This lays the foundation for the proposal that an alternate exit strategy – an exit to community – will be best positioned to render platform corporations accountable to their community of stakeholders, while permitting their founders and early investors a modest financial benefit. Among various possible structures, three options are presented for materializing an exit to community that appear to be particularly promising: (1) transferring stock to a non-charitable perpetual purpose trust (section 4.2.1.), (2) federating the platform (section 4.2.2.), and (3) tokenizing corporate stock (section 4.2.3.).

To flesh out what is meant by an exit to community, as well as the options listed above, this section defines certain terms that are used throughout the chapter and outlines the growth of a hypothetical plat-

316 Packingham v. North Carolina, 137 S. Ct. 1730, 1737 (2017).

317 "[I]t may be harder to change communities in cyberspace than it is in real space. It is harder because you must give up everything in a move from one cyber-community to another, whereas in real space you can bring much of it with you."Lawrence Lessig, *Code: Version 2.0* (Basic Books 2006) 290.

318 Balkin, 'Fixing Social Media's Grand Bargain' (n 90) 5. Balkin discusses this with respect to social media platforms in particular. Also see, Gabriel JX Dance, Michael LaForgia and Nicholas Confessore, 'As Facebook Raised a Privacy Wall, It Carved an Opening for Tech Giants' *The New York Times* (19 December 2018) <https://perma.cc/2LQR-M9F8>.This article discusses an investigation into Facebook's data sharing practices with over 150 companies that, among other things, enable Netflix and Spotify to read Facebook users' private messages.

319 Albert O Hirschman, *Exit, Voice, and Loyalty: Responses to Decline in Firms, Organizations, and States* (Harvard University Press 1970) 30ff.

form company, CoSocial. This hypothetical case allows, in section 4.2., a description of the means of implementing each option at greater length, an explanation of the inspiration for each option, and a consideration of their respective governance and financial implications within a specific organizational context. While the chapter hews closely to what is already possible under existing California state and federal law, each of these strategies would benefit from the support of legislative interventions. The nature of these measures is discussed alongside each option. Section 4.3. engages in a discussion concerning the general merits of these options (and similar strategies), while directly addressing some of the potential challenges an exit to community would encounter. This section pre-empts some of the possible criticisms of these proposals and outlines means to overcome them, which is suggested as the subject of future research. Section 4.4. concludes.

4.1.1 Existing Proposals for Platform Regulation & Governance

Proposals for remedying concerns about platforms have typically involved some form of privacy regulation, with the European Union's (EU) General Data Protection Regulation (GDPR) and California's Consumer Privacy Act[320] being notable examples in the domain of end-user personal-data protection. It is unlikely that privacy regulation alone – even if it is realized at the federal level[321] – will be sufficient to address the concerns at hand, as they extend beyond privacy.[322] Aside from the scope of possible regulatory interventions, there are questions about the feasibility of such regulation in the near future and the legitimacy of any such intervention. Reliance on the state for appropriate regulation leaves platform stakeholders vulnerable

320 California Consumer Privacy Act of 2018, Cal. Civ. Code § 1798.100 (2020).

321 Pardau notes that "[P]rivacy law in the wider U.S. remains a complex patchwork of narrowly tailored federal and state laws." In addition, Brinckerhoff contends that "comprehensive federal consumer privacy legislation is unlikely to be enacted anytime soon." Rosie Brinckerhoff, 'Social Network or Social Nightmare: How California Courts Can Prevent Facebook's Frightening Foray into Facial Recognition Technology from Haunting Consumer Privacy Rights Forever' (2018) 70 Federal Communications Law Journal 105, 109; Stuart L Pardau, 'The California Consumer Privacy Act: Towards a European-Style Privacy Regime in the United States' (2018) 23 Journal of Technology Law & Policy 68, 73.

322 In addition, as legal scholars have noted, one of the impediments to regulation is the narrowness of the commercial speech doctrine, which may make platform company representations to users, as well as the analysis, disclosure and sale of lawfully collected data, constitutionally protected by the First Amendment. Bernstein and Lee (n 313) 70–71; Jack M Balkin, 'Information Fiduciaries and the First Amendment' (2016) 49 UC Davis Law Review 1183, 1194.

to corporate lobbying[323] and regulatory capture,[324] through which the rule-making process falls under the control of special interests, such as the most powerful and well-endowed corporations. This is an especially material risk in the online economy, as several of these platform companies view regulatory entrepreneurship as a core part of their business plan.[325] Coupled with the desire of governments to attract large internet and tech companies to their shores,[326] such capture can lead to a de-prioritization of the public interest, including that of platform users.[327] The transnational nature of online platforms means that national or regional level interventions will never legitimately represent the entire globally-dispersed user-base,[328] even

323 Kiran Stacey, 'Tech Companies Spent Record Sum on US Lobbying in 2018' *Financial Times* (London, 23 January 2019) <https://perma.cc/AHH2-Q6PL>.

324 Dal Bó, 'Regulatory Capture: A Review' (2006) 22 Oxford Review of Economic Policy 203; Rui JP De Figueiredo and Geoff Edwards, 'Does Private Money Buy Public Policy? Campaign Contributions and Regulatory Outcomes in Telecommunications' (2007) 16 Journal of Economics & Management Strategy 547; Luigi Zingales, 'Towards a Political Theory of the Firm' (2017) 31 Journal of Economic Perspectives 113, 114. All three articles draw out the lineaments of regulatory capture and its implications on the economy, with Zingales in particular focusing on the reinforcement of economic and political power, a dynamic which he calls the "Medici vicious circle." Zingales argues that in "a winner-take-all economy, entrepreneurs lobby and corrupt, not only to seize a crucial first-mover advantage, but also to preserve their power over time." *See also*, a critique of corporate and high net-worth individual philanthropy, Anand Giridharadas, *Winners Take All the Elite Charade of Changing the World* (Alfred A Knopf 2018).

325 Elizabeth Pollman and Jordan M Barry, 'Regulatory Entrepreneurship' (2017) 90 Southern California Law Review 392. This is compounded by the fact that governments may be of the view that tech companies are best positioned to determine how they may be regulated – usually through voluntary self-regulation – given the complexity of the issues raised by the industry. French Secretary of State for Digital Affairs, 'Regulation of Social Networks - Facebook Experiment' (French Secretary of State for Digital Affairs 2019) 11. This mission report discusses the merits and limits of a self-regulatory approach for online social networks.

326 Damien Geradin, 'Principles for Regulating Uber and Other Intermediation Platforms in the EU' (2017) 37 <https://perma.cc/W2XL-QXHQ>.

327 Gary A Giroux, *Business Scandals, Corruption, and Reform: An Encyclopedia*, vol 1 (2013) 97. It is also difficult to agree on the normative end(s) which government regulation should serve, thereby raising the possibility that a poorly reasoned and ill-drafted piece of legislation could lead to undesirable outcomes.

328 Leiser and Murray problematize the traditional legitimacy of the Westphalian state to regulate Internet technologies or, indeed, their ability to do so. *See* Mark Leiser and Andrew Murray, 'The Role of Non-State Actors and Institutions in the Governance of New and Emerging Digital Technologies' in Roger Brownsword, Eloise Scotford and Karen Yeung (eds), *The Oxford Handbook of Law, Regulation and Technology* (Oxford University Press 2017) 670, 675; Ingo Take, 'Regulating the Internet Infrastructure: A Comparative Appraisal of the Legitimacy of ICANN, ITU, and the WSIS' (2012) 6 Regulation & Governance 499, 499.

while the GDPR makes clear that regulation in one jurisdiction will have cascading effects on a platform's behaviour in others.[329]

While public figures as varied as right-wing activist Steve Bannon and left-wing technology critic Evgeny Morozov have called for state appropriation of platform assets[330] – as have media scholars such as Nick Srnicek[331] – this approach will only deepen the accountability crisis, given the past behaviour of state intelligence and social welfare services with online user data,[332] together with the aforementioned challenge that internet networks are transnational in nature. Other proposed interventions fall short of the scale of the problem. Facebook's proposed "Oversight Board" is focused on ceding control over the moderation of content, but in its current form it would arguably be ineffective in that narrow function as well, given the shortcomings of its envisioned private "common law system" as a method for online dispute resolution.[333] Most importantly, for our purposes, this

329 This is due to the fact that the GDPR encompasses all corporations that collect, process, or store data of natural persons located in an EU Member State, as well as those that run offices in the EU. *See* GDPR, art. 44 et seq.; Alexander Tsesis, 'Data Subjects' Privacy Rights: Regulation of Personal Data Retention and Erasure Articles & Essays' (2019) 90 University of Colorado Law Review 593, 595.

330 Evgeny Morozov, 'Data Populists Must Seize Our Information – for the Benefit of Us All' *The Guardian* (4 December 2016) <https://perma.cc/8MUQ-7T92>; Ryan Grim, 'Steve Bannon Wants Facebook and Google Regulated Like Utilities' *The Intercept* (27 July 2017) <https://perma.cc/HB6G-DDB2>. For more on bipartisan efforts to regulate big tech based on different objectives, *see* Gilad Edelman, 'A Conservative Senator's Crusade Against Big Tech' [2019] *The Washington Post Magazine* <https://perma.cc/K33B-372G>. At the federal level, see the bipartisan sponsorship of the Do Not Track Act, S. ___, 116th Cong. (2019) (bill to protect the privacy of internet users through the creation of a "Do Not Track" system); Social Media Addiction Reduction Technology Act, S. __, 116th Cong. (2019) (bill targeted at inhibiting practices by social media companies to capture users' attention so as to serve their business model). At the state level, see the It's Your Data Act, A07736, Assemb. Reg. Sess. 2019-2020 (N.Y. 2019) (proposing a bill providing greater transparency and consumer privacy regarding the collection, use, retention and sharing of personal data).

331 Srnicek (n 41).

332 Eubanks (n 315); Pasquale (n 306).

333 Douek presents an an overview of how the Oversight Board would function before critiquing its legitimacy as well as its technical capacity to address the immense volume of content-related appeals that will be generated. The author concedes that the Oversight Board may serve a useful function in providing a forum for public reasoning over content moderation. Klonick and Kadri are generally optimistic about the Oversight Board, stating that the "platform is on the cusp of creating a meaningful check on its own power". Pozen presents a more critical view, that, by installing an Oversight Board, Facebook is emulating the absolutist constitutionalism of certain states that present the veneer of respecting civil liberties while concentrating "sovereign" decision-making power in a single person's hands. Evelyn Douek, 'Facebook's "Oversight Board": Move Fast with Stable Infrastructure and Humility' (2019) 21 North Carolina Journal of Law & Technology 1, 28–39, 46–47; Kadri and Klonick (n 311) 95–97; David Pozen, 'Authoritarian Constitutionalism in Facebookland' (Knight First Amendment Institute at Columbia University, 30 October 2018) <https://perma.cc/Y5FK-Y9P4>.

concession to users' views does not diminish the shareholder profit motive, which ultimately determines the subject matter over which the Oversight Board has jurisdiction and guides the determination of "hard cases" in content moderation.[334] Technological resistance in the form of obfuscation of user data to interfere with surveillance and data hacking, algorithmic hacking, and the dissemination of viruses, while subversive, is, by its very nature, an activity on the margins.[335]

As with many tech start-ups, such platforms are venture capital (VC) funded and the path-dependent nature of such investment makes investor ownership very difficult to change later on in a corporation's life. Reputation management through B Corp certification[336] may encourage greater corporate responsibility, but cases like that of Etsy – whose investors opted to rescind B Corp status for the sake of future growth[337] – suggest that such provisions alone carry insufficient leverage to challenge impulses toward founders and investors seeking an IPO or sale to another business, such as a

334 Douek (n 333) 41.

335 Williams (n 35) 227; Brunton and Nissenbaum (n 162) 1. Brunton and Nissenbaum explain that "obfuscation is the deliberate addition of ambiguous, confusing, or misleading information to interfere with surveillance and data collection," which can be operationalized through several means".

336 Janine S Hiller, 'The Benefit Corporation and Corporate Social Responsibility' (2013) 118 Journal of Business Ethics 287.

337 David Gelles, 'Inside the Revolution at Etsy' *The New York Times* (25 November 2017) <https://perma.cc/VG3L-G3N6>.

market incumbent.[338] Yet, the moment of a start-up's "exit"[339] to acquisition or public offering can involve particular dangers for mission drift, potentially compromising its relationship with its end users.[340] Claims that platform companies have a mission other than short-term profit maximization

338 The empirical evidence suggests that an acquisition is more likely than an IPO. Gao and colleagues document the decline in IPOs between 2001-12, which the authors argue occurred due to greater returns for investors being generated through a sale to a strategic buyer, such as a larger organization, rather than remaining as smaller, independent companies. Ragozzino & Blevins find that, in a dataset of 3,600 VC-backed entrepreneurial companies between 1985-2010, 40% of businesses experienced exit by acquisition and 17% experienced an IPO within 10 years of being founded. The number of VCs invested in a company is significantly and positively correlated with the likelihood of exit by acquisition, but not the prominence or reputation of the VC. Norbäck and Persson present evidence that exits via acquisition by incumbents was more valuable than exits via IPOs, particularly in the U.S. during the early years of the millennium. Cumming indicates that VC funds in Europe are also likely to favour acquisitions over IPOs, particularly if the VC fund has strong control rights, by studying 223 investments between 1996-2005 across eleven continental European countries. Xiaohui Gao, Jay R Ritter and Zhongyan Zhu, 'Where Have All the IPOs Gone?' (2013) 48 Journal of Financial and Quantitative Analysis 1663, 1690; Roberto Ragozzino and Dane P Blevins, 'Venture–Backed Firms: How Does Venture Capital Involvement Affect Their Likelihood of Going Public or Being Acquired?' (2016) 40 Entrepreneurship Theory and Practice 991, 992, 1002, 1006; Pehr-Johan Norbäck and Lars Persson, 'The Organization of the Innovation Industry: Entrepreneurs, Venture Capitalists, and Oligopolists' (2009) 7 Journal of the European Economic Association 1261, 1262–1263; Douglas Cumming, 'Contracts and Exits in Venture Capital Finance' (2008) 21 The Review of Financial Studies 1947, 1948.

339 DeTienne defines an exit as "the process by which the founders of privately held firms leave the firm they helped to create; thereby removing themselves, in varying degree, from the primary ownership and decision-making structure of the firm". In contrast, DeTienne explains that an "an exit strategy is the mode through which the entrepreneur intends to exit the firm". An exit strategy may evolve during the lifetime of a start-up and is thereby harder to measure, while an exit is a measurable event. Dawn R DeTienne, Alexander McKelvie and Gaylen N Chandler, 'Making Sense of Entrepreneurial Exit Strategies: A Typology and Test' (2015) 30 Journal of Business Venturing 255, 256; Dawn R DeTienne, 'Entrepreneurial Exit' in Cary L Cooper (ed), *Wiley Encyclopedia of Management* (3rd edn, John Wiley & Sons, Ltd 2015) 1. For the sake of completeness, it should be noted that 'exit to bankruptcy' is a strategic option that is available to entrepreneurs wishing to renegotiate their relationships with creditors and other stakeholders during financial distress, but as mentioned earlier our focus is on an earlier stage in a business's life cycle when multiple exit options may be possible – not just a strategic "last resort". *See, e.g.*, Henrick Aalbers and others, 'Does Pre-Packed Bankruptcy Create Value? An Empirical Study of Postbankruptcy Employment Retention in The Netherlands' (2019) 28 International Insolvency Review 320, 322.

340 Elmer describes this as part of the "precorporation" period of start-ups, as it is the time when "a set of legal, political and economic conventions establish the prospects (the 'future-look') of a company," reconstructing the capital structure of the company as well as its relationship to users and non-users. It is at this juncture that start-ups are typically required to rewrite their core values in a bid to attract external investment. Greg Elmer, 'Precorporation: Or What Financialisation Can Tell Us about the Histories of the Internet' (2017) 1 Internet Histories 90. However, DeTienne et al. in their typology highlight that founder-entrepreneurs may have exit strategies in mind that are geared towards stewardship and independence of the company over financial, profit-maximizing motives. DeTienne, McKelvie and Chandler (n 339) 260.

and founder aggrandizement are often dismissed as rhetorical flourishes, yet as online service providers and (in some cases) as creators of digital infrastructure, users genuinely come to depend on their affordances.[341] Researchers and many users themselves have long understood that social media platforms can serve as safe havens for marginalized persons[342] and those seeking support for mental well-being.[343] Scholars have also found that gig work platforms provide essential sources of income for immigrant communities,[344] but with respect to both types of platforms, this has been underappreciated in the business world. As one commentator lamented, at the terminal decline of the delicious link-sharing platform following its sale to Yahoo!, "If you make a start-up we like, such as Delicious: please don't sell it."[345]

Governing platform companies more democratically from within, along with reasonable regulatory guardrails, could offer a promising alternative.[346] If one agrees that social media companies offer a "public service,"[347] then cooperative or mutual business ownership offers a time-tested alternative to both private and state ownership for governing such a service. Cooperative structures have been instrumental the world over in

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341 Yuval Dror, '"We Are Not Here for the Money": Founders' Manifestos' (2015) 17 New Media & Society 540, 547.

342 Cho discusses the preference of LGBTQI+ youth for Tumblr over Facebook and other social media platforms due to Tumblr's default non-public setting. This preference changed after Verizon acquired Tumblr from Yahoo and began to filter out LGBTQI+ user-generated content. Lee argues that "black Twitter" creates a digital homespace to address "social issues of racial bias and discrimination" Alexander Cho, 'Default Publicness: Queer Youth of Color, Social Media, and Being Outed by the Machine' (2018) 20 New Media & Society 3183, 3184, 3196; Latoya A Lee, 'Black Twitter: A Response to Bias in Mainstream Media' (2017) 6 Social Sciences 26, 6.

343 Berryman and Kavka explore the motivations for vloggers to create videos to lay bare their emotional vulnerability and seek community support. (This is not to say this substitutes the need for medical and professional support.) Rachel Berryman and Misha Kavka, 'Crying on YouTube: Vlogs, Self-Exposure and the Productivity of Negative Affect' (2018) 24 Convergence 85, 87.

344 Berger and colleagues present evidence that Uber drivers in London are primarily from Black, Bangladeshi and Pakistani ethnic groups, with driving for Uber being their main source of work. Berger and others (n 135) 433.

345 Violet Blue, 'AVOS' Delicious Disaster: Lessons from a Complete Failure' (*ZDNet*, 28 September 2011) <https://perma.cc/62YX-FKSA>.

346 Douek observes that "Facebook is not a democracy – it is a business". The argument of this chapter is that the history of cooperative and purpose-oriented businesses, as well as more recent experiences in using blockchain for solidaristic ends, can show that democracy and business are not mutually incompatible. Douek (n 333) 75.

347 There may be three interconnected public services offered by social media: "First, they *facilitate* public participation in art, politics, and culture. Second, they *organize* public conversation so that people can easily find and communicate with each other. Third, they *curate* public opinion through individualized results and feeds and through enforcing terms-of-service obligations and community guidelines." Balkin, 'Fixing Social Media's Grand Bargain' (n 90) 9.

such roles as servicing small farmers, facilitating shared newsgathering among many media outlets, providing community-centred financial products, and pioneering new forms of ethical consumption.[348] In each case, the participants in a business, more than outside shareholders, own and govern it. Cooperatives tend to furnish "missing markets"[349] with social benefits but little investor appeal, prioritize user well-being over financial gain, and resist exploitation of vulnerable constituents. Despite the historical success of cooperatives and other forms of shared ownership, these structures have been mainly absent from the online economy, which has relied on risk-friendly venture capital whose expectations for high returns from an exit usually preclude participant-ownership. This has begun to change in recent years, largely under the banner of "platform cooperativism," a burgeoning movement that calls for the reconfiguration of corporate ownership and governance in the online economy along the lines of the long-standing tradition of cooperative business.[350] This approach points toward an especially desirable form of internal regulation in the long run, since it would confer greater legitimacy[351] on the decisions arrived at by the platform and will be intrinsically transnational, as Internet networks already are.[352]

348 Nathan Schneider, *Everything for Everyone: The Radical Tradition That Is Shaping the Next Economy* (PublicAffairs 2018).

349 Brent Hueth, 'Missing Markets and the Cooperative Firm' (2014) <https://perma.cc/L9QH-Y36M>.

350 Schneider, 'An Internet of Ownership' (n 148); Scholz and Schneider (n 138); Scholz, *Uberworked and Underpaid* (n 53).

351 This understanding of legitimacy draws upon Rawls' argument that the legitimacy of exercises of political power is predicated on a 'duty of civility', whereby citizens should be able to explain to one another how their choices and votes are supported by public reason and should be open, fair-minded and accommodating to the views of others. John Rawls, *Political Liberalism* (Expanded, Columbia University Press 2005) 217. This understanding is premised on the normative view that platforms should be amenable to public reasoning and not considered a nonpublic 'association', given the importance of stakeholder retention (e.g., in the form of user attention) to their business model and the wide socio-economic impact that platforms can have as they become more prominent (e.g., in terms of market dominance), repercussions that extend beyond their employees, users and suppliers to the wider community. ibid 220. Arguably, from a civic republican point of view, granting stakeholders some of the deliberative tools of economic democracy will contribute to a more robust political democracy. *See, e.g.,* Brett McDonnell, 'Employee Primacy, or Economics Meets Civic Republicanism at Work' (2008) 13 Stan. J.L. Bus. & Fin. 334, 369–372. McDonnell reviews empirical, social psychology, and Habermasian arguments for this with respect to employee primacy and the extension of worker control in corporations.

352 Dwayne Winseck, 'The Geopolitical Economy of the Global Internet Infrastructure' (2017) 7 Journal of Information Policy 228.

While this chapter does not discount the value or necessity of government regulation, it focuses on the potential of multi-stakeholder ownership[353] in the online economy, with particular attention to the inclusion of end-users.

Although platform cooperativism has garnered considerable interest, including a series of conferences, research projects, countless discussions in the popular press[354] and even a mention in a national political party's manifesto,[355] only a few Internet start-ups have achieved any success with a cooperative model and grown in international scale and membership. One such exceptional example is Stocksy, a stock photographers' cooperative registered in British Columbia but with global membership.[356] Many such start-ups have run into existential barriers, particularly due to a lack of access to capital, mentorship, and other forms of infrastructural support.[357] Meanwhile, some enthusiasts have sought to take the challenge to existing large Internet companies. A "#BuyTwitter" campaign in 2016 and 2017 proposed, through a petition and a shareholder proposal, that the popular microblogging platform Twitter, then being discussed as a potential acquisition target, be converted to some form of user ownership.[358] Yet by demanding that the company merely "study" potential user-ownership models, the organizers and shareholders acknowledged that there is no go-to strategy for such a conversion to take place. Individual share ownership, while available for platform companies that have undergone an IPO, often confers weaker (or no) voting rights to individual shareholders,[359] and

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353 Multi-stakeholder ownership is considered to be beneficial for business models that combine production and consumption under a single organizational umbrella, such as online platforms, as they treat stakeholders as "allies rather than rivals, prioritize community solidarity over return on investment, and emphasize collective enhancement instead of value appropriation." Cohen explicitly advocates the exploration of multi-stakeholder ownership structures in platform co-operatives. Cohen (n 180) 378–379.

354 The primary portal for this network is platform.coop, managed by the Platform Cooperativism Consortium at The New School in New York City. Both authors have been affiliated with these efforts.

355 Jeremy Corbyn, 'The Digital Democracy Manifesto' (2016) <https://perma.cc/H2KF-QDTM>.

356 Scholz provides an overview of Stocksy's origins and business model in this contribution. Trebor Scholz, 'How to Coop the Digital Economy' in Inte Gloerich, Geert Lovink and Patrice van der Burgt (eds), *Moneylab reader 2: Overcoming the hype* (Institute of Network Cultures 2018) 205–208.

357 Schneider, *Everything for Everyone* (n 348).

358 'Exit to Democratic User Ownership - Proposal 4' (#*BuyTwitter*, 2017) <https://perma.cc/K7Z3-QZ8X>. Nathan Schenider was closely involved in this campaign.

359 Wells notes the growth and diversity of individual shareholding in the U.S. through the decade following World War II, after which it experienced a decline precipitated by the growth of private and public pension funds. As of 2010, modal individual shareholders were in the top 1% wealth bracket, Caucasian, and above 65. Harwell Wells, 'Shareholder Power in America, 1800–2000: A Short History' in Jennifer G Hill and Randall S Thomas (eds), *Research Handbook on Shareholder Power* (Edward Elgar Publishing 2015) 18–19; William Bratton and Michael Wachter, 'Shareholders and Social Welfare' (2013) 36 Seattle University Law Review 489, 516–521.

in any event is experiencing a secular decline with the rise of institutional investors.[360] In its current form, this does not present an attractive option for users. By 2018, the platform companies Airbnb, Postmates, and Uber had each sought the means to issue compensatory equity with their most loyal users, which remains largely untenable under current U.S. securities law given the nature of the relationship of Airbnb hosts, Postmates couriers, and Uber drivers with these platforms.[361] From #BuyTwitter to Uber's recent efforts to offer equity to loyal users, activists and corporate executives alike have indicated the need for concrete transfer options for stewardship-oriented founders who are interested in sharing ownership.

360 Bebchuk and Hirst discuss the proportional dominance of institutional investor ownership evidenced by a ten-fold increase over the past 70 years, with the largest institutional investors – "the Big Three" comprising Blackrock, Vanguard, and State – being passive investors, thereby being excessively deferential to the management of investee companies. Lucian Bebchuk and Scott Hirst, 'The Specter of the Giant Three' (2019) 99 Boston University Law Review 721, 725–726. Coates emphasizes the power that may be exercised and potentially abused by twelve investment management teams over their investee companies. Coates explains that individual investors have some information rights with respect to investment funds, but do not have any shareholder rights with respect to the investee companies of the fund. John C Coates IV, 'The Future of Corporate Governance Part I: The Problem of Twelve' (Harvard Public Law Working Paper 2019) 7 <https://perma.cc/4ZSX-DMVM>.

361 Robert B Robbins, Cindy V Schlaefer and Jessica Lutrin, 'From Home Sharing and Ride Sharing to Shareholding' (*Pillsbury Law*, 25 October 2018) <https://perma.cc/RWR7-M9KC>. Rule 701 of the Securities Act of 1933 allows companies to issue compensatory securities (of up to $10 million) to employees, independent contractors, advisors and de facto employees without filing a registration statement with the SEC. 17 C.F.R. § 230.701(c) (2018). This exemption allows the company to avoid the lengthy and complex disclosures required of public companies. Till now, this hasn't included Airbnb hosts, Postmates couriers, and Uber drivers. For Uber's, Postmates' and Airbnb's responses to a public consultation on *inter alia* the potential reform of Rule 701, see Comment Letter from Robert Rieders, Gen. Counsel & Vikrum D. Aiyer, Vice President of Pub. Policy & Strategic Commc'ns, Postmates, Inc., to Brent Fields, Sec'y, U.S. Secs. & Exch. Comm'n (Oct. 17, 2018), https://perma.cc/HQ37-849N. Comment Letter from Danielle Burr, Head of Fed. Affairs, Uber Techs., Inc., to Brent J. Fields, Sec'y, U.S. Secs. & Exch. Comm'n (Oct. 11, 2018), https://perma.cc/HC3Q-2R8Y. Comment Letter from Rob Chesnut, Gen. Counsel, Airbnb, Inc., to Brent J. Fields, Sec'y, U.S. Secs. & Exch. Comm'n (Sept. 21, 2018), https://perma.cc/9HLM-KQHE. Recently, the SEC voted to propose rules that would allow platform companies, over a five-year period, to use the Rule 701 exemption and offer and sell their securities to their platform workers as compensation. This would be capped at 15% of the workers' annual compensation and $75,000 over a 36-month period. *See* Press Release, SEC Proposes Temporary Rules to Facilitate Measured Participation by Certain "Platform Workers" in Compensatory Offerings Under Rule 701 and Form S-8, Release No. 2020-293, U.S. Sec. & Exch. Comm'n. (Nov. 24, 2020), https://perma.cc/VD52-V3QA.

In addition to regulatory barriers, stakeholder-owned businesses can face higher costs of governance,[362] which pose particular challenges for tech start-ups that often need to "pivot" their business models several times to locate a market niche.[363] Therefore, if start-ups begin as closely-held, investor-backed businesses but, upon discovering and filling a niche, transform into institutions highly responsive to the users who rely on them, they can benefit from both early nimbleness and later accountability when each is needed most. Based on the experience of earlier democratic businesses, such as multi-stakeholder cooperatives, worker cooperatives, and employee-owned firms, shared ownership and participatory decision-making gives vulnerable parties a voice, increases the legitimacy of business decision-making,[364] cultivates broader democratic values,[365] enhances organizational commitment,[366] and improves corporate performance (in terms of the value of firms).[367] Currently, however, there are no well-established pathways or best practices for doing so.

The purpose of this chapter is to make a contribution toward filling that gap. Using the example of an archetypical technology company that uses the multi-sided, matchmaking business model to operate a social media and gig platform, three strategies for rendering such firms more broadly accountable to participant stakeholders are proposed and analysed. It is submitted that this is not only beneficial for the welfare of stakeholders, but also to the business as a distinct entity. Many of the perverse incentives in the platform economy emerge from the obligatory, single-minded pursuit of a speculative liquidity event or exit – typically, an IPO or an acquisition by a more established company. While stock market offerings encourage the pursuit of short-term financial gains, acquirers often shut down the

362 Henry Hansmann, *The Ownership of Enterprise* (Belknap Press of Harvard Univ Press 1996) 44.

363 Bajwa (n 87) 28.

364 Hans-H Münkner, 'Multi-Stakeholder Co-Operatives and Their Legal Framework' in Carlo Borzaga and Roger Spear (eds), *Trends and Challenges for Co-operatives and Social Enterprises in Developed and Transition Countries* (Edizioni31 2004).

365 Bruno Jossa, 'The True Strong Point of Democratic Firm Management' (2018) 9 Modern Economy 1625; Rory Ridley-Duff, 'New Frontiers in Democratic Self-Management' in Diarmuid Padraig McDonnell and Elizabeth Chalmers Macknight (eds), *The Co-operative Model in Practice: International Perspectives* (University of Aberdeen & CETS 2012) 105–106.

366 Izaskun Agirre, Pedro Reinares and Fred Freundlich, 'Does a Democratic Management Model Enhance Performance through Market Orientation? Empirical Evidence from the Mondragon Industrial Group' (2015) 47 Review of Radical Political Economics 345, 361.

367 Ernest H O'Boyle, Pankaj C Patel and Erik Gonzalez-Mulé, 'Employee Ownership and Firm Performance: A Meta-Analysis' (2016) 26 Human Resource Management Journal 425, 439.

start-ups they buy altogether.[368] Each outcome risks marginalizing the platforms' key stakeholders, such as users and employees. An alternative exit strategy, an exit to community, may be the best way to ensure that platform businesses remain within, and become accountable to, their community of stakeholders.[369] By beginning as a more closely held company and transitioning to community ownership later, a start-up could experience the benefits of both early flexibility and mature accountability.

This chapter invites the reader to consider: could a major gig platform become owned by its workers? Could a successful start-up be acquired by its employees and users, rather than through public markets or by a larger company? What role can new technologies, such as blockchain, have in easing the conversion process to more accountable ownership? The strategies presented build on long-standing corporate structuring options and corporate governance principles that are present in several industries and jurisdictions but have been largely overlooked when analysing the accountability crises of platform companies. Through these proposals, the chapter aims to make more plausible the prospect of democratic multi-stakeholder ownership and governance of such companies – which collectively affect critical economic, social, cultural, and environmental infrastructure on a global scale. These strategies, or variations thereof, may appeal to established, market-leading platforms, budding platforms with a small user base or platforms that exist in between. If successful, it is hoped that these strategies spur a new "race to the top" of companies competing to offer more attractive forms of economic democracy.

368 Lemley and McCreary present evidence of, and arguments why, there has been a decline in IPOs, with the primary reasons being the speed and scale of incumbent acquisitions and the economic incentives of VCs to promote such acquisitions. This chapter complements Lemley and McCreary's position that entrepreneurs starting a company with a focus on how it will eventually be shut down is "deeply misguided." Mark A Lemley and Andrew McCreary, 'Exit Strategy' (2021) 101 Boston University Law Review 1, 10.

369 While strategies like employee and community buy-outs have long been considered in the context of founder(s) succession and financial distress, our proposed exit to community strategy draws attention to an earlier inflection point in the business's lifecycle. On employee buy-outs as a strategy of founder succession, see Stephen Clifford and The Staff of the Ohio Employee Ownership Center, *An Owner's Guide to Business Succession Planning* (2nd edn, Ohio Employee Ownership Center, Kent State University 2008); David Wagner, 'California Business Owners Spread The Wealth By Selling Their Companies To Their Workers' (*LAist*, 1 November 2019) <https://perma.cc/7A6X-NTX8>. On employee buy-outs as a strategy for rescuing a business from financial distress, *see, e.g.*, Susan Chaplinsky, Greg Niehaus and Linda Van de Gucht, 'Employee Buyouts: Causes, Structure, and Consequences' (1998) 48 Journal of Financial Economics 283, 285–286. On community buy-outs of local "community assets," *see, e.g.*, Tessa Lynn, 'The Social Relations of Property: Motives, Means and Outcomes of the Community Right to Bid in England' (phd, University of Reading 2018).

4.1.2 Defining Terms

Community is understood to be those persons who both use and contribute labour (broadly defined) to a platform business, as well as a term to encapsulate the bonds and sense of belonging that grows among these persons through the process of using and contributing to the platform over a sustained period of time.[370] This accords with legal philosopher John Finnis' view that the formation of a community involves social interactions "over an appreciable span of time…with a view to a shared objective."[371] In discussing *multi-stakeholder ownership*, the chapter includes models in which one or more classes of stakeholders experience meaningful financial or governance rights from co-owning part or all of the company that operates the platform in which they participate. This is distinct from efforts to protect local businesses by helping them purchase expensive new equipment, as such crowdfunding does not involve a transfer of ownership.[372] *User* is taken from the colloquial – and likely intentionally vague[373] – terminology that platform companies adopt to refer to people who interact with their services. The ambiguity of this identity category finds expression in futurist Alvin Toffler's 1980 neologism "prosumer," a blending of the activities of production and consumption without clear lines between the two. Scholars have rediscovered this term to help describe the platform era.[374] Users, according to this capacious understanding of the term, engage in contributing labour value (e.g., "volunteer" moderators, ride-sharing drivers, content posters), consuming content (e.g., social media account holders, viewers of targeted advertising), and providing business services (e.g., restaurants that provide food for a delivery service). This definition of user does not include platform companies' employees, although such employees are typically also users. Instead, employees are a distinct class of stakeholder. Non-employee users are highlighted as a distinct class because many employees already have access to stock ownership programs in U.S. platform companies and because they are relatively few in number compared to contributing users as a whole.[375]

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370 On the importance of bonds and a sense of belonging in community formation, *see, e.g.*, Roger Cotterrell, *Law, Culture and Society: Legal Ideas in the Mirror of Social Theory* (Ashgate Pub Co 2006) 70.

371 John Finnis, *Natural Law and Natural Rights.* (Oxford University Press 2011) 153.

372 Matthew Josefy and others, 'The Role of Community in Crowdfunding Success: Evidence on Cultural Attributes in Funding Campaigns to "Save the Local Theater"' (2017) 41 Entrepreneurship Theory and Practice 161, 168.

373 Gillespie (n 31).

374 Alvin Toffler, *The Third Wave* (Morrow 1980) 283; George Ritzer and Nathan Jurgenson, 'Production, Consumption, Prosumption: The Nature of Capitalism in the Age of the Digital "Prosumer"' (2010) 10 Journal of Consumer Culture 13, 13.

375 For instance, according to its 2019 S-1 filing, Uber Technologies' employees numbered 22,263, alongside 3.9 million active drivers, typically classified as independent contractors. On the frequency (and perils) of employee stock options as a form of compensation in technology startups, *see* Abraham JB Cable, 'Fool's Gold? Equity Compensation & The Mature Startup' (2017) 11 Virginia Law & Business Review 613, 616.

By bringing attention to the emergent stakeholder group of platform users, this chapter joins the corporate law scholarship that has sought to recognize the essential contributions of participant stakeholders.[376] This line of argument stands in contrast to the dominant strand of corporate governance discourse in the United States, particularly in the state of Delaware, where in spite of the rhetoric of the Business Roundtable's Statement on the Purpose of a Corporation, the interests of shareholders are regarded as primary over other potential stakeholders.[377] In the context of the platform economy, the operation of the shareholder wealth maximization principle can be most readily seen in the case involving the online classifieds platform Craigslist.[378]

By advocating for the extension of ownership rights to users, this chapter goes beyond earlier recommendations for merely expanding the sphere of corporate purpose to act in a manner attentive to multiple stakeholder groups.[379] With outright ownership, such stakeholders gain not just

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376 *See generally,* David Yosifon, *Corporate Friction* (Cambridge University Press 2018); Lawrence E Mitchell, 'A Theoretical and Practical Framework for Enforcing Corporate Constituency Statutes' (1992) 70 Texas Law Review 579; McDonnell (n 351); Lynn A Stout, 'On the Rise of Shareholder Primacy, Signs of Its Fall, and the Return of Managerialism (in the Closet) Berle IV: The Future of Financial and Securities Markets: The Fourth Annual Symposium of the Adolf F. Berle, Jr. Center on Corporations, Law & Society' (2013) 36 Seattle University Law Review 1169.

377 Julian Velasco, 'Fiduciary Principles in Corporate Law' in Evan J Criddle, Paul B Miller and Robert H Sitkoff (eds), *The Oxford Handbook of Fiduciary Law* (Oxford University Press 2019) 64; Stephen Bainbridge, *Corporate Law* (2nd ed., Foundation Press ; Thomson/West 2009) 141. In the context of the platform economy, the operation of the shareholder wealth maximization principle can be most readily seen in the case involving the online classifieds platform Craigslist. For a contrary view on shareholder primacy, see, e.g., Jonathan R Macey, 'Fiduciary Duties as Residual Claims: Obligations to Nonshareholder Constituencies from a Theory of the Firm Perspective' (1999) 84 Cornell Law Review 1266, 1268. Macey argues that shareholder wealth maximization can be considered as a default rule, rather than a mandatory rule if it is accepted that a corporation is a nexus of contracts in which shareholders can opt of shareholder primacy. The release of the Business Roundtable's Statement on the Purpose of a Corporation (last amended in February 2021) has been met with some scepticism, as preliminary research indicates that the CEOs who have committed to stakeholder value creation have been guilty of egregious environmental and labour violations in comparison to their competitors. *See* Thomas Clarke, 'The Contest on Corporate Purpose: Why Lynn Stout Was Right and Milton Friedman Was Wrong' (2020) 10 Accounting, Economics, and Law: A Convivium 32.

378 *See eBay Domestic Holdings, Inc. v. Newmark*, 16 A.3d 1 (Del. Ch. 2010) in which the Court of Chancery of Delaware held that a shareholder rights plan which sought to preserve a corporate culture that did not prioritize shareholder wealth maximization was inconsistent with the directors' fiduciary duties as "[p]romoting, protecting, or pursuing non-stockholder considerations must lead at some point to value for stockholders". Chancellor Chandler then went on to emphasize that the choice of a for-profit Delaware corporation and the 'Inc.' suffix are bound by the fiduciary standards that accompany that form, including the promotion of shareholder value.

379 For a recent overview and critique of 'stakeholderism', *see* Lucian A Bebchuk and Roberto Tallarita, 'The Illusory Promise of Stakeholder Governance' (2020) 106 Cornell Law Review 91, 115.

paternalistic attention but, instead, are owed a direct fiduciary duty.[380] This extension of fiduciary duty has been advocated in recent years by a group of scholars and policymakers who see online platforms as part of a new class of "information fiduciaries".[381] According to this view, the duties of care, confidentiality, and loyalty expected of professionals – lawyers, doctors and accountants – should be partially extended to "online service providers", including the platforms discussed thus far. A fiduciary relationship should be legally recognized because of the significant vulnerability of users, users' relative dependence on these providers, the providers' expertise in the service they provide and the providers holding themselves out to be trustworthy, which would in turn allow the imposition of ethical obligations and regulations without violating the providers' first amendment rights to collect, analyse, sell or disclose some end-user data. There has been some legislative interest in the idea of online service providers acting as fiduciaries, with Democratic Senators introducing the Data Care Act of 2018[382] that directly draws on Balkin's proposals, but this Bill did not receive a vote in the US Congress.[383] The transfer of ownership also help users gain legal standing for litigation as well as governance rights.[384]

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380 The powerlessness of users and the indirectness of platform accountability to them is argued in Kate Klonick, 'The New Governors: The People, Rules, and Processes Governing Online Speech' (2018) 131 Harvard Law Review 1598, 1666. In some jurisdictions, like the Netherlands, as directors do not owe a fiduciary duty to shareholders, but instead have a fiduciary duty to the corporation, this fiduciary argument will not apply.

381 Jack M Balkin and Jonathan Zittrain, 'A Grand Bargain to Make Tech Companies Trustworthy' [2016] *The Atlantic* <https://perma.cc/5J7H-JBMR>; Balkin, 'Information Fiduciaries and the First Amendment' (n 322) 1222.

382 S. 3744, 115th Cong. (2018).

383 There has been scholarly pushback on Balkin's core arguments as well, *see* Lina M Khan and David E Pozen, 'A Skeptical View of Information Fiduciaries' (2019) 133 Harvard Law Review 498. Khan and Pozen point out the gaps in Balkin's information fiduciary proposal, that online service providers cannot have a fiduciary duty in a meaningful sense to users if shareholder primacy is maintained, that the business model of platforms make 'user primacy' implausible and/or unworkable, that the creation of user vulnerability is deliberate and that there are extensive information asymmetries between the user and the platform. They add that the fiduciary concept is also vague in how it will be enforced and questioned whether the idea materially adds to the arsenal of contractual and privacy rights that already exists. They appear to be particularly concerned that the recognition of fiduciary duties will head off more ambitious regulatory interventions, such as vigorous antitrust enforcement. ibid 537. In view of these criticisms, while Balkin and Zittrain's approach would require either Congressional approval or judicial creativity, this chapter proposes privately ordering changes in transparency and accountability in governance through strategies that transfer ownership and thereby shift who the platform who the board of the platform owes fiduciary duties to.

384 The contribution of this chapter – at least with respect to governance – is most closely aligned with those of Cohen regarding multi-stakeholder platform cooperative ownership. Cohen (n 180) 124–125. It is also aligned with the more ambitious of Yosifon's proposals in *Corporate Friction*, that the very largest corporations should be "structured to allow each major stakeholder group to elect at least one director to the board". Yosifon (n 376) 200. He also notes that the affordances of modern technology would particularly facilitate the voting of large stakeholder groups, such as consumers. ibid 201.

To be effective, this multi-stakeholder ownership must be *broad-based*. This means that ownership accrues to all or most of that class, rather than to an elite few.[385] For example, in the context of employee-ownership schemes, a company that offers voluntary stock options that only executives can exercise is not broad-based. Instead, an automatic employee stock-ownership plan (ESOP) from which all employees benefit, even if the benefits vary according to their pay scale, is broad-based. Broad-based user ownership, by definition, includes all or a large majority of value-contributing users. Consequently, investor ownership or founder ownership alone would not be considered broad based. For platforms that rely on a large pool of non-employee users regularly contributing value, even widespread employee ownership would not alone qualify as broad-based ownership of a company.

This chapter avoids specifying in advance the legal form such multi-stakeholder ownership should take, while presenting tangible examples of what it could look like. It might take shape within a cooperative, a limited liability company, or some other legal entity. The corporation's shares might be wholly or partially owned by users, where the legal ownership of shares might be handled by an intermediary entity such as a trust or the shares might be owned by the users directly. The primary benefits of broad-based multi-stakeholder ownership might be financial returns (such as ensuring rank-and-file users receive dividends alongside investors) or oversight in governance (such as through board representation and voting rights in general meetings). Such ownership might include only one group of users being especially involved in the value creation process or it might balance the interests of multiple stakeholder groups. While many of these strategies fall short of classical aspirations for workers' control,[386] this chapter seeks to achieve productive compromises that balance the interests of platforms' diverse stakeholders.

The bulk of what follows will review three strategies for converting founder- and investor-owned, closely-held Internet-native firms to multi-stakeholder ownership – strategies that could be relevant for both growth-stage and mature contexts: (1) multi-stakeholder buyout via a trust, (2) federation, and (3) tokenization. In order to concretize the strategies, the

385 Blasi, Kruse and Freeman discuss the corporate governance benefits of broad-based employee ownership in Joseph Blasi, Douglas Kruse and Richard B Freeman, 'Broad-Based Employee Stock Ownership and Profit Sharing: History, Evidence, and Policy Implications' (2018) 1 Journal of Participation and Employee Ownership 38.

386 David P Ellerman, 'ESOPs & CO-OPs: Worker Capitalism & Worker Democracy' (1985) 1 Labor Research Review 55, 57; Immanuel Ness and Dario Azzellini, 'Introduction', *Ours to master and to own: workers' control from the commune to the present* (Haymarket 2011) 1.

case of a hypothetical platform company will be described and analysed.[387] This allows for a discussion of the means of implementing each strategy and their possible outcomes within a specific organizational context.

4.1.3 The Case of CoSocial

CoSocial Corporation ("CoSocial"; the Corporation) is a C corporation[388] incorporated and headquartered in San Francisco, California, that operates a social network made up of affinity-based groups, which are managed and moderated by users. In a short space of time, a bare bones website with a small, dedicated following grew to boast 50 million monthly active users spread across the globe on the Web and a free smartphone application. Like its larger competitors, the platform derives revenue from advertising and promoted links.

In addition to its social media features, CoSocial developed into a peer-to-peer gig platform, wherein users can pay each other for services. A small commission is paid to the platform for each successful transaction. Partly because its early user-base included a critical mass of counter-cultural artists, CoSocial is widely viewed as a more community-oriented alternative to the more prominent social media and gig platforms. The gig functionality, for instance, is often used by creatives, such as gallerists and filmmakers, to hire local or distributed teams for large-scale projects.

CoSocial initially launched with seed funding from the founders themselves, the founders' families and friends, and convertible notes issued to a small group of angel investors.[389] Subsequently, at a pre-money valuation of 6 million dollars, the company received 3 million dollars in Series A funding from a VC fund. This gave CoSocial a post-money valuation of 9 million

387 The use of hypothetical scenarios is common for comparative corporate law scholarship. *See generally* Lynn LoPucki, 'A Rule-Based Method for Comparing Corporate Laws' (2018) 94 Notre Dame Law Review 263; Matthias M Siems, 'The Methods of Comparative Corporate Law' in Roman Tomasic (ed), *Routledge Handbook of Corporate Law* (Routledge Handbooks 2016).

388 The C Corp continues to be the most common legal form for start-ups. Gregg Polsky, 'Explaining Choice-of-Entity Decisions by Silicon Valley Start-Ups' (2019) 70 Hastings Law Journal 409, 411.

389 The fact that founders typically look to these groups for seed funding is mentioned in Elizabeth Pollman, 'Startup Governance' (2019) 168 University of Pennsylvania Law Review 155, 167, 170. Convertible notes are a form of debt that may be converted into preferred shares upon maturing and pays interest. John F Coyle and Joseph M Green, 'Contractual Innovation in Venture Capital' (2014) 66 Hastings Law Journal 133, 151.

dollars and the VC fund 33 percent of preferred shares in the business.[390] As a result, following the conversion of the convertible notes, CoSocial had two classes of stock (common and preferred) distributed across four pools: (1) founders and family; (2) employee stock option pool; (3) angel investors; and (4) the VC fund. The former two pools were allocated common stock and the latter two pools were allocated preferred stock. The term sheet of the VC investment, among other provisions, included a non-participating liquidation preference for the investment amount, a broad-based weighted average anti-dilution provision, two investor-elected board seats and co-sale (tag along) rights.

Over the course of three years, the platform grew to its current user base of 50 million monthly active users. Following Series B and Series C financing rounds, CoSocial had a post-money valuation of 500 million dollars.[391] At this stage, 47 percent of common shares were held by the founders and family, 10 percent in the option pool and 43 percent of preferred shares by eight investors,[392] including the initial VC fund that now acts as a lead investor.

Growth slowed somewhat in the following months. Management began to face pressure from the lead investor[393] to begin monetizing the network through the introduction of more aggressive targeted advertising and increasing its share of transaction fees from gig services. Among other things, this would require CoSocial to step up its collection and processing of personal data for uses that would not be readily apparent for users, even if they consent to such collection.[394] For the moment, CoSocial enjoyed

390 Preferred shares (also known as preferred stock) are senior to common shares in a corporation's capital structure, which means that preference shareholders are paid in full before common shareholders are paid in the event of the corporation's liquidation. The preferred shareholders also receive dividends from the corporation's current income prior to common shareholders. Ben Walther, 'The Peril and Promise of Preferred Stock' (2014) 39 Delaware Journal of Corporate Law 161, 167. While preferred shares typically do not have voting rights, it is standard for them to have voting rights over major corporate decisions such as changes in corporate control or dissolution of the corporation. Harold Marsh, R Roy Finkle and Larry W Sonsini, *Marsh's California Corporation Law* (4th edn, Wolters Kluwer 2020) s 7.03.

391 These figures conservatively approximate the user-base and valuation of the collaborative publishing network Medium. *See* Jim Edwards, '$132 million later, Ev Williams says he is raising even more money for Medium' (*Business Insider Nederland*, 8 November 2018) <https://perma.cc/BBH4-T7WP>.

392 It is assumed that Series B and Series C preferred shareholders have different cash flow, liquidation, control, and voting rights than the initial VC fund.

393 There is a material risk that startup founder-CEOs are replaced by large, activist investors, particularly as the startup matures into a large corporation. *See* Pollman (n 389) 169, 180, 184.

394 Brinckerhoff argues that users do not meaningfully consent to Facebook's implementation of facial recognition technology. Brinckerhoff (n 321) 140. *See also,* Elmer (n 340) 94. Elmer documents the escalating rate at which the Facebook interface and core user services changed between 2004 and the year of its IPO in an effort to stimulate user engagement and time spent on the platform.

strong loyalty from its users and moderate recurring revenue from the gig transactions, and its reputation had not been tarnished by the scandals that plagued similar platforms. Yet analysts feared that without dramatically increasing growth and revenue, the company would not be an attractive candidate for an IPO or a profitable buyout.

The founders, who had the power to appoint four members of the seven-member board, resisted the investors' demands for fear that such changes would alienate the core user-base and undermine CoSocial's future.[395] They were searching for an alternative solution that would both satisfy the investors and further strengthen the community-oriented culture of the platform, which served as one of its principal competitive advantages. In other words, their consideration of exit options included factors other than maximizing short-term financial return. This challenge, and possible solutions to it, are presented in this chapter.

4.2 Exit-to-Community Strategies

In this section, three distinct possibilities for the future of our fictional company, CoSocial, are considered together with their backgrounds and implications. It is appreciated that these strategies include some features that may be beyond the realm of what is presently feasible. Thus, each section includes a policy discussion about modest, near-term interventions that could ease the way toward these strategies becoming more available.

4.2.1 Option 1: Stockholding Trust

In this scenario, with the support of the founders and their family members, CoSocial's board of directors established a non-charitable perpetual purpose trust,[396] CoTrust, in the state of Delaware. Its purpose was to enable CoSocial users to participate in profit-sharing and governance within the CoSocial Corporation. This involved settling a trust agreement, a set of principles[397] that CoTrust commits itself to and drafting a profit-sharing agreement that is to be approved by founders, investors, employees, and users. The board of CoSocial appointed an experienced trustee to handle administrative matters (e.g., trust distributions), appointed a trust

395 This is a pivotal moment for CoSocial as investors typically gain more seats with further financing rounds, leading the startup from being primarily controlled by its founders to being controlled by its investors. *See* D Gordon Smith, 'The Exit Structure of Venture Capital' (2005) 53 UCLA Law Review 315, 326–327.

396 This trust structure has long been used by offshore trusts and, more recently, by companies seeking to establish multi-stakeholder governance such as The Organically Grown Company. The Purpose Foundation, *Steward-Ownership: Ownership and Finance Solutions for Mission-Driven Businesses* (The Purpose Foundation 2019) 28.

397 For example: promoting forums for stakeholders to express their voice regarding important choices and decisions to be made by platform companies (including CoSocial).

"enforcer" to hold the role usually filled by beneficiaries (e.g., legal action to ensure the purpose of the trust is fulfilled), and outlined a system of elections among founders, investors, employees, and active CoSocial users to elect representatives to a Trust Protector Committee. This Committee would have the power to remove the trustee and the trust enforcer, appoint future members to CoSocial Corporation's board, and approve profit distributions. The members of the Committee could vote on a one-member, one-vote basis or in proportion to the shares beneficially held by each class of stakeholder. Given the ease with which users may enter and exit the platform and potentially create fake accounts, the platform's existing system of cross-checking user identities with government-issued IDs and residency documents for its gig-work functionality was extended to verify the identity of active users and, in particular, committee candidates.[398] Users could then become confirmed participants in CoTrust.

Once established, one of CoTrust's purposes was to gradually acquire 100 percent share ownership of CoSocial Corporation.[399] This meant that, initially, external investors were one of the stakeholder groups represented on the Trust Protector Committee and received cumulative preferred dividends. Eventually, the CoSocial board and the CoTrust trustees intend to initiate a process of gradually buying out the outside investors. This would involve approaching social finance and other values-aligned equity investors willing to provide loans for the buyback of shares, as well as the issuance of non-voting preferred shares to values-aligned accredited investors.[400] These shares were then transferred to CoTrust, which meant that they could not be sold by any of the stakeholders or the corporation. After consultation with affected employees, the employee stock option plan was cancelled in favour of integrating the employees into the financial and governance structure of the trust agreement, including the right to elect their own representatives to the Trust Protector Committee.[401] As a consequence, the shares set aside for the option pool were transferred to the purpose trust.

398 With the growing maturity of self-sovereign identity systems, this could eventually be replaced by a mechanism that is more sensitive to the privacy of users. *See, e.g.,* Fennie Wang and Primavera De Filippi, 'Self-Sovereign Identity in a Globalized World: Credentials-Based Identity Systems as a Driver for Economic Inclusion' (2020) 2 Frontiers in Blockchain; Margie Cheesman, 'Self-Sovereignty for Refugees? The Contested Horizons of Digital Identity' (2020) 0 Geopolitics 1.

399 The repurchase of stock is a common recent trend. *See* Pollman (n 389) 175.

400 This is the proposed approach of the Organically Grown Company. Natalie Reitman-White, 'Organically Grown Company Transitions from ESOP to Perpetual Trust' (*Medium*, 30 August 2018) <https://perma.cc/VU2X-HFUG>.

401 Pollman notes that employee participation in start-up governance is typically indirect, and even non-vested employee stock optons are vulnerable to being arbitrarily clawed back by the company. Pollman (n 389) 194. Smith provides an example of employee stock-options being clawed back by corporate management in Thomas A Smith, 'The Zynga Clawback: Shoring up the Central Pillar of Innovation' (2013) 53 Santa Clara Law Review 577, 578.

The early investors were reluctant to agree to the deal at first, but soon they embraced it. They came to recognize that CoSocial was not on track to accelerate its growth exponentially without compromising the reasons that its users had come to trust it. The company had become, as some business analysts explain, a "zombie."[402] Faced with a never-ending wait for an acquisition or IPO, they supported the unusual arrangement. They knew that if they cashed out after holding their shares in CoSocial for five years, they would have to pay little to no capital gains tax.[403] While the VC fund managers have a fiduciary duty to their limited partners, whose capital they invest, they also owe a duty of care to the portfolio company, CoSocial.[404] An exit to community via the CoTrust appeared to be the best option in the circumstances. They were able to walk away with their initial investment and a bit more, even if it was short of their highest ambitions.

From its inception, CoTrust gained a significant role in CoSocial's governance. In accordance with the deal struck with the early investors, the amended articles of incorporation provided that the Trust Protector Committee could appoint two members onto CoSocial's seven-member board. Over time, as the VC fund and other external investors exited CoSocial and the CoTrust grew from being a minority shareholder to a controlling shareholder, all of the seats came to be elected by the Trust Protector Committee.

As a consequence of these changes, users found a new set of reasons to appreciate the platform. They began to receive, in monthly transfers to their app wallets, a portion of the dividends on CoTrust's stock. As per the profit-sharing agreement, the users' dividends were in proportion to their transactions through the platform, for as long as they remained active users.

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402 "The term 'zombie company' refers to a company that is officially 'alive' despite being financially dead ... a company that can manage to pay the interest on its debts but not reduce the actual debt … [They] keep lurching along – not quite alive but not quite dead, either. *See* Adam Golub and Carrie Lane, 'Zombie Companies and Corporate Survivors' (2015) 7 Anthropology Now 47. While this adjective has been used to describe bailed-out banks, it is often used to refer to startups that earn enough revenue to keep running but are unlikely to achieve a large return for investors. See, e.g., Sean Wise, '8 Signs Your Startup Is a Zombie, and 3 Things to Do About It' (*Inc.com*, 11 December 2018) <https://perma.cc/44PB-DELP>.

403 This is due to the fact that CoSocial qualified as a "small business" as a result of having less than $50 million in assets at the time they received these investments. 26 U.S.C. § 1202(d) (defining qualified small business). The amount that the investors could exclude from their income depends on their initial investment but it could be up to "10 times the aggregate adjusted basis of the [shares] issued by the corporation disposed of by the taxpayer during the taxable year, as measured on the original issue date." ibid § 1202(b)(1)(B). Given the cap on assets to be qualified as a small business, the upper limit is $500 million in exemptions. In the case of CoSocial, the VC fund, for instance, would be able to exclude up to $30 million as its Series A investment was $3 million. However, as this only applies to shares that were originally issued by the corporation, it would not apply to shares acquired through secondary markets. ibid § 1202(c)(1).

404 *See, e.g.,* the case of *In re* Trados Inc. S'holder Litig., 73 A.3d 17, 46 (Del. Ch. 2013), which discusses this dual responsibility. *See also*, Lemley and McCreary (n 368) 57.

The higher the platform's total transaction volume, and the higher their own activity, the higher their "divi."[405] Confirmed users, who proved their identities and used the platform above a certain threshold during the course of a year, became eligible to participate in CoTrust's governance system for as long as they maintained their engagement.

While this all seemed complex at first, a gamified interface made involvement in the governance process intuitive. Through a system of delegative (or "liquid") voting, users selected board members and allocated those funds not distributed in the divi to projects ranging from silly, viral stunts to sophisticated research on their own behaviour and oversight of company practices. Compared to users of other platforms, CoSocial's users thus developed unusually high degrees of confidence that their personal data and financial dealings were being handled responsibly. This confidence, in turn, fuelled the platform's growth. The divi even became an important source of income for many users, who in turn became committed to the platform's success and sustainability. While CoSocial never reached the size of some of its "unicorn" competitors, it became widely regarded as an important high-road platform that raised expectations for others, analogous to Wikipedia, Mozilla, WorldCat, and the Internet Archive.

4.2.1.1 Background

This scenario takes inspiration from the U.S. ESOP, which corporations may use to sell or contribute their shares to a trust so as to eventually vest in individual employees' accounts, often as part of their direct-contribution retirement package.[406] To qualify for their tax advantages, ESOPs must be broad-based among a company's employees rather than benefiting just top executives.[407] They have frequently been used as a means for founders to transfer their stake in a business to employees.[408] This process is often a leveraged transaction, financed by bank loans, which are secured by a pledge of the shares and a guarantee from the corporation, so that neither

405 Katarina Friberg and others, 'The Politics of Commercial Dynamics: Cooperative Adaptations to Postwar Consumerism in the United Kingdom and Sweden, 1950–2010' in Harm G Schröter and Patrizia Battilani (eds), *The Cooperative Business Movement, 1950 to the Present* (Cambridge University Press 2012) 249.

406 "The term 'employee stock ownership plan' means an individual account plan ... which is a stock bonus plan which is qualified ... and which is designed to invest primarily in qualifying employer securities." 29 U.S.C. § 1107(d)(6)(A).

407 *See* 26 U.S.C. § 1042(b)(2). The participants in a plan may be current and former employees as well as their beneficiaries. 29 U.S.C. § 1002(7).

408 "Congress explicitly intended that the ESOP would be both an employee retirement benefit plan and a 'technique of corporate finance' that would encourage employee ownership." Martin v. Feilen, 965 F.2d 660, 664 (8th Cir. 1992). While it is possible for an ESOP to hold all of a corporation's shares, typically most ESOPs only hold thirty percent of a corporation's shares. *See* Sarah J Westendorf, 'Compensation through Ownership: The Use of the ESOP in Entrepreneurial Ventures' (2006) 1 Entrepreneurial Business Law Journal 195, 204.

the employer nor the employees pay upfront.[409] These loans can subsequently be repaid by the company through tax-deductible employer contributions to the ESOP.[410] Regarding control rights, the terms of the ESOP determine whether voting rights are passed through to ESOP participants, with the only statutory requirement being that participants who have had shares allocated to their account be permitted to direct how the trustee votes such shares in major corporate transactions, namely mergers or consolidations, recapitalization, reclassification, liquidation, dissolution, and the sale of substantially all assets of the business.[411]

There are, however, limitations in applying the ESOP model to the platform economy, assuming one was to include the variety of stakeholders mentioned above. While the Internal Revenue Code's definition of "employee" for the purpose of benefit plans is broad,[412] it does not generally extend to creators of voluntary, user-generated content or independent contractors who have not been reclassified. Moreover, since the class of users is constantly changing, it becomes difficult to specify identifiable beneficiaries – a common requirement for settling most types of trusts.[413]

The basic economic principles undergirding ESOPs, however, are not predicated on the existence of an employment relationship or indeed the maximal extraction of labour value.[414] Instead, they rest on the idea of maximizing the productivity of capital and distributing the income generated through this production. As part of a wider vision of "binary economics,"

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409 John H Langbein, David A Pratt and Susan J Stabile, *Pension and Employee Benefit Law* (5th ed., Foundation Press 2010) 344; Corey Rosen and Scott Rodrick, *Understanding ESOPs* (National Center for Employee Ownership 2018).

410 Norman P Stein, 'An Alphabet Soup Agenda for Reform of the Internal Revenue Code and ERISA Provisions Applicable to Qualified Deferred Compensation Plans' (2003) 56 SMU Law Review 49, 646–647.

411 26 U.S.C. §§ 409(e)(3), 409(e)(5).

412 *See* Vizcaino v. Microsoft Corp., 120 F.3d. 1006, 1009, 1015 (9th Cir. 1997) (holding invalid the exclusion of independent contractors reclassified as common law employees from benefit plans, including savings plus plans and employee stock purchase plans). Subsequently, in a Technical Advice Memorandum dated July 28, 1999, the IRS clarified that even reclassified common law employees can be deliberately excluded from a plan.

413 In the European Union, for instance, the 'Fifth Anti-Money Laundering Directive' requires member states to ensure that companies obtain and hold adequate, accurate and current information on their beneficial ownership. The definition of beneficial ownership includes individual beneficiaries of a trust, although it is acknowledged that in certain instances it may be difficult to identify individuals. This information should be held in a central register of the Member State. *See* Directive (EU) 2015/849 of 20 May 2015 on the prevention of the use of the financial system for the purposes of money laundering or terrorist financing, amending Regulation (EU) No 648/2012 of the European Parliament and of the Council, and repealing Directive 2005/60/EC of the European Parliament and of the Council and Commission Directive 2006/70/EC [2015] OJ L141/73, arts. 3(6)(b)(iv), 30(1)-(3), as amended by Directive (EU) 2018/843 of 30 May 2018 amending Directive (EU) 2015/849 on the prevention of the use of the financial system for the purposes of money laundering or terrorist financing and amending Directives 2009/138/EC and 2013/36/EU [2018] OJ L156/43.

414 Robert HA Ashford, 'The Binary Economics of Louis Kelso: The Promise of Universal Capitalism' (1990) 22 Rutgers Law Journal 3.

ESOP inventor Louis Kelso regarded the mechanism as only one of many possible leveraged buyout trusts; for instance, he outlined and experimented with a variant that would be owned by a company's consumers, among other stakeholder groups.[415] The inclusion of such stakeholders, would allow them to "share the responsibilities of ownership as well as its rewards – profit, knowledge and power."[416]

The use of a non-charitable perpetual purpose trust would address some limitations of beneficiary trusts. Purpose trusts are trusts that are created for specific, non-charitable purposes rather than for identifiable beneficiaries.[417] In contrast to LLCs, these trusts place the trust property outside of the ownership of the settlor and mandatorily limit the discretion of both trustees and beneficiaries in how they handle the trust property. While purpose trusts were primarily developed in offshore jurisdictions, an increasing number of onshore jurisdictions have legislation that permits the creation of non-charitable perpetual purpose trusts, including the states of Delaware, New Hampshire, Wyoming, and Maine. Major online platforms have already proposed the use of non-beneficiary trusts to resolve accountability challenges, such as the (now-abandoned) "civic data trust" of Google-affiliate Sidewalk Labs[418] and the trust intended to intermediate between Facebook and its Independent Oversight Board.[419]

An early example of a company adopting a stockholding trust explicitly for its users is NIO, a Chinese electric vehicle manufacturer that also offers a car-sharing app. In 2018, founder Bin Li announced plans to deposit approximately one third of NIO's shares, with financial rights but no voting rights, into a trust on behalf of users. Li wrote, in a letter included with NIO securities filings, "I believe this trust arrangement further advances NIO's pursuit of our original aspiration of becoming a user enterprise and will also deepen our relationship with users."[420]

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415 *See generally,* Louis O Kelso and Patricia Hetter Kelso, *Democracy and Economic Power: Extending the ESOP Revolution* (Ballinger Pub Co 1986) ch 7. The sole, but successful, example of a Consumer Stock Ownership Plan (CSOP) was Valley Nitrogen Producers, Inc., headquartered in Fresno, California, which enabled its farmer-shareholders to acquire ownership of two fertilizer factories and buy their fertilizers from the factories at near-production cost between 1957 and 1963 when Congress changed the tax laws to inhibit such structures.

416 John Lewis Partnership, 'The Constitution of the John Lewis Partnership' (2017) 7 <https://www.johnlewispartnership.co.uk/content/dam/cws/pdfs/about-us/our-constitution/john-lewis-partnership-constitution.pdf>.

417 Richard C Ausness, 'Non-Charitable Purpose Trusts: Past, Present, and Future' (2016) 51 Real Property, Trust and Estate Law Journal 321, 327; Christopher Michael, 'The Employee Ownership Trust, an ESOP Alternative' (2017) 31 Probate and Property 42.

418 Alyssa Harvey Dawson, 'An Update on Data Governance for Sidewalk Toronto' (*Side Walk Labs*, 15 October 2018) <https://perma.cc/44J8-PRMP>.

419 Brent Harris, 'Establishing Structure and Governance for an Independent Oversight Board' (*facebook Newsroom*, 17 September 2019) <https://perma.cc/3XVW-3KZK>.

420 Nio, Inc., *Letter from Bin Li*, *in* Form F-1 Registration Statement under the Securities Act of 1933, at iii (filed with the SEC on Aug. 13, 2018), https://perma.cc/X7CH-3EVY; Nio, Inc., *NIO Inc. CEO Transferred 50 Million Shares to the Newly Established NIO User Trust*, NIO (Jan. 24, 2019, 3:00 AM EST), <https://perma.cc/WL9A-X7ME>.

In general, legislation concerning such trusts requires that the purposes are specifically defined, certain, reasonable, not immoral or against public policy, and capable of being fulfilled.[421] The governance of such trusts is flexible, usually requiring, at a minimum, the appointment of one trustee to administer the trust property and a trust protector to enforce the purposes of the trust. The trustee's fiduciary obligations are to fulfil the purposes of the trust through the administration of the trust property (e.g., shares in a company) rather than to a specified class of beneficiaries.[422] While individual persons may benefit from purpose trusts, this benefit is indirect. This is particularly advantageous when involving users, as an entity like CoTrust is not required to constantly update the personal details of who its user beneficiaries are, given that the trust is for a purpose, that can include benefiting active, confirmed users as a class. Furthermore, users are not required to take on the ordinary duties of a shareholder, nor are they required to dispose of any shares when leaving the platform. The perpetuity of a perpetual purpose trust exempts CoSocial Corporation from having to buy back the shares held in CoTrust at the end of a statutorily defined period, as may otherwise be the case with trusts.[423] Alternatively, if many of the users of CoSocial are residents in the U.K. or another jurisdiction where there is concern that the perpetual trust will not be recognized due to a violation of their rule against perpetuities, a suitably long duration of the trust (e.g., up to a maximum of 125 years for the U.K.)[424] can be included in the trust's governing instrument.

Depending on the jurisdiction, other structural options might be available. For instance, Dash – the organization behind the Dash cryptocurrency – settled an irrevocable trust in New Zealand in 2017 to enable the master nodes[425] of its network to participate in governance and gain ownership of the Dash Core Group (a Delaware C-Corporation). By allowing master nodes of the Dash network to elect the protectors of The Dash DAO Irrevocable Trust, the corporation is held accountable to the network it serves.

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421 Rose-Marie Belle Antoine, *Offshore Financial Law: Trusts and Related Tax Issues* (2nd edn, Oxford University Press 2013) 48–50.

422 ibid 51. Antoine refers to the possibility of shares in a corporation being owned by a purpose trust.

423 In California, an interest in a trust must vest or terminate no later than 21 years following the death of a potential beneficiary or actually vest or terminate within 90 years of being created. Cal. Prob. Code §§ 21200-21231. On the gradual decline of the Rules against Perpetuities in the United States and the concomitant rise of perpetual trusts, *see generally*, Jesse Dukeminier and James Krier, 'The Rise of the Perpetual Trust' (2003) 50 UCLA Law Review 1303.

424 Section 5, Perpetuities and Accumulations Act, 2009.

425 A master node is "a server with a full copy of the Dash blockchain, which guarantees a certain minimum level of performance and functionality to perform certain tasks related to block validation," for which the nodes are paid on the basis of "proof of service." As of October 31, 2020, there are roughly 5,000 master nodes across 50 countries. Dash Core Group Inc., 'Understanding Masternodes' (*DASH*, 31 October 2020) <https://perma.cc/FPR8-2UDN>.

As a beneficiary trust, an individual had to be identified in the settlement deed to represent the class of beneficiaries – Dash master nodes – and a trust period of 100 years (or less at the discretion of trustees) had to be specified.[426] Moreover, candidates who stand for election as Trust Protectors have to submit valid IDs and residency documents to avoid infringing mandatory laws, such as legal age requirements and U.S. sanctions.[427] Thus, this structure could be particularly suitable for a user-base that has strong ties to a network and has a robust internal mechanism for dealing with the issue of fake users.

Other examples include, cooperatives organized by user-members to hold shares in a platform company, akin to Québec's "worker-shareholder" cooperatives, could be developed as a means to advance user-ownership.[428] Non-equity profit-sharing bonuses to platform users could similarly align their economic gains with those of shareholders, executives and other non-executive employees who receive equity remuneration. Forms of employee co-determination in governance, without stock ownership,[429] might be expanded to include platform users. Such structures might be voluntary or required by law, but in either case, they must be designed to ensure users have meaningful, enforceable collective power.

4.2.1.2 Implications for Governance

ESOPs have become a common feature in the U.S. corporate landscape, but ordinarily they do not require significant employee participation in governance. As mentioned above, in private corporations, the voting rights of the shares held in the employee ownership trust are ordinarily exercised by trustees, with the exception of fundamental decisions such as liquidation or sale of the company when they are obligated to pass through their voting rights to employee-beneficiaries.[430] This is contrary to a growing body of

426 Ryan Taylor, 'Dash Core Group Legal Structure Details' (*Dash Forum*, 1 August 2018) <https://perma.cc/R87Z-ZCXG>. Deed of Settlement constituting The DASH DAO Irrevocable Trust, dated Dec 22, 2017, <https://perma.cc/G7G5-YC2F>.

427 Michael Seitz, 'Trust Protectors Election 2020' (*Medium*, 3 April 2020) <https://perma.cc/9EP9-JQMX>. The voters were not required to reveal their identities but had to use their master node private key to verify their status as owners. This was then audited by a third-party to make an eligible list of voters. Ryan Taylor, 'Dash Network Elected Trust Protectors: Closing the Governance Loop' (*Medium*, 31 December 2018) <https://perma.cc/66R7-2GPJ>.

428 Yvan Comeau and Benoit Levesque, 'Workers' Financial Participation in the Property of Enterprises in Quebec' (1993) 14 Economic and Industrial Democracy 233, 239–243; Sharit K Bhowmik, 'Workers as Shareholders: Case for Closer Examination' (1994) 29 Economic and Political Weekly 2580.

429 Thomas Piketty recently made the case for extending co-management in Anglo-American companies, including through board-level representation of workers, by drawing on the experience of Nordic countries and Germany. *See* Thomas Piketty, *Capital and Ideology* (Belknap Press : Harvard University Press 2020) 513.

430 Rosen and Rodrick (n 409) 16–17.

evidence that finds that employee financial participation is most effective when coupled with employee participation in governance,[431] which has spurred a growing interest in more participatory governance in ESOP workplaces.

A non-charitable perpetual purpose trust, as described above, can facilitate not only greater employee participation in the corporate governance of a corporation, but also that of other stakeholders who are vested in its continued existence and prosperity. In the context of the platform economy, this notably includes committed, active users of platforms. The Organically Grown Company, a wholesale distributor of organic produce in the Pacific Northwest of the United States, has introduced a purpose trust after being an agricultural market cooperative and operating an ESOP. Such a structure can give stakeholders, such as users, a direct voice in the election of a Trust Protector Committee, influence in the election of the board of directors of a corporation, and a right to present grievances to the committee if they feel that their interests are not being adequately addressed.[432]

A host of involvement mechanisms could be deployed to facilitate user governance. For instance, liquid democracy[433] and quadratic voting[434] appear to have some promise for governance in digitally enabled corporate contexts, balancing scale with expertise and commitment. An updated version of ancient Greek sortition could employ relatively small virtual

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431 Blasi, Kruse and Freeman (n 385).

432 The Purpose Foundation (n 396) 28.

433 Liquid democracy refers to a system where voters delegate voting power to delegates over certain issues but can withdraw the delegation of that power at any time and vote directly. *See* Steve Hardt and Lia Lopes, 'Google Votes: A Liquid Democracy Experiment on a Corporate Social Network' [2015] Technical Disclosure Commons <https://www.tdcommons.org/dpubs_series/79>. Hardt and Lopes conduct a case study of liquid democracy in action on Google's internal corporate Google+ social network.

434 Posner and Weyl define quadratic voting as a voting tool "where individuals buy as many votes as they wish by paying the square of the votes they buy using some currency". Eric A Posner and E Glen Weyl, 'Quadratic Voting and the Public Good: Introduction' (2017) 172 Public Choice 1, 1. They posit that quadratic voting would reduce vertical and horizontal agency costs by giving minority shareholders – as well as stakeholders – the ability to increase the weight of their votes. Eric A Posner and E Glen Weyl, 'Quadratic Voting as Efficient Corporate Governance' (2014) 81 University of Chicago Law Review 251, 253,260. The response to criticisms that this would encourage plutocratic behaviour within corporate governance has been that the sums contributed to acquire votes would go to the corporation initially, with large shareholders (>1% of shares) only receiving 1% of the funds they spent on acquiring votes and the remainder going to other shareholders. ibid 261. It could also be that the currency used to pay for votes is not in fiat currency but a "voice credit" that could be internal to the platform and obtained through means other than wealth. Posner and Weyl have suggested that quadratic voting could also be used for a form of mutual management in online platforms, where "users could have voice credits that they receive for participation (say, a certain number for every stay, ride, or post) that they then could use to evaluate the performance of others on the system." Eric A Posner and E Glen Weyl, *Radical Markets: Uprooting Capitalism and Democracy for a Just Society* (2018) 117.

juries of users to study controversial issues and make decisions on behalf of users as a whole – a model used by the dispute resolution platform cooperative Kleros.[435] If an election system proves to be unwieldy or leads to democratic entropy, a sortition method[436] could be used to select representatives for the Trust Protector Committee.

Such a system for user governance must contend with concerns about principal-agent costs that might accrue, leaving directors unaccountable to both shareholders and non-shareholder groups.[437] The potential for tensions to emerge between shareholder-appointed directors (or employed executives) and stakeholder-appointed directors has also been acknowledged in the context of multi-stakeholder cooperatives, such as Japan's medical cooperatives.[438] The use of a purpose trust addresses this critique as it positions a large, fluid group of stakeholders as a class with a unified purpose. While critics of stakeholder theory have argued that it is vague in terms of its proposed objectives and that this can render management unaccountable,[439] the defined purposes and the broad powers of the Trust Protector Committee mitigates this risk. Even in purely economic terms, the inability of stakeholder groups to directly enforce the trust as beneficiaries, coupled with their financial interest in the company, would incentivize

435 Ast explains how Kleros uses a sortition system to select "jurors" to decide on disputes concerning online transactions. Federico Ast, 'Genesis: When Greek Lotteries Meet Medieval Private Law' in Kleros.io (ed), *Dispute Resolution: The Kleros Handbook of Decentralized Justice* (Kleros 2019). A similar system has been proposed for the blockchain-based social network Minds to handle content moderation, in the wake of Neo-Nazis exploiting its light touch approach to content moderation.Ben Makuch and Jordan Pearson, 'Minds, the "Anti-Facebook," Has No Idea What to Do About All the Neo-Nazis' (*Motherboard: Tech by Vice*, 28 May 2019) <https://perma.cc/A9CS-KHJR>.

436 Pek describes sortition, the lottery system where representatives are selected at random from a larger pool of potential candidates, and its historical use in representative government Simon Pek, 'Drawing Out Democracy: The Role of Sortition in Preventing and Overcoming Organizational Degeneration in Worker-Owned Firms' (2021) 30 Journal of Management Inquiry 193, 198.

437 Frank H Easterbrook and Daniel R Fischel, *The Economic Structure of Corporate Law* (Harvard University Press 1991) 38; Michael C Jensen, 'Value Maximization, Stakeholder Theory, and the Corporate Objective Function' (2002) 12 Business Ethics Quarterly 23, 237; Richard A Posner, *Economic Analysis of Law* (Third, Wolters Kluwer Law & Business 1986) 396.

438 Victor A Pestoff, 'The Social and Political Dimensions of Co-Operative Enterprises' in Jonathan Michie, Joseph R Blasi and Carlo Borzaga (eds), *The Oxford Handbook of Mutual, Co-Operative, and Co-Owned Business* (Oxford University Press 2017) 88; Aalt Colenbrander and Tineke Lambooy, 'Engaging External Stakeholders in Dutch Corporate Governance' (2020) 12 International and Comparative Corporate Law Journal 1, 3. In jurisdictions such as the Netherlands, this tension does not emerge in the same way as directors have to perform their duty in the interest of the legal entity and not the stakeholder group that nominated or appointed them. Instead, there may be dilemmas about weighing the (sometimes competing) interests of various stakeholder groups when acting in the interest of the legal entity, as well as actively engaging with stakeholders.

439 Jensen (n 437) 242.

them to monitor the activities of the committee and exercise their appointment rights carefully. The committee's own financial stake and fear of replacement would motivate its members to supervise the trust officers and the board. Thus, the alignment of interests in such a structure, combined with its democratic qualities, would go some way toward addressing the problem of apathy that typically bedevils companies with dispersed retail share ownership[440] as well as those with passive institutional investors.[441]

From a legal standpoint, the use of a purpose trust would permit fiduciaries to reorient their decision-making away from pursuing shareholder wealth maximization and toward fulfilling the specified purposes of the trust agreement. While it would be unreasonable to expect founders, employees, users, and investors to agree on every issue, the emergent mechanisms to signal stakeholder voice and the Trust Protector Committee would provide fora to work out topics of disagreement on equal footing before arriving at a decision. This would not only confer decisions made by the trust and the corporation with greater legitimacy, it would diminish the fiduciary problems associated with ESOPs, where the fiduciary of a trust may have divergent interests from the corporation in which the trust holds shares.[442] As such, elements of the governance structure of CoTrust, such as a Trust Protector Committee, may be of interest to emerging user trusts such as the Nio Inc. User Trust, which seek to involve users in decision-making about how financial returns are employed, but do not confer control rights over the company to the trust.[443]

4.2.1.3 Implications for Financial Rights

In the perpetual purpose trust outlined above, users would accrue divi (e.g., as bank deposits or payments to an account on the platform) from the CoTrust at the moment CoTrust itself receives dividends from its CoSocial Corporation shareholdings. Unlike a conventional security holding, users

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440 Lisa M Fairfax, 'From Apathy to Activism: The Emergence, Impact, and Future of Shareholder Activism as the New Corporate Governance Norm' (2019) 99 Boston University Law Review 1301, 1314.

441 Lucian A Bebchuk, Alma Cohen and Scott Hirst, 'The Agency Problems of Institutional Investors' (2017) 31 The Journal of Economic Perspectives 89, 90, 100–101.

442 In ESOPs this is the case because the people acting as plan administrators are often the same people serving as the directors and officers of the corporation, leading to a conflict between their ERISA duty to act in the best interests of plan participants and their general fiduciary duty of loyalty to the corporation. This conflict can arise when an offer is made to purchase a company or when a plan is to be amended. Dana Muir and Norman Stein, 'Two Hats, One Head, No Heart: The Anatomy of the ERISA Settlor/Fiduciary Distinction' (2015) 93 North Carolina Law Review 459, 464–465.

443 Nio, Inc., *Letter from Bin Li*, *in* Form F-1 Registration Statement under the Securities Act of 1933, at iii (filed with the SEC on Aug. 13, 2018), https://perma.cc/X7CH-3EVY; Nio, Inc., *NIO Inc. CEO Transferred 50 Million Shares to the Newly Established NIO User Trust*, NIO (Jan. 24, 2019, 3:00 AM EST), <https://perma.cc/WL9A-X7ME>

would not have to accrue, hold, or dispose of equity themselves; however, the trust may structure their payments so that employees as a class are preferentially paid before users. Through payments in fiat currencies, bank deposits, or other widely accepted negotiable instruments, the platform can avoid the regulatory difficulties of privately issuing equity to a globally dispersed and constantly changing user base. This liquidated form of financial benefit is also easier to transfer to other companies. In this regard, lessons can be drawn from the experience of collaborative platforms such as HITRECORD, which has been making payments of varying amounts to community contributors around the world since 2005,[444] initially by issuing checks, and more recently, by using payment platforms like Hyperwallet.[445]

It is important to clarify that, given the length of time it generally takes before a platform company is profitable and able to distribute dividends,[446] it would be inadvisable for the divis of a non-charitable perpetual purpose trust to be considered as a retirement benefit plan for employees or users or as a substitute for a salary. The wildly varying nature of platforms, and their users' relationships to them, entails that the potential for financial returns would vary wildly. For gig work platforms, such a trust could be accompanied with portable benefit plans so as not to expose economically precarious individuals to undue risk.[447] This strategy may not initially seem attractive to highly skilled employees who may have found the promise of lucrative stock options more alluring than the mission of CoSocial. But given the expense involved in exercising stock options and the fact that the common stock will be relatively illiquid once the options are exercised (due to no IPO or acquisition being on the horizon), gradually accruing divis from the stockholding trust may also be viewed as more beneficial to them in the long run.[448]

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444 Melanie Fawcett, 'Hollywood Calling: Hitrecord and the Power of Online Collaboration' [2016] Screen Education 86, 87.

445 HITRECORD, 'Are Artists Outside the United States Eligible to Receive Community Payments?' (*help.hitrecord.org*, 18 September 2019) <https://perma.cc/22HG-TU4L>.

446 Dan Caplinger, 'Will Facebook Start Paying a Dividend in 2019?' (*The Motley Fool*, 21 January 2019) <https://perma.cc/DZZ5-ZD7L>.

447 Silveman reports on a letter sent by some forty executives and public policy experts on the need for portable benefits for gig workers, including worker compensation and sick leave. Rachel Emma Silverman, 'On-Demand Workers Need "Portable Benefits," Tech and Labor Leaders Say' *Wall Street Journal* (10 November 2015) <https://perma.cc/H2ML-T7HS>. The need for social protection systems to be portable, in acknowledgment of labour market mobility is mentioned in Christina Behrendt, Quynh Anh Nguyen and Uma Rani, 'Social Protection Systems and the Future of Work: Ensuring Social Security for Digital Platform Workers' (2019) 72 International Social Security Review 17, 26, 32.

448 Pollman provides examples of employees being harmed by the expense of exercising their options, the illiquidity of exercised common stock and/or falling share prices. Pollman (n 389) 215.

Some trusts may be instead oriented more toward shared governance than distributing financial gains. For instance, social media platforms do not generate direct income from most users but do process their personal data. In such cases it may be preferable to design a purpose trust that retains the income from the stock it holds and allocates the income toward user organizing and advocacy efforts for the mission of user empowerment. To meet the purpose of this option, the use of these funds must be determined through a process that involves users directly.

4.2.1.4 Implications for Public Policy

As with any business organization that seeks to chart a path that is distinct from shareholder wealth maximization, the major issue with mainstreaming the adoption of purpose trusts for platform users will be financing the acquisition of shares by the trust. One option would be to introduce tax measures that make the creation of such trusts financially attractive, as was done previously in the United States at the federal level for ESOP trusts regulated by ERISA. Individuals and LLCs that sell their shares to a qualified ESOP – including the founders of a business or a VC fund organized as an LLC – can indefinitely defer payment of capital gains tax under section 1042 of the Internal Revenue Code if they reinvest ("rollover") the proceeds into a qualified replacement property.[449] One advocate for the use of perpetual purpose trusts for employee ownership in the United States has already proposed that the tax treatment of ESOPs should be extended to other kinds of employee ownership trusts, including perpetual purpose trusts.[450] This chapter advocates for such a regime being extended beyond the employment relation to include multi-stakeholder trusts such as CoTrust.

4.2.2 Option 2: Federation

The second option considers another way to reorient the company toward its community. In this scenario, CoSocial defined the outlines of a plan that, over a five-year period, would transition CoSocial from a single platform to a federated system called CoNet. Rather than continuing to manage the entire system through its vertically integrated organization, CoSocial's board decided to advance its market position by radically distributing decision-making power to the moderators and users of its platform. The first step in doing this involved converting CoSocial into

449 26 U.S.C. § 1042.
450 Michael (n 417) 47.

a Benefit Corporation,[451] so as to avoid derivative actions by disgruntled shareholders who disapprove of this distribution of power.[452] Converting into a Benefit Corporation would also permit the board of CoSocial to ward off takeover bids from larger competitors, which are a persistent threat in the platform economy.[453] The founders of CoSocial all agreed with this course of action and were instrumental in persuading some of the external investors that this conversion would allow them to gain long-term value.[454] The non-vested employee options were unaffected by the conversion as it did not involve a change in control and would be transferred to the new Benefit Corporation. As a consequence, the requisite two-thirds of all classes of shareholders voted for the conversion at a shareholders' meeting and the

451 A Benefit Corporation is a variant of the for-profit C-Corporation in that, in addition to pursuing profit, the business can pursue a general public benefit, with the option of also pursuing specific public benefits. The California Corporations Code defines a general public benefit as having "a material positive impact on society and the environment, taken as a whole, as assessed against a third-party standard, from the business and operations of a benefit corporation." Cal. Corp. Code § 14601(c). The Code mentions a non-exhaustive list of seven specific public benefits, but other specific public benefits can be included as long as they are more specific than the general public benefit, but broad enough to accommodate future changes. Model legislation for Benefit Corporations was first introduced by B Lab and since 2010, 37 states and the District of Columbia have adopted legislation that permits social entrepreneurs to form Benefit Corporations. *See* B Lab, 'State by State Status of Legislation' (*Benefit Corporation*, 2021) <https://perma.cc/R3KJ-VMPS>; Mark J Loewenstein, 'Benefit Corporation Law Twenty-Ninth Annual Corporate Law Center Symposium: Corporate Social Responsibility and the Modern Enterprise' (2017) 85 University of Cincinnati Law Review 381.

452 Judgments in cases such as *eBay Domestic Holdings, Inc. v. Newmark*, 16 A.3d 1 (Del. Ch. 2010) underscore the importance of entity form in pursuing non-shareholder interests. According to this decision, a for-profit corporation form is obliged to pursue shareholder profit and its board can face derivative actions for failing to do so. Converting into a Benefit Corporation can protect directors from this risk as the law permits the business to pursue both commercial and social objectives set out in the Benefit Corporation's articles. Instead of a derivative action, Benefit Corporation legislation provides for benefit enforcement proceedings through which failures to pursue general and/or specific public benefits are litigated. However, scholars have pointed out that this is a weak remedy, as the threshold for shareholders to bring such an action is high, directors are not held personally liable for monetary damages for failing to pursue a general or specific public benefit, and non-shareholders cannot bring such a proceeding without explicit provision being made for it in the company's articles. *See* Cal. Corp. Code § 14620(f); Loewenstein (n 451) 387–388.

453 McDonnell discusses expanding the justifications available to pursue non-shareholder interests during changes and sales of corporate control. Brett H Mcdonnell, 'Committing to Doing Good and Doing Well: Fiduciary Duty in Benefit Corporations' (2014) 20 Fordham Journal of Corporate and Financial Law 19, 53–56. Doyle, in turn, discusses the risk of takeover bids from large competitors. Kim Doyle, 'Facebook, Whatsapp and the Commodification of Affective Labour' (2015) 48 Communication, Politics & Culture 51, 56.

454 Cal. Corp. Code § 14603(a). The possibility of social media platforms like Facebook registering as public benefit corporations was also alluded to, but not further explored, by Klonick (n 380) 1668.

few that dissented were paid the fair market value of their shares. In its amended articles of incorporation, the new CoSocial Benefit Corporation stated that along with achieving a general public benefit, the company committed to the specific public benefit of (i) distributing power over the CoSocial network and infrastructure among its users and (ii) stimulating broad-based ownership of CoSocial corporation.

The new Benefit Corporation's strategy of distributing network power had both technical and organizational dimensions. On the technical side, CoSocial released a new version of its software with a free, copyleft license (e.g., GNU Affero General Public License v3.0)[455] that allowed user-groups to download and run the software on their own servers, while ensuring that a certain percentage of revenues earned through network transactions were shared with the company. The terms of the license also meant that other user-groups could iterate on the software improvements made by any other user-group. User-moderators of the groups on the platform already had significant autonomy on CoSocial; now, they could run a customized version of the CoSocial platform on their own servers for local user communities. As CoSocial implemented a decentralized social networking protocol (e.g., ActivityPub),[456] users were able to interact with other user-groups that had installed their own servers, as well as servers running third-party software that adopted CoSocial's open protocol.

On the organizational side, local legal entity forms that enabled member-ownership were registered to operate user-group Nodes. These often were, but not limited to, cooperatives. Nodes were conferred the ability to make a wide range of decisions over matters such as user-onboarding,[457] user-interface design, content moderation, data management policies, advertising policies, group governance, and which other Nodes to

455 We use the Free Software Foundation's definition of "free software," e.g., software that give users the freedom to run, copy, distribute, study, change and improve the software. This does not refer to price, as users can charge for modified software if they wish. A subcategory of free software can be licensed on copyleft terms, which means that users cannot restrict the freedoms associated with the software through their use and adaptations of it. Free Software Foundation, 'What Is Free Software?' (*GNU Operating System*, 30 July 2019) <https://perma.cc/KM6D-W2HW>.

456 "The ActivityPub Protocol is a decentralized social networking protocol based upon the ActivityStreams 2.0 data format. It provides a client to server API for creating, updating and deleting content, as well as a federated server to server API for delivering notifications and content." ActivityPub, 'W3C Recommendation' (23 January 2018) <https://perma.cc/XG2A-QFPZ>.

457 This includes setting the process of distinguishing genuine users from bots as well as those among the former who have a fleeting interest in CoSocial's activities and those who wish to contribute to an alternative way of governing a platform business.

collectively remove from the network.[458] By distributing decision-rights to these Nodes, each node was able to align its gig-work functionality with local regulations and the demands of gig workers in their jurisdiction. Distributing control of the network also entailed significant cost-savings because Nodes invested in expansion strategies, content moderation, and several other previously centralized functions.

Some decisions, however, were not delegated to the Nodes. To maintain certain core services that benefit from operating at scale – the payments system, the advertising marketplace, and the popular AI-powered recommendation algorithms – Nodes were expected to financially contribute to CoNet. Some Nodes could seek to opt out of these services or develop them independently, but most Nodes saw the benefit of having an organization facilitate the coordination of certain issues and sharing resources among the Nodes.

With this in mind, some of the moderators and active users decided to form CoNet Cooperative, an entity organized under the Cooperative Corporation Law of California[459] that was dedicated to furthering the interests of its Node-members. These members enjoyed one-member, one-vote decision-making rights in the governance of the CoNet Cooperative. In return, the membership conditions of CoNet Cooperative required that the owners of the Nodes pay monthly dues and maintain a minimum level of patronage,[460] which was expansively defined to encompass a broad range of activities from moderators/users of individual Nodes giving time to govern the cooperative to the contribution of meta-data and technical expertise to improve the offerings of the federated CoNet. For gig-work transactions that involved payments to individual users, the Nodes and CoNet Cooperative charged a small transaction fee that was set at a lower rate than competitor platforms.

Initially, a significant portion of these dues and fees went from CoNet Cooperative to CoSocial Benefit Corporation to cover overheads and the salaries of employees who remained with the company. However, as the model's popularity grew, CoNet Cooperative began to acquire shares in the CoSocial Benefit Corporation with the view of ultimately merging it with CoNet Cooperative once it had the means to tender an offer. This acquisition of shares was partially financed by the aforementioned member Nodes' dues and transaction fees from users. This was complemented by

458 It is not exceptional that platforms can decide what their "tone and tenor" is or involve users in content moderation processes, as even major platforms do so. Klonick (n 380) 1626, 1641. While this has to be calibrated to the business model of the Nodes and has to be mindful of commercial confidentiality, as a practical matter there is "no excuse for members not to be consulted or engaged on any issue." Peter Couchman, 'Governance and Organizational Challenges' in Jonathan Michie, Joseph R Blasi and Carlo Borzaga (eds), *The Oxford Handbook of Mutual, Co-Operative, and Co-Owned Business* (Oxford University Press 2017) 256.

459 Cal. Corp. Code § 12200.

460 Cal. Corp. Code §§ 12441, 12243.

donations of shares from CoSocial Benefit Corporation, from shares that had been redeemed earlier, so as to comply with its specific public benefit of expanding broad-based ownership of the company. Over time, CoSocial became wholly owned by a cooperative of its member-owned Nodes.

Through this arrangement, users enjoyed the ubiquity of a common network along with a considerable diversity of Nodes to choose from. The emphasis on relentlessly growing CoSocial's user base and maximizing shareholder value had gradually been replaced with a commitment to enhancing the welfare of users. Users simultaneously become part of two public spheres, at the level of their individual Nodes and at the level of the Cooperative. For the users who increasingly come to identify more with their favourite Nodes than with CoNet, the cooperative organizational network faded into the background as it gave rise to an ever more diverse, community-governed experience of Internet social media and gig labour.[461]

4.2.2.1 Background

In comparison to the perpetual purpose trust scenario in section 4.2.1., a federation is well-regarded by those acquainted with the governance of social and syndicalist movements,[462] global common-pool resources,[463] and, in particular, those familiar with the cooperative sector.[464] Its use in

461 The relationship and behaviour of the Nodes with respect to each other and to the CoNet Cooperative can be described as a form of polycentric governance. In contrast to a monocentric system of governance, which has a single decision-making authority, this is a system where there are various, overlapping centres of decision-making authority, all with some degree of autonomy from each other, but each with a central understanding that they have to take into account what others are doing. This interdependence typically leads to the formation of common rules and coordinating institutions. Keith Carlisle and Rebecca L Gruby, 'Polycentric Systems of Governance: A Theoretical Model for the Commons' (2019) 47 Policy Studies Journal 927, 932; Mark Stephan, Graham Marshall and Michael McGinnis, 'An Introduction to Polycentricity and Governance' in Andreas Thiel, Dustin E Garrick and William A Blomquist (eds), *Governing Complexity: Analyzing and Applying Polycentricity* (Cambridge University Press 2019) 29. The idea of friendly competition among Nodes has been referred to as genuine, competitive federalism. Shruti Rajagopalan and Richard E Wagner, 'Constitutional Craftsmanship and the Rule of Law' (2013) 24 Constitutional Political Economy 295, 306.

462 William H George, 'Proudhon and Economic Federalism' (1922) 30 Journal of Political Economy 531, 540; Michael Hardt and Antonio Negri, *Assembly* (Oxford University Press 2017) 68.

463 This chapter adopts Quilligan's distinction between public goods, common-pool resources and common goods. Going beyond notions of exclusivity and rivalrousness, the latter two are goods which are best governed by social mutuality and collaboration. James B Quilligan, 'Why Distinguish Common Goods from Public Goods?' in David Bollier and Silke Helfrich (eds), *The Wealth of the Commons: A World Beyond Market & State* (Levellers Press 2012).

464 Ellerman, *Democratic Worker-Owned Firm* (n 20) 104; Sonja Novkovic, 'Co-Operative Networks, Adaptability and Organizational Innovations' in Caroline Gijselinckx, Li Zhao and Sonja Novkovic (eds), *Co-operative innovations in China and the West* (Palgrave Macmillan 2014) 49.

the cooperative sector, including in the agriculture and financial industry,[465] has meant the use of federations is widespread in businesses and political movements. The CoNet structure described above incorporates the features of both a consumers' cooperative and a shared-services' cooperative,[466] blending the way in which CoNet users participate in both consumption and production.[467] The transactions between the user and their Node are akin to that of a consumers' cooperative, in that a member-owned and member-governed Node operates in the interest of its user-members, with its services allowing them to, for example, consume other's social media content. The transactions between the Nodes and the CoNet Cooperative are similar to that of a shared-services' cooperative among smaller businesses in a common industry. The various Nodes maintain a high degree of operational autonomy, but they also benefit from a shared content network and various resources that would be too capital-intensive for them to invest in by themselves. Nodes can also exercise decision-making authority over the organization that manages these shared resources.

This kind of cooperative model allows economies of scale while maintaining greater local diversity than comparable investor-owned firms.[468] Indeed, as Elinor Ostrom identifies, the existence of "multiple layers of nested enterprises" is characteristic of successful institutions that manage large common-pool resources over a substantial period of time.[469] The CoNet Cooperative is a nested institution, as it manages common goods such as the protocol and payment services, while member Nodes retain significant autonomy.[470] In terms of power, such cooperative federations invert the top-down logic of archetypical corporate groups, as it is the local entities that act as the "parents" of a centralized, "daughter" organization

465 Claudia Sanchez Bajo and Bruno Roelants, *Capital and the Debt Trap: Learning from Cooperatives in the Global Crisis* (Palgrave Macmillan 2011) 106–107.

466 "A shared-services cooperative is a business organization owned and controlled by private businesses or public entities that become members of the cooperative to more economically purchase services and/or products." Anthony C Crooks, Karen J Spatz and Marc Warman, 'Basics of Organizing a Shared-Services Cooperative' (United States Department of Agriculture, Rural Business and Cooperative Development Services 1995) Service Report 46 <https://perma.cc/3D4J-GXV6>. For more on the role of shared-services cooperatives in the context of the platform economy, see chapter 6.

467 ibid; Raym Crow, 'Publishing Cooperatives: An Alternative for Non-Profit Publishers' (2006) 11 First Monday <https://journals.uic.edu/ojs/index.php/fm/article/view/1396/1314>.

468 Svend Albaek and Christian Schultz, 'On the Relative Advantage of Cooperatives' (1998) 59 Economics Letters 397, 397–398.

469 Elinor Ostrom, *Governing the Commons: The Evolution of Institutions for Collective Action* (Cambridge University Press 2015) 90, 101–102.

470 Mayo Fuster Morell, 'Governance of Online Creation Communities for the Building of Digital Commons: Viewed through the Framework of Institutional Analysis and Development' in Brett M Frischmann, Michael J Madison and Katherine Jo Strandburg (eds), *Governing knowledge commons* (Oxford University Press 2014) 281.

that serve a defined common function[471] and enable local entities to provide a quality and diversity of services that would be impossible in isolation. Seeking a similar balance, both the Mastercard and VISA payment systems were once organized as cooperative federations to allow local entities to provider higher qualities services.[472]

Consumer cooperatives have a storied history, being one of the earliest uses of the cooperative form.[473] They have had a constant presence in the retail sector in Western Europe and, to a lesser extent, the U. S. for more than a century.[474] Such cooperatives permit retailers to cater to the interests of local consumers while benefiting from shared wholesaling, procurement, branding and marketing. The degree to which such structures decentralize decision-making, and production differ across countries and over time. Ekberg, in surveying the history of retail consumer cooperatives across Western Europe since the Second World War, found that retaining a federated structure – even during times of financial distress – has been successful in overcoming financial distress in many instances while reverting to centralization has not.[475] In countries like Italy, in addition to a vibrant retail consumers' cooperative sector,[476] public utility services such as water and electricity supply are also furnished through consumer cooperatives.[477]

Beyond retail and public utilities, consumer and shared-service cooperatives have also prominently been featured in the media industry, particularly in news-wire services and radio. The Associated Press (AP) was organized as a cooperative to have exclusivity over news and to allow member-newspapers to share the costs of gathering news (e.g., telegram dispatches) by charging members based on their respective use of the news

471 Espen Ekberg, 'Organization: Top Down or Bottom Up? The Organizational Development of Consumer Cooperatives, 1950-2000' in Patrizia Battilani and Harm G Schröter (eds), *The Cooperative Business Movement, 1950 to the Present* (Cambridge University Press 2012) 222.

472 David L Stearns, *Electronic Value Exchange: Origins of the VISA Electronic Payment System* (Springer-Verlag 2011) viii, 27–28, 38.

473 Percy Redfern, *The Story of the C. W. S. The Jubilee History of the Cooperative Wholesale Society, Limited. 1863-1913* (The Co-operative wholesale society limited 1913); Sidney Webb and Beatrice Webb, *The Consumers Co-Operative Movement* (Longmans, Green and Co 1930) 5.

474 Clarke A Chambers, 'The Cooperative League of the United States of America, 1916-1961: A Study of Social Theory and Social Action' (1962) 36 Agricultural History 59, 59; Ekberg (n 471); Florence E Parker, *The First 125 Years: A History of Distributive and Service Cooperation in the United States, 1829-1954* (Cooperative League of the United States 1956) 66.

475 Ekberg (n 471) 237–238.

476 Vera Zamagni, 'A World of Variations: Sectors and Forms' in Patrizia Battilani and Harm G Schröter (eds), *The Cooperative Business Movement, 1950 to the Present* (Cambridge University Press 2012) 72.

477 Pier Angelo Mori, 'Customer Ownership of Public Utilities: New Wine in Old Bottles' (2013) 2 Journal of Entrepreneurial and Organizational Diversity 54, 55.

reports in their publications.[478] Despite a sequence of structural transitions, culminating in a direction from the U.S. Supreme Court to amend how it transacts with non-members, it continues to be a not-for-profit cooperative.[479] The Associated Press claims that its reports reach around half the world's population each day,[480] making its reach substantially greater than that of even Facebook.[481] On the other end of the spectrum, in terms of scale, community radio stations (often organized as cooperative-like entities) were able to independently cater to widely different listener/supporter communities and involve them in organizational decision-making, while simultaneously building networks with other values-aligned community radio stations to create content and share technological resources (e.g., KRAB Nebula; the Pacifica Affiliate Network coordinated by the non-profit Pacific Foundation). It was this decentralization in decision-making that allowed these stations to bring bold content to the airwaves that went against the grain, starting with the views of Martin Luther King, Jr., Malcolm X, and others in the civil rights movement.[482]

The history of the Internet, particularly after it entered mainstream use, also offers precedents for federated models as described in this section. The French Data Network (FDN) is an Internet access provider that was formed in 1992 and is managed by organizations on behalf of their member-subscribers. The member-subscribers pay an annual membership fee and a monthly subscription to access the Internet.[483] In the past decade, the FDN has sought to federalize its structure by encouraging the establishment of local cooperative and member-owned ISPs and VPN service providers under the umbrella of a federation (a non-profit association). While these groups individually seek to provide Wi-Fi, fibre-optic cable, and VPN access to their member-subscribers, collectively they embark on community projects such as local file-sharing,[484] lending of resources such as servers and cheap bandwidth and organizing in-person general assemblies.[485] As with

478 Jonathan Silberstein-Loeb, *The International Distribution of News: The Associated Press, Press Association, and Reuters, 1848–1947* (Cambridge University Press 2014) 2, 48–49; Victor Rosewater, *History of Coöperative News-Gathering in the United States* (Johnson 1970).

479 Associated Press v. United States, 326 U.S. 1 (1945).

480 Associated Press, 'About Us' (*Associated Press*, 2018) <https://perma.cc/C67D-TFUD>.

481 In the second quarter of 2020, Facebook had 1.79 billion daily active users out of a world population of roughly 7.8 billion. This is about 20% of the global population. Worldometer, 'Current World Population' (*Worldometer*, 31 October 2020) <https://perma.cc/CH56-PUML>; Facebook, 'Facebook Reports Second Quarter 2020 Results' (*Facebook Investor Relations*, 30 July 2020) <https://perma.cc/7G5E-YJ6V>.

482 William Barlow, 'Community Radio in the US: The Struggle for a Democratic Medium' (1988) 10 Media, Culture & Society 81, 86, 88, 93.

483 Félix Tréguer, 'Federating Community Networks: A Case Study from France' in Luca Belli (ed), *The community network manual : how to build the Internet yourself*, vol III (FGV Direito Rio 2018) <https://perma.cc/Q9Y7-PLE8>.

484 ibid 164–166.

485 ibid 169.

progressive community radio, the FDN has also used its technology for socio-political ends. For instance, FDN put up a mirror site for WikiLeaks and set up modems and call-in numbers for Egyptians to connect to the Internet when access was blocked.[486] The FDN also represents the voice of the community on hot-button issues such as net neutrality.[487] Similar to FDN, guifi.net, which originated in Catalonia, was formed as a bottom-up technological project to extend broadband Internet access to underserved communities and is run by, and for, its more than 13,000 registered members through digital participation tools and face-to-face meetings.[488]

The capacities attributed to CoNet's Nodes are to be found in existing federated social networks such as Mastodon and GNU Social,[489] although both have fallen far short of the major centralized social networks in terms of reach. Nevertheless, there are examples of member-owned technology networks which do have the size and global scale of the envisioned CoNet. WorldCat, for instance, is the premier international library catalogue stewarded by the OCLC Cooperative, an organization comprised of its 17,983 library-members in 123 countries, member-elected Regional and Global Councils of library-members, a member-elected Board of Trustees, and a non-profit corporation governed by said Board.[490] The Cooperative enables library-members to share resources, cut costs (e.g., on original cataloguing), and increase its visibility, in exchange for inter alia contributing meta-data and holdings information. This immense store of data has, in turn, enabled OCLC to develop a host of web-applications, library management, and cataloguing software.[491]

These examples of federated social networks and other member-owned technology networks point toward a return to federated protocols instead of platforms as the basic container for online networks.[492] Early in the development of Twitter, such protocol federation was considered but ultimately rejected.[493] In other words, the technology for social media federations

486 ibid 163.

487 ibid 171.

488 Roger Baig and others, 'Guifi.Net, a Crowdsourced Network Infrastructure Held in Common' (2015) 90 Computer Networks 150, 160, 162.

489 M Zignani, S Gaito and GP Rossi, 'Follow the "Mastodon": Structure and Evolution of a Decentralized Online Social Network', *ICWSM* (Association for the Advancement of Artificial Intelligence 2018) <https://air.unimi.it/retrieve/handle/2434/629384/1180809/2018_ICWSM.pdf>.

490 OCLC, 'WorldCat Rights and Responsibilities for the OCLC Cooperative' (*OCLC*, 2010) <https://perma.cc/ASJ9-UV47>.

491 OCLC, 'All OCLC Products and Services' (*OCLC*, 1 November 2018) <https://perma.cc/J4H5-LPW7>.

492 Mike Masnick, 'Protocols, Not Platforms: A Technological Approach to Free Speech' (*Knight First Amendment Institute at Columbia University*, 21 August 2019) <https://perma.cc/8RW8-4FGD>.

493 Schneider, *Everything for Everyone* (n 348) 167.

has existed for years, as has the interest;[494] what has been missing is the business model to make it more widespread. In 2017, Facebook CEO Mark Zuckerberg lamented the difficulty of governing a massive, centralized platform and called for strategies that would enable more local governance.[495] Perhaps the CoNet scenario outlined in this section represents a means for doing so.

4.2.2.2 Implications for Governance

Alexander Galloway has pointed out the rigid forms of control that can arise in networks that share underlying protocols, where the designers of a difficult-to-change protocol wield outsized and often invisible authority.[496] CoNet would require such a shared protocol for interoperability of its Nodes,[497] but the rigidity of protocol-based systems would be mitigated by its cooperative structure. Node operators would have a say in decisions about changes to their shared protocol, ensuring a measure of direct accountability that many protocols lack. Cooperative governance would also provide a forum in which issues and conflicts among Nodes could be coordinated and resolved (e.g., Nodes competing for users), as compared to more confederal structures in which secondary entities have a far weaker position.[498] This, in turn, would allow for solidarity among Nodes as well as the sharing of best-practices across CoNet, both of which have been seen in non-digital cooperative federations with interlocking directorships.[499] While bearing these advantages in mind, the governance of federations raises its own challenges.

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494 Geert Lovink and Ned Rossiter, *Organization After Social Media* (Autonomedia 2018) 3; Robert W Gehl, 'Real (Software) Abstractions: On the Rise of Facebook and the Fall of MySpace' (2012) 30 Social Text 99, 114.

495 Mark Zuckerberg, 'Building Global Community' (*Facebook*, 16 February 2017) <https://perma.cc/G8WV-H9WL>.

496 *See generally,* Alexander R Galloway, *Protocol: How Control Exists after Decentralization* (MIT Press 2004).

497 Interoperability refers to the "extent to which one platform's infrastructure can work with others." Bennett Cyphers and Danny O'Brien, 'Facing Facebook: Data Portability and Interoperability Are Anti-Monopoly Medicine' (*Electronic Frontier Foundation*, 24 July 2018) <https://perma.cc/K8TS-QZ2Z>.Along with lawyers such as Khan & Pozen, prominent finance and economics professors have also called for (major) online platforms to be made interoperable so as to reduce incumbency advantages and switching costs. Khan and Pozen (n 383) 538–539; Sai Krishna Kamepalli, Raghuram Rajan and Luigi Zingales, 'Kill Zone' (National Bureau of Economic Research 2021) 32.

498 Nicolás Brando and Helder De Schutter, 'Federal Commons' in Samuel Cogolati and Jan Wouters (eds), *The commons and a new global governance* (Edward Elgar Publishing 2018) 48.

499 Interlocking directorships refers to the situation in which the director of a primary entity serves on the board of another entity, including secondary entities in a federation. Kostas Karantininis, 'The Network Form of The Cooperative Organization: An Illustration with the Danish Pork Industry' in Kostas Karantininis and Jerker Nilsson (eds), *Vertical markets and cooperative hierarchies the role of cooperatives in the agri-food industry* (Springer 2010) 23, 28.

Among knowledge-economy sectors in which global, inverted federations are common, such as in certain large U.S., U.K. and German law firms,[500] common problems include discrepancies in quality among members of the federation[501] and the gradual de-equitization of partners by depriving them of a meaningful voice in the management of the global firm.[502] Examples ranging from transnational law firms to the Co-operative Wholesale Society in England (another complex cooperative federation) highlight how tensions may emerge between the primary entities, such as Nodes, and secondary entities such as the CoNet Cooperative, concerning the purpose of the latter. Over time, the secondary entity could come to expect that the local primary entities serve the secondary entity's interest rather than vice versa.[503] To avoid falling into patterns similar to existing platforms that are charged with alleged abuses of monopsony power, this will have to be actively mitigated.[504] The federation model would, in effect, create a market for governance[505] among the Nodes for users to choose from. If some of the Nodes were to actively challenge the monopsony power of the CoNet Cooperative, concerns about an abuse of monopsony power could be somewhat allayed.

Governance concerns may also arise at the primary level of such federations. Self-hosted platforms such as Minecraft[506] and Wikia (now Fandom)[507] suggest that heterogeneous governance practices ranging from micro-democracies to oligarchies and "benevolent dictators for life" can emerge in federated networks. By registering as a member-owned legal

500 Glenn Morgan and Sigrid Quack, 'Institutional Legacies and Firm Dynamics: The Growth and Internationalization of UK and German Law Firms' (2005) 26 Organization Studies 1765, 1775.

501 Debora L Spar, 'Lawyers Abroad: The Internationalization of Legal Practice' (1997) 39 California Management Review 8, 22–23.

502 James R Faulconbridge and Daniel Muzio, 'The Financialization of Large Law Firms: Situated Discourses and Practices of Reorganization' (2009) 9 Journal of Economic Geography 641, 651–652, 655–656.

503 James R Faulconbridge, 'Managing the Transnational Law Firm: A Relational Analysis of Professional Systems, Embedded Actors, and Time – Space-Sensitive Governance' (2008) 84 Economic Geography 185, 194; Anthony Webster, John Wilson and Rachael Vorberg-Rugh, 'The Rise, Retreat and Renaissance of British Cooperation: The Development of the English Cooperative Wholesale Society and the Cooperative Group, 1863-2013' in Johanna Heiskanen and others (eds), *New Opportunities for Co-operatives: New Opportunities for People* (Ruralia Institute, University of Helsinki 2012) 93.

504 Khan, 'Amazon's Antitrust Paradox' (n 308) 766.

505 Charles M Tiebout, 'A Pure Theory of Local Expenditures' (1956) 64 Journal of Political Economy 416, 422.

506 Seth Frey and Robert W Sumner, 'Emergence of Integrated Institutions in a Large Population of Self-Governing Communities' (2019) 14 PloS One e0216335.

507 Aaron Shaw and Benjamin M Hill, 'Laboratories of Oligarchy? How the Iron Law Extends to Peer Production' (2014) 64 Journal of Communication 215, 225.

entity, such as a cooperative, the Node could embed certain governance rules such as one-member-one-vote, the minimum number of members needed for a quorum, and the appointment and composition of a representative board. This would make explicit the terms of Node governance, which might otherwise be left to soft norms, allowing implicit power structures to arise.[508] A robust governance structure would provide guardrails against oligarchic behaviour by certain members or the prioritization of short-term agendas that may harm the long-term interests of the Node. Additionally, the inclusion of users in decision-making would give them a voice on issues that directly affect their experience on the platform such as the form of encryption to be used over communications, the type of advertisers that will be allowed on the platform, and how personal data will be managed. The reconfiguration of decision-making rights proposed by this scenario would give users and other stakeholders the opportunity to reflect on the goals and business model of CoNet – deciding, for instance, whether it should focus on exponential expansion by emulating its competitors or shifting to growth that is "slow but sure."[509] This, in turn, would shape the choices CoNet makes to earn revenue. Ultimately, the creativity of founding members in designing the internal governance of a given Node would only be limited by any mandatory rules imposed on its legal form (e.g., minimum number of members) in the jurisdiction concerned.

Another issue for such a cooperative structure to address is its exclusion of persons who do not consent to the new terms of use. The exclusive right of shared-services cooperatives to provide a service and their members to benefit from this service has, naturally, deprived non-members. This has been a cause for concern as cooperatives have grown in scale within a given market. Whether this is AP excluding non-members from news reports[510] or community radios preventing others from using a standard FM spectrum allocated by the U.S. federal government to non-commercial broadcasters,[511] cooperative history is replete with such examples. This touches upon an important normative question raised by John L. Hochheimer in the context of community radios: should community radios serve their communities, or is the community a resource that is intended for society as a whole?[512]

508 Jo Freeman, 'The Tyranny of Structurelessness' (2013) 41 WSQ: Women's Studies Quarterly 231.

509 To appropriate a motto of the Lincoln Equitable Co-operative Industrial Society (LECIS) from 1863. Andrew JH Jackson, 'The Cooperative Movement and the Education of Working Men and Women: Provision by a Local Society in Lincoln, England, 1861–1914' (2016) 90 International Labor and Working-Class History 28, 33.

510 Associated Press v. United States, 326 U.S. 1 (1945).

511 Barlow (n 482) 99.

512 John L Hochheimer, 'Organizing Democratic Radio: Issues in Praxis' (1993) 15 Media, Culture & Society 473.

Transposing this onto CoNet, tensions might emerge between expectations of an individual Node to serve its users (i.e., seeing the network as a private good or club good) and serving users of all other Nodes in CoNet as well as users of other decentralized social networking platforms that use the same protocol (i.e., seeing the network as a common good). While social media content is excludable, unlike breaking news reports and narrowly allocated radio spectrums, it is non-rivalrous and anti-rivalrous.[513] In other words, not only does social media content not diminish in value when simultaneously shared or consumed, it generally increases in value the more it is simultaneously shared or consumed.[514] An understanding of this property of the system may allow users to appreciate that the benefit of their individual Nodes is contingent, to at least some extent, on what is beneficial for other Nodes and other decentralized social networking platforms.[515] One way of balancing the interests of user members and non-member users could be through the extension of certain control rights to the latter in the cooperative's bylaws (e.g., consultation on major strategic decisions), an option that is already available under California's Cooperative Corporation Law.[516] Educating users about the properties, architecture, and political economy of platforms may also help ameliorate some of these governance challenges, as has long been the case with cooperatives.[517] Such education could prove to be an important service provided by the CoNet Cooperative.

4.2.2.3 Implications for Financial Rights

By registering as member-owned legal entities, the Nodes could limit the liability of users from the financial risks of the collective enterprise. Conversely, the separate legal personality of the entity, in conjunction with end-user licenses which inform users of their obligations to avoid posting

513 The gig work dimension of CoSocial is rivalrous.

514 F Xavier Olleros, 'Antirival Goods, Network Effects and the Sharing Economy' (2018) 23 First Monday.

515 Aymeric Mansoux and Roel Roscam Abbing, 'Seven Theses on the Fediverse and the Becoming of FLOSS' in Kristoffer Gansing and Inga Luchs (eds), *The Eternal Network: The Ends and Becomings of Network Culture* (Institute of Network Cultures & transmediale eV 2020) 126.

516 Cal. Corp. Code § 12238(b)

517 On the importance of education for cooperatives, *see, e.g.,* Jackson (n 509) 37–41, 47; Jessica Gordon Nembhard, *Collective Courage: A History of African American Cooperative Economic Thought and Practice* (Penn State Press 2014) 101–103.

copyright protected content, could help shield the Node from intermediary liability. [518]

In contrast to a more centralized model, a federated network of Nodes would mean that most of the operating expenses, including shared services developed by CoNet Cooperative, will be met by individual Nodes. Local surpluses, therefore, will largely be reinvested in the CoNet ecosystem. If the Nodes are not charitable entities and are permitted to make distributions,[519] a divi can be paid to individual users after these operating expenses are met. Moreover, if a Node chooses to have distinct classes of membership, it could include a minority of investor-members with the understanding that they would receive a capped return on investment (e.g., up to 6%).

As is typical with a shared-service cooperative, the cooperative's own surpluses (if any) could in part be returned to member Nodes as patronage dividends, in proportion to their patronage. At the same time, the bylaws of CoNet Cooperative and individual Nodes would need to prevent excessive dividend-seeking by individual members. This would ensure that sufficient resources can be retained and reinvested in the Nodes to develop the shared infrastructure, support existing or new Nodes and, based on the prior experience of cooperative federations such as Desjardins and Mondragon, establish an indivisible reserve for times of financial distress.[520] The acquisition of

518 Intermediary liability refers to the civil liability that intermediaries, such as internet-service providers or online platforms, may face for the actions of their users. Legislative interventions, such as the Communications Decency Act, 47 U.S.C. § 230 (2012), were introduced to shield intermediaries from such liability and to incentivize them to play a quasi-regulatory role in blocking and screening certain objectionable content, including the moderation and removal of content. Klonick provides an overview of how the interpretation of this section by state and circuit courts have served to preclude strict liability for intermediaries such as website operators, particularly in the case of corporations such as Facebook. Klonick (n 380) 1606–1609. Aubrée and de Rosnay discuss how community networks are protected from intermediary liability. Virginie Aubrée and Mélanie Dulong de Rosnay, 'Fostering Sustainability of Community Networks: Guidelines to Respect the European Legal Framework' in Luca Belli (ed), *The community network manual : how to build the Internet yourself*, vol III (FGV Direito Rio 2018) 177, 181, 185 <https://perma.cc/N895-PFL9>.

519 *Compare* Nonprofit Public Benefit Corporations, Cal. Corp. Code §§ 5237, 5410 (prohibiting distributions and making directors jointly and severally liable for making distributions). Nonprofit Mutual Benefit Corporations can only make distributions upon dissolution and when memberships are redeemed or purchased subject to certain conditions. Cal. Corp. Code §§ 7411-7414. Cooperative Corporations, in contrast, may make distributions, but those distributions cannot exceed 15% multiplied by contributions (whether membership fees, capital credits, or otherwise) to capital. Cal. Corp. Code § 12451. This is an important point as members may be liable for any amount that they knowingly receive which has been distributed wrongfully. Cal. Corp. Code § 12455.

520 In California, a worker cooperative can create an indivisible reserve, so long as the funds do not derive from the patronage of the members. Bajo and Roelants describe the advantages of having an indivisible reserve based on the experience of Desjardins and Mondragon. Sanchez Bajo and Roelants (n 465) 161, 179.

CoSocial Corporation by CoNet Cooperative, for instance, is an expensive endeavour, one in which the interests of various CoSocial shareholders have to be reconciled.

Previous experience of federated social networks[521] suggest that most usage is likely to be clustered in a small number of successful Nodes, which will also capture a significant share of financial gains. The establishment of a CoNet Cooperative to unite the various Nodes would help prevent the system from being fully captured by the interests of the most successful Nodes, as it would allow the more successful Nodes to receive higher patronage dividends while limiting their control rights due to there being one-member, one-vote cooperative governance.

4.2.2.4 Implications for Public Policy

As in the case of existing federated social networks using open-source software[522] and other network organizations such as franchises,[523] Nodes would be subject to local regulation. The individual Nodes and their servers would take responsibility for adapting their rules and norms to local legal regimes, such as those governing labour and employment relationships or the formation requirements for member-owned enterprises. Less of the regulatory burden would fall on the central federation, which could result in a parsimony appealing both to regulators and to operators at various levels of the network. As with rural electric co-ops and franchisees,[524] the costs of organization and operation would fall on local Nodes. This would mean Nodes would have to cautiously consider establishment and slow the growth of the network, but this caution will improve the chances of each Node surviving.

Conversely, since the businesses of individual Nodes would benefit from a shared brand identity, their owners and the CoNet Cooperative as a whole would have an incentive to ensure that all Nodes meet certain minimum technical and operational standards in order to prevent free-

521 Frey and Sumner (n 506); Zignani, Gaito and Rossi (n 489).

522 "[I]t is possible to create an online community that can interface with the rest of the Fediverse but that operates according to its own local rules, guidelines, modes of organization, and ideology." Mansoux and Abbing (n 515) 130.

523 Several U.S. states, along with countries around the world, have laws governing franchising. This may be through specific franchise legislation or through competition law or foreign trade and investment law. While a master franchise agreement may operate transnationally, these laws shape pre-contractual disclosures, dictate the terms of an in-term franchise relationship, and constrain forms of coordination that could restrict trade and protect local economies. *See*, Mark Abell, 'The Regulation of Franchising Around the World' in Mark Abell (ed), *The Franchise Law Review* (7th ed., Law Business Research Ltd 2020).

524 Sandeep Vaheesan and Nathan Schneider, 'Cooperative Enterprise as an Antimonopoly Strategy' (2019) 124 Penn State Law Review 1, 21; Karin Fladmoe-Lindquist and Laurent L Jacque, 'Control Modes in International Service Operations: The Propensity to Franchise' (1995) 41 Management Science 1238, 1238.

riding behaviour. In addition to promoting healthy self-regulation, such incentives could also encourage proactive policy advocacy to protect the integrity of the network as a whole. For instance, the CoNet Cooperative board may see fit to lobby against "data localization" laws that could, among other things, expose users to heightened privacy and cybersecurity risks.[525] The existence of a wider member-owned network organization may act as a countervailing force to the imposition of oppressive regulation and aid in promoting more user-centric regulations.[526]

Regulatory intervention could be a means of creating such a federated network. In the CoSocial scenario above, federation was a voluntary choice – one that allows for the creation of standardized common protocols for Nodes. However, such an outcome might also be dictated by a regulatory authority through an antitrust case, on the basis that a federated cooperative would result in a more competitive market than a platform controlled by a single, monopolist or monopsonist.[527] The most famous example of this is the breakup of the Bell system operated by AT&T that at one point dominated both the telephone service and telephone equipment markets in the United States. The divestiture of seven independent companies, following an agreed consent decree on January 8, 1982, spurred competition in the market for long distance telecommunication, allowing competitors such as MCI and Sprint to emerge as well with more productive R&D post-divestiture.[528] The need for more competitor platforms has been echoed by others.[529]

However, there is reason to be sceptical that such action will be taken in the United States at present, given the recent history of lax antitrust enforcement[530] and a narrow interpretation of anti-competitive behaviour. The latter was most recently demonstrated in the U.S. Supreme Court's decision in *Ohio v. American Express Co*.[531] That case concerned the operation of a two-sided market by credit card companies (i.e., involving cardholders and merchants), described by the Court as a "transaction platform," which varies from the other platforms discussed until now in that they cannot provide services to one side of the market independently but must

525 Anupam Chander and Uyên P Lê, 'Data Nationalism' (2015) 64 Emory University School of Law 677, 719.

526 See, for e.g., the role of lobbying by large cooperatives in the case of cooperative housing in Canada in Frank Lowery, 'National Report for Canada' (International Co-operative Alliance and the European Union 2020) 14 <https://bit.ly/3gL9ZrB>.

527 Vaheesan and Schneider (n 524) 225–226.

528 Anusua Datta, 'Divestiture and Its Implications for Innovation and Productivity Growth in U. S. Telecommunications' (2003) 69 Southern Economic Journal 644, 648, 656–657; John Pinheiro, 'AT&T Divestiture & the Telecommunications Market' (1987) 2 High Technology Law Journal 303.

529 Balkin, 'Fixing Social Media's Grand Bargain' (n 90) 11.

530 Shapiro (n 308) 70.

531 138 S. Ct. 2274 (2018).

facilitate simultaneous interactions between the two sides.[532] Through their contracts with merchants, companies like American Express were inhibiting merchants from steering their customers to other credit or debit cards that may offer lower merchant fees. The majority held that such "anti-steering" clauses were not anti-competitive as *inter alia* the higher merchant prices could be converted into benefits for cardholders on the other side of the platform (e.g., cardholder rewards).[533] This can be read as harm on one side of the platform being permissible if it translates to some form of gain on the other side of the platform, so long as the harm is not to competition generally.[534] This approach relies on a particular definition of the relevant market, which in this case was held to include both sides – merchants and cardholders – rather than each side operating in separate but interrelated markets. While some have interpreted this decision as not foreclosing the possibility of future antitrust cases against Facebook, Twitter, and others, given that the scope of the Court's decision is limited to transaction platforms,[535] there has nevertheless been concern that this decision makes the task of mounting an antitrust challenge exponentially more difficult as it would require demonstrating harm on both sides of the platform.[536]

In short, private efforts to federate platforms continue to be a pressing need, not just because of the difficulties inherent in an antitrust action or the challenges in drafting and passing suitable legislation, but because they will contribute to the growing set of examples of what alternative platforms can look like and achieve.

4.2.3 Option 3: Tokenization

Our third option is perhaps the most future facing, as it involves the use of blockchain technology and therefore is predicated on this technology achieving mainstream adoption in upcoming years. In turn, it anticipates the reform of securities law to accommodate these technological devel-

532 ibid, at 2280-2281. While Facebook generates its primary revenue by matching users with advertisers, it provides other services to users such as games and a search function. Uber is closer to being a transaction platform, but it too is moving towards separately serving its riders through its stop-start efforts at launching a fleet of autonomous vehicles.

533 ibid, at 2287-2288.

534 Geoffrey A Manne, 'In Defence of the Supreme Court's "Single Market" Definition in Ohio v American Express' (2019) 7 Journal of Antitrust Enforcement 104, 110–111.

535 Tim Wu, 'The American Express Opinion, the Rule of Reason, and Tech Platforms' (2019) 7 Journal of Antitrust Enforcement 117, 118.

536 Lina M Khan, 'The Supreme Court Case That Could Give Tech Giants More Power' *The New York Times* (2 March 2018) <https://perma.cc/TVW7-FVBU>. Wu posits that, after this decision, platform companies like Uber may be able to argue that their efforts at sabotaging competitors (e.g., creating and cancelling fake ride requests) were done out of an interest to retain drivers and keep rider waiting times low – in short, that the anticompetitive behaviour is beneficial to one side of the market. Wu (n 535).

opments.[537] In this scenario, as CoSocial's gig marketplace matured, the need for a new accounting system became clear. Increasingly, users were hiring each other with money earned on the platform, or spending money they earned on the platform with advertisers they discovered through it. Processing these transactions involved a multitude of currencies, exchange rates, transmission fees, and intermediary payment platforms. To reduce some of these costs for their users, CoSocial white-listed Bitcoin, Ether, and DAI crypto-tokens as additional accepted means of payment. These crypto-tokens were paid directly into individual user wallets.[538]

As had been the case previously, a small fee was levied after each transaction, denominated in the crypto-token used. While this allowed CoSocial to obtain a trove of crypto-tokens to be reinvested in the platform, CoSocial decided to return a part of this sum to individual users based on their patronage of the platform. This was effectively a crypto version of the *divis* issued under the scenario in section 4.2.1.

With the use of cryptocurrencies and blockchain technology becoming more mainstream, the board of CoSocial Corporation, with the support of the founders and their family members, decided through an amendment of the Corporation's articles of incorporation to represent all of their issued certificate shares on a public blockchain[539] as tokens, called "CoShares." These were to be distributed to the wallet addresses of existing shareholders in proportion to their shareholding (1 share = 1 CoShare, 1 CoShare-holder = 1 vote).[540] While this required a one-off valuation of the company, the expiration of contractual rights of first refusal and co-sale rights (if any), and

537 Chris Brummer, Trevor I Kiviat and Jai Massari, 'What Should Be Disclosed in an Initial Coin Offering?' in Chris Brummer (ed), *Cryptoassets: Legal, Regulatory, and Monetary Perspectives* (1st Edition, Oxford University Press 2019) 187. This reform process is already underway in the European Union in the form of the Markets in Crypto-Assets Regulation. *See Proposal for a Regulation of the European Parliament and of the Council on Markets in Crypto-assets, and amending Directive (EU) 2019/1937*, COM (2020) 593 final, (Sept. 24, 2020).

538 The integration of a wallet into a social media platform is akin to Telegram's ambition to integrate a Token Open Network (TON) Wallet into Telegram Messenger so as to facilitate adoption by Messenger's 300 million monthly active users. *See* SEC v. Telegram Group Inc., 448 F.Supp.3d 352 (S.D.N.Y. 2020) (hereinafter "Telegram").

539 In California, "blockchain technology" means a mathematically secured, chronological, and decentralized consensus ledger or database. Cal. Corp. Code §204(a)(12)(B). In terms of functionality, the system must be able to decrypt the recorded information into a clearly readable format in a reasonable period of time, be usable to prepare a list of shareholders, record information required to be included on stock certificates, and record required transfers of stock.

540 On the electronic transfer of shares over a blockchain, see Cal. Corp. Code § 204(a)(12)(A). James F Fotenos, Edward C Rybka and C Hugh Friedman, *Corporations (The Rutter Group, California Practice Guide)* (The Rutter Group, a Thomson Reuters Business 2019) ss 4:126.2,5:475, 6:591.2. The default rule is one share, one vote but it is possible to vary this in the Corporation's articles of incorporation, so that a person only has one vote, irrespective of the number of shares they hold. Cal. Corp. Code § 700(a).

the surrendering of physical share certificates,[541] the issuance of tokenized share certificates enhanced the liquidity of the privately held corporation's shares as anyone could buy a CoShare (or a fraction thereof) through an exchange or a peer-to-peer transaction.[542] This included the users who had been accruing crypto-tokens in their individual wallets and could now use these crypto-tokens to purchase CoShares. This was particularly beneficial for employees who had accumulated vested shares and could now benefit from liquidity. In short, users were able to buy tokenized shares in CoSocial Corporation with little-to-no expense to themselves, given that they had been receiving crypto-tokens as a rebate for their transactions with the platform.

By reducing the number of intermediaries involved in holding share certificates and voting shares as well as potentially fractionalizing the ownership of individual shares,[543] retail investment became more affordable and shared governance became more transparent and direct. CoShare holders were able to individually monitor their holdings in near real-time and actively engage in the governance of the Corporation – from asking questions to voting – using the token-holders' dashboard developed by CoSocial. CoShare holders were empowered to elect and remove directors and, through the submission of proposals, suggest broad improvements to the platform. Conversely, the Corporation was able to track the ownership and transfer of the tokens on its electronic share register, as this information was linked to each token and was updated contemporaneously and accurately. The external investors who had viewed the crypto experiments of CoSocial with scepticism were pleased at the opportunity to exit the platform through the acquisition of their shares by the CoSocial community and thereby obtain a return on their investment, even if it may not have been as significant as they initially hoped.

At a future date, when the majority of CoShare holders were users, they were able to introduce a more complex voting system to CoSocial's articles of incorporation (i.e., a voting shift).[544] For instance, they could employ a reputation system that is not based on the wealth of users but on their *recent* valuable contributions to the CoSocial platform. This reputation score would be non-transferable and would degrade over time if the user ceased making valuable contributions. Holding a minimum reputation level could enable users to engage in the stewardship of the platform on a day-to-day basis, in addition to participating in shareholder governance. While their reputation-based voting power on day-to-day decisions could be calculated on the day the decision needs to be made, for annual general meetings this voting power could be calculated at the time the notice of the meeting is

541 Cal. Corp. Code § 416.
542 Cal. Com. Code §§ 8301-03.
543 Cal. Corp. Code § 407.
544 Cal. Corp. Code § 194.7.

sent out. This system would recognize that building reputation requires time, effort and skill – in short, an asset-specific human capital investment that must be retained for the long-term future of CoSocial.

The company continued to invest in advancing the platform's features and interface, but it eventually faded into the background as a servant to the vibrant, self-governing community it enabled.

4.2.3.1 Background

"Tokenization" is the process by which the right to perform an action on an asset is embodied as a transferable data element on a distributed ledger. A tokenization scenario such as this turns to the possibilities now emerging with the development of blockchain technology. Indeed, blockchain technology may be uniquely aligned with peer production, given the shared emphasis on decentralized processes, mutual use of collectively-owned resources, and facilitation of heterodox values by enabling both monetary and non-monetary transactions.[545] The above scenario is still marginally beyond the realm of what is currently possible, as a private placement by an issuer and an exemption from the securities registration requirement[546] is – depending on the type of offering – limited by requirements as to the wealth or professional knowledge of investors, their residence, and the caps on the size of the offerings.[547] Typically, these securities can only be resold to a limited set of buyers.[548] A recent decision concerning Telegram,[549] the private company behind Telegram Messenger, sheds light on why breaching the exemption requirements is a material risk. Telegram sold interests in Grams crypto-tokens to 175 well-heeled initial purchasers in 2018, so as to fund the development of a functional TON Blockchain and to subsequently issue Grams to these early investors by October 31, 2019 (extended to April 30, 2020).[550] A District Court held that the economic incentives behind the

545 David Rozas and others, 'When Ostrom Meets Blockchain: Exploring the Potentials of Blockchain for Commons Governance' [2021] SAGE Open 14.

546 15 U.S.C. § 77d(a)(1)-(2); 15 U.S.C. § 77e(a), (c).

547 The SEC recently provided an overview of the recent amendments to the exempt offering framework. This was preceded by a decision to expand the accredited investor definition to include certain defined measures of professional knowledge, experience or certifications. Press Release, SEC Harmonizes and Improves "Patchwork" Exempt Offering Framework, Release No. 2020-273, U.S. Sec. & Exch. Comm'n (Nov. 2, 2020), < https://perma.cc/26JP-PLWQ >; Press Release, SEC Modernizes the Accredited Investor Definition, Release No. 2020-191, U.S. Sec. & Exch. Comm'n. (Aug. 26, 2020), <https://perma.cc/C23C-YUQC>.

548 ibid, *See* 17 C.F.R. §§ 230.502(d); Section 4(a)(1), Rule 144A. The so-called Section 4 (1½) case-law based exemption is used to protect accredited investors who make the appropriate representations but are not qualified as qualified institutional buyers. This exemption is derived from a line of judgments after Gilligan, Will & Co. v. SEC, 267 F.2d 461 (2d. Cir. 1959). *See also,* Brummer, Kiviat and Massari (n 537) 183.

549 SEC v. Telegram Group Inc., 448 F.Supp.3d 352 (S.D.N.Y. 2020).

550 ibid, at 363.

sale, in terms of large discounts and lockup periods for re-selling Grams, meant that Telegram intended for the initial purchasers to sell Grams to the public rather than hold on to them.[551] The Court held that this violated the conditions of exemption from the registration requirement and amounted to a public distribution; it consequently granted an injunction against the issuance of the Grams tokens to the initial purchasers.[552] As such, the (re) sale of CoShares to users – the vast majority of whom would not fall within even an expanded definition of "accredited investor" or "qualified institutional buyer" (QIBs) – would likely be considered as a "disguised public distribution"[553] and run afoul of the necessary conditions to gain exemption from registration requirements.

That being said, blockchain tools make possible strategies for user co-ownership and co-governance that bypass traditional mechanisms available to shareholders – problematic as they are for tracing the beneficial ownership of shares and engaging individual investors.[554] If companies develop symbiotic ties to a cryptographic protocol, that protocol can become a mechanism for governing their behaviour, thereby mutually shaping new forms of organization. In this way, the ubiquity of the modern corporation may be challenged, and even eclipsed altogether, by the token networks on which they operate.

There are precedents, at least in aspiration, to tokenization and rewarding user contributions. In 2014, Reddit CEO Yishan Wong announced that, as part of a $50 million financing deal, the investors would set aside ten percent of their shares to become the basis of a new cryptocurrency for users. The project was announced as Reddit Notes, but legal difficulties appear to have foundered the project by early the following year.[555] Other social media networks have employed tokenization as well. Twister, an early blockchain project, appeared in 2014 as a fully peer-to-peer microblogging system.[556] Steemit and Minds are web-based centralized platforms that employ their own cryptocurrencies, which trade on public markets, as internal payment systems for monetizing content.[557] Over the past decade,

551 ibid, at 373, 380.

552 ibid, at 381-382.

553 ibid, at 380.

554 J Travis Lester, 'The Block Chain Plunger: Using Technology to Clean Up Proxy Plumbing and Take Back the Vote' (2016) <https://perma.cc/U2NA-RYMS>; Wonnie Song, 'Bullish on Blockchain: Examining Delaware's Approach to Distributed Ledger Technology in Corporate Governance Law and Beyond' [2017] Harvard Business Law Review Online 9, 12.

555 Dan Primack, 'Ex-Employee: Reddit Notes Is "Not Going to Happen" (Update: Reddit Replies) | Fortune' (*Fortune*, 31 January 2015) <https://perma.cc/6A9Y-XV5X>.

556 Gareth Mott, 'A Storm on the Horizon? "Twister" and the Implications of the Blockchain and Peer-to-Peer Social Networks for Online Violent Extremism' (2019) 42 Studies in Conflict & Terrorism 206, 211.

557 Moon Soo Kim and Jee Yong Chung, 'Sustainable Growth and Token Economy Design: The Case of Steemit' (2019) 11 Sustainability 1, 1; Louise Matsakis, 'Minds Is the Anti-Facebook That Pays You For Your Time' [2018] *WIRED* <https://perma.cc/49L7-TC9X>.

Facebook has also been championing virtual currencies. They did so first through the short-lived Facebook Credits, which could be purchased to access gaming and non-gaming applications on the Facebook platform; users could also earn them by testing new games and watching branded videos.[558] However, Facebook Credits had limited functionality as they were non-transferable and could not be exchanged for fiat currencies.[559] More recently, Facebook announced the launch of the cryptocurrency Libra (now Diem),[560] that will have a broader range of functions and run on a permissioned blockchain governed by an association made up of member organizations. However, neither Facebook Credits nor Libra are used to reward valuable user contributions or extend governance rights to them. Blockchain projects such as Colony and DAOStack, in contrast, have different forms of reputation systems that seek to incentivize continuous, valuable contributions to decentralized organizations.[561]

Ever since Overstock.com raised $1.9 million by selling preferred shares on a blockchain in 2016,[562] businesses have sought to find ways to tokenize shares and other securities. It has now become common for companies engaged in blockchain technology to present the (off-chain) company as a temporary necessity, until the token network becomes a self-perpetuating vessel of governance and value creation.[563] In other words, they have suggested the possibility of "platform operator redundancy"[564] in which there is user control of a platform's technological architecture, as well as the company that developed it, through token ownership.[565] The tokenization scenario provides one stylised example of how such platform operator redundancy may be achieved.

558 Athima Chansanchai, 'Facebook Will Pay You to Watch Ads during Game Play' (*NBC News*, 6 May 2011) <https://perma.cc/UN7W-3R7F>; Miguel Helft, 'Facebook Hopes Credits Make Dollars' *The New York Times* (22 September 2010) <https://perma.cc/QR6P-6TV2>.

559 Joshua S Gans and Hanna Halaburda, 'Some Economics of Private Digital Currency' in Avi Goldfarb, Shane M Greenstein and Catherine E Tucker (eds), *Economic Analysis of the Digital Economy* (University of Chicago Press 2015) 261.

560 Libra Association, 'Libra White Paper' (*Libra.org*, 2019) <https://perma.cc/YK9S-SZYN>; Diem, Official White Paper v2.0 (diem.com, 2021) <https://www.diem.com/en-us/white-paper/>.

561 Mannan, 'Fostering Worker Cooperatives with Blockchain Technology' (n 152) 201.

562 Michael del Castillo, 'Overstock Raises $10.9 Million in First Blockchain Stock Issuance' (*CoinDesk*, 15 December 2016) <https://perma.cc/7P2P-SHW9>.

563 Lana Swartz, 'Blockchain Dreams: Imagining Techno-E Conomic Alternatives After Bitcoin' in Manuel Castells (ed), *Another Economy is Possible: Culture and Economy in a Time of Crisis* (John Wiley & Sons, Ltd 2017) 90–91.

564 Neufund, 'Whitepaper v.2.0: Community-Owned Fundraising Platform' (2017), at 55 <https://perma.cc/J7UF-UDYL>.

565 Peter Zeitz, 'Blockchain Governance' (*0x Blog*, 27 September 2018) <https://perma.cc/SSF7-8ELY>.

4.2.3.2 Implications for Governance

In the past five years, primarily after the emergence of the Ethereum blockchain, there has been interest in exploring how distributed ledger technology and token systems may improve corporate governance.[566] Some of the main advantages that have been posited are (1) improved transparency of corporate decision-making and operations, (2) more participatory and streamlined decision-making, at both the board level and in general meetings of shareholders, and (3) the reduction of socio-economic barriers to business ownership and financial independence.[567] In the sphere of corporate governance, most of the theoretical and preliminary empirical research[568] has focused on how these benefits can contribute to the reduction of agency costs within a corporate legal structure, rather than exploring how they may lead to a redrawing of the boundaries of both firms and legal structures. A notable exception to this is a recent article by Fenwick et al., in which the authors acknowledge that successful platforms need to foster open engagement and dialogue with a broad range of stakeholders beyond those in the legal structure of a company.[569]

The above scenario presents one form of token-based governance for platforms, which can potentially include a wider range of stakeholders in decision-making processes. For instance, in stewarding the updates and development of the platform, some decisions could be made on a one token-holder, one vote basis, and for others representation could be dynamically calibrated according to the token-holders' up-to-date reputation scores, proportional to the total reputation score in a quorum of token-holders. Drawing from the experience of the token-based social news platform Steemit, CoSocial could also allow "negative-voting,"[570] to enable smaller participants to band together to prevent collusion and arbitrary decisions by token-holders with high reputations. Conversely, by making reputation degradable, smaller participants would be incentivized to engage in

566 Harjit Singh and others, 'Blockchain Technology in Corporate Governance: Disrupting Chain Reaction or Not?' (2019) 20 Corporate Governance: The International Journal of Business in Society 67, 82.

567 Wulf A Kaal, 'Blockchain Solutions for Agency Problems in Corporate Governance' in Kashi R Balachandran (ed), *Economic Information to Facilitate Decision Making* (World Scientific Publishers 2019); Carla Reyes, Nizan Packin and Ben Edwards, 'Distributed Governance' (2017) 59 William & Mary Law Review 1, 18–20.

568 Salvatore Esposito De Falco and others, 'Corporate Governance and Blockchain: Some Preliminary Results by a Survey', *Corporate governance: Search for the advanced practices* (Virtus Enterprises 2019) 107; Christoph Van der Elst and Anne Lafarre, 'Blockchain and Smart Contracting for the Shareholder Community' (2019) 20 European Business Organization Law Review 111, 127–128.

569 Mark Fenwick, Joseph A McCahery and Erik PM Vermeulen, 'The End of "Corporate" Governance: Hello "Platform" Governance' (2019) 20 European Business Organization Law Review 171, 193–194.

570 Negative voting is the practice of tactically downvoting decisions (or content) made on a platform.

governance processes rather than free ride on the efforts of others. If regular decisions have to be made – for instance, about content instead of just strategy – the platform could require that reputation scores be temporarily diminished to prevent voting abuses.[571] As reputation is not transferable across users and cannot be purchased, this voting structure could go some way towards mitigating plutocratic governance of platforms.

Blockchain projects such as Aragon, Colony, DAOstack, and Democracy Earth offer varying techniques for implementing token-based governance at scale, including reputation-weighted voting, prediction markets, and the aforementioned quadratic voting.[572] Such projects are highly experimental, and it remains to be seen which techniques will achieve widespread adoption or are demonstrably useful for their intended purposes. Indeed, while the proposed token-based decision-making system may address some of the concerns with voting, it does not – and cannot – capture the politicking (i.e., the motivations, interests, and negotiations) that determines a vote, much of which takes place off a blockchain.[573] This, however, does not mean that the internet cannot be a suitable alternative discursive arena to, among other things, express dissent about actions taken by delegated management in an organization.[574]

Thus far, the major token governance regimes in Ethereum and its ilk on the protocol layer have fallen short of the aspiration of decentralization[575] and, in doing so, left such projects in a vulnerable position in which private, competing interests can coalesce. This, in turn, has slowed decision-making and, in exceptional situations, enabled the rise of an unaccountable "sovereign" that fundamentally contradicts the values of public blockchains.[576] These concerns about the governance of public blockchain protocols consequently raise questions about the governance of the projects that are built on top of them as they are – to a certain extent – mutually interdependent. However, it is plausible that among the proposals on offer are the beginnings of mechanisms that will be suitable for enabling meaningful user participation through large-scale tokenized governance.

Separate from the platform's economics, there are other potential advantages to representing the share certificates of privately held platform

571 Kim and Chung (n 557) 7.

572 Mannan, 'Fostering Worker Cooperatives with Blockchain Technology' (n 152); Zeitz (n 565); Posner and Weyl, 'Quadratic Voting as Efficient Corporate Governance' (n 434); Posner and Weyl, 'Quadratic Voting and the Public Good' (n 434); Posner and Weyl, *Radical Markets* (n 434).

573 Wessel Reijers and others, 'Now the Code Runs Itself: On-Chain and Off-Chain Governance of Blockchain Technologies' [2018] Topoi <https://doi.org/10.1007/s11245-018-9626-5> accessed 13 October 2020.

574 Marcos Barros and Valérie Michaud, 'Worlds, Words, and Spaces of Resistance: Democracy and Social Media in Consumer Co-Ops' (2020) 27 Organization 578, 581.

575 Nathan Schneider, 'Decentralization: An Incomplete Ambition' (2019) 12 Journal of Cultural Economy 265, 265.

576 Reijers and others (n 573).

companies as tokens on public blockchains. As observed by the lawyer Gabriel Shapiro, tokenized share certificates may be cleared faster than conventional shares and ownership of shares may be verified more accurately. Moreover, CoShare-holders are less required to trust those typically involved in corporate governance processes, such as proxy advisors and the corporation itself.[577] Instead, CoShare holders can be confident that the token represents share certificates owned and controlled by the token-holder, in contrast to having "book entries" in a corporation's share register (that may be inaccurate) or bundled with innumerable other shares (and potentially mis-voted). Hopefully, this enhanced individual sovereignty over their shares will encourage shareholders to participate in the general meetings of CoSocial Corporation and exercise their rights to inspect the corporation's books and records.[578]

The scenario deliberately omits discussion of the specific distributed ledger being used by CoSocial to store information about shareholder votes and the trading of shares, beyond noting that token-holders may have a dashboard to monitor their CoShares. Van der Elst and Lafarre have noted that it may be undesirable for a company to have a public blockchain as their share register,[579] given that it may lead to the inclusion of participants that are ineligible and perpetuate inaccurate information. At the same time, there are serious questions over whether permissioned blockchains afford meaningful benefits over conventional client/server architecture when used for a limited purpose,[580] such as tracking the transfer of tokenized share certificates. As Shapiro suggests, corporations could, instead, use a public blockchain but *ex ante* program tokens with certain functionalities that would impose transfer restrictions and include an event listener in the token's smart contract to track a transfer *ex post*.[581]

4.2.3.3 Implications for Financial Rights

Ordinarily, on platforms where a significant amount of external equity investment is needed (e.g., through a VC fund), agency theory suggests that the management of the platform company may exercise a suboptimal

577 Gabriel Shapiro, 'Tokenizing Corporate Capital Stock' (*{Zero_Law}*, 28 October 2018) <https://perma.cc/QV8X-EXLG>.

578 *See*, *e.g.*, Cal. Corp. Code § 1601(a) (2019).

579 Van der Elst and Lafarre (n 568) 127.

580 In public blockchains, consensus about the state of a blockchain is open to any interested miners, consensus is determined by miners, transactions on the blockchain are visible to the public, and the platform is near-immutable and has high latency. By contrast, in private blockchains, access to the consensus process is permissioned, consensus is determined by a centralized organization, transactions on the blockchain may not be visible to the public, and the platform is not immutable and has low latency. *See* Zibin Zheng and others, 'An Overview of Blockchain Technology: Architecture, Consensus, and Future Trends', *2017 IEEE International Congress on Big Data (BigData Congress)* (IEEE 2017).

581 Shapiro (n 577).

level of effort, as much of the financial risk is externalized and they can exploit the information asymmetry that exists with investors.[582] With regard to those platforms reliant on platform-specific investments by users (e.g., through contributions of specialized knowledge or capital-investments for gig work), this suboptimal effort may prevent users from joining and, in a bid to attract more users, could lead the platform company seeking more external funding to finance user subsidies. This would cause holdup problems for both the investor and the user, inhibiting either from participating. For the investor, the holdup problem may arise in deciding the control rights that should be in a VC contract to mitigate agency risks and for the user, the holdup problem may arise from knowing that their platform-specific costs will be sunk.

For the platform, the prospect of users receiving crypto-tokens would be beneficial as they may be motivated to make frequent contributions. The fact that the users can also become shareholders of the company may stimulate greater feelings of ownership over the platform and encourage higher-quality contributions, which in turn may draw new users. The consequence of this will be that the financial gains of CoSocial will be shared more widely for valuable and previously neglected labour, from remunerating content curation and work supervision to the provision of computing power to the network and framing the strategies of CoSocial. In short, financial gains will be allocated on the basis of the value of the work done for the platform, as determined by the token-holders themselves.

Through this distribution of wealth, it will become easier for a broad range of users to become shareholders in CoSocial Corporation. However, it is unlikely that most users will hold shares in the Corporation for the purpose of receiving a dividend; rather, they will allow holders of CoSoC (including users) to become residual claimants of the company in the event that the Corporation is liquidated.

4.2.3.4 Implications for Public Policy

The scenario outlined above is predicated on the understanding that over time a more conducive environment will emerge for crypto-tokens and tokenized share certificates to be circulated. This not only concerns the regulatory status of the crypto-tokens but also the rules governing the transfer of private company shares and the manner in which companies identify, communicate with and disclose information to their shareholders.

Tokenized share certificates such as CoShares raise distinct complications. The shares of privately held companies are typically illiquid, often deliberately so, due to mandatory restrictions set by applicable securities

582 Jens Burchardt and others, 'Venture Capital Contracting in Theory and Practice: Implications for Entrepreneurship Research' (2016) 40 Entrepreneurship Theory and Practice 25, 34.

laws in the interest of those who cannot fend for themselves[583] and due to common default contractual provisions in share purchase agreements to protect the corporation/other shareholders.[584] The restrictions on transferability of the shares are typically mentioned on a legend on the share certificate. The result of this is that early investors can preclude the involvement of potential late investors.

This is not to say that the transfer of restricted securities cannot take place altogether. Rule 144 of the Securities Act of 1933 provides a safe harbour for a share certificate holder to endorse and transfer their share certificates to others if they have held the certificate for at least a year and have not been an executive or controlling shareholder of the company in the past three months.[585] As briefly discussed in section 4.2.3.1., Rule 144A of the Securities Act of 1933 also provides an exemption to the registration requirement if the shares are resold to a QIB (and under limited circumstances, a non-QIB).[586] From the purchaser's perspective, if they have not been given notice of any adverse claim, their payment and control over the certificate would be sufficient to perfect their property right over the share.[587] In other words, a transferor can endorse the share certificate in favour of the transferee without informing the issuing company.

However, there are difficulties in programming tokens to be compliant with securities regulation.[588] To accommodate existing investor protections, there needs to be a possibility to expand/contract the supply of tokens, enable transfer restrictions, track tokens, burn tokens on a forked blockchain,[589] and potentially swap tokens with other tokens with identical rights and obligations on other blockchains. [590] Even if this were possible, there would be questions of whether a given state jurisdiction would permit the representation of a share certificate on a blockchain and in what manner,

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583 *See* S.E.C. v. Ralston Purina Co., 346 U.S. 119, 125 (1953).

584 For example, shareholders' rights of first refusal or co-sale rights when a shareholder wishes to transfer shares.

585 See 17 C.F.R. § 230.144 (2019); U.S. S.E.C., Rule 144: Selling Restricted and Control Securities (Jan. 16, 2013), https://perma.cc/CWS8-54DR.

586 Pursuant to section 201(a) of the JOBS Act, Rule 144A was amended to "permit the use of general solicitation under Rule 144A, as long as the purchasers are limited to QIBs or to purchasers that the seller and any person acting on behalf of the seller reasonably believe are QIBs". U.S. S.E.C., *Eliminating the Prohibition Against General Solicitation and General Advertising in Rule 506 and Rule 144A* Offerings (Sept. 20, 2013), https://perma.cc/6FVB-KP6K.

587 Cal. Com. Code § 8303.

588 Reyes, Packin and Edwards (n 567) 25.

589 In exceptional circumstances, a new, upgraded blockchain can fork from the older blockchain, with the result that the blocks or transactions from the older blockchain are not recognized. Participants in a blockchain-based system then have to decide which chain to follow. This may be determined by a technical rule, such as choosing the chain with the most confirmed blocks, but it may also be influenced by social norms, including the social capital of certain participants. Primavera De Filippi and Aaron Wright, *Blockchain and the Law: The Rule of Code* (Harvard University Press 2018) 24, 188.

590 Shapiro (n 577).

given the personally identifying information generally available on a share certificate. It appears that U.S. states such as Wyoming are closer to enabling pseudonymity, given that they allow shareholders to be identified by their blockchain addresses.[591]

Following these caveats concerning the feasibility of tokenization, it is important to acknowledge the legislative efforts across the United States – and the world – to facilitate the use of blockchain by businesses. These initiatives range from deregulation and accommodation of the features of blockchain technology within the existing state record-keeping infrastructure,[592] to regulating tokens,[593] to promoting new legal entity forms.[594] Given the novelty of such legislation, structures such as the one described in the scenario above have yet to be tested. There is reason to be optimistic though that the emergent regulatory competition between states (within the U.S. and abroad) will provide the necessary innovations and the SEC will issue further clarifications.

4.3 Discussion

The three options presented here offer diverging models for how a start-up in the online economy might transition into becoming an enterprise owned by its stakeholders, including its users. The focus of the chapter has primarily been on the inclusion of individual end-users, but it is hoped that the options are capacious enough to include other important categories of users, such as businesses and advertisers, as needed.[595] While Professor Post has previously suggested that users could benefit from a 'market of rules' in which platforms compete to provide "rule-sets" of access and participation that users prefer,[596] this chapter takes this further by suggesting pathways for a "market for ownership structures" for users to choose from. A number of assumptions are at play and need to be acknowledged. The hypothetical

591 Wyo. Stat. Ann. § 17-16-140(a)(xlvi) (West 2019) (current through the 2020 Budget Session).

592 Del. Code Ann. tit. 8 §§ 219(c), 224 (West 2017).

593 Liechtenstein has enacted the Law on "Tokens and Trusted Technology Service Providers", LGBI 2019.301 (entry into force on Jan. 1, 2020)

594 Vermont has introduced a new legal entity known as the Blockchain-Based Limited Liability Company. *See* Vt. Stat. Ann. tit. 11, §§ 4171-75 (2019).

595 For instance, as of late 2018, Facebook has over 80 million businesses and 6 million advertisers on its platform. They are also arguably in a position of dependence with respect to the Facebook platform. Anne Helmond, David B Nieborg and Fernando N van der Vlist, 'Facebook's Evolution: Development of a Platform-as-Infrastructure' (2019) 3 Internet Histories 123, 127, 134. For instance, as of late 2018, Facebook has over 80 million businesses and 6 million advertisers on its platform. They are also arguably in a position of dependence with respect to the Facebook platform. Uber Developers, 'Introducing the Uber API' (*Uber Developers*, 2 April 2016) <https://perma.cc/M75R-3UJE>.

596 David Post, 'Anarchy, State, and the Internet: An Essay on Law-Making in Cyberspace' [1995] Journal of Online Law para 42.

company, CoSocial, is seen to be at a crossroads and it is presumed that they recognize that an important part of their value proposition depends on being considered trustworthy by their community. The hypothetical original term sheet of CoSocial confers relatively weak control rights to external investors, and it is possible to imagine that many platforms have VC contracts in which, for example, the VC firm has a veto right to a change in a business plan or has the right to replace management.[597] An early-stage, cash-strapped platform entrepreneur is often willing to allow VC funds to have such rights if they are able to attach themselves to a reputable VC fund. However, the effect of these assumptions is mitigated by the fact that there is some empirical evidence that California-based start-ups are subject to less onerous cash flow and control right terms by VCs.[598] In other words, it is assumed that (intense) negotiation took place with external investors to change exit strategies. However, as the example of Kickstarter indicates, it is possible for external investors to support ambitious shifts in value systems.[599] It is also worth noting that while VC funds have a duty to their limited partners to maximize their investments, the business model of venture capital relies on achieving a "home run" in only 10-20% of investments – not all of them.[600]

With respect to the employees of CoSocial during this transition process, it is assumed that some will stay, and some will leave, as ordinarily occurs within the tech sector, with those among the former potentially wearing both hats – employee and user – working to improve the functionality of the platform, engaging in governance, and benefitting from financial returns beyond their wages.

From the perspective of users, all strategies grant users a significant voice in the design and construction of online communities that have become a prominent part of daily life. The governance rights that are made available to users through these strategies, directly or indirectly, could be used to have these businesses voluntarily commit to higher privacy

597 Burchardt and others (n 582) 28.

598 S Abraham Ravid and Ola Bengtsson, 'Geography and Style in Private Equity Contracting: Evidence from the U.S. Venture Capital Market' (2011) SSRN Scholarly Paper ID 1782382.

599 Kickstarter PBC, 'Kickstarter PBC 2017 Benefit Statement' (2017) Public Benefit Statement published in compliance with Del Code Ann 8 Del § 366(b) <https://perma.cc/VU4Z-983M>.

600 Pollman (n 389) 168; Bob Zider, 'How Venture Capital Works' [1998] *Harvard Business Review* <https://perma.cc/WD2A-G55C>. VC funds are well aware that only about 30% of seed-funded companies exit to an IPO or acquisition, with the rest either winding up or becoming self-sustaining.CB Insights, 'The Venture Capital Funnel Shows Odds of Becoming a Unicorn Are About 1%' (*CB Insights Research*, 6 September 2018) <https://perma.cc/92PZ-KHQ7>. As Cable notes, at a certain stage the opportunity cost of continuing their investment in the hope of a profitable exit is be too high relative to monitoring and extracting value from their other portfolio companies. Abraham JB Cable, 'Opportunity-Cost Conflicts in Corporate Law' (2015) 66 Case Western Reserve Law Review 51, 53, 73–76.

standards than is required by the law by limiting the personal data that is collected, used, sold or disclosed.[601] Platform companies such as Craigslist have long been emblematic of this approach, driven by the vision of their founder and CEO.[602]

Conversely, each strategy could also be seen as a bulwark against the transfer or sale of their personal data in the event of a merger, restructuring, or bankruptcy proceedings of a platform company[603] by providing users a voice during such changes of corporate control.[604] This is a pressing need, given that the acquiring company may process the personal data in a different manner and for different purposes than for which it was collected, even if the acquirer consents to remaining bound by the original privacy policy.[605] The FTC and state regulators in the United States have underscored the importance of obtaining the consent of users when their personal data is transferred as part of an asset sale. For instance, in the bankruptcy cases concerning RadioShack[606] and Borders,[607] the court-approved settlement and judgment respectively required that *inter alia* users be allowed to "opt-out" from the transfer of their data to the acquiring company. The existence of a representative Trust Protector Committee, CoNet Cooperative or a tokenized CoSocial would provide a forum in which such transfers

601 Balkin, 'Information Fiduciaries and the First Amendment' (n 322) 1199.

602 Jessa Lingel, *An Internet for the People: The Politics and Promise of Craigslist* (Princeton University Press 2020) 154.

603 See, e.g., LinkedIn, LinkedIn Privacy Policy (Aug. 11, 2020), § 3.7, <https://perma.cc/Q5HX-DFNS>; Twitter, Twitter Privacy Policy (June 18, 2020), § 3.4, <https://perma.cc/E7DT-PTRG>.

604 In certain situations, regulators have stepped in. For instance, at the federal level, the Children's Online Privacy Protection Act (COPPA) requires verifiable parental consent before children's information is collected, used or disclosed. 15 U.S.C. § 6502(b)(1)(A)(ii) (1998). At the state level, California enacted the Student Online Personal Information Protection Act (SOPIPA) in 2014, which restricts websites selling, using, or distributing K-12 student data for targeted marketing purposes; in the case of a merger or acquisition, the acquirer is also bound by SOPIPA. Cal. Bus. & Prof. Code § 22584(a)-(b)(4) (West 2016). California's pathbreaking Consumer Privacy Act confers consumers of certain businesses that sell user data the right to request disclosures about the categories of personal information sold and the categories of business that buy this data, as well as the right to opt-out from this sale. Cal. Civ. Code §§ 1798.115-1798.120 (West 2020). However, transfers of data as part of a merger, acquisition or bankruptcy are not included in the definition of "sale" under the Act. ibid § 1798.140(t)(2)(D). In general, the "U.S system of virtually unlimited resale of information to third parties leaves data subjects vulnerable." Tsesis (n 329) 599.

605 The GDPR, however, protects EU data subjects from such "function creep." GDPR, art 6(1)(a).

606 *In re* RadioShack Corp., No. 15-10197 (BLS), 2015 WL 10322202 (Bankr. D. Del. 2016). For a concise overview of this case, see Kayla Siam, 'Coming to a Retailer Near You: Consumer Privacy Protection in Retail Bankruptcies' (2017) 33 Emory Bankruptcy Developments Journal 487, 497–500, 517.

607 *In re* Borders Grp., Inc., No. 11-10614 MG, 2011 WL 5520261 (Bankr. S.D.N.Y. Sept. 27, 2011). For a concise overview of this case, see Michael St Patrick Baxter, 'The Sale of Personally Identifiable Information in Bankruptcy' (2018) 27 ABI Law Review 1, 12–13.

could be deliberated. These would provide a mechanism to gauge the views of users individually or collectively and a body to oppose transactions entered into by the CoSocial board that are contrary to an extant Privacy Policy. This approach concedes that the business model of corporations like CoSocial will need some form of data collection and use but addresses the chronic information asymmetry confronted by users and installs measures that provide them with a voice in how such policies evolve. In the words of McKenzie Wark, what is dystopian about information sharing is less the sharing "than the asymmetry of the sharing."[608] This asymmetry in sharing is seen not only through exclusion from participatory decision-making, but also through the lack of sharing in the financial rewards of the platform, thereby failing to acknowledge the multifarious contributions users make towards a platform being successful.

As such, each proposal deliberately pushes against the path dependent tendencies of platform start-ups, but each is also plausible, given historical precedents and existing frameworks. Each comes with their respective strengths and weaknesses, touched upon in the sections above. The purpose of juxtaposing these strategies is not to identify one model as superior, but rather to demonstrate the range of outcomes that could become available through community ownership. Past scholarship on collective user-based enterprises indicates that these strategies can be promoted to users by highlighting how they are being underserved by capitalist alternatives or by doubling down on the humanistic and solidaristic values embodied by the platform.[609] Yet the appropriateness of choosing one strategy over another is likely to be context-dependent – depending on such considerations as the platform's revenue sources, the culture of its user community, the local regulatory environment, and forms of path dependence such as its financing history.

For example, a platform whose users make a wide variety of financial transactions through it on a regular basis might be better suited to tokenization, whereas a platform that gathers user data but does not regularly transact with users might have an easier path toward a non-charitable purpose trust devoted solely to oversight and governance. In the context of a communications protocol with a large user base, which arguably has the characteristics of a natural monopsony, the federation scenario would enable competitive dynamics to operate within such a market. Alternatively, a governance-focused trust could provide oversight comparable to that of a utility regulator – without having to decide which state is responsible for such regulation. In contrast, federation would not likely be a wise strategy for a start-up in a market that is already competitive and dynamic as it could impose crippling governance overhead. A solely governance-focused

608 McKenzie Wark, *Capital Is Dead: Is This Something Worse?* (Verso 2019) 1.

609 Marie-Claire Malo and Martine Vézina, 'Governance and Management of Collective User-Based Enterprises: Value-Creation Strategies and Organizational Configurations' (2004) 75 Annals of Public and Cooperative Economics 113, 125, 130.

trust would not appeal to a community of stakeholders solely interested in reaping financial returns alongside outside investors. Accommodations will need to be made accordingly.

The online economy thus far has relied on a narrow range of strategies for ownership and financing, largely dictated by the venture capital ecosystem.[610] These serve certain purposes very well. But strategies based on ownership by user communities would broaden the repertoire of options for start-ups and maturing companies. It remains to be seen in the field of practice which such strategies best meet user needs and take hold. Indeed, it is possible that a hybrid version of these strategies will emerge, blending the strategies described above or others.[611] Whichever strategy is utilized, it is imperative that the stakeholders involved are mindful of the overarching objectives of all the strategies: sensitivity to power dynamics, meaningful inclusion in decision-making, and serving the public interest.

This raises an important general point concerning the long-term feasibility of exits to community: *the need for responsibility and stewardship from the top*. This may initially be a founder who is willing to countenance exploring the strategies discussed in this chapter, but will eventually be a board representing a coalition of stakeholders who take their duty to monitor seriously and make timely, carefully deliberated interventions in decisions made by mid-level management.[612] The fact that recent years have seen the emergence of cooperative start-up accelerators dedicated to incubating new cooperatives, including platform cooperatives, through financing,

610 Langley and Leyshon (n 25) 14, 23–24.

611 With respect to options 2 and 3, see Mennan Selimi and others, 'Towards Blockchain-Enabled Wireless Mesh Networks', *Proceedings of the 1st Workshop on Cryptocurrencies and Blockchains for Distributed Systems* (ACM 2018) <https://perma.cc/9LRN-BQ54>. See also the example of the Dash crypto-currency network described in Section 2.1.1 of this chapter for a combination of Options 1, 2 and 3 Dash Core Group Inc. (n 425); Taylor (n 426); Seitz (n 427).

612 The duty to monitor is one of the directors' duties, as noted in the seminal Caremark case. In re Caremark Int'l, Inc. Derivative Litig. 698 A.2d 959, 967-70 (Del. Ch. 1996). To discharge the duty to monitor, corporations are required to establish "risk oversight, internal controls, and monitoring systems," as well as periodically evaluate their effectiveness. Hillary A Sale, 'Fiduciary Law, Good Faith, and Publicness' in Evan J Criddle, Paul B Miller and Robert H Sitkoff (eds), *The Oxford Handbook of Fiduciary Law* (Oxford University Press 2019) 779. This means that corporate officers inform the board of directors about these systems and the board asks questions about how these controls and systems are performing. ibid. Such systems can, for instance, concern content moderation or policies concerning how personal data is used or sold.Kadri and Klonick (n 311) 59–60, 89; Balkin, 'Fixing Social Media's Grand Bargain' (n 90) 14. Failure to establish such systems, can lead to breach of fiduciary claims. This has taken place, for instance, in the case of Facebook, with a trade union in its capacity as a shareholder filing a demand to inspect the books and records of Facebook to assess whether there has been a breach of fiduciary duties. *See In re* Facebook, Inc. Section 220 Litig., No. 2018-0661-JRS, 2019 WL 2320842, at *1 (Del. Ch. May 31, 2019).

mentorship, knowledge-building, and training is a promising method for inculcating the values of cooperative leadership and stewardship.[613]

As discussed throughout, the strategies detailed here are intended to be privately ordered, but they would benefit from the support of legislative reforms that make exits to community more attractive. In recent years, there has been an emergence of regulation to support the development of online social media, ride-hailing, and home-rental applications that operate under a capitalist logic. A "Cooperative Economy Act" is now being proposed in California that would, for instance, allow gig workers to gain worker protections and voice by being employed by a cooperative staffing agency, which would act as an intermediary in interactions with platforms and consumers.[614] It remains to be seen whether such laws will emerge to support platform alternatives that operate under a logic of communitarianism and solidarity or whether there will continue to be a carving out of worker protections and benefits by platform incumbents, as demonstrated by the 2020 approval on Proposition 22 in California, which reinforced gig platforms' ability to classify workers as independent contractors.[615]

In order to make user ownership models possible, advocacy blocs will need to form to develop and implement the necessary policies. The need for this is increasingly being recognized, with the General Assembly of the International Co-operative Alliance (the global representative body of the cooperative movement) unanimously passing a resolution on November 17, 2017 to explore the potential of platform cooperatives.[616] It is useful to tentatively consider what those advocacy blocs and policies might look like. These advocacy blocs might be broad-based and populist, such as those that achieved enabling legislation for rural cooperatives in the early twentieth century[617] or the more recent campaigns in support of net neutrality.[618] They might also arise more in the realm of experts, such as the campaign that

613 Start.coop, 'Home Page' (*Start.coop*, 2020) <https://perma.cc/ZM6U-RGQD>; UnFound, 'Home Page' (*UnFound*, 2020) <https://perma.cc/EK3L-XYNP>.

614 Megan Rose Dickey, 'The Future of Gig Work Could Involve Unions and Co-Ops' (*TechCrunch*, 3 March 2020) <https://perma.cc/KY7M-8HZY>.

615 Conger reports that Prop 22 classifies "app-based drivers" as independent contractors and, as a concession, provides a wage floor and a very limited set of insurances and subsidies for these drivers. Kate Conger, 'Uber and Lyft Drivers in California Will Remain Contractors' *The New York Times* (4 November 2020) <https://perma.cc/JT8U-JUGR>.

616 ICA, 'Motion to Support Platform Co-Operatives Passed at General Assembly in Malaysia' (*International Co-operative Alliance*, 13 December 2017) <https://perma.cc/2YTC-JXSH>.

617 Vaheesan and Schneider (n 524) 20.

618 Jonathan Perri, 'Building a Movement for Net Neutrality' (2018) 15 SUR 51; Cyndi Suarez, 'Campaign Seeks to Build a Grassroots Movement to Protect Net Neutrality' [2017] *Nonprofit Quarterly* <https://perma.cc/K5GG-XY88>.

enabled pension funds to invest in venture capital[619] or the development of the ESOP.[620] A wide range of stakeholders could be potential allies – and strange bedfellows – in such an effort. Labour unions could see an opportunity to build worker power through co-ownership. Venture capitalists could see a new means for delivering returns from portfolio companies. Start-up founders could see avenues for combining financial returns with social purpose.[621] Established companies could see an attractive means for addressing crises of accountability. User advocates and grassroots activists could see tactics for holding platforms accountable. There would surely be critical differences among these types of stakeholders, but each might also have something to gain, and to fight for, in a shared agenda for ownership.

4.4 Conclusion

This chapter argues for the promise of multi-stakeholder ownership as a means of addressing the ongoing accountability crises of the online platform economy. Using hypothetical scenarios involving a fictional platform company, it described three strategies for conversion to multi-stakeholder ownership: buyout with a non-charitable purpose trust, federation, and tokenization. These rely on structurally distinct mechanisms to achieve democratic accountability through co-ownership. The overriding purpose in proposing these strategies is to spur further discussion about broadening the repertoire of company ownership and financing in the online economy, as well as about whether multi-stakeholder ownership of platforms would be a worthwhile norm.

Although the chapter has attempted to show that each of these strategies is precedented enough to be plausible, it is recognized that much more discussion and experimentation are needed to determine whether they can be regarded as truly feasible, practical, and even desirable. First, there is a need for experiments in practice that approach and approximate these strategies where possible, recognizing that further policy reform will be needed to fully accommodate them; as noted at the outset, there does

619 Bruce W Marcus, 'A Vote for ERISA's "Prudent Man"' *The New York Times* (New York, NY, 14 May 1978) 14.

620 Kelso and Kelso (n 415) ch 6.

621 That start-ups are exploring options other than IPO and sale is clear from their delays in deciding to IPO and the trend towards private secondary sales of early investor and employee shares. *See, e.g.,* Eliot Brown and Greg Bensinger, 'The Latest Path to Silicon Valley Riches: Stake Sales' *The Wall Street Journal* (New York, NY, 19 November 2017) <https://perma.cc/2SA9-AH3Y>. However, instead of a sale to wealthy investment firms with opaque interests, the proposed strategies in this chapter would help ensure that the corporations continue to serve those who who make these platforms valuable by using them. Nathan Schneider and Morshed Mannan, 'Let Users Own the Tech Companies They Help Build' [2021] *Wired* <https://bit.ly/3w9Mk8D>.

appear to already be a growing appetite for such experimentation. Second, both in theory and practice, these strategies need to be more fully evaluated in comparison to alternative approaches to accountability for the online economy, such as regulation of platform behaviour, civil-society pressure campaigns, market competition, and activism among employees or existing shareholders. Finally, recognizing that the three strategies presented here do not encompass all possible options, typologies of multi-stakeholder ownership strategies that improve on those that have been offered are welcome. Wherever future research and discussions lead, it is hoped that this chapter offered a constructive set of invitations for how to imagine democracy operating not just outside the online platform economy as it exists today, or against its abuses, but within it.

5 A Proposal for the Formation and Governance of User Trusts in the Platform Economy[622]

Abstract

In this chapter, an attempt is made to chart a plausible path towards user ownership and governance of social media companies. It first makes a case for why users merit the financial and control rights that are emblematic of ownership, based on a three-fold argument that draws from critical media studies, internet studies and political theories of the firm. Building on this analysis, the following section evaluates the non-charitable purpose trust and the STAK as two vehicles for transferring ownership to users. The penultimate section reflects on how the benefits of stakeholder governance can be maximised through these two purpose-oriented entities. This is done by considering earlier, analogous examples of stakeholder involvement in management, such as works councils, clients' councils and stakeholder mutuals, and identifying the rights they could hold and decisions they could be involved in. On the basis of these examples, a preliminary good governance checklist and decision-making diagram are presented which suggests rights the user representatives could enjoy, the decisions they could be involved in and the actions the company could take to help make their involvement a success.

5.1 Introduction: Dismantling Walled Gardens

Over the past decade, online social media platforms such as Facebook and Twitter have become ubiquitous. On the surface, all social media platforms share the characteristics of connecting users and, intermediating user-generated content.[623] They provide an indispensable service to many, from being a communication medium with loved ones across continents to being an organizing tool for social movements to being a portal for businesses to advertise their products and services. Scholars have described these platforms – particularly Facebook – as having the qualities of social infra-

622 An earlier version of this chapter was presented at the Universidad Nacional Arturo Jauretche, Buenos Aires, 29 August 2017. Ideas from this paper were also presented at the Berlin Supermarkt Workshop on 'Building Structured Support for Platform Coops', Berlin, 24 May 2018.

623 L DeNardis and AM Hackl, 'Internet Governance by Social Media Platforms' (2015) 39 Telecommunications Policy 761, 762.

structure[624] or utilities,[625] and these descriptors have also been adopted by the senior management of these platforms in how they discursively represent the activities of their platform.[626] While these social media platforms have been subject to criticism for their practices of tracking users and non-users,[627] their failure to prevent electoral interference in the 2016 election in the United States,[628] and the use of their services to perpetuate hate speech and stir violence,[629] the private ownership of this important infrastructure has been largely left unquestioned.

Instead, attention has been devoted to piecemeal techno-regulatory measures, including draft legislation in the United States that prevents tracking[630] and requires measures to inhibit internet addiction,[631] as well as proposals to unwind anti-competitive mergers.[632] This has been coupled with top-down governance reforms, such as the installation of an Oversight Board to review contentious decisions concerning user content on the Facebook platform.[633]

In previous work, and in particular in chapter 4, an argument was presented for a different approach that may complement these efforts. In that chapter, it was submitted that multi-stakeholder ownership and control of social media companies should be explored as a governance strategy for holding platform companies liable and sharing the revenue generated by them. In section 4.2.1 in particular, the use of stockholding trusts, such as (but not limited to) a non-charitable purpose trust, was presented as one option for platforms to exit to community. In doing so, the financial and control rights that are emblematic of ownership would be shared among investors, founders, employees and, importantly, users of social media platforms. This approach is grounded in the understanding that these platforms are among the companies that by turning information into a scarce

624 Miriyam Aouragh and Paula Chakravartty, 'Infrastructures of Empire: Towards a Critical Geopolitics of Media and Information Studies' (2016) 38 Media, Culture & Society 559, 568; Jean-Christophe Plantin and Aswin Punathambekar, 'Digital Media Infrastructures: Pipes, Platforms, and Politics' (2019) 41 Media, Culture & Society 163, 169.

625 K Sabeel Rahman, 'Regulating Informational Infrastructure: Internet Platforms as the New Public Utilities' (2018) 2 Georgetown Law Technology Review 234, 235.

626 Anna Lauren Hoffmann, Nicholas Proferes and Michael Zimmer, '"Making the World More Open and Connected": Mark Zuckerberg and the Discursive Construction of Facebook and Its Users' (2018) 20 New Media & Society 199.

627 Skeggs and Yuill (n 92) 382.

628 Tom McCarthy, 'Facebook, Google and Twitter Grilled by Congress over Russian Meddling – as It Happened' *The Guardian* (31 October 2017) <https://bit.ly/2UBq1vL>.

629 Plantin and Punathambekar (n 624) 170; Roderick Graham, 'Inter-Ideological Mingling: White Extremist Ideology Entering the Mainstream on Twitter' (2016) 36 Sociological Spectrum 24, 34.

630 Do Not Track Act, S. 1578, 116th Cong. (2019).

631 Social Media Addiction Reduction Technology Act, S.2314, 116th Cong. (2019)

632 *See, e.g.*, Elizabeth Warren, 'Here's How We Can Break up Big Tech' (*Medium*, 11 October 2019) <https://bit.ly/3gQCdBp>.

633 *See generally,* Kate Klonick, 'The Facebook Oversight Board: Creating an Independent Institution to Adjudicate Online Free Expression' (2020) 129 Yale Law Journal 2232.

commodity are creating new forms of class relations layered on top of the existing relations between workers and capitalists, farmers and landlords.[634] In these new class relations, there is also a struggle over the forces of production, but this time it is over what Wark calls the '*vector*' – the intellectual property, the financial instruments and the techno-logistical systems that enable the routing of information and the enforcement of its scarcity.[635]

This chapter argues that the redistribution of business ownership is central in furthering interests other than those of a narrow '*vectorialist*' class. User ownership and participation would not only improve the transparency and accountability of such platforms, and ensure users receive a share of the profits earned through their contributions, it would also allow for novel questions: could the newsfeeds and timelines of these social media platforms be redesigned with user input? Could the involvement of users in operational decisions enable the dismantling of walled gardens through the opening of APIs and experimentation with new business models? As such, while acknowledging the important work being done on the creation of 'data trusts' and data cooperatives,[636] it makes a more demanding claim: it seeks more extensive control and financial rights for users in the companies that own the aforementioned intellectual property, business models, user interfaces, physical infrastructures and data archives.

As founder and investor ownership of businesses is the norm in this sector, and employee ownership has received some attention,[637] section 5.2. develops three normative arguments for extending participation rights to persons who are typically referred to as 'users'.[638] The term user here, as in section 4.1, are the persons who interact with an online platform and typically encompasses those who contribute labour value, consumer content, and provide business services. It would not include genuine employees of

634 Wark (n 608) 42–43.

635 ibid 45, 55.

636 Edwards argues that data collection in e-commerce should be re-imagined as a trust relationship in which consumers/data subjects are both settlors and beneficiaries of a trust, the e-commerce platform a trustee of the personal data in their custody, and the profits from data collection the trust property. In addition to conferring platforms with fiduciary duties of care and loyalty, she proposes that the profits in multiple data trusts be pooled to pay no-fault compensation for privacy harms and the costs of privacy-enhancing technologies. Lilian Edwards, 'Reconstructing Consumer Privacy Protection On-line: A Modest Proposal' (2004) 18 International Review of Law, Computers & Technology 313, 331, 333–334; Marina Micheli and others, 'Emerging Models of Data Governance in the Age of Datafication' (2020) 7 Big Data & Society 1; Sylvie Delacroix and Neil D Lawrence, 'Bottom-up Data Trusts: Disturbing the "One Size FIts All" Approach to Data Governance' (2019) 9 International Data Privacy Law 17.

637 See chapter 2.4 for a relevant discussion on this point.

638 Wark brackets workers of technology companies, users and others who unwittingly produce data for technology companies as part of a 'hacker class'. This is helpful in showing how persons with very different positions in relation to a company may nonetheless have shared class interests. However, in this chapter, it is necessary to consider users as a distinct category so as to build a normative argument for their involvement.

a company, even if they too can sometimes be users.[639] In the context of this chapter, the focus will be on social media platforms rather than hybrid platforms like CoSocial (section 4.1.3.) that had both social media and gig work features. While multiple social media platforms are referred to, the Twitter platform is used as the primary example to buttress these arguments, because it is often used as an archetype of a social media platform and as it has been the target of a #BuyTwitter campaign. However, the overarching points can be applied more broadly to other social media sites.

By deepening the normative argument that social media users generate value that merits ownership and participation rights, it is possible to then turn to how such ownership can be transferred to users in section 5.3. This section briefly discusses the limitations of existing transfer strategies for transitioning share ownership to such users, before arguing that the transfer of shares to irrevocable trusts, such as non-charitable perpetual purpose trusts with user representation would be best suited to the particular characteristics of social media platforms. For this discussion, the advantages and disadvantages of using such a trust will be evaluated at length. There will also be a concise consideration of entities that can be established to fulfil the functions of such a trust in jurisdictions where a non-charitable purpose trust is not available (e.g., a foundation).[640]

Section 5.4. turns to the question of how such a trust (or similar entities) may be governed. This draws inspiration from existing trusts as varied as the Organically Grown Company (which governs an Oregon-based organic produce business) to the DASH trust (which governs a blockchain network). In these entities, there is (multi-) stakeholder representation in the governance of the trust and, thus indirectly, in the governance of the company the trust owns. This section sets out a good governance 'checklist'[641] that can be used as a guideline to determine the responsibilities that representative bodies of users (e.g., an elected Trust Protector Committee) will be assigned and the governance processes they will be engaged in. This is accompanied with a diagram that can help individual users appreciate how the new decision-making process will operate and, in certain instances, involve the global user base. In doing so, this chapter seeks to chart a plausible path towards user ownership and governance of these companies, as has been

639 See chapter 2.3 for a relevant discussion on how users of a platform can simultaneously hold different statuses and roles. It would be expected that employees would be included in the capital and governance structure of the company through a separate mechanism, such as an ESOP.

640 On how the foundation in the Netherlands can be used as a 'civil law' trust, *see* Niek Zaman, Cornelis de Groot and Martijn van Steensel, 'Foundations in the Netherlands: Present and Proposed Legislation and Their Role in the Economy' in Birgit Weitemeyer and others (eds), *Non Profit Law Yearbook 2016/2017* (Bucerius Law School Press 2017) 267.

641 Michael Useem, 'How Well-Run Boards Make Decisions' (2006) 84 Harvard Business Review 130.

called for previously.[642] In particular, it seeks to answer the call to address the challenges of governance presented by platforms having a multinational user base.[643] The final section concludes by summarizing the arguments that have been presented and reflects on directions for future legal research on user trusts in the platform economy.

5.2 The Case for User Ownership and Governance

As has been discussed in chapters 2.4., 3.2., 4.1., and 7.2.2., there are several normative and empirical arguments for extending workers (ranging from full-time employees to intermittent, non-standard workers) the opportunity to own the business they work for and engage in participatory management.[644] The benefits of employees meaningfully identifying with a business and cultivating a psychological sense of ownership include the leveraging of widely-distributed knowledge to make better, timelier decisions, firm growth and productivity, job satisfaction, and maintaining higher levels of employment.[645] For existing shareholders, and particularly the employing company, it helps ensure the succession of the business even after the original founders and shareholders retire. The question addressed in this section is whether a different class of stakeholder – users – should be given a similar opportunity for ownership and participation management.

In the context of social media platforms, as explained in chapter 4.1.2., users are those who contribute labour value (e.g., "volunteer" moderators, content posters) and consume content (e.g., social media account holders,

642 Nathan Schneider, 'User Trusts: Broad-Based Ownership for Online Platforms' (2020) 43 Informatik Spektrum 9, 10.

643 ibid 13.

644 Participatory management by workers is understood to extend their voice beyond issues pertaining to working conditions to matters that are conventionally seen to be management's prerogative, including "investment, marketing, sales, productivity, cost control, business planning and corporate strategy". David P Ellerman, 'The Legitimate Opposition at Work: The Union's Role in Large Democratic Firms' (1988) 9 Economic and Industrial Democracy 437, 439.

645 Gerlsbeck and Herzog (n 229) 308; Isabelle Ferreras, *Firms as Political Entities: Saving Democracy through Economic Bicameralism* (Cambridge University Press 2017) 180; Christopher Mackin, 'Political Metaphors and Workplace Governance', *Sharing Ownership, Profits, and Decision-Making in the 21st Century*, vol 14 (Emerald Group Publishing Limited 2013) 367; U. S. Government Accountability Office, 'Employee Stock Ownership Plans: Little Evidence of Effects on Corporate Performance' (US General Accounting Office 1987) PEMD-88-1 <https://bit.ly/35TXfsv>; Richard B Freeman, Joseph R Blasi and Douglas L Kruse, 'Introduction' in Douglas L Kruse, Richard B Freeman and Joseph R Blasi (eds), *Shared Capitalism at Work: Employee Ownership, Profit and Gain Sharing, and Broad-Based Stock Options* (University of Chicago Press 2010) 12; Corey Rosen and Michael Quarrey, 'How Well Is Employee Ownership Working?' (1987) 65 *Harvard Business Review* 126, 126.

viewers of targeted advertising) and those who do both (i.e., prosumers).[646] While this term is capacious enough to include business users who provide or advertise their goods and services through a social media platform, their incentives for using the platform and their relationship with the platform company is markedly different from other types of users.[647] This divide primarily arises from differences in payment requirements between business users and individual users. It is worthwhile exploring how the interests of business users are represented in social media platforms – particularly micro, small and medium enterprises – but that is left for future work. In this chapter, the focus will be on non-business, personal users.

Three arguments will be presented here for conferring financial and control rights to users. Firstly, users generate *surplus value* for social media platforms that is unacknowledged and uncompensated.[648] Secondly, users contribute to these social media platforms having a distinct *cultural value* as a public sphere, which they should have a say in maintain and preserving. Thirdly, drawing on political theories of the firm which sees firms as political entities, it is submitted that stakeholders other than shareholders should be included in governance. In particular, it is essential to include users to achieve "collective self-determination" in social media companies.[649]

In view of these arguments, it is submitted that users should not be expected to *buy shares* in social media companies individually, but rather they should be considered to *earn participation rights* in these companies through their collective contributions. Thus, while users may be expected to make a nominal contribution towards enjoying these rights, it should not

646 Referring to the phenomena whereby consumers are expected to co-create and produce and the two processes become effectively indistinguishable. There is voluminous literature on this subject, but for an overview see: Ashlee Humphreys and Kent Grayson, 'The Intersecting Roles of Consumer and Producer: A Critical Perspective on Co-Production, Co-Creation and Prosumption' (2008) 2 Sociology Compass 963, 964; Detlev Zwick, Samuel K Bonsu and Aron Darmody, 'Putting Consumers to Work: `Co-Creation` and New Marketing Govern-Mentality' (2008) 8 Journal of Consumer Culture 163, 167. Relatedly, the 'playbor' neologism has gained popularity to signify those actions which blur playful leisure and labour. In the digital context see: Trebor Scholz (ed), *Digital Labor: The Internet as Playground and Factory* (1 edition, Routledge 2012). However, the idea of dissolving the distinction between work and play has a far older provenance, particularly in the work of Charles Fourier and William Morris. See Jonathan Beecher, *Charles Fourier: The Visionary and His World* (University of California Press 1986) 274–296; William Morris, 'Useful Work versus Useless Toil' in Vernon Richards (ed), *Why Work? Arguments for the Leisure Study* (Freedom Press 1997) 46; David Frayne, *The Refusal of Work: The Theory & Practice of Resistance to Work* (Zed Books 2015) 30–31.

647 Shu Zhang, Jordy F Gosselt and Menno DT de Jong, 'How Large Information Technology Companies Use Twitter: Arrangement of Corporate Accounts and Characteristics of Tweets' (2020) 34 Journal of Business and Technical Communication 364, 365–366.

648 Here I use Marx's conception of surplus value as the capitalist-entrepreneur's appropriation of the value created by workers in excess of their cost of production. Karl Marx, *Capital: A Critical Analysis of Capitalist Production*, vols 1 & 2 (Wordsworth Editions Limited 2013) 127, 134. *Also see*, Zwick, Bonsu and Darmody (n 646) 179–180.

649 Ferreras (n 645) 11.

be, for instance, the full-face value of shares, as that may be beyond the reach of many users. Relatedly, the forms of participation envisioned for users are not limited to the financial and control rights of ordinary shareholders. Instead, they are a steppingstone towards more extensive forms of collective participation in the day-to-day governance of these companies.[650]

5.2.1 Surplus Value extracted from Social Media Users

To forward the first argument, it is helpful to consider an example: that of the online, microblogging platform, Twitter. According to its 2019 Annual Report, Twitter "is what's happening in the world and what people are talking about right now", with its primary allure being a global platform for "people to consume, create, distribute and discover content" in a manner that has "democratized content creation and distribution".[651] It has become the bespoke media outlet for many, for those interested in 'following' certain celebrities to those who wish to keep up-to-date about certain causes to those who wish to share news with each other.[652] Entire social justice movements have risen[653] and fallen[654] on Twitter and it has been an especially effective tool for locating and coordinating "massively shared experiences".[655] Once used mainly as a forum for short, witty remarks and a means for dispatching life updates to friends,[656] the popularity and reach of Twitter has broadened its appeal to politicians, governments and businesses.

However, the users of the Twitter platform are not ordinary consumers, who make use of goods and services produced by others. Users are involved in creating both *use value* and *exchange value* for the platform. Use value refers to the intrinsic utility an object has to its producer or consumer, while exchange value is the value an object can fetch in a marketplace

650 Schneider, 'User Trusts' (n 642) 12.

651 Twitter, Inc., 'Fiscal Year 2019 Annual Report' (2019) Annual Report Pursuant to Section 13 or 15(D) of the Securities Exchange Act of 1934 6 <https://bit.ly/2T8Sqsx>.

652 Ford Lumban Gaol, Tokuro Matsuo and Ardian Maulana, 'Network Model for Online News Media Landscape in Twitter' (2019) 10 Information 277, 277; Ariel Hasell, 'Shared Emotion: The Social Amplification of Partisan News on Twitter' (2020) 0 Digital Journalism 1, 4.

653 *See*, the example of the Black Lives Matter movement, Pew Research Center, 'Social Media Conversations About Race' (Pew Research Center 2016) <https://bit.ly/3gYe8Zc>.

654 See, e.g., the role of Twitter in Iran during the 2009-2010 election protests, Evgeny Morozov, 'Iran: Downside to the "Twitter Revolution"' (2009) 56 Dissent 10.

655 Massively shared experiences is the phrase Twitter CEO Jack Dorsey uses to refer to natural and man-made disasters, planned events such as elections and concerts, etc. David Sarno, 'Jack Dorsey on the Twitter Ecosystem, Journalism and How to Reduce Reply Spam. Part II' (*LA Times Blogs - Technology*, 19 February 2009) <https://bit.ly/3gX8pTC>.

656 Richard Rogers, 'Debanalising Twitter: The Transformation of an Object of Study' in Katrin Weller and others (eds), *Twitter and Society* (Peter Lang 2014).

compared to other commodities.[657] That tweets can have an intrinsic utility can be seen from the aforementioned examples of how Twitter has been used for movement and community building, as well as for entertainment and news. That user production is key to Twitter, is a fact that Jack Dorsey, a co-founder and present CEO of Twitter observed back in 2009:

> "On Twitter, *you are not watching the person, you are watching what they produce*. It is not a social network, so there is no real social pressure inherent in having to call them 'friend' or having to call them a relative, because you are not dealing with them personally, you are dealing with what they are putting out there. [emphasis added]"[658]

In a limited sense, as users are producing content for their own and collective benefit, it is possible to argue that their production is not being commodified for exchange. Yet, within a data-driven platform business model, the availability of high-quality tweets contributes to more users wanting to join the platform – and thereby be exposed to targeted advertisements. This is why, while there is no cost in creating a user account, user engagement is central to the platform's revenue.

In contrast to traditional media, from print to radio, it is the users that provide the content that entices others to join the platform and the data that helps make the placement of advertisements more effective. Conversely, on such a microblogging platform, it would not be possible for the business to survive if it had to rely exclusively on paid content producers or if there was an exodus of users, as it would also prompt an exit of advertisers.[659] While the former may have intrinsic utility for a community of users, exchange value is produced through the data that is extracted from tweets, as well as engagement by users with the platform and each other. It is this element of user production that is sold by the platform company as surplus value.[660]

The data produced by users is collected and processed by platforms to build predictive models about users' behaviour so as to more efficiently facilitate advertisement delivery and auctions for advertisers seeking to secure real estate on users' newsfeeds and timelines.[661] Advertising, Twitter's main revenue stream, is contingent on users clicking on promoted

657 Humphreys and Grayson (n 646) 965.

658 David Sarno, 'Twitter Creator Jack Dorsey Illuminates the Site's Founding Document. Part I' (*LA Times Blogs - Technology*, 18 February 2009) <https://bit.ly/3zWs25P>.

659 Christian Fuchs, 'Labor in Informational Capitalism and on the Internet' (2010) 26 The Information Society 179, 191.

660 Humphreys and Grayson (n 646) 974.

661 Cheng Li and others, 'Click-through Prediction for Advertising in Twitter Timeline', *Proceedings of the 21th ACM SIGKDD International Conference on Knowledge Discovery and Data Mining* (Association for Computing Machinery 2015) 1970; Xinran He and others, 'Practical Lessons from Predicting Clicks on Ads at Facebook', *Proceedings of 20th ACM SIGKDD Conference on Knowledge Discovery and Data Mining - ADKDD'14* (ACM Press 2014) 1.

tweets, accounts and trends, with Twitter's corporate clients paying the company per click, per follow or per day during an ad campaign promotion.[662] In addition, Twitter has over the course of its operations, earned a substantial chunk of its revenue from syndication agreements with search engines – allowing users' tweets to be embedded in search results – and licensing user data (e.g., concerning interactions, movements and communication) and content to 'data resellers' (e.g., Gnip, Datasift), whose clients range from corporations looking to target potential consumers to governments seeking to monitor dissidents.[663] In short, these platforms become a "sort of universal clearinghouse" for commodifying and valuing social relations for the purpose of exchange.[664]

Yet, compared to those businesses and persons who use Twitter primarily for commercial purposes, the surplus value of 'what is being put out there' is unacknowledged. Twitter users, deploying a form of immaterial labour,[665] create an abundance of informational content, while also making personal data and preferences available. This uncompensated labour contributes to "the social, educational and knowledge commons",[666] that Twitter monetizes for its bottom line. As they are unpaid for this, Twitter not only generates surplus value but also reduces their variable capital costs.[667] Of course, the intrinsic value of individual Tweets to the platform varies considerably: the recitation of facts and sharing of (other's) content may primarily be valuable as an indication of consumer tastes and preferences, while original and creative Tweets may create a following for the user and draw more users to Twitter. Yet in either case, users themselves serve as an "audience commodity" for Twitter and similar social media companies to generate surplus value.[668] That there is exploitation involved in the creation of this commodity is deliberately hidden and only becomes apparent through analysis after the fact.[669] As Humphreys and Grayson argue in general terms about prosumers, irrespective of whether users 'enjoy' this process, to the extent that they produce exchange value, they should be entitled to a portion of that value.[670] In addition to determining

662 Rowan Wilken, 'Social Media App Economies' in Jean Burgess, Alice Marwick and Thomas Poell (eds), *The SAGE Handbook of Social Media* (SAGE 2018) 273.

663 Victor Luckerson, 'Twitter Is Selling Access to Your Tweets for Millions' [2013] *Time* <https://bit.ly/3jgkTr5>; Twitter, Inc., 'Getting Started with the Twitter API' <https://bit.ly/3A0DZYb>.

664 Adam Arvidsson, 'Facebook and Finance: On the Social Logic of the Derivative' (2016) 33 Theory, Culture & Society 3, 6.

665 Michael Hardt and Antonio Negri, *Multitude: War and Democracy in the Age of Empire* (Penguin 2004) 108.

666 Fuchs, 'Labor in Informational Capitalism and on the Internet' (n 659) 188.

667 ibid 191. As the users are unpaid, they are "infinitely exploited".

668 Dallas W Smythe, 'On the Audience Commodity and Its Work' in Meenakshi Gigi Durham and Douglas M Kellner (eds), *Media and Cultural Studies: KeyWorks* (Revised, Blackwell Publishing 2006) 251.

669 Fuchs, *Digital Labour and Karl Marx* (n 43) 287.

670 Humphreys and Grayson (n 646) 976.

whether such compensation should be individual or collective, the chapter also contends that a collective mechanism should be provided for user voice, so to as to de-commodify user production and provide users with greater agency in addressing the platform economy's problems;[671] points that are returned to in the next two sections. The Twitter example helps flesh out the argument, but it is generally applicable to other large, corporate social platforms such as Facebook as well.

An argument can be made about how the extraction of 'information surplus'[672] from users is in itself sufficient for a vulnerable, unrepresented group to be given a voice in a platform business, but the fragility of their position becomes even more apparent when one considers how users' machines are increasingly replacing users themselves in the production of monetizable data. An example of such a 'smart prosuming machine' is the Facebook app in conjunction with users' Wi-Fi connections, which shares users' approximate location information via their IP address with the platform and third-party advertisers – even when the user takes no overt action to share this metadata.[673]

5.2.2 Cultural Value of Social Media

Turning to the second argument, there has long been rhetoric surrounding social media platforms creating a global public sphere or public forum.[674] This is not limited to communication between users but includes communication with public authorities and private actors. For some, this connectivity automatically leads to feelings of connectedness.[675] This is particularly true of platforms where users have developed a sense of community due to an ability to *speak to* (rather than *at*) one another, which may be as "meaningful" to its members as real-world interactions.[676] In comparison to the increasingly transient nature of employment in tech companies, several platforms have long-term users whose tenure and contributions may far outstrip that of any individual who works or manages the platform company. For instance, on Everything2, an online community for user-

671 Tiziana Terranova, 'Free Labor' in Trebor Scholz (ed), *Digital Labor: The Internet as Playground and Factory* (1 edition, Routledge 2012) 69; Schneider, 'User Trusts' (n 642) 13; Fuchs, *Digital Labour and Karl Marx* (n 43) 303.

672 Wark (n 608) 11.

673 George Ritzer, 'Automating Prosumption: The Decline of the Prosumer and the Rise of the Prosuming Machines' (2015) 15 Journal of Consumer Culture 407, 417; David Nield, 'All the Ways Facebook Tracks You – and How to Limit It' [2020] *Wired* <https://bit.ly/3gOMxcT>; DeNardis and Hackl (n 623) 765.

674 Jose van Dijck, *The Culture of Connectivity: A Critical History of Social Media* (Oxford University Press 2013) 16.

675 Dijck, Poell and Waal (n 34) 2.

676 Rhiannon Bury, 'Technology, Fandom and Community in the Second Media Age' (2017) 23 Convergence 627, 628, 630.

submitted writing, user volunteers continued to contribute content long after the administrator-owner of the platform retired from active service.[677] This sense of community does not exist on all social media platforms, despite their marketing rhetoric,[678] with Bury arguing that platforms such as Twitter only allow for a feeling of 'ambient affiliation' with a larger group and Facebook diminishes free expression and playfulness due to the publicity of users' real identities.[679]

Irrespective of the degree to which these platforms individually contribute to meaningful connectedness, the other side of enabling the expression of speech is making decisions about when speech is restricted. The technical and social protocols of content management systems shape what users "like, want, know, or find",[680] personalised to a degree that it is possible that no two user experiences of a platform are identical.[681] In the process of doing so, decisions are constantly being made about what content is removed or promoted, which in effect moderates the speech and cultural discourse that is allowable on the platform. Content moderation and the role of social media platforms in shaping public values on freedom of expression have received considerable attention in recent years, including from legal scholars (see chapter 4.1.1.), but a lot of this attention has been devoted to how this moderation can be improved. This has included suggestions for increasing the number of (expert) human moderators, and introducing greater transparency in decision-making, and installing better filtering software.[682]

As Gillespie anticipates, these ideas for incrementally improving content moderation have already begun to gain traction. These ideas have informed efforts like the creation of Facebook's Oversight Board, which has a diverse selection of experts appointed first by the Facebook Board of Directors (and subsequently the Oversight Board itself) to decide on an array of controversial content removal decisions.[683] These recommendations are helpful but curiously, even the more ambitious proposals – such as Dijck's proposal for social media platforms to pay more attention to institutional pillars of trust (e.g., traditional news outlets) – falls short of user ownership and governance of these platforms.[684] Despite such plat-

677 Alcides Velasquez and others, 'Latent Users in an Online User-Generated Content Community' (2014) 23 Computer Supported Cooperative Work 21, 28, 31.

678 Anna Lauren Hoffmann, Nicholas Proferes and Michael Zimmer, '"Making the World More Open and Connected": Mark Zuckerberg and the Discursive Construction of Facebook and Its Users:' [2016] New Media & Society 208–209.

679 Bury (n 676) 636–637.

680 Dijck (n 674) 37.

681 Tarleton Gillespie, *Custodians of the Internet: Platforms, Content Moderation, and the Hidden Decisions That Shape Social Media* (Yale University Press 2018) 195.

682 ibid 198.

683 Klonick (n 633) 2458–2460, 2470.

684 Dijck, Poell and Waal (n 34) 30.

forms "infiltrating in, and converging with" the legacy institutions of democratic societies, producing the social structures in which everyone now lives,[685] these platforms are generally precluded from the expectations of accountability and democratic legitimacy placed on legacy institutions (e.g., traditional news outlets, semi-public companies).

Aside from its utility for communication, some argue that the user-generated content available on their sites, taken as a whole, are valuable as part of humankind's cultural heritage. Authors have noted the significance of Facebook's digital archive as "a site of digital global heritage" and analogised the microblogging of Twitter to historical diaries and shared public writings that can provide valuable insight into the cultural milieu of a given time.[686] Indeed, Twitter has such cultural significance in the United States that the Library of Congress began to permanently archive all tweets.[687] While the use of Twitter is not evenly distributed across the world, its APIs provide researchers access to an immense trove of tweets and associated metadata that is invaluable for large-scale studies of social communication. The extent to which these platforms are 'open' varies and personal data has to be protected. Yet, if it is accepted that these records have cultural value, then surely there is a basis for arguing that private companies alone should not be responsible for its maintenance. The users who have helped create this cultural value should have a say and a role in preserving it.

As Terranova points out, social networks can be of considerable value, but the issue is with the ends to which these networks are invariably used due to the profit motive that undergirds capitalist social media platforms. She argues that instead of being tailored towards consumption and commodification,[688] networks should be seized and repurposed to truly allow users to build global connections and new competencies.[689] This 'seizure' can be through the creation of emancipatory alternatives or by transferring the ownership of these networks to its users.

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685 ibid 2.

686 Lee Humphreys and others, 'Historicizing New Media: A Content Analysis of Twitter' (2013) 63 Journal of Communication 413, 414; Carl Öhman and Nikita Aggarwal, 'What If Facebook Goes down? Ethical and Legal Considerations for the Demise of Big Tech' (2020) 9 Internet Policy Review 1.

687 Kalev Leetaru and others, 'Mapping the Global Twitter Heartbeat: The Geography of Twitter' [2013] First Monday <https://bit.ly/3dlLChZ>. That being said, the archive does not operate in the way it was originally planned.

688 Sebastian Sevignani, *Privacy and Capitalism in the Age of Social Media* (1st edition, Routledge 2015) 3.

689 Tiziana Terranova, 'Red Stack Attack: Algorithms, Capital and the Automation of the Common' in Robin Mackay and Armen Avanessian (eds), *#Accelerate: The Accelerationist Reader* (Urbanomic 2014) 393.

5.2.3 Social Media Platform Companies as Political Entities

The third ground elaborates on political theories of the corporation that advance a 'parallel case' argument, workplace republicanism, and 'neo-abolitionism'. In short, the parallel case argument claims that states and firms share certain features, namely hierarchy and capacity to subordinate others to their authority, and as democracy is used to mitigate the excesses of the former, it should also be adopted for the latter.[690] Broadly speaking, according to this view, companies are political entities[691] and subjecting their constituents, such as workers, to the unaccountable authority of "private government" is contrary to human dignity.[692] In contrast to the instrumental rationality of investors keen to maximize their wealth, workers are driven by an expressive rationality where they commit themselves to their work and construct meaning about their life through their work.[693] David Ellerman builds on this by presenting a case for abolishing the employment relationship altogether and replacing it with workplace democracy, on the basis that the employment contract involves the transfer of responsible agency and decision-making powers that are inalienable from the worker. He argues that a system in which human hours are rented by an employer is invalid and inherently fraudulent, even when such *human rental* contracts are voluntarily entered into. He presents analogous examples of how liberal political systems have recognised such inherently fraudulent contracts in the past and consequently abolished contracts such as voluntary slavery agreements and marriage coverture contracts, which also involved the self-incapacitation of human agency and alienation of decision-making. Instead, to retain agency and decision-making power would entail joint work and governance of one's workplace, as well as the joint appropriation of both the positive and negative fruits of one's labour.[694] This would also redress the "mismatch" between the group that factually produces wealth but is not recognised for doing so by the law and the group that the law recognises as producing wealth but does not factually do so.[695]

While this argument was presented with workers in mind, the fundamental points about the inalienability of agency and decision-making power can also be made about users who are subject to contracts of adhesion, such as end-user license agreements (EULAs) and terms of service. These

690 Abraham A Singer, *The Form of the Firm: A Normative Political Theory of the Corporation* (Oxford University Press 2019) 139.

691 Ciepley analogises them to "constitutional republics". *See* David Ciepley, 'Beyond Public and Private: Toward a Political Theory of the Corporation' (2013) 107 American Political Science Review 139, 141.

692 Elizabeth Anderson, 'Reply to Commentators', *Private government: how employers rule our lives (and why we don't talk about it)* (Princeton University Press 2017) 144.

693 Ferreras (n 645) 81–82.

694 David Ellerman, *Neo-Abolitionism: Abolishing Human Rentals in Favor of Workplace Democracy* (Springer 2021) 149, 154.

695 ibid 152.

'take it or leave it' agreements determine what is acceptable behaviour on a platform and can be constantly changed by the platform operator, and though they are entered into willingly, they also compromise users' agency and capacity to make decisions.[696] In other words, users should also be considered to be part of the 'real association' of an enterprise, which shares governance and fruits of production. Similarly, just as the firm typically fails to acknowledge the expressive rationality of workers,[697] they also fail to account for how users may invest themselves in a platform.

Thus, those who advocate the firm/state analogy find the representation of only one constituent body, capital, within a firm as being an "illegitimate" basis for governance.[698] A recent advocate of the firm/state analogy, Isabelle Ferreras, has proposed 'economic bicameralism' for mid-to-late-stage companies with distributed ownership, as a way of accounting for both instrumental and expressive rationalities[699] in the governance of a firm. She draws inspiration from the move towards political bicameralism in ancient Rome, the United Kingdom and the United States.[700] In a bicameral structure, both (multinational) labour (i.e., workers) and capital (i.e., shareholders) would be democratically represented in equal 'chambers', replacing a unitary board of directors or a supervisory board of a corporation.[701] This would enable both labour and capital to have parity in decision-making, as a majority vote would be required from each 'chamber' to approve a strategic decision.[702] Her conception of the composition of a labour investors' chamber of representatives is sufficiently capacious to include user involvement, as she acknowledges that in certain industries users may be "just as personally invested as workers".[703] Indeed, if affected interests is the basis for determining representation, there is no reason why stakeholders such as users shouldn't be included alongside workers.[704] Users could be included through a quota of seats in the labour chamber and, given the transnational operations of these corporations, be complemented

696 Dijck (n 674) 38.
697 Ferreras (n 645) 127.
698 ibid 128.
699 Expressive rationality in this context refers to the idea that a firm should reflect the values, commitments and principles of those individuals who engage in activities within the firm. In other words, the firm should allow a full expression of one's self.
700 Ferreras (n 645) 130, 152. Ferreras is, of course, not the first to suggest such a compound board, with Turnbull, for example, having suggested decision-making advantages of converting all firms into 'stakeholder mutuals'. See generally, Shann Turnbull, 'The Competitive Advantage of Mutuals' in Johnston Birchall (ed), *The New Mutualism in Public Policy* (Routledge 2002).
701 This would require an amendment in corporate laws that specify a maximum size of a unitary board or a supervisory board, as these chambers would be larger in size than average boards even if they are representative in nature.
702 Ferreras (n 645) 132, 172, 176.
703 ibid 142.
704 Singer (n 690) 142.

by bicameral structures at national or regional levels.[705] As such, economic bicameralism can be seen as an intermediate step towards a democratic firm that is governed by its workers or multiple stakeholder groups.[706]

Previously, Turnbull also found corporations to be political entities, but developed his conception of a 'stakeholder corporation' on the basis that unitary control by directors is inherently problematic. He argued that unitary control is riven with conflicts of interest, and hampered by both a lack of independent, qualitative information as well as an overload of information.[707] In lieu of unitary control, he proposed that publicly traded companies (operating a traditional pipeline business) be converted into 'stakeholder mutuals', where employee representatives, consumer/user representatives, supplier representatives and community representatives are appointed to a 12-member Stakeholder Council, the Chairperson of which also serves as the independent Chairperson of the company's management board.[708] Notably, this proposal does not challenge the contested shareholder primacy system nor interfere with shareholders' property rights as it is shareholders who continue to have the right to appoint the directors of the management board.

In spite of this drawback, Turnbull's stakeholder mutual model provides a useful heuristic with which to think about the installation of a user trust and its potential relations and transactions with other bodies within a social media company. At the same time, to address the criticisms of scholars who are sceptical of such forms of representative economic democracy not being sufficiently far-reaching, it is necessary to consider how user involvement can be made more participatory.[709]

A counterargument can be made here that in spite of the normative arguments in favour of user participation, it is bluntly inefficient to do so. As Hansmann has observed previously (also see chapter 7.1., 7.2.4.), involving heterogeneous interests in the governance of a company entails higher costs, in terms of *collectively making* decisions and *suffering* from the consequences of poor decisions.[710] In brief, it is costly to collect information from users with diverse preferences and to practically organize decision-making processes involving a heterogeneous group. Instead, Hansmann claims that defaulting to investor ownership involves the lowest costs of ownership (i.e., as all investors have a singular objective) and fewer transaction costs with other stakeholders.[711] This serves to explain the prevalence of the for-profit company and conversions (or degeneration) of coopera-

705 Ferreras (n 645) 149.
706 ibid 174, 178; Cohen (n 180) 378.
707 Turnbull (n 700) 174.
708 ibid 189.
709 Gregory K Dow, *Governing the Firm Workers' Control in Theory and Practice* (Cambridge University Press 2003) 30.
710 Hansmann (n 362) 39–42; Singer (n 690) 150.
711 Hansmann (n 362) 22.

tives into for-profit companies.[712] However, as Singer notes, the claim that the collective action and transactions costs of investor ownership are low leads to the question: "why not just transact through the market?".[713] Singer submits that the existence of an investor-owned firm instead of a market inherently indicates that these costs are not absent, even when the views of only one group are given primacy. In other words, there is space for democratic firms, even if they are not the most efficient, as no firm is optimally efficient. In his words, cooperatives are "efficient enough".[714] As he later explains, this space for democratic firms exists between a *minimal viability horizon*, where the democratic firm presents a preferable alternative to market contracting, and a *maximal viability horizon*, where the costs of membership exceed that of market contracting.[715]

User trusts (and similar entities), arguably, can also operate in this space to help the companies they own achieve a distinct purpose, even if they are not the most efficient. The next section elaborates on some of the options for creating, and transferring shares to, such trusts.

5.3 Proposal: Share Transfers for User Ownership & Participation

A particularly large trust has captured news headlines at the time of writing, due to the installation of Facebook's Oversight Board. Facebook irrevocably granted US$ 130 million to a trust so as to fund an Oversight Board LLC, responsible for administering the Facebook Oversight Board for at least six years.[716] However, as mentioned above, the Oversight Board is not democratically elected by users nor are the trustees that are responsible for preserving the independence of the Board accountable to the Oversight Board itself – they remain accountable to Facebook. Facebook even remains responsible for approving the amendment of the Oversight Board's Bylaws with respect to the scope of their review powers.[717]

The form of user ownership and participation discussed in this chapter, as with chapter 4.2.1., envisions a more prominent role for users. In terms of governance, this could range from having a say in who the directors of a social media company are to preventing the takeover of the company to even having an influence on the terms of the end-user license agreements, terms of service agreements and content moderation policies that users are

712 Silvia Sacchetti and Johnston Birchall, 'The Comparative Advantages of Single and Multi-Stakeholder Cooperatives: Reflections for a Research Agenda' (2018) 7 Journal of Entrepreneurial and Organizational Diversity 87, 89.
713 Singer (n 690) 154.
714 ibid.
715 ibid 156.
716 Klonick (n 633) 2467.
717 ibid 2468, 2474.

subject to. In terms of financial rights, this chapter shares the scepticism of other researchers about individual payments to users (e.g., 'data dividends', user wages), especially as it may be attached to the requirement for allowing companies a wide scope to exploit user data in jurisdictions where statutory privacy protections are weak.[718] Even if the receipt of such dividends or wages did not involve such compromises, the amount paid to individual users would likely be very small. Instead, collective accumulation of dividends in a trust (or similar entity) that owns the shares of the social media company would permit uses for collective ends, such as user advocacy and research.

5.3.1 Making Organisational Choices

At the outset, it may not be obvious why a trust or a trust-like entity such as a foundation should be the appropriate mechanism for realising user ownership and participation. Others have suggested that alternative or 'commons-based' social media platforms should be organised on a non-commercial, non-profit basis but have not gone into much detail about the various options available, even among entities like trusts.[719] Theorists of organizational choice have modelled various advantages and disadvantages of choosing a for-profit company, over a for-profit cooperative or non-profit entity. For instance, in an organisation dominated by consumers, the absence of a profit motive leads to a greater focus on product/service quality and consumer surplus than with both for-profit companies and cooperatives.[720] This is, however, costly as it entails greater expenditure on those who manage such non-profits, so as to ensure such a beneficial outcome. In contrast, where there is a sufficiently high cost of decision-making, for-profit companies are preferred, even if there is a trade-off with lower quality. Cooperatives are seen as a compromise that arise when the costs of collective decision-making are not particularly high, as they require lower managerial expenditure and can strike a balance between ensuring members a patronage refund and improving consumers' surplus.[721] There are efforts to reduce the cost of collective decision-making among heterogeneous, globally-dispersed groups (see chapter 7 generally), but usually, low collective decision-making costs requires low membership numbers and/or member homogeneity.[722]

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718 Hayley Tsukayama, 'Why Getting Paid for Your Data Is a Bad Deal' (*Electronic Frontier Foundation*, 26 October 2020) <https://bit.ly/3jqFzwn>; Fuchs, *Digital Labour and Karl Marx* (n 43) 303.

719 Fuchs, *Digital Labour and Karl Marx* (n 43) 301; Schneider, 'User Trusts' (n 642) 11.

720 Patrick Herbst and Jens Prüfer, 'Firms, Nonprofits, and Cooperatives: A Theory of Organizational Choice' (2016) 87 Annals of Public and Cooperative Economics 315, 327.

721 ibid 328.

722 ibid 335.

Moreover, growth in competition also has an effect on organizational choice and changes of organizational form, with it being claimed that for-profit companies are best placed to respond to competitive pressures. Conversely, according to Herbst and Prüfer, cooperatives and non-profits are able to better serve less competitive markets. [723]

In terms of analogous examples, the existence of multi-stakeholder[724] cooperatives that typically (but not exclusively) provide welfare services (e.g., elderly care) or employ disadvantaged groups provides a precedent on how the interests of multiple stakeholder groups can be reconciled on an even footing. However, the formation of such cooperatives typically entails a high buy-in cost for the members directing the formation of the cooperative, such as the workers.[725] In countries such as Italy, with an enabling legal framework for workers to buy-out distressed companies, workers are able to draw on severance pay, mobility allowances and unemployment insurance benefits to finance the restarting of the business.[726] They are also able to access revolving loans that are dedicated towards supporting the cooperative ecosystem and worker buy-outs.[727] Similarly, in France after the passage of decree no. 2014-1758 of 31 December 2014, worker buyouts are incentivized. The law permits the worker cooperative (*SCOP d'amorçage*) that is established in the process of acquiring a company to immediately implement worker self-management in the business, even while workers have a minority of share capital in the SCOP. This is because the initial capitalization of the SCOP is financed by issuing non-voting shares to external investors, on the basis that workers are required to buyback these shares and hold at least 50% of the issued shares within seven years.[728]

723 ibid.

724 In some jurisdictions, they are known as social or solidarity cooperatives. *See* chapter 6.4.2.

725 Sacchetti and Birchall (n 712) 92.

726 Marcelo Vieta, 'The Italian Road to Creating Worker Cooperatives from Worker Buyouts: Italy's Worker-Recuperated Enterprises and the Legge Marcora Framework' (European Research Institute on Cooperative and Social Enterprises 2015) 9; Cristina Di Stefano, 'The Business Transfer through the Cooperative Model. A Comparative Analysis Italy-France' (2018) 7 The Journal of Entrepreneurial and Organizational Diversity 62, 67.

727 Di Stefano (n 726) 68–69.

728 ibid 70.

A similar enabling legal framework is lacking for transfers to user ownership of companies of the size and scale described in this chapter.[729]

Trusts in common law jurisdictions are flexible entities and so can have the attributes of one or more of the organisations outlined above, depending on how the trust instrument is drafted. They can be used for charitable or non-charitable purposes and can be irrevocable, in the sense that the terms of the trust cannot be altered by the settlor once it has been created. This means that if a grant of, for instance, shares are properly made to the irrevocable trust, the transaction cannot be unilaterally reversed. While the 'unitary' trust model is common, with a trustee being exclusively responsible for administering the trust, there are also 'directed' trusts in which one or more persons is given the authority to direct how the trustee exercises their powers.[730] This can include a body that is representative of one or more stakeholder groups affected by the operation of the trust, such as employees or clients. Moreover, the growing use of non-charitable purpose trusts allows for the fiduciary duties of a trustee (and related actors) to be oriented towards the purpose(s) outlined in the trust instrument, rather than the interests of beneficiaries.[731] A foundation under Dutch law, while being distinct from a trust, does not have members[732] and its board of directors discharge the foundation's specific purpose(s) as set out in its articles of incorporation.[733] These purposes can be commercial or non-commercial, but there are restrictions on distributions of profit. The foundation cannot have

729 *But see*, the 'community right to bid' in the United Kingdom, which permits community groups to nominate buildings (e.g., local pubs) and land as assets of community value. If the owner of a property that is listed as an asset of community value seeks to liquidate the asset and sell it, they must inform the local authority, who in turn will inform the nominating body. If there is an expression of interest by a community to buy the property within six weeks, a moratorium is placed on the sale for six months so that the community group can prepare their bid. Lynn (n 369) 43, 61. As part of the recast Renewable Energy Directive, Member States are expected to create an enabling framework for multi-stakeholder renewable energy communities that produce and consume renewable energy. Stakeholders would include SMEs, local municipalities and even investors. Lowitzsch suggests adapting Kelso's CSOP (chapter 4) for renewable energy communities as a suitable business model to operate within this new framework to, for instance, acquire solar panels or biogas reactors. He has outlined what such a 'RE-CSOP' would look like in Germany but it remains to be seen whether Member States and renewable energy communities embrace such a proposal. *See* Jens Lowitzsch, 'Consumer Stock Ownership Plans (CSOPs) – The Prototype Business Model for Renewable Energy Communities' (2019) 13 Energies 1, 3; Jens Lowitzsch (ed), *Energy Transition: Financing Consumer Co-Ownership in Renewables* (Springer 2019) 165. *Also see*, Directive (EU) 2019/944 of 5 June 2019 on common rules for the internal market for electricity and amending Directive 2012/27/EU (recast) [2019] OJ L 158/125, art. 22.

730 Todd D Mayo, 'Trust Governance Models' (2017) 4 The International Family Offices Journal 28, 30.

731 Susan N Gary, 'The Oregon Stewardship Trust: A New Type of Purpose Trust That Enables Steward-Ownership of a Business' (2020) 88 University of Cincinnati Law Review 707, 710.

732 Article 2:285(1), Dutch Civil Code [DCC].

733 Article 2:286(4)(b), DCC.

the purpose of making distributions to founders of the foundation, those who participate in its corporate bodies (e.g., directors), or to other parties, with the exception that in the case of the last group, distributions can be made for charitable or social purposes.[734]

An entity such as an irrevocable perpetual purpose trust or a foundation has three advantages in governing social media companies. Firstly, they can be designed to have social or idealistic purposes (i.e., a 'mission'),[735] with constraints on distribution. Irrespective of whether the constraints are statutorily or voluntarily imposed, residual earnings could be kept within the entity or reinvested in the company. This would allow the entity to place greater emphasis on fulfilling its purposes, such as improving user representation in the company and user experience of the platform, over returning dividends to investors or serving the interests of members. Arguably, a mission-driven entity of this kind is most suitable for the needs of social media users as (a) they are concerned about the usability of the platform and (b) they do not stand to gain much financially through the distribution of residual earnings on an individual basis.

Secondly, social media platforms like Facebook are natural monopsonies (see chapter 4.1.) and the advantage that for-profit companies have in negotiating market competition will diminish as certain actors solidify their dominant position in a given market. On this basis, dominant social media platforms may be particularly suited to ownership by mission-driven entities, which make up for their shortcomings in terms of competitiveness with their focus on quality.

Thirdly, the costs of direct ownership of social media companies and the lack of an enabling legal framework to reduce these costs, makes *indirect* ownership through a mission-driven entity more attractive. This is in contrast to more direct forms of multi-stakeholder ownership that is proposed by the FairShares Model.[736] The aforementioned financial incen-

734 Article 2:285(3), DCC.

735 There are several advocates of non-charitable purpose trusts, who among other things argue that such trusts could be used for noble ends that do not fall under the strict definition of charity. Waters, for instance, refers to the example of how a purpose trust could be used for the purpose of supporting an amateur drama group whose members keep changing. Donovan Waters, 'Non-Charitable Purpose Trusts in Common Law Canada' (2008) 28 Estates, Trusts & Pensions Journal 16, 16.

736 In line with the arguments presented in this chapter, this model acknowledges stakeholders' intellectual, human, social and financial investments to a firm by providing them with control and financial rights. Ridley-Duff, 'The Internationalisation of the FairShares Model: Where Agency Meets Structure in US and UK Company Law' (n 7) 313. However, with respect to users in particular, it suggests direct ownership over shares which may be expensive and difficult to operate without some form of indirect representation when the global user base can run into the millions or billions. Rory Ridley-Duff, *The Case for FairShares: A New Model for Social Enterprise Development and Strengthening of the Social and Solidarity Economy* (FairShares Association 2015) 35–36, 52–54. There is, however, much to learn from the FairShares model in planning, organising and governing a multi-stakeholder, democratically-managed firm, as discussed later in the chapter.

tives for worker buyouts do not exist for user ownership and would be prohibitively expensive if used to acquire companies of the size of major social media platforms. Similarly, alternative leveraged buyout strategies, such as ESOPs and CSOPs,[737] while providing salutary examples, would be difficult to implement in this context. The archetypical CSOP envisioned by the Kelsos, for instance, would encounter difficulties in finding a lender or guarantor willing to extend the large sums necessary to acquire majority ownership of a large social media company.

Moreover, these costs are not limited to financial costs but include costs of collective decision-making. On social media platforms, collective action and coordination costs are accentuated as users are globally distributed and their use of the social media platform varies greatly.[738] While there is considerable experimentation underway on how this coordination problem can be solved and globally dispersed individuals can enjoy financial rights (see chapter 4.2.), one option for addressing this problem at present is by having a representative user governance. Even with indirect ownership and representative governance, it is possible to design a governance system that involves extensive user participation.

Bearing this in mind, it is possible to conceive of transfer strategies which, with the right policy support, could materialise user ownership of social media companies. The following sub-section provides an overview of what a non-charitable purpose trust and a Stichting Administratiekantoor (STAK) (a particular use of a foundation) is. It then discusses how a share transfer to user ownership could be conducted with the use of these two entities.

5.3.2 Non-Charitable Purpose Trusts

Purpose trusts are trusts that are created for specific, non-charitable purposes rather than for identifiable beneficiaries.[739] While people may benefit from purpose trusts, this benefit is indirect. In general, legislation concerning such trusts require that the purposes are specifically defined in writing, are certain, reasonable, not immoral or against public policy,

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737 Kelso and Kelso (n 415) ch 7.

738 Facebook's experiment with direct user control over policies (e.g., terms of service) was unsuccessful due to very low turnout. Nielsen argues that the reason for this lack of participation is because the vast majority of users are lurkers, rather than active participants. Adi Robertson, 'Facebook Used to Be a Democracy – but Nobody Voted' [2018] *The Verge* <https://bit.ly/2WdjIPr>; Jakob Nielsen, 'The 90-9-1 Rule for Participation Inequality in Social Media and Online Communities' (*Nielsen Norman Group: World Leaders in Research-Based User Experience*, 8 October 2006) <https://bit.ly/3iZdkEx>.

739 For those with an English law background, it is necessary to explain that a purpose trust is distinct from a *Quistclose* trust as the intention behind creating a purpose trust is not to have the trust property revert to the lender/settlor after the purpose is fulfilled (although an improperly constituted purpose trust could lead to a resulting trust in favour of the settlor). Mark Hubbard, *Protectors of Trusts* (Oxford University Press 2013) 193.

and capable of being fulfilled. Antoine notes that the holding of land, for instance, is generally excluded as a valid purpose, at least in offshore purpose trust legislation.[740] In contrast to other types of trust, the trustee's fiduciary obligations are to fulfil the purposes of the trust through the administration of the trust property (e.g., shares in a company) rather than to a specified class of beneficiaries.

Offshore jurisdictions have developed this type of trust for commercial and tax planning purposes (Anguilla,[741] Bahamas,[742] Barbados,[743] Belize,[744] Bermuda,[745] British Virgin Islands,[746] Brunei Darussalam,[747] Cayman Islands,[748] Cook Islands,[749] Cyprus,[750] Dubai DIFC,[751] Guernsey,[752] Isle of Man,[753] Jersey,[754] Labuan,[755] Mauritius,[756] Nevis,[757] St. Kitts and Nevis,[758] St Vincent and the Grenadines[759] and San Marino[760]), most often to "provide further insulation for so-called asset protection trusts by having the shares of the private trust company that holds the trust assets themselves held by an off shore trust company on purpose trusts".[761] However, an increasing number of onshore jurisdictions are also introducing legislation to regulate such trusts.[762]

740 Antoine (n 421) 51.
741 Trusts Act, 2014, s. 14 [Anguila].
742 Purpose Trust Act, 2004, s. 3 [Bahamas]. Section 3 expressly contemplates the possibility of a purpose trust holding, or investing in, the shares of a company.
743 Trusts Miscellaneous Provisions Act, 2018-49, ss. 8-9 [Barbados].
744 Belize Trusts Act, 1992, s. 15 [Belize].
745 Trusts (Special Provisions) Amendment Act, 1998, s. 12A [Bermuda].
746 Trustee Ordinance, 1961, s. 84(2); The Virgin Islands Special Trusts Act, 2003 [British Virgin Islands].
747 International Exempt Trusts Order, 2000, s. 77 [Brunei Darussalam].
748 In the Cayman Islands, Part VIII of the Trusts Law (2017 Revision) [Cayman Islands] provides for special trusts that arguably go beyond non-charitable purpose trusts in diverging from general principles of trust law.
749 International Trusts Act, 1984, s. 12(2) [Cook Islands].
750 International Trusts Act, 1992, s. 7(3) [Cyprus].
751 Trust Law, 2005, s. 31 [Dubai DIFC].
752 Trusts (Guernsey) Law, 2007, s. 12 [Guernsey].
753 Purpose Trusts Act, 1996, ss. 1 & 9 [Isle of Man].
754 Trusts (Jersey) Law, 1984, s. 22 [Jersey].
755 Offshore Trusts Act, 1996, s. 4(3) [Labuan].
756 Trusts Act, 2001, s. 19 [Mauritius].
757 International Exempt Trust Ordinance, 1994, s. 8 [Nevis].
758 Trusts Act, 1996, s. 13(4) [St. Kitts and Nevis].
759 International Trusts Act, 1996, s. 12 [St. Vincent and the Grenadines].
760 L'Istituto del Trust, 2010, art. 2 [San Marino].
761 Kelvin FK Low, 'Non-Charitable Purpose Trusts: The Missing Right to Forego Enforcement' in Richard C Nolan, Kelvin FK Low and Tang Hang Wu (eds), *Trusts and Modern Wealth Management* (Cambridge University Press 2018) 503.
762 Also see section 409 of the Uniform Trust Code which envisions the possibility of non-charitable purpose trusts being used for a wide variety of purposes. However, the Uniform Trust Code has yet to be adopted in many US states.

In onshore jurisdictions, the concept of non-charitable purpose trusts is only discussed summarily, even in texts used by legal practitioners.[763] It is treated as an arcane structure due to the fact that they have been primarily used to benefit pets upon the passing away of their owners[764] and for the maintenance of tombs.[765] However, the adoption of legislation permitting and regulating purpose trusts in offshore jurisdictions has invigorated scholarly and political discussion on grounds of policy (e.g., terrorism financing; money laundering) and principle (i.e., whether a trust can be recognised if it does not have identifiable beneficiaries).[766] This will only increase as onshore jurisdictions, including several US states such as Delaware,[767] begin to introduce purpose trust legislation themselves. Potentially, the production of advanced forms of artificial intelligence (AI) systems, coupled with the need to extend these nonhuman objects with certain rights, may also spur interest in using purpose trusts.[768]

It is appreciated that, by advocating the use of such trusts, this chapter is stepping into one of the most heated debates in trust law jurisprudence: the recognition of non-charitable purpose trusts that do not have identifiable beneficiaries to enforce them.[769] Such trusts represent a significant departure from how trusts have developed in common law jurisdictions in that the common law only provide limited exceptions to the 'beneficiary rule',

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763 John Thurston, *A Practitioner's Guide to Trusts* (Bloomsbury Professional 2013) 494–495.

764 *Re Dean* (1889) 41 Ch D 552. This case involved a trust in which an annuity was paid to a trustee to maintain the horses of the settlor for up to 50 years.

765 *Pirbright v Sawley* [1896] WN 86. This case involved the gift of consols by the settlor to churchwardens so that they may use it to maintain his burial inclosure. This gift was valid for 21 years.

766 See the debate between Matthews and Duckworth concerning STAR trusts, a type of purpose trust, in the Cayman Islands. Duckworth effectively drafted the STAR legislation, while Matthews deemed them to be "semi-wacky". Paul Matthews, 'Shooting STAR: The New Special Trusts Regime from the Cayman Islands' (1997) 11 Trust Law International 67, 67; Anthony Duckworth, 'STAR WARS: The Colony Strikes Back' (1998) 12 Trust Law International 16; Paul Matthews, 'STAR: Big Bang or Red Dwarf?' (1998) 12 Trust Law International 98; Anthony Duckworth, 'STAR WARS: Smiting the Bull' (1999) 13 Trust Law International 158; Paul Matthews, 'Paul Matthews Writes...' (1999) 13 Trust Law International 168.

767 The Delaware Statutory Trust (DST) facilitates much of the same organizational flexibility as a Delaware Limited Liability Company (LLC), but it notably puts the trust property outside of the ownership of the settlor and at the same time limits the discretion of trustees and rights of beneficiaries. See Hubbard (n 739) 196. To create a perpetual purpose trust, the limited situations in which the trust can be dissolved (e.g., when its purpose(s) have been fulfilled) have to be specified in the governing instrument of the DST and, unlike LLCs, no statutory provisions regarding dissolution can be triggered by the vote or consent of a certain percentage of members. In short, there are fewer statutory preconditions to the perpetuity of a DST than an LLC.

768 Michael Vincent, 'Computer-Managed Perpetual Trusts' (2011) 51 Jurimetrics 399.

769 Alastair Hudson, *Great Debates in Equity and Trusts* (Palgrave 2014) 99.

primarily catering to charitable purposes.[770] Purpose trusts have long been seen to be controversial as they raise questions as to who a court should direct performance toward when a trustee fails to meet their obligations.[771] The fact that the purposes of a trust may be defined imprecisely make such a breach a material risk.[772] Furthermore, non-charitable purpose trusts conceptually contravene the well-established rule in *Saunders v. Vautier*,[773] which entitles beneficiaries under certain circumstances to dissolve a trust and convey the trust property to the beneficiaries. Clearly, upholding such a principle becomes impossible in the absence of beneficiaries. Purpose trusts may also seek to have perpetual life, which would violate the rule against perpetuities that exists in many common law jurisdictions to prevent the drafters of legal instruments to exercise control over private property long after their death. It is because purpose trusts are such a "radical departure from the common law" that prominent onshore financial centres such as Singapore and Hong Kong have resisted proposals to introduce non-charitable purpose trusts.[774] This controversy has not only doctrinal implications but also ramifications for the validity of such trusts in jurisdictions other than the one in which it was settled. This in turn may impact user and platform company views regarding the feasibility of such trusts. It is therefore important to briefly explain how the view of purpose trusts has evolved in recent years.

Legislatures around the world have taken several steps to address these concerns as a practical matter, even if doctrinal concerns remain. Purpose trusts seek to supplant the accountability and disciplining function of beneficiaries through the appointment of a trust enforcer.[775] Enforcers monitor whether a trustee is achieving the purpose of the trust and have the power to take action against the trustee if they fail to do so. This can include initiating legal proceedings for the benefit of the trust, requesting disclosures, and seeking judicial opinions in connection with the trust.[776] Most often, the role of enforcer is carried out by a private protector, either appointed in the trust agreement or by a court, with a state representative such as the Attorney General occasionally ensuring that the protector enforces the trust or fills in if an enforcer has not been appointed (e.g., in The Bahamas or Bermuda). The enforcer is generally considered to be a fiduciary, which is either mentioned in the law (e.g., in Belize, the British Virgin Islands, the Cayman Islands, Guernsey) or is presumed to be the case.[777]

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770 "A trust to be valid must be for the benefit of individuals...or must be in that class of gifts for the benefit of the public which the courts...recognize as charitable in the legal...sense of the term" in *Bowman v. Secular Society Ltd* [1917] A.C. 406 at 441, HL, per Lord Parker.

771 *Morice v. Bishop of Durham* (1804) 9 Ves 399.

772 On the issue of a purpose being too broad or vague, see *Re Endacott* [1960] Ch 232.

773 (1841) 4 Beav 1158; 41 ER 482.

774 Low (n 761) 487.

775 Hubbard (n 739) 199.

776 Purpose Trust Act, 2004 [The Bahamas], s. 6.

777 Antoine (n 421) 57.

Scholars such as Low have raised concerns about privately-appointed enforcers being lax in their enforcement function or having conflicts of interest, due to the enforcer having duties to the trustee(s) or duties to no one.[778] As a consequence, if the non-charitable purpose trust is rendered invalid, a resulting trust may be created in favour of the original settlor and entail attendant tax consequences.[779] To guard against this risk, most jurisdictions provide for a court to be able to remove an enforcer if they are unable or unwilling to perform their duties.[780] However, a public protector (e.g., an Attorney-General) empowered to ensure that protectors comply with their enforcement duties may be ill-equipped to do so as, among other things, they may never receive notice of there being a breach of the trust's terms.[781] In offshore island jurisdictions there is also the risk that there is a lack of an arms-length relationship between the trustee and privately appointed protectors, leading to conflicts-of-interest.[782]

Another option is to bifurcate the role of the enforcer, with one person (natural or legal) acting in the usual role of beneficiaries and another (e.g., a trust protection committee) being responsible for overseeing whether the mission of the trust is being pursued and approving any distributions made from the trust. This is akin to the role that state entities like the U.K.'s Charity Commission have in overseeing whether trusts settled in the U.K. are genuinely charitable. In the case of non-charitable perpetual purpose trusts, this oversight function is legitimized by having the Trust Protector Committee democratically elected by a platform's users. To overcome the challenge presented by multiple and fake accounts, the users who choose to participate in the election of the Committee must submit a credible form of identity – this may be a government-issued ID at present but could eventually be a form of self-sovereign identification that preserves their privacy. While all users may not participate in this election process – as with any election – the purposes of the trust would require the elected Trust Protector Committee to cater for the interests of all users, including those who remain anonymous. This is a practice that was adopted by the aforementioned Organically Grown Company in 2018.[783]

Moreover, despite the controversy over non-charitable perpetual purpose trusts, particularly in English legal scholarship, case law indicates that Australian[784] and Canadian[785] courts are willing to recognize the validity of such trusts under limited circumstances. Even English courts have accepted such trusts on the condition that there are definable classes

778 Low (n 761) 486, 506.
779 ibid 491–493.
780 Hubbard (n 739) 203.
781 Low (n 761) 507.
782 Hudson (n 769) 110.
783 The Purpose Foundation (n 396) 24, 26.
784 Dubois v. Hodgson [1999] NSWSC 1065, at [par. 29-31] (Austl.).
785 Keewatin Tribal Council Inc. v. Thompson (City), [1989] 5 W.W.R. 202, at 217 (Can.).

of persons who can enforce the non-charitable purpose of the trust even if they only benefit from the fulfilment of the purpose of the trust indirectly.[786] While this line of cases concerns unincorporated non-charitable associations such as football clubs, religious organizations, and a group of employees, it could potentially include a multi-stakeholder association of employees, users, founders and investors as well. The fact that the main international Convention on Trust law[787] acknowledges purpose trusts as valid trusts, the Uniform Trust Code[788] regulates purpose trusts, and that the legislatures of U.S. states like Oregon have recently passed legislation to regulate non-charitable perpetual purpose trusts,[789] highlights growing mainstream acceptance.

Another legislative measure that has been taken that supports the creation of such trusts is the abolition of the rule against perpetuities in several jurisdictions, including in the US states of Delaware and, if used for stewardship purposes, Oregon.[790] Thus, in spite of some of the pushback on the creation of such trusts and arguments that such trusts may not be recognised for contravening public policy,[791] Antoine suggests that purpose trusts are in fact increasingly being recognised in jurisdictions in which they are not expressly regulated in domestic law.[792] For instance, jurisdictions like Canada (and Canadian states) have shown a willingness to defer offshore jurisdiction where the trust is settled.[793]

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786 Re Denley's Trust Deed [1968] All E.R. 65, 69 (UK); Re Lipinski's Will Trusts [1976] 1 Ch. 235, 249 (UK); Grender v. Dresden [2009] EWHC 214 (Ch) at [par. 18] (UK). Hudson refers to these as "people trusts," e.g., non-charitable purpose trusts "the intention of which is to benefit identifiable people as beneficiaries" instead of just an abstract purpose. Hudson (n 769) 173. The fact that The Perpetuities and Accumulations Act, 2009, c. 18, § 18 refers to the duration of non-charitable purpose trusts also indicates that such trusts can be settled; however, it is doubtful that its duration could be more than 125 years. Professor Hudson recommends that, to comply with this perpetuities period, there should be a provision limiting the future members' entitlement to the trust property, although the 2009 Act may rescue even the trusts that fail to do so. ibid 196.

787 Convention on the Law Applicable to Trusts and on their Recognition (adopted 1 July 1985, entered into force 1 January 1992) 23 I.L.M. 1389 (Trust Convention) § 2.

788 Unif. Trust Code § 409 (2016).

789 Oregon's Legislative Assembly recently passed a bill that would facilitate the creation of trusts for non-charitable business purposes, known as stewardship trusts. Or. Rev. Stat. § 130.193. While it was possible to establish a non-charitable purpose trust in Oregon prior to enactment of this statute, this new law explicitly defines the scope of non-charitable business purposes, provides details on the ownership interests that the trust can have as an asset, and makes the 90-year expiry limit of trusts a default rule that can be varied. *See id*. §§ 130.193(1)-(2), 105.965(8).

790 Gary (n 731) 721, 725. Also see, Del. Code Ann. Tit. 25, § 503(a).

791 Low (n 761) 504; Hudson (n 769) 99.

792 Antoine (n 421) 43–44.

793 Donovan Waters, 'Protectors and Enforcers of Trust: Drafting the Trust Instrument' (2000) 8 237, 259. Also see, *Peace Hills Trust Co. v Canada Deposit Insurance Corp* [2007] ABQB 364, Alberta QB at [29].

5.3.2.1 Business Transfers Using a Non-Charitable Perpetual Purpose Trust

It is now possible to turn to 'ideal-type' transfer mechanisms, which draws inspiration from earlier efforts in proposing mechanisms to transfer control to stakeholders.[794] As a first step, the management board of the social media company can reflect on the relevance, feasibility and sustainability of representing users in the governance, management and ownership of the company. One option for doing so could be by using some of the tools of the FairShares Model v3.0, which suggests six key questions as a starting point for businesses interested in multi-stakeholder ownership and governance. These are:

1. "How can [the business] configure the ownership, governance and management systems to distribute wealth and power to all stakeholders?
2. What is the purpose(s)…of the enterprise (network)?
3. What values and principles guide the choice of goods/services offered?
4. Who are [the business's] primary (secondary) stakeholders?
5. What values and principles guide production and consumption?
6. How are social, environmental and economic impacts reviewed? [insertions mind]"[795]

This will have to be accompanied by a process of considering how existing shareholders can be persuaded about the benefits of such a transfer.[796] As part of this process, the management board can commission a study about users' receptivity to the idea of user ownership and governance. This may involve convening focus groups, a dedicated online forum, or an Ask-Me-Anything session on Reddit, among various options. During this process, the management board will also initiate a feasibility study of the financial costs and legal implications involved in transferring shares of the business to a trust, as well as other potential transfer strategies, so as to give users a more comprehensive overview of the proposed undertaking. These consultations may be concluded through a non-binding referendum on the subject.[797]

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794 Lowitzsch, 'Consumer Stock Ownership Plans (CSOPs) – The Prototype Business Model for Renewable Energy Communities' (n 729); Dow, *Governing the Firm Workers' Control in Theory and Practice* (n 709). It is, of course, possible that such transfer mechanisms will be a modified version of the path outlined here. For instance, there may be a greater role for user buy-in than currently suggested or there may be financial investors who become involved to help leverage the buyout.

795 FairShares, 'Introducing the FairShares Model V3.0' (*P2P Foundation*, 2 February 2018) <https://bit.ly/3ApFcZ1>.

796 Ridley-Duff, *The Case for FairShares* (n 736) 52–54.

797 Dow, for instance, has proposed a referendum-style system in which workers vote to transition to worker ownership, and if passed, begin a process of buying-out the shares via a labour trust using their own salaries. Dow, *Governing the Firm Workers' Control in Theory and Practice* (n 709) 263–268.

Secondly, if the referendum vote has passed, a non-charitable perpetual purpose trust can be settled in Delaware, Oregon or other US states that permit the formation of such trusts. The purposes of the trust, such as 'holding the shares of the social media company', 'promoting user representation in the company' and 'improving user experience of the platform' will be stipulated in the trust instrument. As this will lock-in the mission of the trust, it is important that these purposes are clear but sufficiently wide to permit some leeway in achieving them. Oregon's recently enacted 'Stewardship Trust' statute provides an indication of what such a user trust could look like.

The corporate trustee will have legal title to the shares of the company that the user trust will acquire, but as a directed trust, they will owe certain duties to the trust enforcer and trust protector committee which could be elected from the global user base. The trustee will be required to inform and report to the trust enforcer, as they would typically be expected to do with trust beneficiaries.[798] As a directed trust, the trust protector committee will effectively be able to exercise all of the rights that belong to a trustee,[799] including voting the shares that are transferred to the trust, appointing or removing directors of the company, and directing how dividends earned from the shares should be reinvested.[800] All three actors within the trust's governance structure will have fiduciary duties, and will to an extent check each other. The trust protector committee can remove both the trust enforcer and the trustee by majority vote but can only replace the latter.[801] The trust enforcer and the trustee can act to protect the purposes of the trust, should it be jeopardised by the actions of the trust protector committee.[802] It is also expected that the trust protector committee will keep the trustee adequately informed about the administration of the trust and its activities as they may otherwise have inadequate information.[803]

In addition, the trust instrument will set out the specifics regarding the composition of the trust protector committee and the election procedure. Eligibility criteria for election could include time using the platform, content generated for the platform, income earned (if any), quality of content (e.g., based on reviews from other users), reputation among peers, or a combination thereof. In principle, the trust could cover multiple operating platforms (e.g., Facebook and Instagram) owned by a single company, so long as the trust protector committee has space for user representatives from each platform.[804] The election itself could use a simple approval voting system, as in the DASH network, where a set number of candidates with the highest

798 Or. Rev. Stat. § 130.193(3).
799 Or. Rev. Stat. § 130.193(7)(f).
800 Gary (n 731) 727.
801 Or. Rev. Stat. § 130.193(7).
802 Uniform Trust Code § 813 (amended 2010). Given the extensive powers conferred on the trust protector committee, the fiduciary liability of the trustee is limited.
803 Mayo (n 730) 36.
804 Gary (n 731) 732.

votes get elected. Alternatively, one of the voting or appointments systems mentioned while discussing CoSocial (chapter 4.2.) could be used. The trust protector committee should have a minimum of three members,[805] but could opt for a larger board to accommodate diverse groups of users. The successful candidates can be paid a competitive but proportionate sum and covered with liability insurance, given their role as fiduciaries. To ensure that users can continue to participate and develop a feeling of ownership in a representative system, group decision-making and opinion surveying platforms like Loomio[806] and Pol.is[807] could be utilised.

Thirdly, once the trust has been created, it can gradually acquire shares from the social media platform's parent company or subsidiary, as is appropriate. Initially, as with non-leveraged ESOPs, acquisition may be through donations of shares and cash with which the trust can purchase more shares. These shares may be reissued treasury shares that the company had bought back from investors at an earlier stage or, alternatively, could be a new class of shares that provide rights that are not already granted to the trust as a shareholder (e.g., separate meetings held by shareholders of the same class).[808]

Fourthly, as (positive) experience with the user trust grows, the social media company can begin to use its earnings to buy back shares from minority shareholders and issue non-voting, preferred shares to attract new investors with the explicit purpose of using this inflow of capital to buy more voting shares.[809] Over subsequent years, the trust will then be able to appoint more user representatives to the management board of the social media company. The Organically Grown Company, a non-charitable perpetual purpose trust first introduced in chapter 4.2.1.1., does not distribute profit that is earned by the enterprise to the trust but instead reinvests it in the business, to service debt, to maintain reserves, to pay

805 Or. Rev. Stat. § 130.193(4).

806 Benjamin Matthews, 'Precarity, Globalism and Resistance in Emergent Collectivism: The Case of Enspiral' (2017) 13 Global Media Journal 1, 5; Loomio, 'Overview' (2021) <https://bit.ly/360GR9s>. Loomio allows any person within a group to raise issues (a 'context') for discussion and 'proposals' on how to address this issue. Other members of the group can vote on these proposals with a click of a button and if they wish, concisely express their views on why they voted a certain way. The programme summarizes the discussion as it progresses using infographics like voting pie-charts that get updated in real-time, making discussions easy to follow for any participant who joins at a late stage. This in turn allows better proposals to evolve from the foregoing discussions, without going off topic or forgetting a good point raised by a participant. The discussion is concluded by an 'outcome' that clearly articulates how an issue is to be handled and who will do so. The promise of this platform is demonstrated not only be how they've been embraced by social economy actors, like other cooperatives, but also by legislative (e.g., Welsh National Assembly) and executive bodies (e.g. Taiwan's Ministry of Economic Affairs) to conduct inquiries and public consultations.

807 Tom Simonite, 'The Internet Doesn't Have to Be Bad for Democracy' [2017] *MIT Technology Review* <https://bit.ly/3jxdcgb>.

808 Colenbrander and Lambooy (n 438) 13–14.

809 The Purpose Foundation (n 396) 84; Gary (n 731) 730.

dividends to preferred shareholders and to meet redemption requests.[810] This may be well-suited to user trusts as it can help avoid the trust having taxable income and determining how to value the individual contributions of users, while still giving the trust protector committee a role in how those earnings are spent. By holding a growing proportion of a platform's outstanding shares, the trust can also act as an anti-takeover device.[811]

5.3.3 Stichting Administratiekantoor (STAK)

The trust structure described above can be closely replicated with other entities in jurisdictions where a trust is not available. While the major social media platforms (by revenue) are predominantly based in the United States, as figure 3 in chapter 2 shows, they are also present in China and Russia. For the sake of completeness, it is worthwhile to consider how a civil law jurisdiction without a domestic equivalent of the trust would organise a similar transaction. The Netherlands is an interesting example in this respect due to the STAK's legal personhood, its autonomy from the interests of founders and beneficiaries, and its relative freedom from public supervision.[812]

A Dutch foundation, like a non-charitable purpose trust, is an 'orphan' entity as it lacks members and its board is oriented around a charitable or commercial purpose.[813] It is created by a notarial deed and its articles of association specify, among other things, the manner of appointing and dismissing directors.[814] Similarly, as a memberless entity, there is no general assembly with a residual power to make decisions such as amending the articles of association of the entity. Instead, the articles of association must specify how such an amendment is to be made.[815] As of 1 July 2021, the entry into force of the *Wet Bestuur en Toezicht Rechtspersonen (WBTR)*[816] includes new governance rules for foundations. This includes the possibility of choosing between a one-tier board and a two-tier board, where there is a supervisory board and management board respectively.[817] The management board of the foundation has exclusive and mandatory authority to manage the affairs of the foundation.[818] The supervisory board, if it exists, is responsible for supervising and advising the management board.[819] The board(s)

810 Gary (n 731) 730.
811 ibid 711.
812 Ineke A Koele, 'The Dutch Private Foundation in Comparison with Trusts: For the Same Purpose but Rather Different' (2016) 22 Trusts & Trustees 140, 144.
813 Article 2:285(1), DCC; ibid 141; Charles Langereis and Oktay Düzgün, 'The Dutch Foundation within International Structures' (2010) 16 Trusts & Trustees 490, 490.
814 Article 2:286(4)(c), DCC.
815 Article 2:293, DCC.
816 Stb 2020/507
817 It is now, for instance, possible for a foundation to have a supervisory board with the power to dismiss a director. See Article 2:292a(3), DCC.
818 Article 2:291(1), DCC.
819 Article 2:292a(2), DCC.

must act in the interest of the legal entity and the enterprise or organisation connected with it, bearing in mind the foundation's specific purposes.[820]

The STAK is a type of fiduciary foundation through which legal and economic entitlement to an asset (e.g., shares) is split between the STAK itself and the holders of depository receipts that are issued by the STAK.[821] In other words, in a business transfer scenario, the STAK would have legal entitlement to shares transferred to it and can exercise shareholder rights, but those shares are managed in the interest of depository receipt holders. The depository receipts represent the contractual claims and rights and obligations that the holders have towards the STAK.[822] While depository receipt holders are typically limited to enjoying economic rights (e.g., dividends, distributions upon liquidation), as has been previously argued with respect to depository receipts of STAKs used for employee participation,[823] the depository receipts could additionally allow for receipt holders to have meetings and appoint members of the management board of the STAK. Potentially, user representation on the board of a STAK may enable the existence of an independent voice on the board of the social media company.[824] This may be particularly desirable if the company wishes to ward off potential acquirors; a consideration that is particularly material in the platform economy (see chapters 2 and 4).[825]

820 Articles 2:291(3), 2:292a(2), DCC.

821 G van Solinge and MP Nieuwe Weme, 'Historie En Gebruik van Certificering', *Asser 2-IIb NV en BV - Corporate Governance* (Fourth, Wolters Kluwer 2019) para 656. 'Double certification' is also possible in the sense that a legal certificate holder may hold the certificates for the benefit of another.

822 Rick van der Velden and Matthijs Vogel, 'The Dutch Foundation as Fiduciary Entity: Dutch Tax Aspects' (2016) 22 Trusts & Trustees 696, 696.

823 With reference to employee representatives on a STAK's board of directors, *see,* Inge M Meeuwenoord, 'Share Options as an Instrument to Attract & Retain Talent for Dutch Startups' (Masters, University of Twente 2014) 13. This is also in line with the recommendation of the Stichting Nederlands Participatie Instituut (SNPI) that depository receipt holders have at least two-thirds representation on the board of a STAK. The SNPI is the main body promoting the financial participation of employees in the Netherlands. Pascale Nieuwland-Jansen, 'Iedereen aandeelhouder' (*Wetenschappelijk Bureau Groenlinks*, 2 July 2020) <https://bit.ly/3hlnOfq>; Kaarsemaker and Poutsma (n 292) 202.

824 The Dutch Corporate Governance Code contains a definition of 'independence' for supervisory board members but lacks an overarching definition of independence that applies to all types of business organization. In spite of this absence, under article 2:118a(3), DCC, for user-directors to be independent, they should not be employees or regular advisors of the company. This article concerns public limited liability companies in particular (NVs) but is a useful guide.

825 In fact, when it comes to listed public limited liability companies (NVs), Dutch financial supervision rules require foundations that were created as anti-takeover devices to be independent from the companies they are shareholders of, so as to avoid mandatory bid rules once the foundation holds more than 30% of shares. *See* Article 5:71(1)(d) Wft.

5.3.3.1 *Business Transfers using a STAK*

As the first step will be the same as with a non-charitable perpetual purpose trust, for the second step a STAK will be incorporated through a notarial deed with the aforementioned features in mind. This will require drafting articles of association which specifies the name of the STAK, its objects/purposes (as above),[826] the procedure for appointing and dismissing management board members (as well as supervisory board members, if any), its registered office in the Netherlands and instructions on how to distribute the assets of the STAK at the time of dissolution.[827] As with the non-charitable purpose trust illustration above, the purposes of the STAK have to be set out clearly and capaciously, as it is difficult to amend the purposes once the STAK is established.[828] It is possible to include a clause in the articles of association permitting amendments to the article, but as Zaman and colleagues note, "an amendment of the objects clause may be in violation of the principles of reasonableness and fairness" under article 2:8 DCC and will need to be determined on a case-by-case basis.[829] At the time, it will also be important to specify the terms of the administration of the STAK with respect to the fiduciary relationship between the STAK and its depository receipt holders.[830]

As this chapter calls for social media users to exercise their rights collectively, the company could establish another foundation that has the purpose of collectively holding the depository receipts issued by the STAK and for organising the representation of the global user base in the STAK's management board (i.e., the Depository Receipt Holders' Foundation).[831]

Again, as with the trust protector committee, it is not necessary to be overly prescriptive about how this is done as the appropriate appointment mechanism may vary on a case-by-case basis. Regardless of the mechanism chosen, users would not be expected to individually hold depository receipts and exercise the contractual rights that come along with it, as foundations are memberless entities. Instead, the board of the Depository Receipt Holders' Foundation would be a specialised body for doing so.

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826 To be clear, these purposes will not be deemed charitable or in the 'common good', as Dutch law has a broad but nevertheless limited set of charitable purposes: "welfare, culture, education, science, research, protection of nature and environment, healthcare, development cooperation, animal welfare, religion, philosophy, spirituality, public housing, furthering of the democratic legal order, and the (financial) support of other charitable institutions". Martijn van Steensel and Rick van der Velden, 'Dutch Foundations for Charitable Purposes' (2018) 24 Trusts & Trustees 601, 602.

827 Article 2:286(4), DCC.

828 Article 2:293, DCC.

829 Zaman, de Groot and Steensel (n 640) 227.

830 ibid 270.

831 Langereis and Düzgün discuss the possibility of a separate legal entity holding depository receipts issued by a STAK. Charles Langereis and Oktay Düzgün, 'The Netherlands: The Dutch Foundation – a Vehicle for Effective Business Solutions' (2011) 17 Trusts & Trustees 577, 578.

While foundations only require one director, board size considerations may be similar to the trust protector committee. As with trust structures, there is considerable flexibility in how the governance of a foundation is designed, including the composition of the management board, eligibility requirements,[832] the board members' roles and their decision-making processes.[833] As with the STAK, it is necessary for these directors to act in the interest of the foundation and its affiliated enterprise or organisation, bearing in mind the foundation's specific purposes. There are also constraints on the distribution from foundations, but board members can be paid salaries and expense allowances, so long as they are reasonable.[834]

Similarly, to the non-charitable perpetual purpose trust example, the next two steps in the transfer process would also involve donations to help the STAK acquire shares from the holding/parent company of the social media platform,[835] and the issuance of preferred, non-voting shares to future investors. These shares may be a different class from other shares (e.g., Class B shares) and provide control rights that are unavailable to other shareholders who may have the other, Class A shares (e.g., right to prior consent before the company's articles of association is amended). Class B shareholders would not only be able to participate and vote in annual general meetings with the other Class A shareholders but would also be able to convene their own shareholder meetings if needed.[836] Over time, the increase in shares held by the STAK will allow for it to appoint user representatives to the board of the social media company. As the number of shares held by the STAK grows, it is important that there is an assimilation of the shares held by the STAK and the depository receipts held by the Depository Receipt Holders' Foundation, so as to ensure that the STAK is fully transparent for local tax purposes. If the shares and depository receipts are not assimilated, it may be deemed that there was a transfer of assets.[837] To achieve this, an equivalent number of depository receipts could be issued to the foundation for each share offered to the STAK and share dividends issued to the STAK could be immediately transferred to the Depository Receipt Holders' Foundation.[838] It will prevent the STAK from having taxable income of its own. Instead, the depository receipt holders'

832 There are some requirements. For instance, a supervisory board member cannot serve on the board of 5 or more legal entities. See Article 2:297b(1), DCC.

833 Following the enactment of the WBTR, management and supervisory board members of foundations may no longer be part of decision-making on subjects in which s/he has a (in)direct interest. The conflicted members are expected to recuse themselves from those specific decisions. Also, there are limitations on directors having multiple voting rights, with it no longer being possible for a single director to cast more votes than the other directors combined. Articles 2:291(3), 2:292a(7), 2:291(6), DCC

834 Langereis and Düzgün (n 813) 491.

835 Article 2:291(7), DCC; Kaarsemaker and Poutsma (n 292) 202.

836 Articles 2:78a (for BVs) and 2:189a (for NVs).

837 Dirk-Jan Maasland, Rogier Ploeg and Jules de Beer, 'Private Wealth 2021' (*Chambers and Partners*, 2021) <https://bit.ly/3zAEAhC>.

838 van der Velden and Vogel (n 822) 697–698.

foundation may be subject to local income tax. As with non-charitable perpetual purpose trusts, the lack of a general assembly of members means that it is impossible for a takeover to occur and extinguish either foundations' purpose.[839]

The transfer process can be depicted as follows in figure 12:

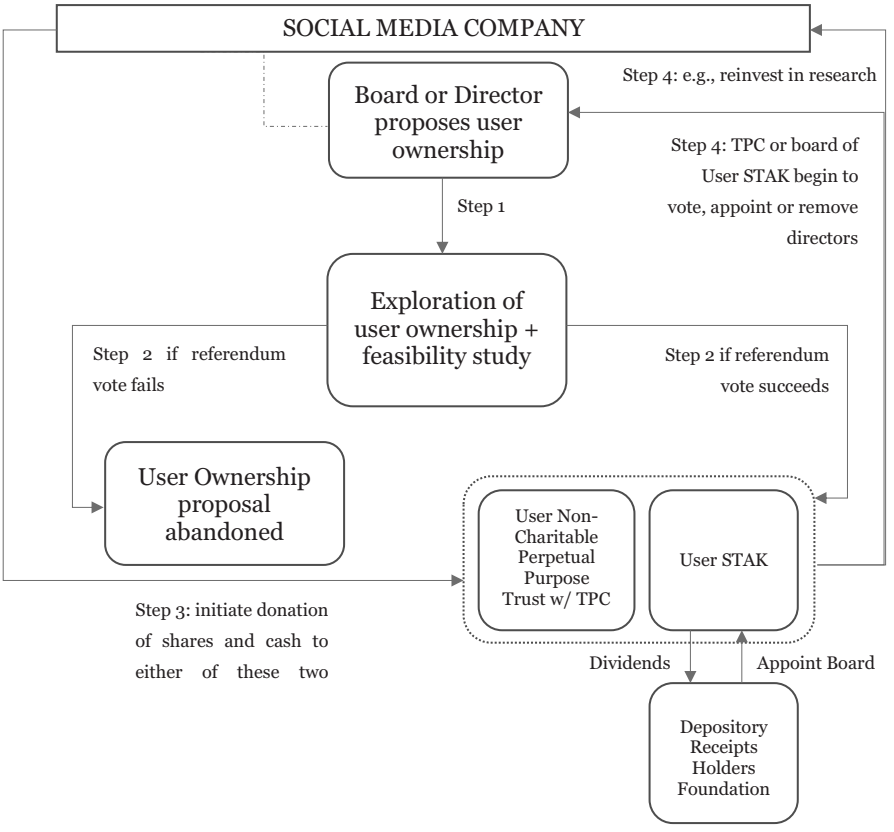

Figure 12: Share Transfer Process for User Ownership and Participation

It is important to note that this does not reflect all the forms of participation that may exist in the corporation, which as mentioned previously, may separately include employee participation.

839 RAF Timmermans, *Bescherming van beursvennootschappen door uitgifte van preferente aandelen* (1st edn, Uitgeverij Kluwer BV 2018) 588. Again, this is provided that the company concerned is a listed NV and the foundation was created for protectionist purposes.

5.4 Developing a Good Governance Checklist for Representative User Bodies

The penultimate section of this chapter is concerned with outlining the functions, rights and obligations of a trust protector committee (in the case of a non-charitable perpetual purpose trust) and the management board of a STAK (in the case of a foundation). There are few specific mandatory rules for determining these functions, rights and obligations, and as such a good governance checklist can serve as an appropriate tool for ensuring that these user representative bodies discharge their administrative and oversight responsibilities well. As a corollary, a visual representation of the decision-making process following the installation of a user trust or user STAK, can help illustrate for users what rights and responsibilities they gain as a consequence of the transition.

The functions, rights and obligations of a fiduciary body that represents a particular constituency of a social media company are different than the functions of executive management or the board of directors of a company. A good governance checklist therefore has to account for the particular added value that stakeholder oversight has to offer. While a user trust for social media companies does not yet exist in the form described in this chapter,[840] there are examples of stakeholder bodies that have a measure of voice concerning operational and strategic decisions (e.g., client councils, works councils), as well as earlier proposals of stakeholder corporations to draw inspiration from.

In the Netherlands, as briefly discussed in Chapter 3, works councils have extensive rights to advise and consent on important decisions made by employers. These are outlined in sections 25 and 27 of the Works Councils Act (*Wet op de ondernemingsraden, WOR*). In addition, for the particular context of users, it is of interest that certain types of consumers also have extensive participation rights. The Participation by Clients of (Health-)Care Institutions Act (*Wet Medezeggenschap Cliënten Zorginstellingen, WMCZ*) [as amended], requires that all healthcare organisations have a client advisory council that are appointed from the clients of the healthcare organisation.[841] Each council averages between five to ten patient representatives, and in the case of long-term health care organisations, can also include spouses of deceased patients and volunteers. The council receives funding from the healthcare organisation to cover its overheads.[842] It has the right to receive information,[843] consent to specific operational matters and health-

840 Schneider and Mannan (n 621).

841 Alexander Haarmann, *The Evolution and Everyday Practice of Collective Patient Involvement in Europe* (Springer International Publishing 2018) 98.

842 WMCZ, s. 6(3).

843 WMCZ, s. 6(1).

care quality plans,[844] be consulted on major corporate strategies,[845] engage in meetings on organisational policy with the healthcare provider,[846] and request an inquiry into mismanagement at the Enterprise Chamber of the Amsterdam Court of Appeal.[847] The council is also entitled to provide unsolicited advice and nominate at least one member of the healthcare organisation's supervisory board.[848] While these extensive legal rights exist, some researchers have flagged that these councils remain passive and that perceptions among council members about their ability to *exercise* their rights to consultation and consent are low.[849] Nevertheless, while the legislation was not able to democratise all aspects of healthcare provision, one author considers it to be successful in having the providers and recipients of healthcare to "talk with, instead of talk about, each other".[850]

It is this feature of hearing multiple competing views and (hopefully) resolving tensions that arise in the process that is precisely one of the attractions of multi-stakeholder governance in private enterprises, perhaps even more so than in the context of healthcare and other semi-public institutions (e.g., housing, education) where there is at least an expectation of public oversight by democratically-accountable political institutions. Turnbull refers to the example of Japan's *keiretsu* councils where stakeholders such as suppliers and consumers were brought into a common forum to discuss the concerns of each group.[851] In his view, the existence of such stakeholder bodies allows for feedback on decisions and quality of management. To ensure that the interests of stakeholders are adequately taken into account, these stakeholders could also be involved in executive management and director evaluations, so that shareholders can be better informed about their performance.[852] In short, the involvement of multiple stakeholders can help keep management in check.[853]

844 The list is provided in WMCZ, s. 8(1). This includes, for example, general policies with regard to quality, safety and hygiene. The advice of the council on these matters is obligatory, not optional.

845 The list is provided in WMCZ, s. 7(1). This includes, for example, changes to the purposes of the healthcare organization or a transfer of control.

846 WMCZ, s. 11(1). The council can meet the supervisory board at least once a year.

847 WMCZ, s. 12(1). Marloes Zuidgeest and others, 'Legal Rights of Client Councils and Their Role in Policy of Long-Term Care Organisations in the Netherlands' (2011) 11 BMC Health Services Research 215, 215–216.

848 WMCZ, ss. 9(1), 10.

849 Zuidgeest and others (n 847) 219.

850 Haarmann (n 841) 121.

851 Turnbull (n 700) 177.

852 ibid 190.

853 Lynne L Dallas, 'Two Models of Corporate Governance: Beyond Berle and Means' (1988) 22 University of Michigan Journal of Law Reform 19, 80.

Collective governance of user trusts and user STAKs also allows the business to be more viable than if there was individual governance,[854] given the nature of social media platforms and the significant differences between how persons use the platform. Implementing open, but stringent, eligibility and recruitment criteria for both nominating users (e.g., to the TPC or the depository receipts' holders' foundation) and candidates – irrespective of the precise method used – is a prerequisite for such representative governance to be successful. To provide an example, the Organically Grown Company not only requires employee-stakeholders to express an interest in being involved in their governance process, they also must have spent a certain period of time with the company and passed a written test demonstrating their knowledge about the company's mission and governance processes.[855] Without prescribing specific criteria, social media users wishing to nominate user representatives may also be required to demonstrate a continued use of the platform over a specified period of time, a willingness to reveal limited identifying information (to avoid fraud), and prove their knowledge of the user trust's mission and governance processes. The user candidates for the TPC or the user STAK board, additionally, could be required to meet certain expertise requirements (e.g., in technology, financial administration, risk management) and demonstrable familiarity with the social media company's corporate governance. This would allow these representatives to appropriately execute some of the common tasks of their role, such as reviewing conflicts of interests, setting compensation policies, and removing fiduciaries.

In view of the above, the preliminary checklist in Table 10 is intended to help allocate the rights of prospective TPCs of user trusts and board members of user STAKs when overseeing the social media company during the acquisition of shares process. As can be seen this not only includes the rights that ordinary shareholders of a company have, but additional rights that priority shareholders sometimes enjoy. These priority rights may, in part, draw inspiration from the rights of workers in a works council or clients in a healthcare clients' council. While being ambitious and future-facing, it stops short of seeking rights and powers that are statutorily reserved for certain corporate bodies, such as the power of the management board to set company policy, as they are non-delegable to other bodies.[856]

854 Singer (n 690) 159.
855 Gary (n 731) 729.
856 See, e.g., Colenbrander and Lambooy (n 438) 10, 16.

In the case of user trusts, where possible, rights could be conferred by amending the articles of association of the social media company to grant user trusts with information, consultation, (non-binding) advisory rights etc. based on their representative nature. Alternatively, in the case of a user STAK, if it has been exclusively issued a separate class of priority shares (e.g., Class B shares mentioned above), this class of shares would be able to convene a separate meeting, which as a distinct corporate body, could be granted certain consultative and consent rights.[857]While it is possible that there will be resistance to these exceptional rights being conferred to user trusts or user STAKs – for instance, by minority shareholders – the fact that the company's management board has expressed its intent to transition to 'user ownership' would preclude them from being caught off-guard. As indicated in chapters 5.3.2.1 and 5.3.3.1, the transfer process may involve gradually buying out other shareholders or, instead, gradually issuing new shares to the user trust or user STAK to dilute other shareholders.

Finally, the set of rights and decisions indicated in Table 10 is accompanied by an illustrative action point that operationalises the rights of these representatives in addressing a particular decision. Ticking 'yes' or 'no' next to these action points will allow the settlors of the trust or STAK to identify 'pain points' that need to be considered. In other words, relevant stakeholders (e.g., users) can bring to the company's attention that the user representatives are not meaningfully being involved in certain decisions and thereby rights that they have been conferred are being hampered.

857 ibid 15–16. Colenbrander and Lambooy contend that Dutch companies could create a 'stakeholder council' or a 'priority foundation', with rights of information, consultation and non-binding advice, so long as they are not allocated rights that are statutorily granted to the general meeting of shareholders, the management board, and the supervisory board (if present). However, a priority foundation, if they are granted all shares of a distinct class of shares (e.g., Class B shares) could convene a distinct meeting for Class B shareholders, which would be recognized as a corporate body under articles 2:78a and 2:189a, DCC. As such, this distinct meeting of Class B shareholders as a corporate body could potentially exercise rights and powers referred in articles 2:78a and 2:189a, DCC. As the authors explain, this includes the rights to issue new shares (articles 2:96, 2:206, DCC), establish a list of management board decisions that need prior approval of another corporate organ (articles 2:129(3) and 2:239(3), DCC), and give binding instructions to the management board (articles 2:129(4) and 2:239(4) DCC). These are not exhaustive, as long as the separate meeting of priority shareholders are not delegated rights and powers that are exclusively vested in the general meeting, management board or supervisory board.

Table 10: Preliminary Good Governance Checklist with illustrative rights of user representatives and decisions they are involved in. Action points indicate how company can support user representatives in exercising their rights.

Rights Involved	Decisions Involved	Inspiring Example(s)	Illustrative Action Point	Yes	No
Right to Information	Company giving notice and documents to the user representatives	WMCZ, s. 6(1)-(2)	Sensitive company data made available in a secure (digital) environment		
Right to Meeting	Speaking at annual general meeting	-	Proxy Statement has a distinct section on how the activities of the company in the previous year affected users		
Right to Consult	Policies concerning the use of the platform (e.g., Terms of Service, End-User License Agreements)	WOR, s. 22(1)-(2)	Company funds consultation of expert on policy for user representatives		
	Policies concerning advertising and other forms of monetisation of the platform	WOR, s. 22(1)-(2)	Company funds consultation of expert on policy for user representatives		
	Offering a new service or function	WOR, s.25(1)(k)	User representatives are given a clear explanation of how the service operates before it is released		
	Changing or terminating a service or function	WOR, s.25(1)(k)	User representatives are given a clear explanation of the implications of the service or function between terminated		
	Preparation of company's budget and annual accounts approval	WOR, s.31a, WMCZ, s. 7(1)(g)	User representatives allowed AMA session with global userbase to explain implications for users		
	Taking out or extending a major loan	WOR, s. 25(1)(i)-(j)	Clear, objective, and early summary of implications		
	Make a significant investment on behalf of the company	WOR, s. 25(1)(h)	Outside expert brought in to explain how this may benefit company and users		
	Acquisition of new company	WOR, s. 25(1)(b)	Meeting organised with directors of new company		
	Important measure in the interest of the environment or climate change	WOR, s. 25(1)(l)	Awareness raising activity organised with global userbase on benefits and how they may contribute		

Rights Involved	Decisions Involved	Inspiring Example(s)	Illustrative Action Point	Yes	No
	Change of registered office of the company	WOR, s. 25(1)(f)	Clear and early explanation of implications of move on users		
	Liquidation of company	WOR, s. 25(1)(c)	User representatives given early explanation and instructions on data interoperability, so that they may help advise user base		
Right to Consent	Policies concerning content moderation	-	Clear, objective explanation of policy given before release		
	Use of a reputation or rating system	WOR, s. 27(1)(c), (g), (l)	User representatives are given a clear explanation of how the system operates before released, to discuss with userbase		
	Change of corporate control (e.g., merger)	-	Minimum notice period for such decisions is stipulated		
	Remuneration Policy for Directors	Or. Rev. Stat. § 130.193(7)(f)	User representatives given comprehensive information about remuneration policy in similar companies		
Right to Inquire	Requesting Inquiry Procedure (Enquêteprocedure) or Internal Investigation	Arts. 2:346(1)(e), 2:350, DCC	Ready access to the documents and resources needed for user representatives to submit request.		
Right to Nominate	Appointment of Director	Or. Rev. Stat. § 130.193(7)(f)	Candidates have separate meetings with user representatives		
Right to Non-Binding Advice (unsolicited)	User Interface (UX) Design	-	User representatives are given access to a UX design expert		

For users, the benefits of such representative structures could be explained through the use of visuals that illustrate the decision-making process. An example is provided below in figure 13[858]:

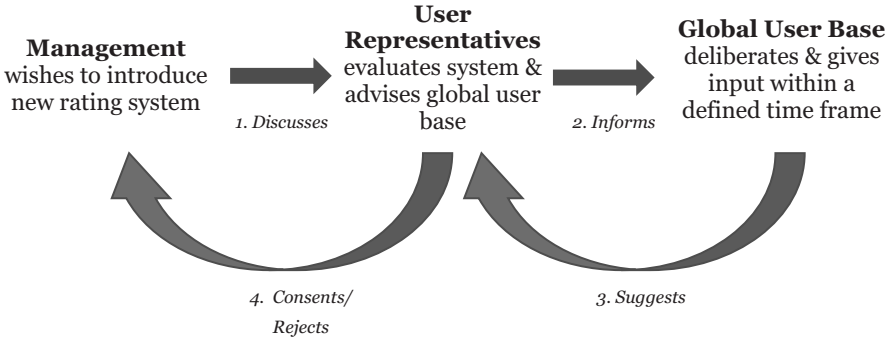

Figure 13: Diagram representing decision-making process for introducing a new rating system in a social media company with a user trust/user STAK.

5.5 Conclusion & Future Research

In this chapter, an attempt has been made to answer the call for charting a plausible path towards user ownership and governance of social media companies. It first made a case for why users merit the financial and control rights that are emblematic of ownership, based on a three-fold argument that draws from critical media studies, internet studies and political theories of the firm. Firstly, users provide surplus value to social media companies that are otherwise unacknowledged. Secondly, social media has a cultural value that users should have a role in preserving. Thirdly, social media companies – like companies in general – are not only economic actors but are also political entities. Scholars who advocate the firm/state analogy, workplace republicanism and neo-abolitionism view the absence of democracy within companies as delegitimizing of their authority and an affront to human dignity.

Building on this analysis, the following section considers what an appropriate vehicle for transferring ownership to users would be. It homes in on the non-charitable perpetual purpose trust and the STAK (from a common law and civil law jurisdiction respectively) due to their inherent flexibility and mission-orientation. This section argues that indirect user ownership via either of these entities is preferable to direct user ownership, given the relative costs of collective decision-making that would be

858 This figure was inspired by a diagram prepared by Riverwest Public House. Riverwest Public House, 'Annual General Meeting: May 31 from 5-8pm' (*Riverwest Public House Cooperative*, 19 April 2015) <https://bit.ly/3yhbrrF>. Thank you to Danny Spitzberg for bringing it to my attention.

involved. After outlining what a user trust or user STAK would look like, the penultimate section reflects on how the benefits of stakeholder governance can be maximised. This is done by considering earlier, analogous examples of stakeholder ownership, such as works councils, clients' councils and stakeholder mutuals, and identifying the rights they could hold and decisions they could be involved in. On the basis of these examples, a preliminary good governance checklist is presented which suggests rights the user representatives could enjoy and the decisions they could be involved in. This includes, but extends beyond, the participation rights of shareholders. The checklist also includes an illustrative action point that operationalises the rights of these representatives in addressing a particular decision. Ticking 'yes' or 'no' next to these action points allows the parties involved in setting up the governance of the trust or STAK to identify pain points that need to be considered.

In spite of there being a growing interest in movements such as platform and open cooperativism, exit to community, steward ownership and mutualism, research on transferring ownership of existing social media companies to users remains very limited. Similarly, research on how social media users can contribute to effective stakeholder governance of these companies is non-existent. This chapter works towards addressing this gap, but at the same time reveals the need for several stream of future research. Firstly, there is need to study how personnel employed or representing the company, who may be involved in a hypothetical transfer process (e.g., manager, directors), would perceive the impact of such a transfer on the company's financial performance and competitiveness.[859] Secondly, there is a need to conduct further research on how specific tax benefits may make such share transfers more attractive. As an example, in non-leveraged ESOPs, a company can reduce their taxable income when they make donations to an employee ownership trust. When founders sell 30% or more of their shares to an ESOP, they can reinvest the proceeds in the shares or bonds of qualifying US businesses within a 15-month period. Capital gains tax would only be paid if these qualifying shares or bonds are resold – unless they become part of the founder's estate, when this tax is not levied at all.[860] Future research could focus on the implications of extending similar tax benefits to user trusts.

859 Lore Wellens and Marc Jegers, 'Beneficiaries' Participation in Nonprofit Organizations: A Theory-Based Approach' (2011) 31 Public Money & Management 175, 180.

860 Ohio Employee Ownership Center, 'Selling Your Business to Your Employees: Employee Stock Ownership Plans (ESOP) & Worker-Owned Cooperatives' (Ohio Employee Ownership Center 2010) 5; NCEO, 'A Detailed Overview of Employee Ownership Plan Alternatives' (*National Center for Employee Ownership*, 14 May 2021) <https://bit.ly/3AkNqBE>.

6 Everything Old is New Again: Evaluating the Legal and Governance Structures of 'Shared-Services Platforms'[861]

Abstract

This chapter conducts a comparative case study of two businesses in the urban mobility sector – The Mobility Factory and Eva – that have built a cooperatively-governed technological infrastructure for shared use among primary cooperatives in their network, using the resources contributed by those cooperatives. The objective of these case studies is to, first, contribute to the development of theory regarding the formation of shared-services cooperatives by first, describing and comparing the legal and governance structures of two such 'network organisations'. Second, the study investigates the rationale behind the choice of such a structure. This allows the formulation of new hypotheses on the legal and governance structures employed by emergent 'shared-services platforms ', which may hold lessons for the wider platform cooperativism movement.

6.1 Introduction

This chapter presents a study of two businesses that have built a cooperatively governed technological infrastructure[862] for shared use among cooperatives in their network, using the resources contributed by those cooperatives. In the particular context of the platform economy, this includes the co-development and co-ownership of software applications for online matchmaking platforms by several (loosely) connected businesses.

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861 This chapter first appeared as a research report, conducted under the guidance of Dr. Trebor Scholz, Associate Professor of Culture & Media at The New School in New York City and the Director of the Institute for the Cooperative Digital Economy. It was completed while the author was a Research Fellow at the Institute for the Cooperative Digital Economy in 2019 and was published in 2020. The eponymous report is archived online here: < https://archive.org/details/morshed-mannan-single-web/page/n3/mode/1up>. It has been slightly extended for the purpose of clarity and integrating into the dissertation. Upon reflection, I have also decided to use the term shared-services platforms rather than shared-services platform cooperatives.

862 In a manner similar to Frischmann, I use the term infrastructure capaciously to indicate resources that are "shared means to many ends". Brett M Frischmann, *Infrastructure: The Social Value of Shared Resources.* (Oxford University Press 2014) 4.

As such, these organizations bear a resemblance to time-tested supply and shared-services cooperatives in the agricultural and retail sectors, thereby showing how the past continues to offer lessons for contemporary businesses, including those developing 'disruptive' technologies. These businesses, 'The Mobility Factory' [TMF],[863] 'Eva',[864] and others like them, will be referred to as shared-services platforms.

This study shows that shared-services platforms have begun to emerge from another set of cooperatives, known as platform cooperatives,[865] in a bid to share costs as well as to achieve scale. The methodology used is a comparative case study,[866] with two cases in the urban mobility sector. The objective of these two exploratory case studies is to contribute to the development of theory regarding the formation of shared-services platforms by first, describing and comparing the legal and governance structures of two such 'network organizations' and second, investigating the rationale behind their choices of structure. This will allow the formulation of new hypotheses on the legal and governance structures employed by emergent shared-services platforms and may hold lessons for similar entities.

This chapter makes three contributions to the existing research on the platform economy. First, it provides an in-depth examination of the legal and governance structures of two novel businesses at the intersection of the platform, circular and solidarity economies, neither of which have previously been the subject of academic study. Moreover, it showcases the real-world instantiation of a hypothesized – but seldom seen – organizational structure in the platform economy. Second, drawing on the existing research on primary and secondary cooperatives, social franchising and property rights in common goods, it evaluates some of the opportunities and challenges that the use of these structures raises. Third, in an undertheorized field, it develops seven hypotheses regarding shared-services platforms, which may be tested as more shared-services platforms are formed.

The second section will be devoted to expanding on the origins of the shared-services platforms concept, followed by a brief explanation of the case study methodology in the third section. The fourth section will set out the two cases, focusing particularly on the legal and governance structure they have respectively opted for, before the fifth section compares the two cases and discusses the rationale for their choice of structure. This section will also elaborate on the two structures used by these cases, the European Cooperative Society (the Societas Cooperativia Europaea, SCE) and the

863 The Mobility Factory, 'Home Page' (*The Mobility Factory*, 2021) <https://perma.cc/KW6D-RSF5>.

864 Eva, 'Home Page' (*Eva.coop*, 2021) <https://perma.cc/D77G-2ZH2>.

865 Trebor Scholz, 'Platform Cooperativism vs. the Sharing Economy' in Nicolas Douay and Annie Wan (eds), *Big Data & Civic Engagement* (Planum Publisher 2017); Scholz, 'Platform Cooperativism vs. the Sharing Economy' (n 148).

866 John Gerring, *Case Study Research: Principles and Practices* (1 edition, Cambridge University Press 2006) 27.

social franchise system, as distinct forms of network organizations for owning and governing shared technological infrastructure. Based on the experience of existing SCEs and social franchises, the potential and risks of these structuring options will be drawn out for the benefit of future shared-services platforms. The sixth and final section will conclude by reflecting on seven hypotheses that emerge from this theory-building study. These hypotheses posit that the choice of a shared-services platform will turn on the capacity of a primary cooperative to internally develop intellectual property, the importance it places on a global/local brand identity and its need to own and license tangible assets for the success of its business model. The section will conclude with suggestions as to future research.

6.2 Shared-Services Platforms

Shared-services platforms emerged from the recognition that cooperative and mutual alternatives to corporate entities would struggle to grow without a shared technological infrastructure. In the platform economy in particular, reliant as it is on network effects, platform cooperatives need a means to grow users on both sides of the market, without replicating the very practices they are meant to be an alternative to. This has necessitated efforts at creating federations and other network organizations, which has materialized in different ways in the case discussed below.

An early proponent of such cooperatives is Bauwens, who refers to them as 'protocol cooperatives'. In *P2P Accounting for Planetary Survival*, a report co-authored with Pazaitis, he defines protocol cooperatives as:

> "global open source repositories of knowledge, code and design, that allow humanity to create infrastructures for the mutualization of the main provisioning systems (such as food, habitat, mobility), and that are governed by the various stakeholders involved, including the affected citizenry"[867]

Bauwens envisions protocol cooperatives as being global organisational structures that enable such mutualisation, with cities, businesses and individuals as members.[868] He is of the view that the creation of such secondary cooperative entities,[869] with municipal governments championing such efforts, will help prevent wasteful efforts at duplicating technology across

867 Michel Bauwens and Alex Pazaitis, 'P2P Accounting for Planetary Survival' (P2P Foundation, Guerilla Foundation and Schoepflin Foundation 2019) 9.

868 Michel Bauwens and Vasilis Niaros, 'Changing Societies through Urban Commons Transitions' (P2P Foundation and Heinrich Böll Stiftung 2017) 20, 53 <http://commonstransition.org/changing-societies-through-urban-commons-transitions/>.

869 This is what, crucially, distinguishes shared-services platforms from other platform cooperatives, including cooperatives that build blockchain protocols (e.g. Ark.io) and blockchain dispute resolution protocols (e.g. Kleros.io), as the latter two are primary cooperatives.

cities and countries.[870] The crux of this argument is that it is not possible to build or overlay a digital 'commons' on a privatized infrastructure.[871] As a shared infrastructure,[872] these protocols[873] should be managed as common goods,[874] with the cooperative structure providing the requisite governance rules and norms. The sense in which protocol is used is thus deliberately technologically neutral and instead, denotes a particular "management style"[875] that emanates from the technological infrastructure used. This is an acknowledgment of the fact that while protocols, such as blockchain and distributed ledger protocols, may be the technological infrastructure that is collectively built and used, other organizational technologies may complement or supplant them.[876] Relatedly, by referring to protocols as a form of management, it brings to the fore the fact that it is humans, and not only machines, that are organized by a network. It also highlights that technology and organizations mutually shape each other.[877] Attempting to change protocols, from being centralized to being decentralized or distributed, is mirrored among human beings in how they organize and collaborate, such as through the use of federations, franchises, alliances,

870 Bauwens and Niaros (n 868) 62.

871 Ulises Ali Mejias, *Off the Network: Disrupting the Digital World* (University of Minnesota Press 2013) xvi.

872 Communication protocols, such as those that enable computers to communicate with each other in a peer-to-peer manner over a network, lend themselves to comparisons with infrastructure given that they are openly accessible on equal and non-discriminatory terms and as their development and use lead to significant social gains. Frischmann (n 862) 5.

873 In its earliest form in October 1965, when Thomas Marill and Lawrence Roberts connected and retrieved information between two computers situated across the continent United States, a protocol referred to a procedure for "grouping characters into messages, sending them across the link, and checking the message was retransmitted". Katie Hafner and Matthew Lyon, *Where Wizards Stay Up Late: The Origins Of The Internet* (First Paperback Edition edition, Simon & Schuster 1998) 69. According to Vint Cerf, one of the joint inventors of the TCP/IP protocol with Robert Kahn, the term protocol evolved from diplomatic usage to a common term in computing based on the need for collective agreement among network users. ibid 145–156.

874 Frischmann (n 862) 3–4.

875 Galloway (n 496) 3.

876 This can include older technologies. In recent times, there has been a reinvigorated interest in social networking protocols over platforms, given the capacity of the former to distribute decision-making power about content and expression from platform company employees to end users by allowing them to choose among an array of customizable content moderation interfaces. In other words, returning from the age of Reddit to that of Usenet (i.e. the Network News Transfer Protocol). Masnick (n 492). It is arguable that this will not only be beneficial to end users but also to existing and emerging platform companies as well, given that it will reduce their role as censors and potentially diminish their risk of intermediary liability, as they will have less authority to decide upon or remove controversial or copyright-infringing content posted by users Andrés Guadamuz, 'Developments in Intermediary Liability' in Andrej Savin and Jan Trzaskowski (eds), *Research Handbook on EU Internet Law* (Edward Elgar Publishing 2014) 316.

877 Niklas Luhmann, *Organization and Decision* (Dirk Baecker ed, Rhodes Barrett tr, Cambridge University Press 2018) 302.

joint ventures and cooperatives. Conversely, efforts at creating a constellation of horizontal or distributed organizational structures are likely to lead to the adoption of technological infrastructures that reflect these principles, as seen in earlier community radio networks, local internet mesh networks, libre software communities and the contemporary interest in distributed ledgers.[878] In short, the protocol and the cooperative 'mirror' each other.[879]

Furthermore, in Bauwens' view, protocol cooperatives should operate on a not-for-profit basis and be dedicated towards the benefit of its member institutions and individuals.[880] There are, arguably, already cooperatives that match such a definition. One notable example is OCLC – a global library cooperative – that stewards WorldCat, the world's largest library database, which was founded in Ohio in 1967. The OCLC cooperative is a firm comprised of 17,983 library-members in 123 countries, a distributed governance structure[881] and a non-profit corporation, OCLC, Inc., dedicated to the development of technological infrastructure for the benefit of its library-members.[882] This structure has been carefully developed over time, with Arthur D. Little, Inc., a management consultancy firm, recommending the combination of a "tightly held, nonprofit corporation" and a "network cooperative" in 1978;[883] a structure that bears a strong resemblance to the cooperatives that are the focus of this study.

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878 Baig and others (n 488); Barlow (n 482); Bart Cammaerts, 'Community Radio in the West: A Legacy of Struggle for Survival in a State and Capitalist Controlled Media Environment' (2009) 71 International Communication Gazette 635; Selimi and others (n 611).

879 This is widely investigated in the organizational studies literature as the "mirroring hypothesis". A recent literature review of empirical studies on the mirroring hypothesis indicates that mirroring is prevalent – but not universal – and that the hypothesis allows for the causal relationship to work both ways. Organisational structure can affect technological design or vice versa or flow in both directions. Lyra J Colfer and Carliss Y Baldwin, 'The Mirroring Hypothesis: Theory, Evidence, and Exceptions' (2016) 25 Industrial and Corporate Change 709, 714.

880 Bauwens and Pazaitis (n 867) 24.

881 OCLC is governed through a system of democratically elected Regional Councils, a Global Council and a Board of Trustees. The Councils address matters of policy, product development, customization of services and long-term planning. Victoria L Hanawalt, 'Users Council: An Institutionalized Role for Libraries in OCLC's Governance' (1998) 25 Journal of Library Administration 11, 15, 17.

882 With the help of more than 450 IT professionals, it provides "shared technology services, original research and community programs for its membership and the library community at large". Beyond WorldCat, this also includes WorldShare Management Services, a cloud-based library management application. On OCLC generally, see: OCLC, 'About OCLC' (*OCLC*, 2021) <https://bit.ly/3qf6cFX>; OCLC, 'OCLC Technology' (*OCLC*, 2021) <https://bit.ly/3qeKGRG>. What makes OCLC particularly inspiring for platform cooperatives is the pioneering manner in which it has innovated its organizational structure. For instance, in terms of membership requirements, it permits the contribution of book holdings meta-data as one of the ways a library can become a member. For OCLC's Membership Criteria, see: OCLC, 'OCLC Membership Criteria' (*OCLC*, 2020) <https://bit.ly/2Um2pen>.

883 Arthur D. Little, *A New Governance Structure for OCLC: Principles and Recommendations.* (Scarecrow Press 1978) 81; Hanawalt (n 881) 12.

What is important to note from Bauwens' description is that the use of the term 'cooperative' is intended to be evocative and generic rather than in reference to the cooperative legal entity form that exists in many countries. While this may be off-putting for those who have a narrower view of what a cooperative is, cooperative law academics such as Henrÿ have argued that (registered) cooperatives may have to cooperate and form novel types of "private-public entities" with other cooperatives, civil society actors and public institutions, as a means to address the systemic challenges presented by the power of data-driven tech businesses.[884] Hence, and as shown in this study, shared-services platforms may manifest as different legal entities and network structures. However, what they share is an aspiration to become community-owned and governed, an essential feature of all platform cooperatives. Beyond the issue of organisational form, the technology that is to be jointly-owned owned is left deliberately open-ended, so as to include a wide-variety of projects and initiatives, from client-server protocols (e.g., email transfer protocols such as SMTP) to distributed ledgers (e.g., forks of the EOS chain) to distributed computing technologies (e.g., Holochain).[885] Thus, any conceptualization of shared-services platforms has to be technologically agnostic.

Outside of protocol cooperatives, distributed cooperative organizations (DisCOs) are another form of organization that is closely associated with platform and open cooperativism in the blockchain space. Within the blockchain space, the idea of creating decentralized autonomous organizations (DAOs) gained a great degree of interest and notoriety, following the emergence of the Ethereum blockchain and The DAO attack respectively.[886] There continues to be an interest in DAOs,[887] but as the DisCO Manifesto notes, the discourse largely centres on their technological affordances and their shortcomings rather than "the living human beings with bodies that need nourishment, sleep and affection" behind each node.[888] DisCOs, based on the archetype of the Guerilla Media Collective,[889] foreground association over autonomy, federation over scale, value hidden forms of labour such as care work instead of automation, and prioritize society and the environment over profit.[890] In that ambition, distributed ledger technologies can have a central role, even if they are works-in-progress.[891]

884 Hagen Henrÿ, 'Cooperation Among Cooperatives' in Gemma Fajardo and others, *Principles of european cooperative law: principles, commentaries and national reports* (Intersentia 2017) 125.

885 Holochain, 'Home Page' (*Holochain*, 21 June 2021) <https://bit.ly/35JdJU0>.

886 G Ishmaev, 'Blockchain Technology as an Institution of Property' (2017) 48 Metaphilosophy 666, 668.

887 Swartz (n 563) 89–90.

888 Troncoso and Utratel (n 153) 21.

889 Guerilla Media Collective, 'Guerrilla Media Collective Wiki' (*Guerilla Media Collective: A Wiki for Distributed Cooperative Practices*, 2021) <https://bit.ly/3gRuXnB>.

890 Troncoso and Utratel (n 153) 33–34.

891 ibid 35.

At around the same time, Slater and Bendell presented a different vision of protocols as organisational forms. They expressed scepticism of the value and viability of a cooperative alternative to platform companies such as Uber, given the company's capacity to undercut competition and the cooperative simply swapping one intermediary for another. Instead, they argued that the use of 'open protocols'[892] would diminish the need for a platform intermediary altogether, as users in industries such as ride-hailing would be able to directly find each other and transact through the use of a "simple algorithm", without any need for matchmaking.[893] From the users' perspective, this would have the advantage of reducing the cost of the ride-hailing service – as there would be no fees for intermediaries – and, at the same time, legal responsibility for transactions would be at the edges of the network, with transacting users. No single person or corporate entity would be in the position to own or commodify the protocol, with the role of the cooperative organization being limited to simply managing trust and social relations among stakeholders such as drivers.[894] They referred to two projects, La'zooz and Arcade City as examples since the former was to be ostensibly owned by "nobody"[895] and as the latter is peer-to-peer, with it allowing drivers to set their own rates and process their own payments and passengers to negotiate their own transport needs. Issues such as safety and governance are delegated to the drivers themselves, who form their own 'guilds' to address these issues (initially on Facebook!). While La'zooz now appears to be largely defunct, Arcade City is active in the US city of Austin and was temporarily active in Manila, the Philippines in 2017 and 2018.[896]

892 They refer to protocols in their widest sense, as a "language, convention, or standard" Jem Bendell and Matthew Slater, 'Thwarting an Uber Future for Complementary Currencies: Open Protocols for a Credit Commons.' (Universitat Oberta de Catalunya 2017) 8. To achieve "the next step in decentralization", Yochai Benkler has also advocated the building of open protocols to be run on open, accessible, high-capacity devices, particular mobile phones. Yochai Benkler, 'Capital, Power, and the Next Step in Decentralization' (2010) 6 Information Technologies & International Development 75, 76.

893 Matthew Slater, 'Protocol Cooperativism?' (*Matslats - Community currency engineer*, 29 March 2017) <https://bit.ly/3vIPTm0>.

894 Bendell and Slater (n 892) 9.

895 Nathan Schneider, 'La'Zooz: The Decentralized, Crypto-Alternative to Uber' (*Shareable*, 26 January 2015) <https://bit.ly/35Cgxm0>.

896 Stocker and Stephens (n 179); Christopher David, 'After Uber: Arcade City CEO Remarks to the 2017 Platform Cooperativism Conference' (Platform Cooperativism Consortium 2017) <https://bit.ly/3cVhnOX>.

As will be seen, the shared-services platforms that have begun to emerge[897] are not entirely in line with either Bauwens' or Slater's descriptions. In the cases that are the subject of this study the role of a core development team remains key for software updates. In Eva and Arcade City, the role of blockchain or distributed ledger protocols are far more limited than initially imagined.[898] In other words, intermediation still exists, and distributed, neutral protocols remain an aspiration. While these emergent shared-services platforms are dedicated towards building a shared technological infrastructure in multiple localities, access to the infrastructure and the body of knowledge, code and design that makes it possible are not entirely open. Typically, membership of a cooperative or being a cooperative is a necessary condition for using the software and contributing to its development. This is also a key difference between platform cooperatives and putative 'open' cooperatives which seek to blend digital commons with platform cooperatives by *inter alia* enabling reciprocal, 'socialist' licens-

897 While not included as a case in this study in the interests of space, Coop Cycle may also be deemed to be an emergent shared-services platform, given its role in software development for (e-)bike courier cooperatives and its innovation in software licensing to limit commercial use to worker cooperatives and 'social and common' companies, as defined in French, European or national law. See the license here: CoopCycle, 'License' (*CoopCycle*, 2020) <https://bit.ly/3cSDMME>. The Up&Go cooperative could be considered as a shared-services platform in this sense as it is owned by worker-owned cleaning cooperatives, so as to co-own the intellectual property of the cooperative and share the costs involved. The Up&Go smartphone application and web interface is used by clients to hire worker-members that are part of the platform. The development of the software is directed by the Board of the Up&Go cooperative. *See*, Emma Yorra, 'Scaling Social Justice: A Latinx Immigrant Worker Co-Op Franchise Model' *Nonprofit Quarterly* (14 February 2019) <https://bit.ly/3gNZT9D>; Greg Brodsky and Shahzaib Azhar, 'Case Study: Brightly' (*Start.Coop*, 2020) <https://bit.ly/3j3Epqq>.

898 The CEO of Arcade City, Christopher David, writes: "We've believed since the beginning that a decentralized Uber should eventually use a blockchain like Ethereum. But our focus has always been on mainstream usability now and solving the pain points of non-technical users today, not a theoretical future where blockchain usability and scalability issues are solved. (Three years later, it's still uncertain when those issues will be solved – and we would be stupid to wait to expand our service until they are.)" Christopher David, 'Celebrating Three Years of Arcade City' (*blog.arcade.city*, 3 January 2019) <https://bit.ly/3wKpwO0>.

ing.[899] They are for-profit rather than not-for-profit,[900] and while one of the cases is citizen-led (TMF), municipal governments and local authorities do not play a lead role in their governance or operations. To the contrary, in the case of Arcade City, the Philippines' transportation regulator has been quick to issue a cease-and-desist order against its activities, believing it to be an unaccredited transport network company exploiting the vacuum left by Uber's exit from the country.[901] This is not to say that municipality-backed, not-for-profit protocol cooperatives, open cooperatives, open protocols or even "revolutionary peer producing cooperatives" will not materialize or become more prominent in time,[902] but an observation that there are a variety of approaches towards the same goal.

In short, the two shared-services platforms that are the subject of this study are concrete, real-world examples of how (platform) cooperatives can help serve each other's needs and scale. With respect to Eva and TMF, it is worth noting that they are also registered cooperatives, in Quebec and Belgium respectively, rather than simply cooperative governance structures.

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899 Bauwens and Kostakis (n 153) 357–358. These licenses would, among other things, limit the free use of a software to worker cooperatives. There have been criticisms of Bauwens and Kostakis' licensing proposals. Meretz presents a critique of the peer production license (PPL) that is encouraged by Bauwens and Kostakis and instead argues that the general production license (GPL) is more favourable to building digital commons, as PPL focuses on negative reciprocity where the default position is exclusion from using the intellectual property for commercial purposes. Stefan Meretz, 'Socialist Licenses? A Rejoinder to Michel Bauwens and Vasilis Kostakis' (2014) 12 tripleC: Communication, Capitalism & Critique. Open Access Journal for a Global Sustainable Information Society 362, 363. Rigi adds that this focus on reciprocity and monetary exchange means that the knowledge commons created by the license for the benefit of worker cooperatives is contingent on a corporate competitor not offering the right price. If this corporate competitor can offer the right price, then any derivatives of the proprietary knowledge would be siphoned from the commons. Jakob Rigi, 'The Coming Revolution of Peer Production and Revolutionary Cooperatives. A Response to Michel Bauwens, Vasilis Kostakis and Stefan Meretz' (2014) 12 tripleC: Communication, Capitalism & Critique. Open Access Journal for a Global Sustainable Information Society 390, 397.

900 In the case of Eva, driver-user members get paid for the trips they make and can receive a patronage refund if it is agreed. In TMF, its legal status also allows the member-cooperatives to receive a patronage refund if it is agreed.

901 Jovic Yee, 'Arcade City Ordered to Halt Operations' *Philippine Daily Inquirer* (13 April 2018) <https://bit.ly/3vNGxWa>.

902 The city council of Barcelona, for example, has been active in giving financial and practical support to "collaborative economy platforms". Mayo Fuster Morell and Ricard Espelt, 'A Framework for Assessing Democratic Qualities in Collaborative Economy Platforms: Analysis of 10 Cases in Barcelona' (2018) 2 Urban Science 61, 8–9; Rigi (n 899) 401.

6.3 Research Methodology

Platform cooperatives are, in general, few in number. Accurate statistics are difficult to find but the crowd-sourced and curated Internet of Ownership's platform co-op directory[903] indicates that there are globally 306 platform cooperatives, cooperative-run platforms, shared platforms and support projects, as of August 2020.[904] While there may be several cooperative businesses that are not accounted for in this directory, this figure includes initiatives that are now defunct and several which are formally not cooperatives. Shared-services platforms, as a variant of platform cooperative, are even fewer in number.

Given the relative novelty and rarity of shared-services platforms (small-N), the research method that was selected was that of a case study.[905] The case study method is particularly appropriate for investigating the causal pathways that led to the using of a particular legal and governance structure by these businesses.[906] Out of the small (but growing) population of shared-services platforms, a purposive sample of two cooperatives was considered to be sufficiently rich in detail to shed light on other shared-services platforms that are emerging.[907]

The choice of these cases was determined by the fact that they are 'most-similar' cases,[908] in that the two cooperatives are similar in several respects but differ on a few key variables. TMF and Eva are both engaged in the urban mobility sector, but the former is involved in electric car-sharing and the latter is involved in ride-hailing. While they both can be considered part of the sharing, solidarity, collaborative and platform economies in general, the former is tied more closely to citizens' movements for renewable energy

903 IOO, '#PlatformCoop Directory' (*Internet of Ownership*, 2020) <https://bit.ly/3xHcq4h>.

904 In the directory, a platform co-op is understood to be an ICA-compliant co-op that manages an online platform, sharing ownership and governance over it, a co-op run platform is an ICA-compliant co-op that manages and primarily does business through an online platform, a shared platform is an enterprise that shares some meaningful ownership or governance over an online platform without being a cooperative and a supporter is a project that lends support to the platform co-op ecosystem. IOO, 'Directory Standards' (*Internet of Ownership*, 2020) <https://bit.ly/35GMlWN>. It should be noted that there is some variance in how platform cooperatives are defined in the literature, but the International Co-operative Alliance is now working towards a more uniformly accepted definition. Another, higher figure was recently presented by the Director of Institute for the Cooperative Digital Economy, Dr. Trebor Scholz, who estimates that there are roughly 500 initiatives in the platform co-op ecosystem [personal communication with author], which includes projects that are affiliated with platform cooperativism but are not strictly platform cooperatives. Trebor Scholz, 'Who Owns the World? The State of Platform Cooperativism' (Platform Cooperativism Consortium 2019).

905 Gerring (n 866) 57.

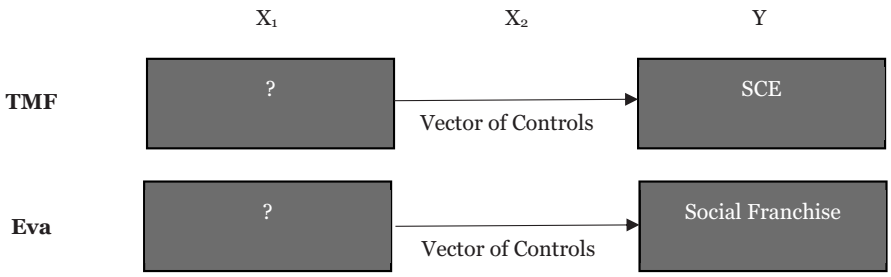
906 ibid 45.

907 Nick Emmel, *Sampling and Choosing Cases in Qualitative Research.* (Sage Pubns Ltd 2013) 36–38, 141.

908 Alexander L George and Andrew Bennett, *Case Studies and Theory Development in the Social Sciences* (MIT Press 2007) 81; Gerring (n 866) 131.

and the latter to efforts at building organizational alternatives for gig work. Both are interested in making urban mobility more sustainable, while also being for-profit. However, TMF is a secondary cooperative-a cooperative of cooperatives-while Eva is in the process of becoming a social franchisor with a network of social franchises. While these are both network organizations, it is unclear what independent cause(s) determined the choice of the respective legal and governance structures.[909] It is this particular organisational difference that makes these two cases compelling subjects for a most-similar analysis, as their intensive study may unearth one – or a few – factors that led to this difference in structure.

To avoid spurious explanations or causes, this most-similar analysis was complemented with process-tracing, which essentially requires the researcher to detail the process of arriving at a decision and consider alternative plausible causes for an outcome, so as to ascertain if one particular variable determined an outcome or not.[910] This conceptual model[911] may be illustrated as follows:



X_1 = the variable(s) of theoretical interest, X_2 = vector of controls, Y = the outcome of interest

Figure 14: Conceptual Model for understanding why TMF and Eva chose their respective structures

Such an investigation is illuminating as it provides a contrast to how platform companies such as Uber are structured and the strategies they use to scale globally, as elaborated upon in the Discussion section below. At the same time and in different ways, it provides insight into (economic) cooperation among cooperatives and the role of central cooperative organizations, which "is one of the most important and, in some ways, one of the least well examined dimensions of co-operative experience".[912]

909 Jan Dul and Tony Hak, *Case Study Methodology in Business Research* (2nd edn, Routledge 2012) 178–179.

910 George and Bennett (n 908) 214–215.

911 Dul and Hak (n 909) 178; Gerring (n 866) 131–132.

912 Ian Macpherson, 'Customizing a Patchwork Quilt: Consolidating Co-Operative Studies within the University World' in Hagen Henrÿ, Pekka Hytinkoski and Tytti Klén (eds), *Customizing a Patchwork Quilt: Consolidating Co-operative Studies within the University World* (Ruralia Institute, University of Helsinki 2015) 24.

As the objective of the study is to understand their choice of legal and governance structures, the first step in collecting data involved reading the texts published by the two cooperatives on the topic, ranging from their annual reports and accounts to their blogs, podcasts and conference presentations.[913] While some of these texts were promotional in nature, they were useful for tracing the evolution of the founders' thoughts on how the cooperatives should be legally structured and governed. The second step involved verifying whether these descriptions of the legal and governance structures translated onto the constitutional documents of the cooperatives, namely their articles of incorporation and bylaws. This involved a search in the relevant business registers, the business's website or contacting the cooperatives themselves, if it was difficult to obtain business documents from the first two sources.

The third step consisted of identifying, screening and recruiting the person that was directly involved in establishing the legal and governance structure of these two cooperatives. This was done by discovering which persons were writing about or speaking about these issues through marketing publications or at conferences and noting their position in the cooperative itself. They were then contacted directly by email and/or social media. Lucie Evers (Co-founder, TMF and Chairman, Partago) and Dardan Isufi (Co-founder and Chief Operating Officer, Eva) agreed to be interviewed over Skype at a mutually convenient time. The interviews lasted between 45 minutes to 105 minutes in the Fall of 2019 and were subsequently transcribed. While the interviews were semi-structured, each interview inter alia addressed the issues of:

1) Why the business was founded;
2) Why the business was formed as a cooperative;
3) What the factors were behind the governance structure of the cooperative;
4) What the legal and commercial difficulties of founding the cooperative were;
5) How these difficulties of founding the cooperative were surmounted;
6) How their software was developed;
7) What the future goals of the cooperative are, particularly in terms of growth.

Through an indirect snowball sampling method,[914] other members and directors of the two cooperatives who are knowledgeable about the same issues were identified from the information provided by the interviewees,

913 Representatives of both TMF and Eva delivered presentations at the "Who Owns the World?: The State of Platform Cooperativism", 7-9 November 2019, The New School, New York City.

914 Rowland Atkinson and John Flint, 'Snowball Sampling' in Michael Lewis-Beck, Alan Bryman and Tim Futing Liao (eds), *The SAGE Encyclopedia of Social Science Research Methods* (Sage Publications, Inc 2011); David L Morgan, 'Snowball Sampling' in Lisa Given (ed), *The SAGE Encyclopedia of Qualitative Research Methods* (SAGE Publications, Inc 2012).

who were subsequently contacted and interviewed in July-August 2020. These interviewees were Jan de Kock (Director, The Mobility Factory and Co-Founder, CoöperatieAuto), Mike Calomiris (driver-user member, Eva), Renaud Antoine (driver-user member, Eva) and Lukas Reichel (interim-CEO, The Mobility Factory and Co-Founder, SomMobilitat), all of whom consented to have their names used in the study. This was done for the purpose of having a more well-rounded insight of the operations and governance of these two shared-services platforms that would be otherwise publicly unavailable. The sampling ended when new information concerning the aforementioned legal and governance issues was no longer being uncovered and new participants were no longer reachable.[915]

The interviews were transcribed verbatim and a clean, timestamped version of the transcript (i.e., without interjections) was prepared. The researcher also followed up on any questions that arose from the case study analysis with the informants via email and social media. In combination with the earlier primary and secondary sources, these interviews provided sufficient detail about the contours of the cooperatives' legal and governance structure as well as the rationale for their design. The following section sets out the case studies, discussing The Mobility Factory and Eva.coop in turn.

6.4 Case Studies

6.4.1 The Mobility Factory (TMF)

The Mobility Factory SCE is a European Cooperative Society that operates in the electric car sharing sector, with its primary objective being to develop an electric car sharing platform for exclusive use by its cooperative members. It is a cooperative composed of other cooperatives and an association.

Understanding the origins and legal and governance structure of TMF requires an initial focus on one of its member-cooperatives, Partago cvba. Partago is an electric car sharing enterprise that was founded in Ghent, Belgium in 2015[916] and now operates across Belgium. The current CEO, Joachim Jacob, made a beta version of the app out of frustration about the lack of parking space in his own street in Ghent and the underuse of most cars.[917] Evers adds that Jacob was also irritated that the car sharing market incumbent in Belgium, Optimobil Vlaanderen NV d.b.a 'Cambio', was not investing in client relations, innovation or digitalization. Jacob met Evers

915 Frank J van Rijnsoever, '(I Can't Get No) Saturation: A Simulation and Guidelines for Sample Sizes in Qualitative Research' (2017) 12 PLoS ONE.

916 Registered in the Official Gazette of Belgium with the number 15304834 on 18.03.2015.

917 Dimitri Schuurman and Aron-Levi Herregodts, 'Open Innovation with Entrepreneurial Users: Evidence from Living Lab Projects' (ISPIM 2017) 8.

at a living lab[918] to test the app with potential citizen-users like Evers and while the user-led technological innovation was modest – adding a car reservation feature – the major pivot was to become a users' cooperative.[919] Evers played an important role in this decision as she was a user who both believed in the merits of the idea and had previous experience as a cooperative entrepreneur. While there was initially some hesitation, the cooperative with limited liability (*Coöperatieve vennootschap met beperkte aansprakelijkheid*) was founded by five persons, Joachim Jacob, Rik Bellens, Lucie Evers, Patrick Claerhout and Davy De Clerq, with an authorized capital of €19,500.00, represented by 50 Class A shares and 28 Class B shares, with the nominal value of each share being €250.00. Evers, as a self-confessed, "governance hobbyist", was central to the governance structure of the cooperative as set out in its bylaws (*statuten*).[920] The Class A shares are for user-members and a user is limited to a maximum of 20 shares, while Class B shares are for supporter-members, and they are required to subscribe to a minimum of 21 shares (§6, Partago bylaws). Article 6 also prohibits a person from holding both classes of share simultaneously. These shares were fully paid-up by the five founders, with Jacob holding all of the Class B shares while the other founder-members subscribed to the 50 Class A shares amongst themselves.

As per its statutes, the purpose of Partago is to contribute to a sustainable society by providing mobility solutions. To this end, it inter alia collects financial resources, stimulates the shared use of cars, develops technology and manages an electric car fleet – access to which is limited to its partner-users. A non-exhaustive list of its services include: the general maintenance, repair, rental and lease of passenger cars and light vans (<3.5 tons), the development of web portals, the management of computer facilities and computer consultancy activities, the offer and implementation of IT services, data processing, web hosting as well as the organization of conventions and trade shows (§3, Partago bylaws). This article of the bylaws also establishes the legal basis for Partago cvba to be a director of other companies or associations, so as to fulfil its cooperative purpose.

A relatively unique feature of Partago's business model is that users become members ('partners') as a requirement to access an electric car. §9 of its bylaws requires that future members of Partago are required to abide by the same share subscription requirements mentioned in §6 of the bylaws

918 "A living lab is a physical or virtual space in which to solve societal challenges, especially for urban areas, by bringing together various stakeholders for collaboration and collective ideation". Mokter Hossain, Seppo Leminen and Mika Westerlund, 'A Systematic Review of Living Lab Literature' (2019) 213 Journal of Cleaner Production 976, 976. Among other things, users can contribute to the development of a software application by sharing their experiences of a product and their needs as a user with developer-entrepreneurs. These 'open innovation' systems are typically located at universities or municipality offices

919 Schuurman and Herregodts (n 917) 8–9.

920 Partago, 'Statuten PARTAGO CVBA' (2015) <https://bit.ly/35Fa9ug>.

and in the case of user-members (i.e., Class A members) in particular, they must subscribe to a minimum number of shares, as per the 'fair use' policy of Partago. Under this policy, new users are required to subscribe to a minimum of two Class A shares (i.e., €500), with the nominal share value being withdrawable in full or in part upon the user-partner's exit from the cooperative after at least two years, depending on the financial circumstances of the cooperative (§13, Partago bylaws).[921]

The Class A members have the right to nominate at least 3 of the directors of Partago's board and the candidate can be a member of Partago or an external person (§20, Partago bylaws). The board's size is capped at 9 members and board members are unpaid for their services. Board decisions are made by consensus, failing which, they are made by simple majority (§21, Partago bylaws). The General Assembly, composed of both Class A and Class B members, as the most powerful organ in the cooperative determines the general policy of the cooperative and can order an audit of the cooperative (§27-28, Partago bylaws). The bylaws of the cooperative allow members to participate in the General Assembly remotely, as electronic participation in meetings is permitted under Belgian law.[922] Assembly decisions are also arrived at by consensus, failing which a simple majority is required of both Class A and Class B votes.[923] Evers became the Chairman of Partago's board but the day-to-day management of the cooperative is carried out by the CEO, with the support of 5 staff members (3.7 FTE) – including the main developer of the app, Rik Bellens (CTO).

For a user to gain access to an electric car, in addition to acquiring two Class A shares in the cooperative, they must prepay or subscribe for the use of the car, the tariff being determined by the amount of time the car

921 For supporter-members, the minimum subscription period is 4 years. Should such a Class B member resign, withdraw their share or be excluded, they are entitled to the current book value of their shares in the year their membership ends. However, to preserve the cooperative nature of this business, this is capped at the nominal value of their share plus an additional percentage set by Belgium's National Council for Cooperatives. This is currently 6%, see Art 1, § 1.5° of the Royal Decree of 8 January 1962. Also see, FOD Economie, 'Erkenningsvoorwaarden van Coöperatieve Vennootschappen' (*economie.fgov.be*, 15 January 2018) <https://bit.ly/3qo6Tx2>.

922 The statutes refer to art. 382bis of the Belgian Companies Code but following its repeal and replacement by the new Code of Companies and Associations, electronic participation in meetings is permitted under art. 6:75. It is important to note that remote participation in General Assemblies is not possible in all jurisdictions. For instance, in Bangladesh, members of a cooperative are required to be physically present in person when casting a vote (e.g., for board positions) and are prohibited from appointing proxies, see section 36(1), Co-operative Societies Act, 2001 [Bangladesh] (as amended) and Rule 88, Co-operative Societies Rules, 2004 [Bangladesh]. In Quebec, it is possible to virtually participate in meetings, however it is prohibited to appoint proxies, see section 4(2), Cooperatives Act, 1982 (c. C-67.2).

923 In other words, when Partago only had its initial 5 founder-members, the CEO had a deciding vote as he held all the Class B shares.

is used, the battery power consumed and a fixed reservation fee.[924] User-members are required to download the Partago application to their smartphone, which enables them to find available, fully-charged cars on a map, make reservations and unlock car doors. While Partago began operations in Ghent, it has now spread to other municipalities in Belgium, namely Beersel, Boechout, Brasschaat, Breendonk, Leuven, Lint, Mortsel and Wetteren, following the expression of interest and subscription of shares by small groups of citizens in these locations. Ghent has the vast majority of electric cars[925] (41 out of 54, as of December 2019), with several municipalities only having one car till date. Partago has attempted to expand its user base by offering both companies and municipalities the opportunity to join as members, on the basis that it could help them avoid having idle company cars, while also using an eco-friendlier, communitarian option. Another important source of income has been Partago's multi-year collaboration with WiseGRID, a project funded by the EU's Horizon 2020 program, which among other things requires Partago to test tools (i.e., WiseEVP) for planning and controlling the charging/discharging schedule of a fleet of electric vehicles as well as sharing (non-private) data with other components of the WiseGRID system.[926] One of the possibilities this opens up is the reversal of the usual flow of energy – from the car to local renewable energy grids and homes instead of just vice versa – as it moves around and offloads its excess electricity.[927] In the long term, this creates an opportunity for an additional revenue stream for electric car sharing businesses that have their own set of 'batteries on wheels'.[928]

There are now some 600 members of Partago, approximately 70% of whom are user-members. According to Evers, the majority of these user-members only subscribe to the cooperative shares as they see it as a kind of car insurance contribution and (collective) investment in the ownership of an electric car as well as a form of personal saving. In other words, membership in a cooperative is less of a priority for them than access to the vehicle.

924 Karijn Bonne and others, 'The Sharing Economy: An Exploratory Study on Revenue Models of Belgian Digital Platforms and Sharing Initiatives' [2019] Accountancy & Bedrijfskunde 81, 87.

925 Car Models: Renault Zoé City Car, Delivery Van Nissan eNV200, Minibus Nissan eNV200. The tariff is the same for all car models.

926 Kostas Komninos and others, 'WiseGRID Requirements, Use Cases and Pilot Sites Analysis' (WiseGRID 2017) Deliverable D2.1 108, 116; Álvaro Nofuentes and others, 'WiseEVP Design' (WiseGRID 2018) Deliverable D9.1 25–26, 28–29 <https://bit.ly/2SiFKPt>. The need to share more consumer data concerning the delivery of electric vehicle charging services has also been emphasized in the United States. Omar Isaac Asensio and others, 'Real-Time Data from Mobile Platforms to Evaluate Sustainable Transportation Infrastructure' (2020) 3 Nature Sustainability 463.

927 Junjie Hu and others, 'Electric Vehicle Fleet Management in Smart Grids: A Review of Services, Optimization and Control Aspects' (2016) 56 Renewable and Sustainable Energy Reviews 1207, 1212.

928 Alberto Zambrano and others, 'Analysis of the Electric Transportation Sector' (WiseGRID 2017) Deliverable D8.1 19–21, 58.

This explains why, for instance, the bylaws do not require Assemblies to have a minimum quorum, except for decisions concerning the amendment of the bylaws itself and a change in cooperative purpose (§31-33). It prevents situations where decision-making reaches a standstill or meetings being disbanded due to lack of quorum, while at the same time preserving the mission of the cooperative in the event of a major control transaction such as a merger. Given that each member has one vote, irrespective of the amount that they have invested in the cooperative, they can have a meaningful role in shaping the policy and direction of the cooperative, including in the removal and election of directors. As there is a risk that user-members may prioritize obtaining the lowest price for the service over the financial health of the cooperative, Evers argues that her decision to include Class B shares is imperative for maintaining "equilibrium in extreme cases" (Interview, 04.10.2019, at 38:00). This "juggling" of the interests of the "consumer" and "capital", as Evers puts it (Lucie Evers [LE] Interview, 04.10.2019, at [43:30-44:00]), is also apparent in The Mobility Factory, a cooperative that was Evers' brainchild.[929]

The creation of TMF was animated by four factors that became apparent as Partago grew: (1) the revenue stream of Partago was not able to sustain the costs of developing the software, (2) the capacity to write code in Partago internally was limited, (3) the isolated development of software leads to wasteful duplication, which could be avoided by pooling efforts and (4) there was an opportunity to scale the business in a cooperative way and reach a larger base of European users by partnering with cooperatives in other Member States. The first factor was motivated by the fact that an electric car sharing platform does not only require a digital map that allows users to find available cars, but it also requires a diversity of functions from enabling users to digitally unlock doors to management tools for the cooperative to invoicing APIs to availability in multiple languages. This contributed to the second factor, which prompted them in 2016 to collaborate with Som Mobilitat SCCL,[930] a cooperative (*Societat Cooperativa Catalana Limitada*) that has its registered office in Mataró (Lukas Reichel [LR] Interview, 06.08.2020, at [11:00-11:30]). At the time, Som Mobilitat was primarily a community of software developers interested in sustainable but not specifically a car sharing business mobility (LR Interview, 06.08.2020, at [00:45-02:00]). Evers explains that it was a condition of their co-development (and co-ownership) of the software that Som Mobilitat focus on electric car sharing as it would only be through that practical business experience that their developers would be able to understand their work and write code (LE Interview, 04.10.2019, at [48:15-48:30]). Som Mobilitat became an

929 Reichel points out that Som Mobilitat originally wanted a fairly loose association between themselves and Partago to develop the software as an open-source project. It was at Partago's insistence that this collaboration was formalized as a cooperative (LR Interview, 06.08.2020, at [42:30-43:15]).

930 National Identification Number: F66835125, founded on 28 July 2016.

electric car[931] sharing cooperative, with 35 cars and some 1939 members as of August 2020 (LR Interview, 06.08.2020, at [26:30-27:15]), offering broadly similar services as Partago, but with certain distinct financing strategies.

Consumer co-ownership of businesses in the renewable energy sector is severely under-financed in Spain, with there being no dedicated state programs and subsidies for this purpose. The sums available through alternative sources – such as competition for subsidies from other cooperatives – yield sums that are unsustainable for the long-term growth of a business. For instance, Som Mobilitat received a grant of €4500 in 2017.[932] At the same time, to make Som Mobilitat widely accessible, the cooperative decided to keep the cost of membership low (LR Interview, 06.08.2020, at [06:30-06:45] – at €10, which is also withdrawable upon exit from the cooperative – and the tariffs to use the vehicles are significantly lower than with Partago. Aside from these sources, the cooperative also relies on obtaining financing for cars from donations, loans, reward crowdfunding campaigns, participatory securities that members can subscribe to (up to €40,000, variable interest rate of 3%) and sponsorship/prepayment for new vehicles. As of August 2020, Som Mobilitat has raised 400,000 EUR from their members alone (LR Interview, 06.08.2020, at [12:45-13:00]). In addition, in rural areas in particular, some municipalities contribute fixed sums for the instalment of cars for use of the vehicles during the day, with individual users sharing in their use during the evenings and the weekends (LR Interview, 06.08.2020, at [13:30-14:00]).

As with Partago, Som Mobilitat also experienced operational losses in 2016 and 2017[933] and it is with these financial constraints that Partago and Som Mobilitat began co-developing the software initially developed by Partago for their respective businesses (LR Interview, 06.08.2020, at [16:00-16:30]). While the wages of the developers appeared on their respective balance sheets, the ownership of the software was determined by 'time banking'. This refers to the system in which persons give and receive services in exchange for units that are denominated in time (e.g., 1 unit = 1 hour)[934] rather than fiat currency. In this particular instance, as Evers explains, the units were used to indicate "symbolic shares in ownership"

931 Car Models: Renault Zoé 40 kWh, Renault Zoé 22 kWh, Renault Kangoo 22 kWh.

932 Millán Diaz-Foncea and Ignacio Bretos, 'Consumer (Co-)Ownership in Renewables in Spain' in Jens Lowitzsch (ed), *Energy Transition: Financing Consumer Co-Ownership in Renewables* (Springer International Publishing 2019) 436.

933 Som Mobilitat SCCL, 'Model Abreujat per a La Presentació Dels Comptes Anuals' (Generalitat de Catalunya Department d'Empresa i Ocupació, 2017) <https://archive.org/details/memoria-numeros_202106>; Som Mobilitat SCCL, 'Som Mobilitat SCCL Memòria Abreujada' (Som Mobilitat SCCL, 2017) 2 <https://archive.org/details/memoria_abreujada>. Two of the major differences between Som Mobilitat and Partago, that go some way towards explaining the difference in their losses, is their respective expenditure on allowances & wages and payment for cars and charging ports.

934 Gill Seyfang, 'Time Banks: Rewarding Community Self-Help in the Inner City?' (2004) 39 Community Development Journal 62, 62.

(Interview, 04.10.2019 at [50:15]) of the code base, reflecting each cooperative's respective contribution to its development. However, while the cooperatives were able to mutually benefit from the use of the software, this process generated tension about the fair value of – and payment for – this intellectual property. Initially, there was discussion about making the software open source or using a license that would only allow cooperatives to use the software. However, Partago insisted that all the work done to develop the software should be properly remunerated, even if it was sometime in the future (LR Interview, 06.08.2020, at [20:00-21:00]). Establishing a secondary cooperative and having this cooperative become the legal owner of the software would ensure that any cooperative interested in using the platform was adequately committed to its success, while their membership fees would go some way towards remunerating the accumulated hours of work in the timebank.

Thus, setting up TMF would not only enable operational scale and the sharing of costs, but it also provides a governance structure to ameliorate tensions between collaborating cooperatives, who each have their own interests. As it became clear that electric car sharing cooperatives are not only actors within the mobility sector, but also have the potential to become important players in the renewable energy sector, Partago and Som Mobilitat were able to convince six citizens' energy cooperatives and REScoop.eu (the European federation of renewable energy cooperatives) to form TMF (LE Interview, 04.10, 2019 at [56:45-57:30]). These founder cooperatives were Courant d'Air cvba (from Belgium), Coöperatie LochemEnergie U.A., Coöperatie Cooperatieauto B.A., HET: coöperatie Hilversumse Energie Transitie U.A. (from the Netherlands), Energiegewinner eG and UrStrom – Burgerenergiegenossenschaft Mainz eG (from Germany).

With the support of a Belgian organization that supports the formation of cooperatives and a lawyer familiar with cooperative law (LE Interview, 04.10.2019 at [1:25:30-1:26:00]), they formed a European Cooperative Society – a supranational limited liability legal entity form recognized across the EU/EEA[935] – which has its registered office in Brussels.[936] The Mobility Factory SCE's main purpose is to design and develop software programmes,

935 Council Regulation (EC) No. 1435/2003 of 22 July 2003 on the Statute for a European Cooperative Society (SCE), OJ L 207, 18.08.2003. This has been supplemented with a Directive, Council Directive 2003/72/EC of 22 July 2003 supplementing the Statute for a European Cooperative Society with regard to the involvement of employees, OJ L 207, 18.08.2003. While the Directive is relevant for cooperative governance, given that it provides rules for employee representation in the governance of the SCE on certain conditions, the information, consultation and participation rights of employees do not appear to have been formalized in TMF. This may be due to the fact that the member cooperatives have very few employees and that Partago and Som Mobilitat, the two largest members of TMF in terms of Class A shares, are based in jurisdictions where there is no legal requirement for board-level employee representation.

936 The Mobility Factory, 'Statuten The Mobility Factory SCE' (2018) <https://bit.ly/3zMVzyA>.

provide computer consultancy, offer computer facility management, as well as design and maintain web-portals for its members, so that they can in turn offer sustainable mobility services in their local operations (§2, TMF Bylaws). It was registered on 28 December 2018 and according to Evers, it was not difficult to gather the fixed subscribed capital of €30,000 (§3(2), SCE Regulation, 'R'). The pricing of the shares was determined by how feasible the cost would be for each prospective member, without requiring them to fundraise. Each of the founding cooperatives had to acquire shares in TMF that were nominally valued at €1000 per share and at the time of formation, the nine entities subscribed to 60 shares.

The influence of Partago is evident in TMF's bylaws, as the latter has an identical Class A and Class B system: Class A shares are reserved for cooperative members who wish to use the services and products of TMF and Class B shares are reserved for supporting investor members who can receive a dividend at the discretion of the board (i.e., 'the administrative organ') (§5, TMF Bylaws). Partago, Som Mobilitat and Courant d'Air subscribed to 14, 12 and 10 Class A shares respectively while the other cooperatives subscribed to four Class A shares each. Rescoop.eu was the sole subscriber to four Class B shares. Nowadays, for every car that a member installs in an area, a portion of that fee goes towards purchasing shares in TMF (Jan de Kock [JdK] Interview, 08.07.2020, at [34:30-35:00]).

The board is permitted to have between 4 and 9 unremunerated directors (it initially had 6 directors)[937] with a 6-year tenure. Up to one-fourth of the board can be nominated by members with Class B shares and the remainder are nominated by members with Class A shares (§16, TMF Bylaws). The Chairman of the board is elected from among the Class A-nominated directors, and, in their absence, meetings are chaired by the most senior Class A-nominated director. Meetings can take place physically or electronically, in person or by proxy, but quorum is set at two-third of the board (except in the case of emergencies). Board decisions are taken by simple majority (§17, TMF Bylaws). As the body responsible for the day-to-day decision-making of TMF, the board faces a stiff challenge in making strategic decisions on a regular basis while also being mindful of the financial, cultural and ideological differences between the member-cooperatives. Reichel notes that their membership already includes cooperatives ranging from large renewable energy cooperatives to small, three-person cooperatives – and their views may differ on questions such as the inclusion of non-electric cars on the platform (LR Interview, 06.08.2020, at [33:30-35:15]). Ensuring meaningful, democratic participation from all the time-pressed member-cooperatives requires careful preparation prior to any votes, setting

937 Lucie Evers representing Partago, Dirk Vansintjan representing REScoop.eu, Jan Janse de Kock representing Cooperatieauto, Lukas Alain Reichel representing Som Mobilitat, Kay Voßhenrich representing Energiegewinner and Jeroen Pool representing Hilversumse Energie Transitie. After Evers resigned as Chairman and interim CEO, Reichel stepped in as interim CEO.

aside adequate time for discussion and the elaboration of proposals. The smooth, but representative, functioning of the board of TMF is critical as the board represents almost all of the members and as its strategic decisions are integral to the business of individual cooperatives (JdK Interview, 08.07.2020, at [24:45-25:15]). Given that the board members are distributed across the EU and that the COVID-19 pandemic has disrupted operations throughout 2020, these board meetings have increasingly been on Loomio (a group decision-making built by a worker cooperative in New Zealand). However, multiple interviewees were of the view that physical meetings are essential to complement online meetings to build rapport and a strong connection among this international group of co-operators (JdK Interview, 08.07.2020, at [29:45-30:45]; LR Interview, 06.08.2020, at [40:45-41:00]).

Typically, the General Assembly, composed of both Class A and Class B members, meets at least once a year and any other time as needed, to decide on inter alia the financial statements of the past financial year, the discharge of directors, issues relating to the audit of the cooperative and other issues on the Assembly's agenda (§23, 26, TMF Bylaws). Each member has one vote, irrespective of the amount or class of shares they hold. To counteract the prioritization of investor interest at the expense of user-members, no more than 25% of the members present at the Assembly can hold class B shares (§25, TMF Bylaws). Decisions are arrived at by consensus, failing which by simple majority (§26, TMF Bylaws). One such decision is voluntary liquidation (§33, TMF Bylaws). For major decisions, such as a change of purpose or other amendments of the bylaws, the voting requirements are different. At least half of all the members must be present and, in the case of the former, the present members must also represent at least half of the capital of the cooperative and the decision to change purpose must receive at least four-fifth of the total votes, with the holders of Class B shares not comprising more than 25% of the voters present (§28, TMF Bylaws). In the case of the latter, the amendment must be passed by a two-third majority and the same rule about Class B shares applies (§27, TMF Bylaws). Along with the one-member, one-vote rule, another distinctive feature of TMF compared to capitalist businesses is that the amount of refunds to holders of Class A shares is not determined by the number of Class A shares each member holds but their proportion of transactions with TMF (§31, TMF Bylaws).

An important distinction between the shares of TMF and Partago, however, is that the shares are not transferable to third parties. This is based on the idea that the members are expected to commit to TMF for the long-term, as indicated by the default requirement that members subscribe to TMF shares for at least five years unless the board decides otherwise (§11, TMF Bylaws). Even after that period has elapsed, voluntary withdrawal of all (or some) of the shares is dependent on the board determining that doing so will not jeopardize the financial position or existence of TMF. The repurchase of these shares are to be at nominal value for Class A shares and at current book value for Class B shares, but this payment can be made over the course of two years (§14, TMF Bylaws).

As previously mentioned, Partago and Som Mobilitat took the lead with programming but since the summer of 2020, the software developers who were formerly employed by Partago and Som Mobilitat are now directly employed by TMF. TMF has been developing a suite of products and services for its members, including a multilingual software application that allows users to find, access and unlock cars, a car-sharing management system that presents an overview of user and fleet data as well as other interfaces as needed (LR Interview, 06.08.2020, at [17:30-18:15]).[938] The software has now been sold by Partago and Som Mobilitat to TMF and the latter now owes a debt to the former two cooperatives according to the hours they spent on developing the software prior to the establishment of TMF. This will be paid back by the new shares that are issued by TMF, with one-third of the value of each share being used to pay down the debt (LR Interview, 06.08.2020, at [23:00-23:45]).

From the outset, it was intended that members have a say in the features that are included in this collectively owned software. This was the key distinguishing feature for some of the member-cooperatives as they previously worked with corporate providers who gave them less of an influence over the features of the software (JdK Interview, 08.07.2020, at [02:45-03:45]; LR Interview, 06.08.2020, at [48:30-49:15]). As Reichel explains, at first, everyone could propose a feature, but this did not work well as everyone did not understand the costs and utility of including a new feature (LR Interview, 06.08.2020, at [35:30-36:00]). Instead, now, "everybody proposes needs, not features" (LR Interview, 06.08.2020, at [36:00-36:30]). This process involves identifying the problems that need to be solved, elaborating on the features that can address these problems and subsequently determining which features need to be prioritized. This software not only benefits the members themselves, but can also be licensed as a software-as-a-service to third parties.[939] In this respect, as shown in Figure 15, TMF has the qualities of a supply or shared-services cooperative,[940] in that it can generate cost-savings for a product (e.g. software) for its members owing to its ability to aggregate member contributions of labour and capital and can refund much of its net income back to its members based on their patronage (when such income is generated). It also creates a different psychological attitude towards the software, as members are not simply licensing a service but are paying towards something that is their own (LR Interview, 06.08.2020, at [49:00-49:30]). For member-cooperatives like CoöperatieAuto, the coopera-

938 The Mobility Factory, 'Software' (*The Mobility Factory*, 2021) <https://bit.ly/3gQIcF9>.

939 Partago cvba, 'Burgercoöperatie Voor Elektrisch Autodelen in Vlaanderen: Aanbod van Aandelen Categorie A "Koop Deelbewijzen van Partago Cvba"' (Partago cvba, 21 August 2019) 4 <https://bit.ly/35DZK22>.

940 USDA, 'Shared-Services Cooperatives' (US Department of Agriculture 1998) Informational 49.

tive ownership of the application ensures that only the data of cooperatives is used in its development (JdK Interview, 08.07.2020, at [26:15-26:30]). This is strikingly different than if TMF, or indeed Partago or Som Mobilitat, were worker cooperatives as the financial returns (if any) of the cooperative do not go directly to workers like Lukas Reichel or TMF's software developers. They are still employees, who can be dismissed by their employing cooperative board. While this requires a great degree of generosity on the part of these workers, in terms of their time and resources, according to Reichel, "people really like to cooperate with you because they see it is something that you do not personally benefit from" (LR Interview, 06.08.2020, at [01:01:30-01:01:45]).

In the months since being registered, two other cooperatives, Alternacoop and Conecta Movel (Spain) have joined TMF. However, TMF is confronted with the challenge of deciding how quickly they wish to grow – if they agree to the ambition of having 20,000 cars running on their platform in 5 years (LE Interview, 04.10.2019 at [52:30-52:45]) – and attracting the resources to finance this growth, given that it is beyond what they are able to currently earn internally. It also remains to be seen whether the governance structure of TMF remains as it currently is or whether another tier of cooperatives – such as national 'umbrella' cooperatives – are added to represent local primary (electric) car-sharing cooperatives in TMF (JdK Interview, 08.07.2020, at [38:15-38:30]).

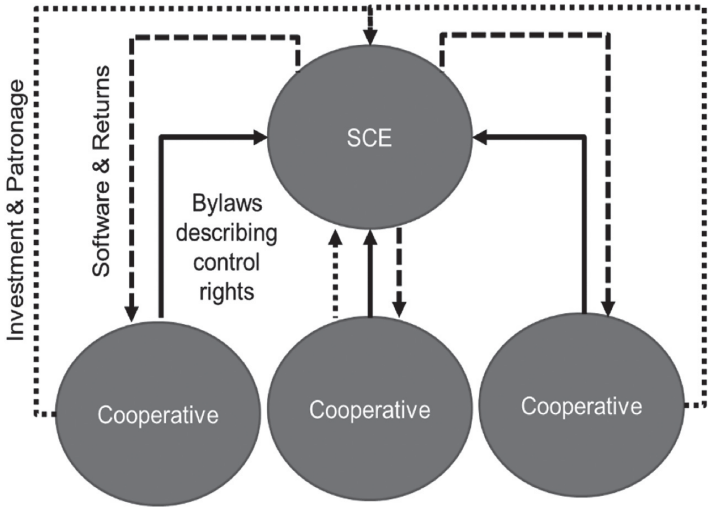


Figure 15: TMF Legal & Governance Structure

6.4.2 Eva

Developing an alternative to Uber has been a recurrent theme in the discourse on platform cooperatives for some time.[941] Indeed, some of the most prominent examples of cooperative-run platforms have been taxi cooperatives[942] that have developed their own digital platforms (e.g., Cotabo in Bologna, Taxiapp in London, Alpha Taxi in Paris and Green Taxi Cooperative in Denver) and *de novo* ride-hailing cooperatives (e.g., the aforementioned Arcade City in Austin). The latter group face particularly stiff challenges, not only due to the existence of incumbents such as Uber and Lyft in major cities who can price them out of the market, but also due to the complexities of complying with multi-tiered, fast-evolving local regulation concerning ride-hailing, as well as driver scepticism about what alternatives have to offer.[943]

During the year that the idea of Eva first emerged – in 2017 – the province of Quebec was involved in a heated debate about how the ride-hailing sector should be regulated. Following a decision by the provincial government to toughen the rules for ride-hailing businesses (e.g., increasing the driver training requirement), Uber threatened to leave the province.[944] While Uber backtracked on those plans and continues to operate in Quebec at the time of writing, this prompted province-wide public discussions on the merits and drawbacks of ride-hailing as an industry. Among those were two students and friends at McGill University and Laval University, Dardan Isufi and Raphaël Gaudreault, who were of the view that while the organizational and management practices of capitalist ride-hailing companies like Uber were societally harmful, the technology they used – to show the arrival of a car, to keep track of invoices, to make online payments and so on – was not.[945] From the fall of 2017, they began brainstorming ideas about how to integrate this ride-hailing technology into an organizational structure that lowers the fees charged by ride-hailing intermediaries, maximizes

941 Scholz and Schneider (n 138); Yifat Solel, 'If Uber Were a Cooperative: A Democratically Biased Analysis of Platform Economy' (2019) 13 The Law & Ethics of Human Rights 239, 261.

942 Craig Borowiak and Minsun Ji, 'Taxi Co-Ops versus Uber: Struggles for Workplace Democracy in the Sharing Economy' (2019) 22 Journal of Labor and Society 165, 168.

943 The most glaring example of this is Juno, a company that committed to giving drivers restricted stock units as an incentive to switch from competitors but then proceeded to cancel the RSU plan when it was acquired by Gett. This led to a class of drivers filing a lawsuit alleging that Juno had acted unlawfully by misrepresenting and falsely advertising that drivers would acquire equity shares, had engaged in securities fraud and its CEO had breached his fiduciary duty to shareholders by engaging in self-dealing and mismanagement. See *Mohammed Razzak and others v. Juno USA, LP and others*, US District Court SDNY, 9 June 2017.

944 Andrew J Hawkins, 'Uber Is Leaving Quebec after Tough New Rules Passed' [2017] *The Verge* <https://bit.ly/3gJBvWh>; Andrew Liptak, 'Uber Will Remain in Quebec after New Rules Go into Effect' [2017] *The Verge* <https://bit.ly/3vKoS1B>.

945 'Co-Operative Ride-Sharing with Eva Co-Op' (9 July 2019) <https://bit.ly/3jJZoPN>.

the financial benefit of drivers and riders, gives drivers and riders a greater say in the operations of a ride-hailing business, protects their privacy and ensures that the business is rooted in the local community it serves, all the while allowing for the technology itself to be developed transnationally.

They settled on having a network of multi-stakeholder cooperatives, complemented by the use of the EOS protocol.[946] In their 2018 White Paper, Eva laid out an ambitious use case for blockchain technology, which involved the issuance of 'utility' tokens for voting purposes, access to Eva's services and as a long-term store of value (p. 8, 19); a stable, non-transferable 'commodity' token to exchange value between members within the platform (ibid, p. 19) and smart contracts for each step of the ride-hailing service, from drivers receiving a request from a potential rider

946 On the face of it, EOS appears to be an alternative blockchain protocol comparable to, or an evolution of, Ethereum. According to coinmarketcap.com, the EOS token is the eleventh-largest cryptocurrency (as of August 2020). However, it has been argued that instead of a public blockchain, EOS more closely resembles "a homogenous distributed database network that allows different user accounts to communicate and interact" through the network Brent Xu and others, 'EOS: An Architectural, Performance, and Economic Analysis' (Whiteblock 2018) 4 <https://bit.ly/35E0YdE>. The main distinction appears to be the need for trust in third parties for validating and recording transactions onto an underlying database, instead of primarily relying on validation through cryptographic proof, such as observing changes to a Patricia Merkle tree data structure as in the case of Ethereum. EOS used a delegated proof-of-stake consensus protocol, which means that every wallet with a positive balance that is part of the EOS network can elect block-producers who are then authorized to validate transactions and create blocks. The 21 block-producers with the most votes take turns to produce blocks every three seconds, with those who repeatedly fail to produce blocks being voted out of the schedule. LM Bach, B Mihaljevic and M Zagar, 'Comparative Analysis of Blockchain Consensus Algorithms' (IEEE 2018) 1547; Vikram Dhillon, David Metcalf and Max Hooper, 'Recent Developments in Blockchain' in Vikram Dhillon, David Metcalf and Max Hooper (eds), *Blockchain Enabled Applications: Understand the Blockchain Ecosystem and How to Make it Work for You* (Apress 2017) 155–157. This contrasts to the more computationally-intense proof-of-work consensus protocol in which miners compete to produce blocks, which arguably relies less on personal trust and more on confidence in the system. Primavera De Filippi, Morshed Mannan and Wessel Reijers, 'Blockchain as a Confidence Machine: The Problem of Trust & Challenges of Governance' (2020) 62 Technology in Society 101284. While EOS can notionally arrive at consensus more quickly, the extensive and subjective powers of block-producers has prompted criticism as they have the capacity to censor (malicious) actors and act in a collusive, plutocratic fashion; undermining the censorship resistance and decentralized qualities aspired to by many promoters of blockchain technology. Xu and others 21–22. Recently, smaller block producers have begun leaving the protocol due to diminishing rewards for participating in the network and the concentration of power among larger block producers – mainly in Mainland China – prompting fear of potential state intervention. Brady Dale, 'Everyone's Worst Fears About EOS Are Proving True' (*CoinDesk*, 19 September 2019) <https://bit.ly/35F9SHB>. Supporters of EOS have sought to cast doubt on the credibility of Xu et al.'s research, based on alleged conflicts of interest, incompleteness and lack of expertise regarding EOS's codebase. This has also raised interesting ontological questions about what a blockchain is and whether alternatives should necessarily be compared against Ethereum or Bitcoin. Simon Chandler, 'EOS Hits Back Against Claims It's "Not a Blockchain"' (*Crypto News*, 17 November 2018) <https://bit.ly/3j1UwEX>.

to the driver's payment and mutual rating (ibid, pp. 32-33). The technology and brand were to be developed by a non-profit foundation in Canada (ibid, p. 17) while the ride-hailing business was to be initiated, run and promoted by cooperatives formed in other cities of Canada and the world (ibid, pp. 14-15), including in Ontario, Algiers, Pristina, Mexico City and Houston (ibid, p. 37). However, a number of external factors compelled Eva to reconsider how they go about achieving their objectives. The crackdown by securities regulators, such as the United States Securities and Exchange Commission, on crypto-tokens – including purported utility tokens – by determining them to be unregistered securities (Debler, 2018), meant that the proposed token sale (Eva White Paper, pp. 21-22) might have had undesirable consequences for their operations. This, in turn, meant that the proposal that utility token holders would be able to vote on the work that the foundation does, the community's direction and the foundation's board, had to be recast (ibid, p. 27). More prosaically, the extensive work involved in building a successful ride-hailing business in the province of Quebec, coupled with the need to determine the precise terms of the continuing relationship between the global entity in charge of technology development and local cooperatives interested in offering a ride-hailing service, has meant that international expansion has temporarily stalled.

Yet, in spite of these teething problems, Eva has managed to make the transition from being a business plan to becoming Uber's main rival in Quebec within the space of less than two years. After being granted permission to operate in Montreal, Quebec City and Gatineau in May 2019, Eva has gained over 20,000 passengers, 500 driver-user members (and a 1000 more in the authorization process) as well as some 50 supporter-members.[947] Eva's current appeal has been attributed to its local provenance and the fact that the income and taxes generated by the business are circulated within the Quebec economy (Renauld Antoine [RA] Interview, 28.07.2020, at [49:00-49:15)]. Most importantly, there is a yawning gap between how Eva respects its driver-user members as individual humans compared to other ride-hailing companies. In the words of one of Eva's first driver-user members, Mike Calomiris, at "Eva, it's like, we are like family. With Uber, it's just a phone number, you don't know who you are talking to" (Mike Calomiris [MC] Interview, 11.07.2020, at [04:15-04:30]). Driver-user members feel they can speak to anyone in the cooperative very easily, from passengers interested in the cooperative model to other drivers to the management itself. In fact, one new driver-user member recalls that the first time they used the Eva app to hail a ride for themselves, they found that it was the COO himself (Dardan) driving the car, who spent the duration of the ride explaining how the Eva app works (RA Interview, 28.07.2020, at

947 Eva, 'Business Plan' (Eva Global Corp, 2019) 3; 'How Eva Creates a Decentralized Ride-Sharing Platform That Benefits Both Drivers and Riders' (4 October 2019) <https://www.youtube.com/watch?v=JdWFk9NL7XA> accessed 22 December 2019.

[03:00-03:15])![948] These discussions are not necessarily limited to the daily issues involved in driving but also extend to planning and strategizing, such as road-mapping the new features needed for driver-users (RA Interview, 28.07.2020, at [18:00-18:30]). While the rollout of Eva in other cities has been slower than initially planned, cooperatives and local communities from Dhaka to Auckland to New York City have expressed an interest in becoming part of Eva's fledgling 'ecosystem' over the years. However, this growth has required some concessions in how Eva is legally structured, as well as how blockchain technology is used.

While Eva did form a non-profit foundation to develop its ride-hailing technology, on 22 March 2019 it registered a corporation with limited liability under the Canada Business Corporations Act, 1985, 'Eva Global Corp.',[949] to take over this responsibility. As Isufi explains, the early iterations of the backend software and application was built "with nothing… basically out of [their] hands and computers" (Dardan Isufi [DI] Interview, 12.08.2019, at [03:45-04:15]). Yet, the operational growth of the platform and Eva's ability to hire crucial services – additional software developers, marketing experts and legal advisors – has been hampered by their chronic lack of financial resources. Till date, the major financial supporter of Eva has been the provincial government of Quebec and the Quebecois cooperatives, including the federation of credit unions, has provided some CAD$ 200,000 in funding. This sum helped Eva get on its feet but in the long-run is insufficient for growth to other cities and countries (DI Interview, 12.08.2019, at [09:00-09:15]).

An issue that Isufi and his co-founder Raphaël Gaudreault encountered while meeting with financial cooperatives is the disconnect between the mindset of those managing 'old world' cooperatives, such as Desjardins, and those seeking to build platform cooperatives. As an anecdotal example, Isufi mentioned an early meeting with Desjardins in which they were asked how many members Eva had before its launch and when Desjardins learned that Eva only had two members, Isufi and Gaudreault, they said they typically finance cooperatives with at least 5000 members (DI Interview, 12.08.2019, at [09:29-09:45]). This indicates a lack of understanding of the two-sided platform business model, which requires *ex ante* investment to attract user-members on both sides of the market rather than just *ex post* investment once the platform already has a healthy user base. Choosing

948 This is in stark contrast to companies like Uber where, in at least some cities, most drivers never meet each other, much less the management of the company. Kafui Attoh, Katie Wells and Declan Cullen, '"We're Building Their Data": Labor, Alienation, and Idiocy in the Smart City' (2019) 37 Environment and Planning D: Society and Space 1007, 1015. The importance of drivers feeling that they can speak freely should not be underestimated, given that avoiding initiating conversations with passengers is often seen as being essential for a high rating on the Uber app. Rabih Jamil, 'Uber and the Making of an Algopticon - Insights from the Daily Life of Montreal Drivers': (2020) 44 Capital & Class 1, 12.

949 Quebec Business Registry Number: 1174418823.

a corporate entity has thereby allowed them to both approach a wider range of investors and also offer their personnel stock options as part of their compensation package (DI Interview, 12.08.2019, at [05:15-05:30]). As of early 2019, Eva Global Corp.'s board has comprised Dardan Isufi and Raphaël Gaudreault as Co-Presidents, and Robert Gaudreault as Secretary. Raphaël Gaudreault, Isufi and Progitech GS Inc. have also been shareholders of Eva Global Corp. since that time.[950]

One of the objectives of Eva is to charge a lower transaction fee than competitors so that riders have to pay lower fees and drivers retain a larger share of the fare. As such, the maximum transaction fee that can be charged is 15%. The Global Corp. receives 5% of this, primarily for server maintenance and licensing fees for third-party APIs such as Google Maps (DI Interview, 12.08.2019, at [11:45-12:15]), while the local multi-stakeholder cooperative operating the ride-hailing service can choose to charge between 0%-10%. The first cooperative – a solidarity cooperative[951] – was founded in Montreal on 14 December 2017 and is a test case for how this business model can expand elsewhere.

According to the bylaws (*règlement de régie interne*) of Coop de solidarité Eva, formed under Quebec's Cooperatives Act, 1982 (C-67.2), the cooperative's mission is to develop a new, sustainable model of mobility service that is based on the real (i.e., genuine) sharing economy (§1.2, Eva Bylaws). The by-laws also explain that the technology, trademarks and Eva brand are owned by Eva Global Corp. with the cooperative having the right to use the technology and brand name pursuant to the contractual terms agreed between the cooperative and the corporation (§1.3, Eva Bylaws).

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950 Thank you to Dardan Isufi for sharing this information with me.

951 Solidarity cooperatives were introduced to Quebec in 1997 through an amendment of Quebec's Co-operative Act to facilitate the creation of multi-stakeholder cooperatives, with members potentially comprising the users of a cooperative's service, its workers as well as anyone "who has an economic or social interest in attaining the objective of the cooperative" (i.e., supporter members). *See* Cooperatives Act, 1982, section 226.1 [Quebec]. *See also,* Jean-Pierre Girard and Geneviève Langlois, 'Solidarity Co-Operatives (Quebec, Canada): How Social Enterprises Can Combine Social and Economic Goals' in A Noya (ed), *The Changing Boundaries of Social Enterprises* (OECD Publishing 2009) 230. Such a cooperative strives to achieve objectives beyond financial returns, with solidarity cooperatives being introduced to (i) achieve local development, (ii) redress the closing of villages, (iii) construct daycare centers, (iv) reinsert persons into the job market and (v) provide home-care services. *See* Jean-Pierre Girard, 'Solidarity Cooperatives in Quebec (Canada): Overview' in Carlo Borzaga and Roger Spear (eds), *Trends and challenges for co-operatives and social enterprises in developed and transition countries* (Edizioni31 2004) 167. In short, the purpose of such cooperatives is to re-embed economic relations in their local community. Each of the member-groups can have different capitalization rules, with it being possible to issue participating preferential shares to supporter members. Each member-group can elect at least one representative to the board, with supporter members being capped at a third of the total board. While user members can receive patronage refunds based on their pro rata use and worker members receive refunds on the basis of their hours worked, supporter members are prohibited from receiving patronage refunds. ibid 170.

As a multi-stakeholder cooperative, Eva has five categories of members: passenger-user members, driver-user members, worker members, individual supporter members and corporate supporter members (§1.4(h), Eva Bylaws). To become a member, it is necessary to acquire qualifying shares in the cooperative (§2.1, Eva Bylaws). While the supporter members buy-in to the cooperatives through monetary payments exclusively, the two categories of user-members are required to engage in a minimum number of transactions with the cooperative over the course of 12 months, with the buy-in amortized through their initial transactions with the cooperative (§§2.2(a)-(b), 3.3, Eva Bylaws). Prospective driver-user members are also required to be accredited by the cooperative, which includes passing a criminal background check, French language skills, having the appropriate drivers' license, insurance, an appropriately new vehicle and completing an online training course (§3.7, Eva Bylaws) (MC Interview, 11.07.2020, at [07:30-08:30]; RA Interview, 28.07.2020, [07:00-08:15]). Worker members are obliged to additionally complete 480 hours of work for the cooperative as an 'auxiliary' (i.e., trial) worker-member before they can apply for admission to the cooperative (§§3.1, 3.6, Eva Bylaws). During this trial period, auxiliary workers are permitted to attend and speak at meetings of the cooperative but are not permitted to hold an official position within the cooperative or vote (§3.8, Eva Bylaws).

While all five categories are required to pay CAD$ 10 to Eva for a single qualifying share in the cooperative,[952] the supporter members are obliged to additionally acquire 4 and 49 non-voting, preferred shares in the cooperative respectively, also priced at CAD$ 10 per preferred share. The preferred shares are entitled to receive an interest payment, unlike common cooperative shareholders, and are obliged to hold the share for at least three years.[953] Both the common and preferred cooperative shares are non-transferable, and the non-qualifying shares can only be redeemed upon the death, resignation or exclusion of the members or when the member redeems their shares (§2.4, Eva Bylaws). If driver-user, passenger-user and worker members do not carry out transactions with the cooperative, their voting rights may be suspended by the board (§3.5, Eva Bylaws). Conversely, as is the general rule under Quebec's cooperative law,[954] their patronage refunds, if any, are determined by the proportion of the transactions with the cooperative (§7.2, Eva Bylaws) rather than the number of cooperative shares held.[955]

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952 Cooperatives Act, 1982, section 41 [Quebec].

953 Cooperatives Act, 1982, sections 46, 58 and 226.5 [Quebec].

954 Cooperatives Act, 1982, section 226.8 [Quebec].

955 Half of the total amount allocated for refunds will be for driver-user members, 40% for passenger-user members and 10% for worker-members (§7.4, Eva Bylaws). Supporter members cannot receive patronage refunds. The refunds to members do not have to be in cash but can be in preferred shares in the cooperative or, in the case of passenger-user members, credit towards subsequent journeys with Eva. *See* Cooperatives Act, 1982, section 152 [Quebec].

In terms of functionality, Eva aims to be unobtrusive in the transactions that take place between a driver and a rider. This explains their choice of using a permissioned 'sister chain' forked from the EOS protocol, as they wished to make use of a distributed protocol with very low latency so that the user experience is as seamless as possible. Eva's protocol therefore uses the same open-source EOS software as the main EOS ledger but has their own internal token and allows for Eva to create their own features as needed.[956] This means that Eva is, for the time being, operationally distinct from the main EOS ledger, although work is ongoing to enable 'inter-block-chain-communication' between the various chains of the EOS ecosystem.[957] When Gaudreault and Isufi began working on Eva, EOS appeared to be the best compromise between the speed of a more centralized system and the privacy-preserving features of a blockchain.[958] To make the use of a blockchain application less daunting for ordinary users, Eva also decided to make many of the common features of a decentralized application ('DApp') invisible, such as not requiring the user to have a crypto-currency wallet. For a person to use Eva's platform, the user has to only provide their mobile phone number and create an Eva account, including bank account/credit card details, after which their private key is stored on their device which interacts with Eva's protocol.

The ride-hailing transaction is then more-or-less identical to other ride-hailing businesses. A passenger-member logs onto the application, sees available Eva vehicles on a map, specifies an address they wish to travel to, and a ride dispatch algorithm informs a driver-user member about the request. The passenger is then informed in advance of their fare, prior to being picked up by the driver-user member (MC Interview, 11.07.2020, at [19:30-19:45]). The map – Google Maps or Waze – directs a driver-user member towards the passenger (MC Interview, 11.07.2020, at [10:00-10:45]), who is then dropped off at their destination and the driver-user member is paid. The driver-user member – who has a version of the application with additional driving privileges – can see where the passenger is on a map, can call the passenger, estimate the fare from the ride and decide to accept/

956 As of December 2019, the cooperative in Montreal has 8 block producers and many more non-producing nodes that have joined out of curiosity 'How Eva Creates a Decentralized Ride-Sharing Platform That Benefits Both Drivers and Riders' (n 947). The EVA protocol went past 90 million blocks in July 2020.

957 Aurora EOS, 'Sidechains and Sister Chains on EOS: An Explainer' (*Medium*, 1 November 2018) <https://bit.ly/35JD3JC>.

958 In short, their ideal is that the user will not notice that the information from the steps in the ride-hailing transaction are being included in a block. There have been widely contrasting claims regarding the number of transactions per second (tps) EOS can handle, from millions to 10,000 according to tests seen by Raphael Gaudreault to a mere 50 'How Eva Creates a Decentralized Ride-Sharing Platform That Benefits Both Drivers and Riders' (n 947); Xu and others (n 946) 23. This is in comparison to the 3.04 TPS of the Bitcoin blockchain (blockchain.com) and 12.4 TPS of the Ethereum blockchain (etherscan.io) as of 30 August 2020.

reject the request. Significantly, there is no public rating of the driver-user members or the passenger-user member – a fact that relieves driver-user members of the mental burden and emotional labour involved in worrying about their rating (RA Interview, 28.07.2020, at [37:45-38:30]).[959]

Behind the scenes, there are additional key differences between Eva and its competitors. In terms of data, the personal data of all of the users, their ongoing transactions and their historic use of the platform are all hashed[960] and added to Eva's protocol, so as to give them a degree of anonymity/pseudonymity. The idea behind this is to allow for as much personally identifiable information to remain on the device of the user as possible without infringing legal provisions that require disclosure of certain personally identifiable information to public authorities. This underscores how blockchain and distributed ledger technologies are 'ambivalent' on both privacy and transparency, with its impact depending on the choices of its developers.[961] Crucially, unlike Uber, this data is not used by the cooperative to prompt drivers to go to distinct parts of the city at distinct periods of time.[962] Instead, the application is supposed to allow drivers themselves privileged access to the key performance indicators collected by the local Eva cooperative, such as their cancellation rate and the difference between estimated travel time and actual travel time.[963] To comply with local regulations and deal with accidents, the cooperative has internal management software to identify the name of a driver in any given ride, the driver's account, the stage of their ride, historical rides, historical ride requests and whether they are online (DI Interview, 12.08.2019, at [31:15-31:45]). Passenger names are hashed and only identifiable by their alphanumeric IDs on the protocol, but their accounts can be removed from the distributed ledger (DI Interview, 12.08.2019, at [32:15-32:30]). This privileged insight

959 Rosenblat discusses at length the mental and emotional toll involved in striving to secure and maintain a high rating on the Uber application. As a high rating is essential for continued use of the application and a steady stream of passengers, a driver's rating is a constant cause for concern and even affects their feeling of self-worth. Rosenblat (n 51) 150–155. This is reaffirmed by Jamil's ethnographic research of Uber drivers in Montreal, describing the rating system as having a (self-)disciplining effect on the drivers. Jamil (n 948) 11.

960 As Brunton explains, a hash is a "function that takes data of any size and returns data of fixed size, usually much shorter, which corresponds to the original data. Any change to the original will produce a different hash… you cannot figure out the original data from the hash of the data. It is – at least in theory, if not always in practice – not reversible. The hash of the thing tells you nothing about the thing, except that the hash corresponds to it, and to it alone". Finn Brunton, *Digital Cash: The Unknown History of the Anarchists, Utopians, and Technologists Who Created Cryptocurrency* (Princeton University Press 2019) 104.

961 Claus Dierksmeier and Peter Seele, 'Blockchain and Business Ethics' (2020) 29 Business Ethics: A European Review 348, 355.

962 Attoh, Wells and Cullen (n 948) 1012–1013.

963 'How Eva Creates a Decentralized Ride-Sharing Platform That Benefits Both Drivers and Riders' (n 947).

not only allows the cooperative to notify law enforcement authorities about illegal acts committed by members but also remove the accounts of members from their protocol if needed.

According to the driver-user members interviewed, the fact that the data of the drivers and the passenger-user members are ostensibly more secure, engenders greater trust in Eva than in competitors that centralize the collection, storage and processing of personal data (MC Interview, 11.07.2020, at [05:30-06:00]; RA Interview, 28.07.2020, at [20:00-21:00]). In certain circumstances, third parties (e.g., a municipality) may undertake their own analysis of, say, ride-hailing traffic patterns, based on only anonymized data using a block explorer. As member-owned organizations, it is anticipated that personal or collective data that may be valuable to third parties can in the future be licensed on the basis of personal or collective agreement.[964] Most notably, Eva Global Corp., as distinct from the local solidarity cooperative, does not have access to the personally identifiable information of any of the cooperative members, which again stands in marked contrast to businesses such as Uber. Thus, Eva dispels the notion that a 'trade-off' between privacy and access to labour markets is an intrinsic feature of gig platforms.[965]

While payments take place with ordinary credit cards in Canadian dollars, the platform internally uses a stable commodity token system as a means of accounting for the clearance of payments. As Gaudreault explains, when a driver is to be paid CAD$ 20, this amount is charged to the rider's credit card, converted into commodity tokens of the same value (CAD$ 1 = 1 token) and effectively escrowed in a smart contract until the completion of the ride, when these tokens are automatically credited to the driver's account, which she can then convert back into fiat currency (Jones, 2019).[966] He estimates that in Quebec, drivers are earning 10-15% more than with their competitors and customers are paying roughly 5% less, given the lower transaction fee charged by Eva and the absence of surge pricing during hours of peak demand (ibid). This is echoed by Mike Calomiris, who estimates that he could earn a CAD$ 100 with Eva in 6 or 7 trips while it would take 12 trips to earn the same amount with Uber (MC Interview, 11.07.2020, at [24:15-25:15]). In addition, to encourage more drivers to switch to using Eva during peak hours such as the morning (0600-1000 hours) and afternoon rush (1500-1900 hours), Eva recently introduced a pilot program for their most committed, "proven" driver-user members. During these four-hour periods driver-user members are guaranteed a minimum income of CAD$ 15 per hour if they keep their Eva app on, which is only paid if the

964 Crypto Tim, Interview with Dardan Isufi, 'EVA - The Ride-Sharing App That Makes The Blockchain Invisible - Dardan Isufi Interview' (3 December 2018) <https://www.youtube.com/watch?v=pSRvTuICtlc> accessed 25 December 2019.

965 Jamil (n 948) 5.

966 'How Eva Creates a Decentralized Ride-Sharing Platform That Benefits Both Drivers and Riders' (n 947).

driver-user members themselves do not earn CAD$15 or more per hour during this period (MC Interview, 11.07.2020, at [29:30-30:30]). These material advantages are complemented by the involvement of these stakeholders in the governance of the Eva cooperatives.

Section 80 of Quebec's Cooperatives Act, 1982, permits a cooperative board to have between 3 and 15 directors, with Eva presently having five directors.[967] To be eligible for directorship, a member must have fully paid-up their cooperative share, and each class of member is entitled to appoint a certain number of positions on the board. Passenger-user members, driver-user members and supporter-members are entitled to appoint 1 director each, while worker-members are entitled to appoint 2 directors (§5.3 Eva Bylaws).[968] Two of the directors share the duty of being co-presidents (i.e., chairpersons), one director is vice-president, one director is secretary, and one director is the treasurer. The co-presidents are responsible for defining the overall strategy of cooperative over the short-, mid- and long-term (§6.1(d), Eva Bylaws). The tenure of these directors is for 3 years and the (re)appointment of directors is staggered after three years have elapsed from the founding of the cooperatives (§5.4.1, Eva Bylaws).[969] Elections of nominee directors only take place if there are a greater number of nominees for a position than there are vacancies (§5.5(b)(5), Eva Bylaws). The board meets as many times as required by the interests of the cooperative – physically or virtually – and quorum is met if the majority of the board (i.e., three of the five directors) are present (§5.6, Eva Bylaws).[970]

The annual General Assembly of the cooperative (and any extraordinary general assemblies) brings together all the classes of members of the cooperative to decide upon, among other things, the appointment of auditors, the (re)appointment of directors and the distribution of the cooperative's surplus.[971] Notice for these assemblies is given through an in-app notification and through messages on social media (§4.1.1., Eva Bylaws). Given the potentially large number of user-members, it is possible for passenger-user and driver-user members to appoint delegates and alternate members to act as proxies for these assemblies. Pursuant to section 73 of the Cooperatives Act, 1982 and §4.4 of Eva's Bylaws, if the cooperative has a 100 or more user-members in multiple judicial districts, driver-user members and passenger-user members must each appoint a representative delegate at a specially convened meeting to appear on their behalf in these assemblies.

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967 The directors are Raphael Gaudreault (Co-President), Dardan Isufi (Co-President), Laurence Audette-Lagueux (Vice President), Philippe Alengry (Treasurer) and Amokrane Mariche (Secretary). Following a recent General Assembly, a driver-user member representative will soon be added to the board.

968 Cooperatives Act, 1982, section 226.6 [Quebec].

969 Cooperatives Act, 1982, section 84 [Quebec].

970 Cooperatives Act, 1982, section 93 [Quebec].

971 If there is a surplus, §7.3 of Eva's Bylaws provides that at least 40% of it should be kept in the general reserve of the cooperative. This is notably higher than the minimum reserve requirement of 10% mentioned in Cooperatives Act, 1982, section 146 [Quebec].

These delegates – or their duly-appointed substitutes – will only have one vote. Supporter-members can appoint delegates in a similar manner (§4.5 of Eva's Bylaws). Should the cooperative decide, any and all of these meetings and assemblies can take place electronically (§4.6, Eva Bylaws), including the casting of votes. There is no requirement for a minimum number or percentage of registered members to be present for a meeting to have quorum at the General Assembly (section 64, Cooperatives Act, 1982; §4.7, Eva Bylaws).[972]

Aside from these legally required meetings, the board of the cooperative regularly meet with the drivers in person – at pizza nights hosted at their office or over coffee at cafés – as well as through their social media channels (DI Interview, 12.08.2019, at [18:00-18:15], MC Interview, 11.07.2020, at [28:45-29:15]). These informal meetings are an occasion for the developers to receive feedback and for those present to collectively plan marketing strategies, such as offering 5-dollar coupons for rides and advertising to universities (MC Interview, 11.07.2020, at [21:45-22:00]). This driver-user member feedback is critical as it helps the management and 10-person software development team identify bugs in the application, ranging from fraudulent passengers who used fake/stolen credit cards to make payments to the map not accurately displaying the location and distance of the car to a passenger. Such bugs can have significant consequences for the cooperative as well as the drivers and passengers. For instance, incorrectly displaying the location of a car on a map can prolong the waiting/driving time. However, to its credit, Eva ironed out several of these bugs in subsequent software updates[973] and when drivers picked up fraudulent passengers and had to cancel a trip, the business paid for the journey that was undertaken (MC Interview, 11.07.2020, at [16:15-16:45]). At the same time, some driver-user members feel valued when there is a transparent discussion about resolving a bug. In Renauld Antonine's words, at Eva "it is easy to send screenshots and there are like different [Telegram] channels where we can participate. The discussion is always open, which is cool! In the past, when I used to work for Uber, many times I wanted to give feedback about the app. They don't care! They say, thank you, but I don't know what happens next" (RA Interview, 28.07.2020, at [15:00-15:30], insertion mine). While not being a technical issue, the onset of the COVID-19 pandemic has also required Eva to act in the interests of its members who have been quarantined and unable to make trips. Instead of asking drivers to pay to buy a plastic protector, Eva has been offering its driver-user members these protectors, masks and sanitizers for free (MC Interview, 11.07.2020, at [45:30-46:15]).

972 Cooperatives Act, 1982, section 64 [Quebec].

973 'Competing Against Uber - Raphael Gaudreault' (17 July 2020) <https://www.youtube.com/watch?v=Zo-v5TI4xkc> accessed 17 July 2020.

Another significant difference between the earlier White Paper and the 2019 Business Plan of Eva is the prominent role that is now given to social franchising[974] for the purposes of national and international expansion (see Figure 16). As with commercial franchises,[975] a social franchisor permits franchisees to use their trademark and operations processes (including software) for monetary consideration,[976] but this is coupled with the requirement that the franchisee seek to solve a social problem. Asemota and Chahine define social franchising as a "process through which a social venture can scale up the coverage of its successfully proven social concept to its target population while maintaining the quality of its service delivery".[977] The most prominent social franchises are in the healthcare sector,[978] but are also present in other industries such as ICT reuse.[979] It may be argued that consumer cooperative franchises can also be considered a form of social franchising as they require retail outlet franchisees to ascribe to cooperatives values and principles and provide their consumers access to cooperative membership (Co-operative Group Limited, 2019).

While Eva is still preparing its social franchise template and franchise operations manual with the support of a Canadian cooperative-oriented law firm, Isufi and Gaudreault both mention that an important term of the agreement will be the setting up of nodes by the franchisee, including acting

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974 Ilan Alon, *Social Franchising* (Palgrave Macmillan 2014) 3.

975 A franchise arrangement involves the owner of a business service format (the franchisor) entering into a contract without another party at arm's length (the franchisee) that permits the latter to use the business service format of the franchisor to sell a product or service in exchange for an upfront fee, ongoing royalties and a commitment to strictly maintain standards set by the franchisor. Fladmoe-Lindquist and Jacque (n 524) 1238. The business service format typically includes the trademark and other intellectual property of the franchisor, as well as the franchisor's trade secrets. As a relational contract, a franchise agreement requires an ongoing process of knowledge transfer from the franchisor to the franchisee. A typical franchise contract therefore typically includes clauses on the rights and duties of the franchisor and the franchisee concerning the commencement, termination and dispute resolution of the franchise, as well as the powers and liabilities of both parties during the operation of the franchise. *See* Huseyin Leblebici and Christina E Shalley, 'The Organization of Relational Contracts: The Allocation of Rights in Franchising' (1996) 11 Journal of Business Venturing 403.

976 Alessandro Giudici and others, 'Successful Scaling in Social Franchising: The Case of Impact Hub' (2020) 44 Entrepreneurship Theory and Practice 288, 289, 299.

977 Joseph Asemota and Teresa Chahine, 'Social Franchising as an Option for Scale' (2017) 28 VOLUNTAS: International Journal of Voluntary and Nonprofit Organizations 2734, 2737.

978 *See generally,* Sivakumar Alur and Jan PL Schoormans, 'Sustainable Rural Healthcare and Social Franchisee Selection – an India Study' (2011) 11 Journal of Medical Marketing 230; David Bishai and others, 'Cost-Effectiveness of Using a Social Franchise Network to Increase Uptake of Oral Rehydration Salts and Zinc for Childhood Diarrhea in Rural Myanmar' (2015) 13 Cost Effectiveness and Resource Allocation: C/E 1; Felicia Naatu and Ilan Alon, 'Social Franchising: A Bibliometric and Theoretical Review' (2019) 25 Journal of Promotion Management 738, 758.

979 *See generally,* Katja Zajko and Barbara Bradač Hojnik, 'Social Franchising Model as a Scaling Strategy for ICT Reuse: A Case Study of an International Franchise' (2018) 10 Sustainability 3144.

as a block producer and as an API node, running a web server and using a 'demultiplexer' that provides business intelligence to the node operator based on live transactions on the protocol (e.g., failed rides) and an interface for managing the ride-hailing service within a certain territory (e.g., promotions, discounts). In addition, the social franchisee will also share the corporate email address of Eva and have their website developed by Eva (DI Interview, 12.08.2019, at [35:15-35:30]). Given that Eva Global Corp., is a for-profit franchisor and the potential franchisees could be both for-profit and not-for-profit entities dedicated to multi-stakeholder interests, it fits the social franchise investment model of social franchising.[980] This reflects the fact that in contrast to other models of social franchising in which the franchisor is a not-for-profit entity, Eva Global Corp. is for-profit corporation but franchisees invest in the franchise system for not-for-profit purposes, including improving the working conditions of its driver-user members. At present, the cooperative in Montreal is the first 'social franchisee' in the network, with there being plans for social franchisees in Alberta, Quebec City, Saguenay and New York City in the near future.[981]

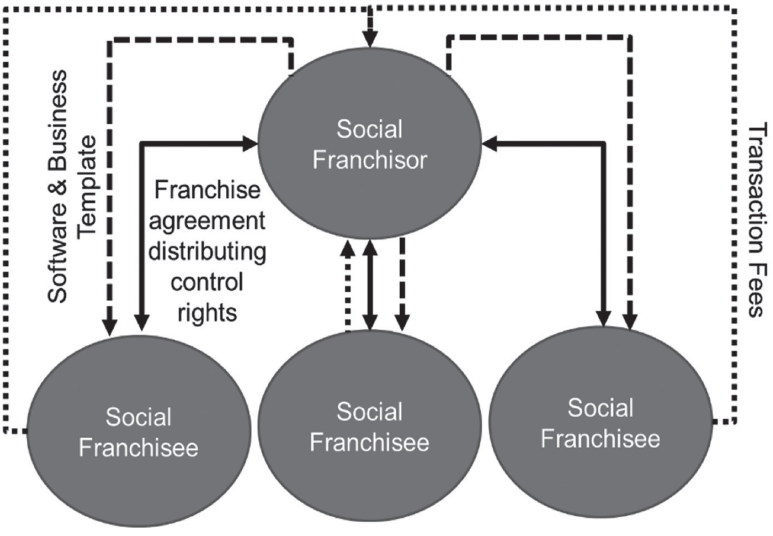


Figure 16: Eva's Social Franchise Model

980 Elizabeth Crawford-Spencer and Francina Cantatore, 'Models of Franchising for Social Enterprise' (2016) 23 Journal of Marketing Channels 47, 52–53.

981 Samuel Duchaine, 'La coopérative de transport Eva fera son entrée à Saguenay le 11 octobre' (*Le Quotidien*, 31 August 2020) <https://bit.ly/2SLjbmQ>; 'Competing Against Uber - Raphael Gaudreault' (n 973).

A franchise system has often been studied as a form of network organization[982] and arguably, it can also be considered a federated structure when control over key decisions is bi-directional. Typically, control in franchising agreements is top-down, rather than bottom-up. After all, it is the franchisor that gets to decide whether to allow another business to be a franchisee and often retains strategic decision-making rights regarding the franchise.[983] However, as Mumdžiev and Windsperger show in the context of German and Austrian commercial franchises, franchise agreements allocate residual decision-making rights (i.e., the authority to make decisions that are not mentioned in a contract or cannot be specified in a contract) to franchisees depending on the importance of intangible, difficult-to-transfer local-market knowledge, relative to the importance of the intangible assets of the franchisor. In other words, assets that are viewed as being amenable to contracting remain within the decision-making purview of the franchisor, while other decisions such as the introduction of a new service for a local market or recruitment, are left to the franchisee.[984]

Given the extent to which the ride-hailing business relies on local market knowledge, the particularities of urban mobility in different countries (e.g., the use of cash, different modes of transport) and the importance of onboarding new users, it would be unsurprising if Eva's 'model' social franchise agreement delegates extensive operational and strategic decision-making rights to local cooperatives. In doing so, Eva Global Corp. is gradually taking on the functions of a shared-services platform, serving the technological needs of its franchisees. Existing examples of social franchises indicate that such arrangements foster horizontal learning, as the franchisor coordinates knowledge sharing among franchisees, particularly concerning innovative practices.[985] Eventually, it may be the case that Eva Global Corp. itself becomes owned by its franchisees and their members, as originally envisioned in the Eva White Paper. The foregrounding of the 'nodes' in the social franchise network, the building of relations between them and the gradual self-effacement of the franchisor could thereby enable a shift towards a distributed (rather than simply a decentralized) network, as an organization and as a protocol.

982 Josef Windsperger and Mika Tuunanen, 'New Developments in the Theory of Networks: Introduction' in Mika Tuunanen and others (eds), *New Developments in the Theory of Networks: Franchising, Alliances and Cooperatives* (Physica-Verlag HD 2011) 1.

983 Nada Mumdžiev and Josef Windsperger, 'The Structure of Decision Rights in Franchising Networks: A Property Rights Perspective' (2011) 35 Entrepreneurship Theory and Practice 449, 451.

984 ibid 456, 458–459; Raghuram G Rajan and Luigi Zingales, 'Power in a Theory of the Firm' (1998) 113 The Quarterly Journal of Economics 387, 387.

985 Giudici and others (n 976) 298.

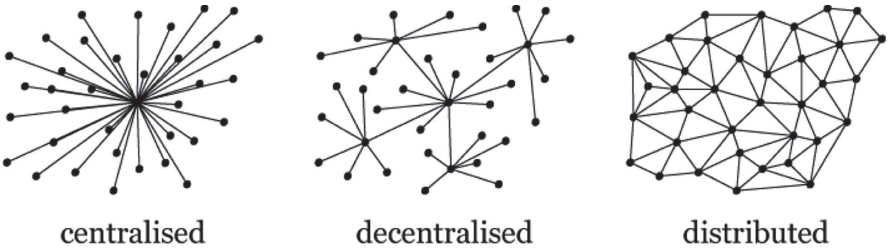


Figure 17: 1983, 17 June 2007, CC Attribution-Share Alike 3.0 Unported, based on Baran (1962)[986]

6.5 Discussion

The two cases set out above comprise different sectors of the urban mobility industry, electric car sharing, and ride-hailing respectively, and thus have differing business models and serve varying member interests. Yet, as participants in the wider platform economy, they are both reliant on the development of a high-quality smartphone application for their members and attracting a critical mass of users. As with other early-stage platform start-ups, TMF, its members and the nascent Eva ecosystem are cash burning machines;[987] traversing 'the valley of death' by rapidly spending their initial seed capital to develop their application(s) and to acquire users in the hopes that they can generate sufficient revenue to be self-sufficient before their investment runs dry. These cases show that platform cooperatives, in their various forms, are not immune to the imperatives that drive 'planetary expansion', even if they are not exclusively beholden to the interests of investors.[988] The desire to scale globally does have an overlap with the objective of platform companies to increase profit margins – especially in industries which require continual investment in tangible assets – as they too wish to deliver financial refunds to their members, even if this is at nominal value or is capped. Sharing costs and simultaneously reaching a broader geographic market can help prove the viability of their business models and, as such, networking with similar businesses through a network organisational structure is a rational economic choice, even if it is not legally

986 Paul Baran, 'On Distributed Communications Networks' (RAND Corporation 1962) P-2626 4 <https://bit.ly/3hpWH2O>.

987 Luke Munn, 'Cash Burning Machine: Uber's Logic of Planetary Expansion' (2019) 17 tripleC: Communication, Capitalism & Critique. Open Access Journal for a Global Sustainable Information Society 185.

988 ibid 193, 197.

obligatory.[989] However, the choice of the SCE and the social franchise – both relatively novel legal and governance structures – raise fresh challenges and possibilities.

TMF is one of only a handful of SCEs that have been formed in the EU/EEA since the SCE Regulation came into force on 18 August 2006.[990] Yet, there are persuasive reasons why the SCE is an appropriate pan-European structure. The SCE may be created for an object that involves the satisfaction of its members' needs and/or the development of their economic and social activities, including supplying them with goods or services.[991] As a legal entity, the SCE is treated in every state of the EU/EEA as if it were a cooperative registered under its national law.[992] This is significant as the SCE Regulation expressly authorizes the SCE bylaws to have certain features that may prevail over mandatory rules of national cooperative law.[993] Examples that are particularly material for cooperative governance include the possibility of extending participation to non-members,[994] issuing non-voting securities and debentures other than cooperative shares to non-members,[995] allowing proxies for meetings,[996] permitting electronic voting,[997] setting custom quorum and voting majority requirements,[998] offering one-tier or two-tier boards,[999] having longer board tenures[1000] and establishing alternative

989 Cooperation among cooperatives is the 6th ICA principle of the cooperative identity, but there is debate among legal scholars about it being obligatory for cooperatives to cooperate, given its tension with other ICA principles such as autonomy/independence and democratic control. Henrÿ (n 884) 121–122. Henrÿ instead argues that as the seven ICA principles have been included in ILO Recommendation No. 193 of 2002 on the promotion of cooperatives, its democratic legitimacy and repeated behavior of states arguably make the principles legally binding on States. To ensure the harmonious coexistence of the principles, cooperation among cooperatives should only be incentivized, not mandated. ibid 124. While cooperation among cooperatives has not been mandatorily imposed on cooperatives in Belgium, they do have the liberty to do so. Thierry Tilquin and Maïka Bernaerts, 'National Report for Belgium' (International Co-operative Alliance and the European Union 2020) 13 <https://bit.ly/3wQLhMe>. In Canada, cooperation among cooperative is not mandatorily required at the federal level, but it is fundamental to cooperative action under Cooperatives Act, 1982, section 4(6) [Quebec]. Lowery (n 526) 13. Economic cooperation among cooperatives, in the manner adopted by TMF, is also one of the principles under the Principles of European Cooperative Law (principle 5.2(3)).

990 SCE R, art. 80.

991 SCE R, art. 1(3).

992 SCE R, art. 9.

993 Cooperatives Europe, Euricse and Ekai Center, 'Final Study: Executive Summary and Part I: Synthesis and Comparative Report' (2010) Report drawn up following call for tender no ENTR/2009/021 of 23 April 2009 from the European Commission 39.

994 SCE R, art. 1(4).

995 SCE R, art. 64(1).

996 SCE R, art. 58(3).

997 SCE R, art. 58(4).

998 SCE R, art. 61(3).

999 SCE R, arts. 36(b), 37(5), 42(4).

1000 SCE R, art. 45(1).

share redemption schedules for exiting members.[1001] In short, the SCE may take on characteristics that are different from cooperatives formed under national law and allow a degree of flexibility not permitted by the cooperative law in some Member States.

It may be formed *de novo* by five or more natural persons, two or more legal persons resident in at least two different Member States (or a combination thereof), through a merger of cooperatives at least two of which are registered in different Member States and through a conversion of a cooperative that has had an establishment governed by the law of another Member State for at least two years.[1002] Once established, it is possible to transfer the registered office of a SCE to another Member State without winding up or creating another legal entity.[1003] The SCE Regulation also provides the scaffolding for a transnational cooperative governance system, by setting out the functions of a one-tier or two-tier board,[1004] the General Assembly,[1005] their inter-relationship,[1006] the voting powers of members,[1007] and the rights of exit of minority members.[1008]

The SCE is undoubtedly a landmark piece of legislation, resulting from the ardent effort of several persons in the cooperative movement since the 1960s,[1009] but there continues to be a "lack of cognitive awareness" about the SCE and the Regulation itself has been unable to overcome the difficulties that arise due to differences between national cooperative legislation.[1010] While the SCE Regulation supplies certain provisions that can supplant national rules, by and large in the absence of a uniform European cooperative law, the gaps in the SCE Regulation are filled by the national laws of the jurisdiction where the SCE is registered. This interplay of national and sub-national laws and the SCE Regulation has meant that the formation of a SCE involves a level of complexity and cost that is beyond the means of many cooperatives.[1011]

At the same time, it offers the opportunity for regulatory arbitrage that is beneficial to the cooperative, as interested co-operators can have their pick of EU/EEA jurisdictions where they can register a SCE, including those most amenable to their objectives. This may be motivated by tax benefits

1001 SCE R, art. 16(3).
1002 SCE R, art. 2(1).
1003 SCE R, art. 7(1).
1004 SCE R, arts. 37, 39, 42.
1005 SCE R, arts. 60-61.
1006 SCE R, arts. 39(2), 40 42(3), 54(2).
1007 SCE R, art. 59.
1008 SCE R, art. 15(2).
1009 Chantal Chomel, 'La longue marche de la société coopérative européenne' (2004) 291 Revue internationale de l'économie sociale : recma 22, 23.
1010 Cooperatives Europe, Euricse and Ekai Center (n 993) 147–148.
1011 ibid 78; Irene Escuin Ibáñez, 'Law Applicable to the European Cooperative Society: Special Reference to the European Cooperative Established in Spain' (2011) 8 European Company and Financial Law Review 30, 40.

offered to cooperatives in a particular jurisdiction,[1012] but it could also be for cooperative governance reasons. For instance, cooperatives in two different Member States, which do not regulate or permit cooperatives to have investor-members, could form a SCE in a third Member State which does, for the purpose of attracting external investment for their shared product/service.[1013] Alternatively, if it is felt that an existing primary cooperative will need to include investor-members itself, but it is not possible to do so under a national cooperative law regime, the cooperative – with its members' support – could convert into a SCE, subject to articles 2(1)(fifth indent) and 35, SCE R. Subsequently, it could transfer its registered office and headquarters to a Member State which permits investor-members pursuant to article 7, SCE R, continuing its operations in its original Member State as a secondary establishment.[1014] While the relatively high minimum capital requirements of the SCE and administrative costs have been presented as the main reason why such regulatory arbitrage has not happened,[1015] cases such as TMF indicate that it is not an insurmountable obstacle. It remains to be seen whether other emergent shared-services platforms in the EU, such as Coop Cycle, will eventually use the SCE form or not.

Eva's nascent social franchise system presents another form of network organization that provides shared-services to its cooperative social franchisees. This is distinct from the vertical integration inherent in the formation of a secondary cooperative such as TMF as, at present, the relationship between Eva Global Corp. and its social franchisee(s) are governed by vertical, contractual restraints rather than ownership.[1016] Isufi hopes that Eva's ecosystem will come to resemble the governance structure of non-profit organizations such as Amnesty International, which are reliant on action taken by local groups while the global entity focuses on cross-cutting issues such as research (DI Interview, 12.08.2019 at [19:15-19:45]). Social franchising is an attractive arrangement for materializing such a vision, as it allows a social impact-driven business model to be adapted to local

1012 Ruud Galle, 'The Societas Cooperativa Europea (SCE) and National Cooperatives in Comparative Perspective' (2006) 3 European Company Law 255, 259.

1013 SCE R, art.2(1)(third indent).

1014 While it is not possible to delve into this topic here, the freedom of establishment (§49, Treaty on the Functioning of the European Union) also protects the right of cooperatives registered under the law of an EU/EEA State – as a company or firm under §54, TFEU – to engage in cross-border economic activity. Moreover, the case law on the freedom of establishment enables cooperatives to transfer their registered office to another EU/EEA State as well as 'convert' into a cooperative legal form of another State. *See* Case C-106/16 *Polbud – Wykonawstwo sp. z o.o., in liquidation*, ECLI:EU:C:2017:804 and Case C-378/10 *VALE Építési kft* ECLI:EU:C:2012:440 respectively.

1015 Cooperatives Europe, Euricse and Ekai Center (n 993) 148–149; European Commission, 'The Application of Council Regulation (EC) No 1435/2003 of 22 July 2003 on the Statute for a European Cooperative Society (SCE) COM(2012) 72 Final' (European Commission, 23 February 2012) para 4.4.

1016 Brian Callaci, 'Control Without Responsibility: The Legal Creation of Franchising, 1960–1980' (2021) 22 Enterprise & Society 156, 162.

conditions and for decision-making to be distributed to franchisees, while remaining within a shared mission-driven identity. In short, social franchising has the capacity to cultivate a stronger sense of belonging among members to the ride-sharing business.

This is also a strategic move as it is the social franchisee that becomes responsible for market research and development, promotion, financing and regulatory compliance, which is markedly different than in the case of platform companies such as Uber, where the parent company effectively remains responsible for these functions when operating in different countries through wholly-owned subsidiaries.[1017] This can considerably reduce costs for the franchisor. An influential stream of research on social franchising has favoured the idea that resource scarcity explains the choice of franchising over ownership but the case of Eva indicates that the normative and social objectives of decentralization and localization can also be important determining factors.[1018] Franchising allows the social franchisor to focus on developing the application and the backend software (e.g., for Eva, Ana, the operations management software and Lixia, the internal management software) and supporting new and existing franchisees. It can also turn its attention to related markets, such as food delivery, a sector that Eva has already begun exploring during the COVID-19 pandemic.[1019] The franchisee will have access to a proven social impact model and a well-tested

1017 Interestingly, in recent weeks, discussion has arisen about Uber and Lyft granting franchises to their brands and technology to commercial fleets in California, should they have to exit the state. This threat has been issued by Uber and Lyft due to a decision by Judge Ethan Schulman of the San Francisco Superior Court granting an injunction against the two companies to compel them to comply with Californian employment law, which, failing a successful appeal, would effectively requires them to classify their drivers as employees. In a recent essay, Veena Dubal warns of the risk that such a franchise system can pose to drivers if greater legal responsibilities and risk is thrust onto them, by drawing lessons from the transition of FedEx to a "franchise-like model" Veena Dubal, 'The Pitfalls of Uber and Lyft as Franchisors' (*OnLabor*, 19 August 2020) <https://bit.ly/3wMpUvx>. In the FedEx case, the franchise arrangement required franchisee-drivers (Independent Service Providers) to hire their own drivers and purchase their own trucks to cover large areas, squeezing both the franchisee and their own drivers. VB Dubal, 'Winning the Battle, Losing the War? Assessing the Impact of Misclassification Litigation on Workers in the Gig Economy' (2017) 2017 Wisconsin Law Review 739, 790. It remains to be seen whether a *social* franchisee that is also a (platform) cooperative confronts similar challenges, given their focus on objectives other than profit and the differences in status between being an employee and a worker-member of a cooperative. In the early experience with Eva, it appears that being a member prompts a change in mindset. In the words of one Eva driver-user member, in Uber, "everybody tries to make more money, as much as possible. As drivers, we were very individualistic…Whereas with Eva and on my side, we want that every driver has enough rides to live properly, to get some money and to have some consideration for the work done" (RA Interview, 28.07.2020, at [24:45-25:30]).

1018 Markus Beckmann and Anica Zeyen, 'Franchising as a Strategy for Combining Small and Large Group Advantages (Logics) in Social Entrepreneurship: A Hayekian Perspective' (2013) 43 Nonprofit and Voluntary Sector Quarterly 502, 506; Naatu and Alon (n 978) 754.

1019 'Competing Against Uber - Raphael Gaudreault' (n 973).

applicated while also being highly incentivized to succeed, as it is their resources invested in the business. At the same time, as Eva has expressed no intention of charging a franchise fee or ongoing royalties – beyond the aforementioned share of every transaction fee – some of the main costs in being a social franchisee are reduced.[1020]

That being said, the earlier experience of social ventures like Aspire – a failed British social franchise that had the mission to train homeless persons in basic business literacy – underscores the importance of being cautious in replicating a social impact model in a different socio-economic context and in franchisee selection. If the franchisee does not have the expected market knowledge or the ability to act as a steward of the franchise, the entire venture could be in jeopardy.[1021] It may also require the social franchising process to be slower than initially planned. Conversely, social franchisors such as Eva Global Corp. also need to implement a plan for how its own governance will be democratized and not captured by investor interests. This is an objective that Eva mentions in their initial white paper and is an ongoing concern for the team, but from interviews and correspondence with the COO, this currently appears to be a low priority. The early stages of Impact Hub may offer a salutary lesson here, as the democratic ethos core to its business was diminished by the fact that the founder of the business was its sole shareholder.[1022] In turn, broad-based ownership may help preserve Eva Global Corp.'s stated social mission for the long-term.

From a property rights perspective, both the SCE and social franchising are vulnerable to adverse selection and free-riding problems that may negatively affect their financing and governance. A cooperative may seek to become a member or a franchisee simply to obtain the best possible product – access to the code base of the software and the brand – for the lowest possible contribution of labour or financial resources. If a cooperative notes that future member-cooperatives or franchisees will earn the same refunds and decision-making rights as them, a disincentive may be created for present investment or an incentive to exploit the existing contributions of others.[1023] For a social franchise, distance between a franchisee and a franchisor may create a temptation to free-ride on the trademark of the franchisor as the goal of attracting user-members may, for instance, lead to compromises in the quality of the service provided by the franchisee or its user-members.[1024] For a SCE in particular, there may also be horizon problems. If a member-cooperative is of the view that their

1020 Giudici and others (n 976) 300.

1021 Naatu and Alon (n 978) 745, 756; Paul Tracey and Owen Jarvis, 'Toward a Theory of Social Venture Franchising': (2007) 3 Entrepreneurship Theory and Practice 678.

1022 Giudici and others (n 976) 300.

1023 Michael L Cook and Constantine Iliopoulos, 'Ill-Defined Property Rights in Collective Action: The Case of US Agricultural Cooperatives', *Institutions, Contracts and Organizations: Perspectives from New Institutional Economics* (Edward Elgar Publishing 2000) 336.

1024 Gillian K Hadfield, 'Problematic Relations: Franchising and the Law of Incomplete Contracts' (1990) 42 Stanford Law Review 927, 949.

residual claim on net income generated by the co-developed software is for a shorter period than the productive life of the software, the cooperative may not wish to make a long-term, substantial investment. These problems could lead to intergenerational conflict and financial and reputational risks for the SCE or the franchisor. In the case of agricultural cooperatives that have confronted these problems, recommendations have included raising membership requirements, adding supplementary fees for new members, requiring obligatory patronage requirements and adjusting cooperative share redemption periods.[1025] For social franchising in particular, a franchisor could engage in active monitoring and evaluation of franchisees, handing down financial sanctions to intransigent franchisees. The added benefit of the technological nature of shared-services platforms is that excluded members or franchisees may also be deprived of updates to the software, rendering it un-operational.

Moreover, an internal free-rider problem arises from the sharing of 'common property' by the cooperatives via a secondary entity, which assumes that consumption of the property is non-excludable and rivalrous. However, when that property in question is software used for a (business) platform, this assumption does not hold as such a property is anti-rival in nature – the more the good is consumed, the more utility it has for each cooperative. Indeed, a degree of free-riding may be tolerable if it leads to greater numbers using the software.[1026] Awareness of this should incentivize cooperatives to help expand the network of member-cooperatives/franchisees rather than retain the status quo.

Given the particular requirements of shared-services platforms, it may be useful for them to keep in mind Baig et al.'s framework for governing shared technological infrastructure. Drawing on the experience of guifi.net – a successful international community telecommunications network – the authors recommend seven governance tools for a decentralized network to function well. These tools are based on Elinor Ostrom's principles for governing common-pool resources: (1) effective and varied means of communication with network participants, (2) a license (i.e., setting terms early of who can participate in the protocol/network), (3) monitoring (i.e., ensuring that it exists), (4), a conflict resolution system (i.e., ensuring that it exists), (5) an expense declaration system (i.e., accounting for the contributions made by members), (6) a collaboration agreement (i.e., terms by which for-profit uses can be made of resources) and (7) an economic compensation system (i.e., balancing the contributions made with the resources used by for-profit participants).[1027]

1025 Cook and Iliopoulos (n 1023) 346; Konstantinos Giannakas, Murray Fulton and Juan Sesmero, 'Horizon and Free-Rider Problems in Cooperative Organizations' (2016) 41 Journal of Agricultural and Resource Economics 372, 373–374, 385.

1026 Steve Weber, *The Success of Open Source* (Harvard University Press 2004) 154.

1027 Baig and others (n 488) 152–153, 163.

This evaluation of the legal and governance structures of the two shared-services platforms in the urban transport industry allows for a closer look at the similarities and differences between the two cases, for the purpose of understanding the rationale for, and the factors behind, these businesses choosing their respective legal and governance structure. This comparison is summarized in Table 11.

Table 11: Similarities and Differences between TMF and Eva. (Y = Yes, N = No)

	Solidarity	For-Profit	Ownership of IP	Ownership of Vehicles	Professional Support	Internal Tech. Expertise	Importance of Single Global Brand	Supranational Legal Entity Form
The Mobility Factory	Y	Y	Y	Y	Y	Y	N	Y
Eva Global Corp.	Y	Y	Y	N	Y	Y	Y	N

As the Table indicates, three differences are the ownership of the vehicles used in the respective transport businesses, the importance of a single global brand for the primary entities and the existence of a supranational legal entity form (e.g., the SCE) in the jurisdictions where the business operates.

The need for TMF members to acquire their own electric vehicles for their car sharing business – and in some cases also install some of their own charging ports – entails a costly investment in tangible assets that neither Eva Global Corp. nor its franchisees have to incur. This may be attributable to the difference in business model between TMF members, such as Partago, and Eva's franchisees. Partago, for instance, is not strictly a platform, in the economic sense of the term, as its business model is not centred on multi-sided matchmaking. Partago owns the cars available through their application. Although it would appear that the cars are co-owned by local communities, they are in fact licensed to user-members. This contrasts with the archetypical platform business model in which the intermediary does not own the tangible assets that are subject to intermediation and generates revenue by efficiently matching users to individual suppliers (e.g., of electric cars). While it is common for a franchise agreement to require a franchisee to make substantial tangible investments, including the acquisition of raw materials and other movable property to be used for the franchisees' core business transaction, this may be less common if the franchisee is primarily a multi-sided marketplace. Eva hues more closely to this description, with the major tangible cost required of nodes is the installation of dedicated servers and the maintenance of an Eva node. Moreover, the use of the SCE can be simply explained by the fact that it is an entity form that can be created by cooperatives registered in EU/EEA Member States, but not Quebecois cooperatives with no presence in the EU/EEA.

This, however, does not provide insight into why more cooperatives in Europe do not make use of the SCE. Relatedly, while members of secondary cooperatives can continue to use their own local brand identity, franchisees generally – but not always (e.g., in a fractional franchise) – are expected to operate under a global brand name.

Both Eva and TMF own their software but there are fundamental differences in how it is made available to their franchisees and members respectively. In the case of TMF, the process of IP development was from the outset a collaborative activity and one of the motivating factors behind the secondary cooperative's existence is to create a vehicle for 'co-owning' the IP and resolving ownership disputes between co-owners. This co-ownership is reflected in the fact that TMF members like Partago can license the software to third parties. In contrast, Eva Global Corp. is the sole owner of the IP and while social franchisees may be granted a broad license, they will still have restrictions on what they can do with the software so as not to dilute or despoil the Eva brand. (However, ultimately, the social franchisees may essentially come to 'co-own' the IP if they eventually become the shareholders of Eva Global Corp.)

The comparative analysis above allows for seven hypotheses to be formulated about the choice of legal and governance structures by shared-services platforms:

H1 (Rationale) – *Shared-services platforms are created to mutualize shared resources, so as to reduce costs for member-cooperatives and to reach new geographic markets.*

H2 (IP Development) –

H2a: A social franchise agreement to license operations processes and software to other cooperatives will be used if a business's internal capacity to develop market-ready software is high.

H2b: A secondary cooperative of cooperatives will be formed if the member-cooperatives have a low internal capacity to individually develop market-ready software.

H3 (Brand Identity) –

H3a: A social franchise agreement to license operations processes and software to other cooperatives will be used if a uniform global brand identity is more important to a local business than a local brand identity.

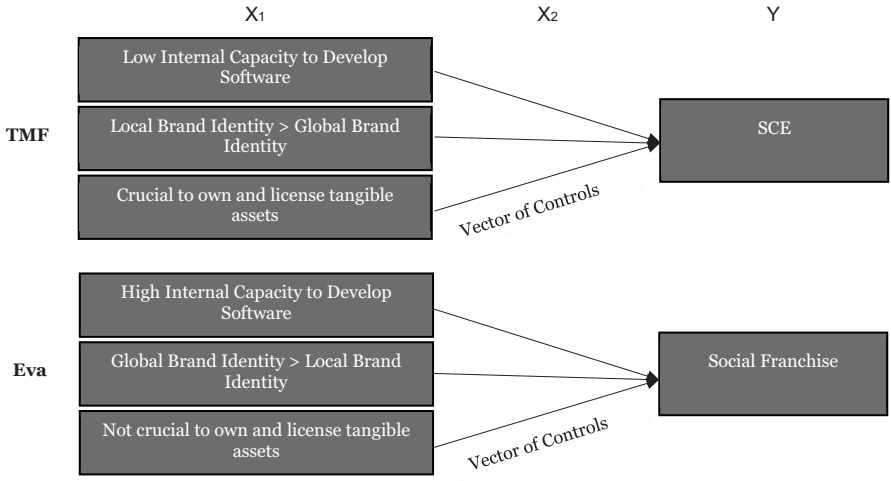
H3b: A secondary cooperative of cooperatives will be formed if the local brand identity of member-cooperatives is more important than a global brand identity.

H4 (Tangible Asset Ownership and Licensing) –

H4a: A social franchise agreement to license operations processes and software to other cooperatives will be used if the ownership and licensing of tangible assets, such as a vehicle, is not crucial for the business model of the cooperatives.

H4b: A secondary cooperative of cooperatives will be formed if the ownership and licensing of tangible assets, such as a vehicle, is crucial for the business model of the cooperatives.

Based on these hypotheses, figure 18 shows some of the main variables that lead to the choice of one legal and governance structure over another by an emergent shared-services platform.



X_1 = the variable(s) of theoretical interest, X_2 = vector of controls, Y = the outcome of interest

Figure 18: Variables that have influenced TMF and Eva's respective legal and governance structures.

6.6 Conclusion and Implications for Future Research

This study has investigated the emergence of a novel form of cooperative enterprise, described herein as a shared-services platform. These are organizations that build a collaboratively governed technological infrastructure for shared use among cooperatives in their network, primarily using the resources contributed by those cooperatives. In some instances, the organization may be established for this very purpose (e.g., TMF) and in other instances, an organization may evolve into fulfilling such a purpose (e.g., Eva Global Corp.). As indicated by the two cases in this study, shared-services platforms have one foot in the past and one in the future. They bring together the storied tradition of cooperatives forming federations with peer-to-peer car-, energy- and data-sharing, as well as the long-standing system of (social) franchising with distributed ledger nodes and asymmetric data encryption. This is perhaps unsurprising as, to quote Varnelis, the architectural historian, the construction of these new "infrastructures do not so much supersede old ones as ride on top of them, forming physical and organizational palimpsests", like telephone lines following railway tracks laid before it.[1028] As such, while using new technologies to provide their

1028 Kazys Varnelis, 'Centripetal City' [2005] Cabinet 27, 27; Shannon Mattern, 'Deep Time of Media Infrastructure' in Lisa Parks and Nicole Starosielski (eds), *Signal Traffic: Critical Studies of Media Infrastructures* (University of Illinois Press 2015) 105.

services, these cooperatives find themselves following organizational pathways charted long before. In doing so, they not only seek to grow together with other value-aligned organizations in a cooperative manner, but they also strive to address some of society's most pressing problems: inadequate urban transport facilities, precarious gig work, the loss of personal privacy and autonomy, and environmental harm caused by personal mobility.

In the preceding sections, the origins of two nascent shared-services cooperatives have been explored, with a particular focus on the development of their legal and governance structures. This comparative case study has been conducted to better understand the rationale behind the formation of shared-services platforms and the factors that determine their choice of structure. Based on a comparative analysis of these cases and an evaluation of the particular legal and governance features of the SCE and the social franchise system, seven hypotheses were developed about this choice, which turn on the capacity of a primary cooperative to internally develop intellectual property, the importance of a global/local brand identity and the need to own and license tangible assets for the success of a primary cooperative's business model.

Future research could test these hypotheses when studying other emergent shared-services cooperatives, such as Coop Cycle and Up&Go. As the number of such cooperatives grow and more accurate, comparable statistics emerge, there may also be an opportunity to conduct cross-case studies to test these hypotheses and arrive at more generalizable findings. While this study has fleshed out what alternatives to the corporate group structure of a platform company could look like, this sets the stage for research concerning the long-term viability of these legal and governance structures in the face of market pressure and the internal demands of its members/franchisees. One such study could be an investigation into the level of trust that members of the primary cooperative have in the leadership of the shared-services platform. A worthwhile line of inquiry within this study could be the impact of cultural differences on perceptions of trust.

As these cooperatives may become large and complex, there may be discordance between the identity of the cooperative as a community of familiar persons (i.e., a Gemeinschaft) and as a society of anonymous, commercially driven persons (i.e., a Gesellschaft), leading to mismatched expectations and internal conflict.[1029] Further research could examine how this balance is struck in this particular context. Finally, while several of the examples mentioned in this study require local, physical interaction between humans, there is also a need to research open and 'federated' communication protocols (e.g., social.coop) that facilitate remote, online interaction as they will adopt a distinct set of legal and governance structures.

1029 Jerker Nilsson and George Hendrikse, 'Gemeinschaft and Gesellschaft in Cooperatives' in Mika Tuunanen and others (eds), *New Developments in the Theory of Networks: Franchising, Alliances and Cooperatives* (Physica-Verlag HD 2011) 346–347.

7 Fostering Worker Cooperatives with Blockchain Technology: Lessons from the Colony Project[1030]

Abstract

In recent years, there has been growing policy support for expanding worker ownership of businesses in the European Union. As preceding chapters have shown, debates on stimulating worker ownership are a regular feature of discussions on the collaborative economy and the future of work. Yet, labour-managed firms (LMFs) such as worker cooperatives remain marginal.

This chapter explains the appeal of worker cooperatives and examines the reasons why they continue to be relatively scarce. Taking its cue from Hansmann's hypothesis that organisational innovations can make worker ownership of firms viable in previously untenable circumstances, this chapter explores how organisational innovations, such as those embodied in the capital and governance structure of Decentralised Autonomous Organisations (DAOs), can potentially facilitate the growth of LMFs. It does so by undertaking a case study of a blockchain project, Colony, which seeks to create decentralised, self-organising companies where decision-making power derives from high-quality work. For worker cooperatives, seeking to connect globally dispersed workers through an online workplace, Colony's proposed capital and governance structure, based on technological and game theoretic insight may offer useful lessons. Drawing from this prefigurative structure, self-imposed institutional rules may be deployed by worker cooperatives in their by-laws to avoid some of the main pitfalls associated with labour management and thereby, potentially, vitalise the formation of worker cooperatives.

1030 This chapter is an updated version of the article, Morshed Mannan, 'Fostering Worker Cooperatives with Blockchain Technology: Lessons from the Colony Project' (2018) 11 Erasmus Law Review 190-203.

7.1 Introduction

There has been a long-running policy-level discussion on the role of worker ownership and management of firms in the European Union.[1031] Labour Managed Firms (LMFs) are firms in which the suppliers of labour, rather than capital, have ultimate control rights in the governance of a firm, including the right to collectively hire and dismiss directors.[1032] The suppliers of labour also receive the residual earnings of the firm on the basis of their labour input.[1033] LMFs offer an appealing governance structure for firms due to their perceived positive effects on employee behaviour for firms[1034] as well as high survival rates during times of recession.[1035] From the workers' perspective, LMFs provide job security,[1036] 'positive energy'[1037] resulting from the knowledge that they work for their own benefit rather than non-worker shareholders and act as 'sites of solidarity'[1038] in a neoliberal economy where workers' rights are gradually being eroded.[1039] As a consequence, LMFs such as worker cooperatives have regained attention in recent times[1040] in view of the anxieties regarding job quality, income

1031 From improving working conditions to providing start-up support, administrative and accounting spaces as well as workspaces for self-employed persons, see European Parliament Resolution on cooperatives in the European Community [1983] OJ C128/51; Anne-Katrin Bock and others, *The Future of the European Collaborative Economy: Using Scenarios to Explore Future Implications for Employment* (Publications Office of the European Union 2016) 27.

1032 Gregory K Dow, 'The Theory of the Labor-Managed Firm: Past, Present, and Future' (2018) 89 Annals of Public and Cooperative Economics 65, 65.

1033 Hansmann (n 362) 11. Workers also contribute capital, but their decision-making and financial rights are not predicated on the extent of their capital contribution.

1034 Imanol Basterretxea and John Storey, 'Do Employee-Owned Firms Produce More Positive Employee Behavioural Outcomes? If Not Why Not? A British-Spanish Comparative Analysis' (2018) 56 British Journal of Industrial Relations 292, 300, 302; Ross Brown and others, 'Buying into Capitalism? Employee Ownership in a Disconnected Era' (2019) 57 British Journal of Industrial Relations 62, 80.

1035 Virginie Pérotin, 'Worker Cooperatives: Good, Sustainable Jobs in the Community' (2013) 2 Journal of Entrepreneurial and Organizational Diversity 34, 40; Johnston Birchall and Lou Hammond Ketilson, *Resilience of the Cooperative Business Model in Times of Crisis* (ILO 2009) 7, 13–14.

1036 Iñaki Heras-Saizarbitoria, 'The Ties That Bind ? Exploring the Basic Principles of Worker-Owned Organizations in Practice' (2014) 21 Organization 645, 656, 658.

1037 Basterretxea and Storey (n 1034) 300.

1038 José Itzigsohn and Julián Rebón, 'The Recuperatio of Enterprises: Defending Workers' Lifeworld, Creating New Tools of Contention' (2015) 50 Latin American Research Review 178, 189–190.

1039 Paola Raffaelli, 'Social and Solidarity Economy in a Neoliberal Context: Transformative or Palliative? The Case of an Argentinean Worker Cooperative' (2016) 5 Journal of Entrepreneurial and Organizational Diversity 33, 34; Ximena de la Barra, 'Sacrificing Neoliberalism to Save Capitalism: Latin America Resists and Offers Answers to Crises' (2010) 36 Critical Sociology 635, 655.

1040 CICOPA-COOP, 'The Future of Work: Where Do Industrial and Service Cooperatives Stand?' (CICOPA-COOP 2018); Marisol Sandoval, 'Fighting Precarity with Co-Operation? Worker Co-Operatives in the Cultural Sector.' (2016) 88 New Formations 51, 62.

inequality, diminishing worker protections, and worker participation raised by the collaborative economy and the 'future of work'.[1041]

Yet, LMFs continue to be relatively rare in developed economies compared to capital managed firms (KMFs),[1042] barring famous exceptions in regional economies such as that of the Basque country of Spain,[1043] the Emilia Romagna region of Italy[1044] and the Buenos Aires province of Argentina.[1045] While interest in worker cooperatives has surged in South Korea[1046] and certain states in the United States of America,[1047] their number in all of these instances still remain in the hundreds. The most common reasons attributed for their relative scarcity are acquiring start-up capital, workers' apprehension about not being able to spread their investment risk,[1048] the risk of absenteeism and free-riding on the efforts of other workers,[1049] the inability to meet the high ideological and economic expectations set when the LMF was formed[1050] and a perceived tendency to 'degenerate' into KMFs, by replacing retiring worker-members with employees in a bid to maximize individual member remuneration, thereby diminishing worker voice and losing its democratic character.[1051] Degeneration is seen as a

1041 Thereza Balliester and Adam Elsheikhi, 'The Future of Work: A Literature Review' (International Labour Office 2018) Working Paper 29 20, 26–27, 33.

1042 Fathi Fakhfakh, Virginie Pérotin and MÔnica Gago, 'Productivity, Capital, and Labor in Labor-Managed and Conventional Firms: An Investigation on French Data' (2012) 65 ILR Review 847, 850.

1043 Spencer Thompson, 'Is the Mondragón Cooperative Experience a Cultural Exception? The Application of the Mondragón Model in Valencia and Beyond' (2014) 47 Journal of Co-operative Studies 19, 19.

1044 Stefano Zamagni and Vera Zamagni, *Cooperative Enterprise: Facing the Challenge of Globalization* (Edward Elgar Publishing 2010) 58.

1045 Peter Ranis, 'Argentine Worker Cooperatives in Civil Society: A Challenge to Capital–Labor Relations' (2010) 13 WorkingUSA 77, 83.

1046 Minsun Ji, 'The Worker Cooperative Movement in South Korea: From Radical Autonomy to State-Sanctioned Accommodation' (2018) 59 Labor History 415, 428.

1047 California, Massachusetts, New York, Ohio, Vermont, Washington and Wisconsin being particularly prominent. See, Amy Johnson and Melissa Hoover (eds), *Democracy at Work: U.S. Directory of Worker Cooperatives & Guide to Democratic Business Resources* (US Federation of Worker Cooperatives & Democracy at Work Institute 2015) 10, 74–78.

1048 Jan M Podivinsky and Geoff Stewart, 'Why Is Labour-Managed Firm Entry so Rare?: An Analysis of UK Manufacturing Data' (2007) 63 Journal of Economic Behavior & Organization 177, 188; Jan M Podivinsky and Geoff Stewart, 'Modeling Proportions: Random Effects Models of Uk Firm Entry' (2009) 54 The Singapore Economic Review 367, 374.

1049 Basterretxea and Storey (n 1034) 302–303, 307–308.

1050 Saioa Arando and others, 'Efficiency in Employee-Owned Enterprises: An Econometric Case Study of Mondragon' (2015) 68 ILR Review 398, 417, 421. They find that LMFs can be highly demanding and stressful workplaces due to (self-imposed) high expectations of their work.

1051 This is an argument that has been made for over a century. *See* Beatrice Webb-Potter, *The Co-Operative Movement in Great Britain* (Swan Sonnenschein & Co 1891). An overview of the degeneration thesis is provided by Langmead. Kiri Langmead, *Exploring the Performance of Democracy and Economic Diversity in Worker Cooperatives* (Sheffield Hallam University 2017) 24–27.

particularly acute concern when a worker cooperative tries to internationalise its operations.[1052]

Taking its cue from Hansmann's hypothesis that organisational innovations may make labour management and ownership viable in previously untenable circumstances,[1053] this chapter explores how organisational innovations, such as those embodied in the capital and governance structure of, can potentially facilitate the growth of LMFs. DAOs refer to organisations that rely on blockchain technology and smart contracts as their source of governance and respond to both digital and human input.[1054] In recent years, DAOs and platforms to create DAOs have emerged as ways to coordinate the supply of capital and labour in a globally distributed manner.[1055] An important aspect of creating such organisations has been the design of governance systems that align incentives in a manner that promotes high-quality input as well as active member participation. This has prompted an outpouring of interest in decentralised governance,[1056] and consequently led to proposals which employ game theory and technology to achieve, *in abstracto*, the formation of organisations, the financing of projects, and high-quality and active member participation. In essence, these proposals strive for *corporate governance by design*.[1057] This bears a strong resemblance to the start-up and coordination issues faced by LMFs. It is hypothesised that

1052 Ignacio Bretos, Anjel Errasti and Carmen Marcuello, 'Ownership, Governance, and the Diffusion of HRM Practices in Multinational Worker Cooperatives: Case-Study Evidence from the Mondragon Group' (2018) 28 Human Resource Management Journal 76, 76–77, 81–82, 85; Patrizia Battilani and Harm G Schröter, 'Conclusion: The Decisive Factors of Cooperatives' Future--Their Nature, Longevity, Role, and Environment' in Patrizia Battilani and Harm G Schröter (eds), *The Cooperative Business Movement, 1950 to the Present* (Cambridge University Press 2012) 266–267.

1053 Henry Hansmann, 'When Does Worker Ownership Work? ESOPs, Law Firms, Codetermination, and Economic Democracy' (1990) 99 The Yale Law Journal 1749, 1816. These untenable circumstances are discussed in section 7.2.4 on the scarcity of worker cooperatives.

1054 De Filippi and Wright (n 589); Hacker Philipp and Chris Thomale, 'Crypto-Securities Regulation: ICOs, Token Sales and Cryptocurrencies under EU Financial Law' (2018) 15 European Company and Financial Law Review 645, 651; Iris M Barsan, 'Legal Challenges of Initial Coin Offerings (ICO)' (2017) 3 Revue Trimestrielle de Droit Financier (RTDF) 54, 55.

1055 Sinclair Davidson, Primavera De Filippi and Jason Potts, 'Blockchains and the Economic Institutions of Capitalism' (2018) 14 Journal of Institutional Economics 639, 643.

1056 Wessel Reijers, Fiachra O'Brolcháin and Paul Haynes, 'Governance in Blockchain Technologies & Social Contract Theories' (2016) 1 Ledger 134; Marcella Atzori, 'Blockchain Technology and Decentralized Governance: Is the State Still Necessary?' (Social Science Research Network 2015) SSRN Scholarly Paper ID 2709713.

1057 This is distinct from public regulation by design and privacy by design, as discussed by Mulligan and Bamberger, as it instead focuses on the governance of business organizations through the use of technology and crypto-economics. Deirdre K Mulligan and Kenneth A Bamberger, 'Saving Governance-By-Design' (2018) 106 California Law Review 697. Corporate governance by design is of legal and political interest as such technological innovations can shape public orders in lasting ways. Langdon Winner, 'Do Artifacts Have Politics?' (1980) 109 Daedalus 121, 128.

LMFs, particularly those operating online workplaces, may draw beneficial lessons from these experiments in decentralised governance. This is the first study that seeks to bridge the gap between worker cooperative and blockchain technology.

To explore this hypothesis, this chapter is structured as follows. The second section of the chapter elaborates on the governance structure of an archetypical LMF, a worker cooperative,[1058] their main advantages according to theoretical and empirical literature and the policy-level support for their growth, which has gained urgency with the emergence of the platform-mediated, collaborative economy. This section is concluded with a consideration of the central causes of the scarcity of LMFs. The third section of the chapter provides a brief overview of smart contracts and DAOs, as they are key to understanding the governance and incentive system of decentralised organisations. The fourth section presents a case study of one DAO platform, Colony, created by Collectively Intelligent Ltd. that seeks to create decentralised, open, self-organising companies where decision-making power is intertwined with high-quality labour input. The case study was conducted by reviewing Colony's legal & technical documentation, software development platform (Github), social media posts and presentations through which information about the project is shared. The author also had conversations with two of the authors of the Colony White Paper, Jack du Rose and Dr. Aron Fischer, about the project. First, the aspirations of the Colony project are mentioned, along with its proposed governance structure. Second, its governance features are assessed against that of a worker cooperative. This permits a tentative analysis of the Colony protocol's potential to address some of the perceived governance shortcomings of worker cooperatives, particularly when operating across borders. In view of this sample governance structure, self-imposed institutional rules may be deployed by worker cooperatives in their by-laws to avoid some of the main pitfalls associated with labour management[1059] and thereby vitalise the use of an alternate from of business organisation. The fifth section sums up and concludes.

1058 As with most corporate entity forms, there are jurisdictional differences in the characteristics of a worker cooperative. Therefore, this archetype is based on the Principles of European Cooperative Law (PECOL) which were published in 2017 and are derived from a synthesis of the cooperative laws of the UK, Finland, France, Germany, Italy, Portugal, Spain and the EU. Gemma Fajardo and others, *Principles of European Cooperative Law: Principles, Commentaries and National Reports* (Intersentia 2017) 2–4. It also incorporates the description of worker cooperatives set out by Pérotin. Virginie Pérotin, 'What Do We Really Know about Worker Co-Operatives?' (Co-operatives UK 2020) Resource 4ff.

1059 Dow, 'The Theory of the Labor-Managed Firm' (n 1032) 76.

7.2 Labour Management and Ownership of Business

7.2.1 The Archetypical LMF: The Worker Cooperative

In a bid to distinguish cooperatives from other legal entity forms, the International Co-operative Alliance (ICA), a representative body of the international co-operative movement, and the International Labour Organization (ILO) promote a set of core values and principles integral to the cooperative identity. All cooperatives, including worker cooperatives value 'self-help, self-responsibility, democracy, equality, equity and solidarity; as well as ethical values of honesty, openness, social responsibility and caring for others'.[1060] This is implemented through seven principles: (1) voluntary and open membership, (2) democratic member control, (3) member economic participation, (4) autonomy and independence, (5) education, training and information, (6) cooperation among cooperatives and (7) concern for the community.[1061] In particular, worker cooperatives seek to create and maintain sustainable jobs and wealth, which will dignify human work, improve worker-members' quality of life, allow democratic self-management and enable local and community development.[1062] This is reflected in the capital and governance structure of worker cooperatives.

In a worker cooperative, most, if not all, of the capital of these firms are held by worker-members.[1063] While worker cooperatives are generally permitted to have non-member employees, this is usually set at a low threshold and employees are often given the option of becoming members.[1064] To become a member, an employee must not only complete a certain amount of hours of work (i.e., a probation period) but must usually contribute a 'buy in' to the cooperative as well, which may be redeemable at face value upon exit from the cooperative.[1065] As the purpose of the business is to undertake economic activities in the interest of its worker-members, rather than to make a profit for the cooperatives itself or external investors,[1066] cooperatives make allocations to mandatory and voluntary reserves from their cooperative transactions (i.e., surplus of revenue over

1060 ILO Recommendation 193 concerning the Promotion of Cooperatives, 2002, art. 3(a).

1061 International Co-operative Alliance, 'The Statement on the Cooperative Identity' (1995) <https://bit.ly/3xLluor>; International Co-operative Alliance (n 252).

1062 CICOPA-COOP, 'World Declaration on Worker Cooperatives' (ICA General Assembly, 23 September 2005) 2 <https://bit.ly/3gTWeWp>.

1063 PECOL, section 3.1. PECOL acknowledges the possibility that cooperatives can 'use shares, reserves, loans and other financial instruments as sources of capital, providing they are compatible with their cooperative nature'.

1064 PECOL, section 1.5(3). In some jurisdictions, like the UK, it is mandatory for individuals who are eligible (i.e. have worked a minimum number of hours) to be offered membership. Footprint Workers' Co-operative Ltd. and Seeds for Change Lancaster Co-operative Limited (n 147) 110.

1065 PECOL, section 3.2(2), 3.3.

1066 PECOL, section 1(1).

costs) and profitable non-cooperative transactions (e.g., holding shares in other companies).[1067] Most often, surplus, if discretionarily distributed as refunds, are received by members in proportion to their work (measured in hours worked) for the worker cooperative.[1068] In the event of a loss being incurred, they are first covered through the reserves of the cooperative before turning to the members, in proportion to 'the quantity and/or quality of their participation in cooperative transactions within the limit of the value of the goods and services received'.[1069] In case of business failure, as the assets and reserve of the worker cooperative are commonly held, if the worker cooperative is liquidated, the residual net assets are distributed according to the principle of disinterested distribution, i.e., to associated cooperatives or the community.[1070]

These firms share the characteristic of providing worker-members a voice in governance,[1071] either on a one-member, one-vote basis or based on the extent of their non-capital contribution.[1072] In many of these firms, delegated management still exists, but the directors are elected by workers and the latter retain an extensive right to ask questions and be informed and consulted.[1073] In some cases, they may have the right to vote on issues of major corporate interest.[1074] In certain firms, members may be involved in a range of strategic decisions, from setting trading hours to exploring new markets to introducing a product.[1075] What is notable in the context of this chapter is that it appears that there is a risk for worker participation to become more shallow as cooperatives internationalise.[1076]

1067 PECOL, section 3.6-3.7.

1068 PECOL, section 3.6(3)(a).

1069 PECOL, section 3.6(6)(b). This is in keeping with members' limited liability under PECOL, section 3.5.

1070 PECOL, section 3.8(2). *Also see,* Fajardo and others (n 1058) 94. This requirement has helped LMFs avoid the theorised problem of under-investment (i.e. a horizon problem) – workers choosing to maximize the firm's present value instead of pursuing long-term gain. Fakhfakh, Pérotin and Gago (n 1042) 855.

1071 PECOL, section 2.3(4)(b).

1072 PECOL, section 2.4(8)(a).

1073 Potentially extending beyond the minimum information and consultation rights ordinarily enjoyed by workers in the EU under Directive 2002/14/EC of 11 March 2002 establishing a general framework for informing and consulting employees in the European Community – Joint declaration of the European Parliament, the Council and the Commission on employee representation [2002] OJ L80/29, industry-specific legislation and legislation concerning changes of corporate control.

1074 Baleren Bakaikoa, Anjel Errasti and Agurtzane Begiristain, 'Governance of the Mondragon Corporación Cooperativa' (2004) 75 Annals of Public and Cooperative Economics 61, 68.

1075 Abby Cathcart, 'Directing Democracy: Competing Interests and Contested Terrain in the John Lewis Partnership' (2013) 55 Journal of Industrial Relations 601, 611; Sarah Hernandez, 'Striving for Control: Democracy and Oligarchy at a Mexican Cooperative' (2006) 27 Economic and Industrial Democracy 105, 122.

1076 Particularly if that host state does not have a solid, long-standing cooperative tradition. Bretos, Errasti and Marcuello (n 1052) 82.

While worker cooperatives continue to be marginal organisational forms in developed economies, the appeal of worker cooperatives endures. An estimated 11 million people worked in such cooperatives as worker-members in 2015-2016.[1077] Across the globe, they are present in a variety of industries, from sheet metal factories[1078] to media,[1079] from the cultural sector[1080] to software development.[1081] In France[1082] and Italy,[1083] there is a relatively high proportion of worker cooperatives in manufacturing and construction respectively. However, the predominant view is that capital-intensive sectors, involving tasks with a high degree of standardisation, will continue to be predominated by KMFs while those in which personal relations and human creativity feature heavily are more amenable to worker ownership and management.[1084] This coincides with the view of organisational theorists, who observe that those engaged in knowledge-intensive work tend to be less indifferent about hierarchical employment relations and believe that 'the locus of decisions has to coincide with the locus of knowledge'.[1085]

1077 Elisa Terrasi and Eum Hyungsik, 'Industrial and Service Cooperatives Global Report 2015-2016' (CICOPA 2017) 9.

1078 Stéphane Jaumier, 'Preventing Chiefs from Being Chiefs: An Ethnography of a Co-Operative Sheet-Metal Factory' (2017) 24 Organization 218.

1079 In Greece, there are examples of cooperatives newspapers (e.g. Efsyn), online media (e.g. Alterthess) and radio stations (e.g. Flash FM). Eugenia Siapera and Lambrini Papadopoulou, 'Entrepreneurialism or Cooperativism?' (2016) 10 Journalism Practice 178, 185. In the United States in 2018, the Colorado Sun arose from the Denver Post as a journalists' cooperative on the back of a successful crowdfunding campaign and support from a blockchain-based journalism initiative, Civil. Nathan Schneider, 'Broad-Based Stakeholder Ownership in Journalism: Co-Ops, ESOPs, Blockchains' (2020) 7 Media Industries Journal 45, 46.

1080 One of the leading symphony orchestras in the world, the London Symphony Orchestra, is a LMF and has been so for over a hundred years. Catherine P Mulder, *Transcending Capitalism through Cooperative Practices* (Palgrave Macmillan 2015) 35–37.

1081 dOrg is a full-stack software development firm that builds blockchain and other Web3 products. It has generated US$2 million in revenue through its 63 members. dOrg is registered as a Blockhain-Based Limited Liability Company in the US state of Vermont and operates as a collectively-run cooperative. dOrg, 'DOrg: Full Stack Web3 Development Collective' (2021) <https://bit.ly/3vRkMom>.

1082 Fakhfakh, Pérotin and Gago (n 1042) 852.

1083 John Pencavel, Luigi Pistaferri and Fabiano Schivardi, 'Wages, Employment, and Capital in Capitalist and Worker-Owned Firms' (2006) 60 ILR Review 23, 28.

1084 Vera Negri Zamagni, 'The Co-Operative Enterprise: A Valid Alternative for a Balanced Society' in Sonja Novkovic and Tom Webb (eds), *Co-Operatives in a Post-Growth Era: Creating Co-Operative Economics* (Zed Books 2014) 196; Dow, 'The Theory of the Labor-Managed Firm' (n 1032) 78.

1085 Anna Grandori, 'Knowledge-Intensive Work And The (Re)Emergence Of Democratic Governance' (2016) 30 Academy of Management Perspectives 167, 173.

7.2.2 The Appeal of Worker Cooperatives to Workers

From the non-executive workers' perspective, worker cooperatives hold the promise of lower wage differentials than KMFs[1086] and improved benefits, such as collective private health insurance.[1087] Based on cross-cultural evidence, it would appear that LMFs also provide stronger guarantees of employment stability, as LMFs tend to prefer reducing hours of work, rather than laying off worker-members, in response to recessions.[1088]

An ideal-type worker cooperative allows workers an involvement in organisational decision-making that goes far beyond the voluntarist human resource management practices (e.g., agile management) used by KMFs.[1089] Along with being given a voice in production processes, workers are also given a say in key governance decisions, which reduces information asymmetry between labour and management. Instead of viewing workers as a monolithic group with uniform interests, individual preferences and views can be better communicated. In short, as workers hire managers, rather than the other way around, labour management and ownership avoids the dishonouring of workplace bargains[1090]-such as the unilateral termination of certain rights to voice. This allows workers to develop, simultaneously, a sense of self-determination in how they work[1091] and solidarity with each other.[1092] This is manifested in how worker cooperatives, and LMFs

1086 Charlotte Heales, Mary Hodgson and Hannah Rich, 'Humanity at Work: Mondragon, a Social Innovation Ecosystem Case Study' (The Young Foundation 2017) 51; Dow, *Governing the Firm Workers' Control in Theory and Practice* (n 709) 76.

1087 Mulder (n 1080) 42.

1088 Dow, for instance, summarises evidence from the USA, Italy, and Uruguay. Dow, 'The Theory of the Labor-Managed Firm' (n 1032) 74.

1089 Tony Dobbins and Tony Dundon, 'The Chimera of Sustainable Labour–Management Partnership' (2017) 28 British Journal of Management 519.

1090 ibid 521–522; Paul Thompson, 'Financialization and the Workplace: Extending and Applying the Disconnected Capitalism Thesis' (2013) 27 Work, Employment and Society 472, 478–479.

1091 Having more decision-making powers allows workers to develop a feeling of being trusted. Bruno S Frey and Reto Jegen, 'Motivation Crowding Theory' (2001) 15 Journal of Economic Surveys 589, 601; Tore Ellingsen and Magnus Johannesson, 'Paying Respect' (2007) 21 Journal of Economic Perspectives 135, 139; Vilde Hoff Bernstrøm and Helge Svare, 'Significance of Monitoring and Control for Employees' Felt Trust, Motivation, and Mastery' (2017) 7 Nordic Journal of Working Life Studies 29, 43. The authors also note how worker perceptions of being monitored due to a managerial fear of shirking can engender unpleasant feelings and counter-productive behaviour.

1092 Martin Parker and others, 'Imagining Alternatives' in Martin Parker and others (eds), *The Routledge companion to alternative organization* (Routledge 2014) 32, 36–37. Parker and colleagues see worker cooperatives as one of the alternative organisations that can potentially embody the principles of autonomy, solidarity and responsibility.

in general, are able to account for quality-of-life issues and individual and team well-being.[1093]

As a consequence, it is easy to understand why labour management and ownership has gained particular resonance in the context of the 'collaborative economy', given the effects it has had on the nature of work.[1094] The actors in this space include individuals providing services, users of these services and the online platforms that mediate their interactions by offering access and executing tripartite contracts.[1095] Economic theorists have characterised such online platforms as being multi-sided markets[1096] which enable value-creating transactions by facilitating service providers and users finding each other and developing inter-dependence. In a labour intermediation platform, such as Etsy or Uber, the greater the number of workers on the platform, the more that platform appeals to other workers (i.e., a direct network effect). Conversely, the presence of a large number of potential clients persuades more workers to join the platform (i.e., an indirect network effect).[1097]

The collaborative economy accounted for 26.5 billion EUR in gross revenue in 2016 and created approximately 394,000 jobs across the European Union member states.[1098] While creating employment opportunities and consumer value, from the perspectives of those who work on, or through these platforms, they creates a downward pressure on permanent, full-time, subordinated employment relationships towards non-standard employment and self-employment.[1099] This creates new pressures on worker representation institutions, such as trade unions and works councils, that

1093 Maurizio Atzeni and Marcelo Vieta, 'Between Class and Market: Self-Management in Theory and in the Practice of Worker-Recuperated Enterprises in Argentina' in Martin Parker and others (eds), *The Routledge companion to alternative organization* (Routledge 2014) 56. The authors highlight how workers are able to modulate production in keeping with the needs of the team.

1094 Avner Ben-ner, 'The Life Cycle of Worker-Owned Firms in Market Economies: A Theoretical Analysis' (1988) 10 Journal of Economic Behavior & Organization 287, 296. Ben-Ner hypothesized that organizational and technological innovations that affect the workplace would drive the demand for worker-owned firms. According to the EU Agenda for the Collaborative Economy, the term collaborative economy 'refers to the business models where activities are facilitated by collaborative platforms that create an open marketplace for the temporary usage of goods or services often provided by private individuals'. EC Communication, 'A European Agenda for the Collaborative Economy', COM(2016) 356 final, at 3.

1095 Vassilis Hatzopoulos, *The Collaborative Economy and EU Law* (Hart Publishing 2018) 7.

1096 David S Evans and Richard Schmalensee, *Matchmakers: The New Economics of Multisided Platform s* (2016) 8.

1097 Hatzopoulos (n 1095) 9–10.

1098 Technopolis, Trinomics and VVA Consulting, *Study to Monitor the Economic Development of the Collaborative Economy at Sector Level in the 28 EU Member States: Final Report* (Publications Office of the European Union 2018) 12.

1099 CICOPA-COOP (n 1040) 11.

have been built around the employment relationship.[1100] This reversion to pre-20th century employment practices serves some well,[1101] particularly those who have highly-coveted skills and scope for job mobility, but it exposes many others to job precarity and income insecurity.[1102] This trend can also be seen as cynical exploitation of workers' own frustrated desires for freedom and self-determination.[1103]

Firms representing such cooperative qualities have begun to emerge in the *online* collaborative economy (which overlaps with platform economy) with the ambition of providing less precarious workplaces and more broadly accountable organisations.[1104] These platforms put the interest of the user-members at the forefront, by involving them in the financing and management of the platforms. These range from cooperative-run platforms like Doc Servizi,[1105] an 8000-person creative workers' cooperative in Italy, to Stocksy,[1106] a multi-stakeholder platform cooperative for selling stock photos.

7.2.3 Worker Cooperatives as Competitive Firms

In addition to these potential benefits for worker-members, worker cooperatives are also competitive businesses in their own right. Agency theory suggests that worker ownership aligns the economic interests of the organisation and individual workers, thereby promoting productivity and organisational loyalty.[1107] This is in contrast to KMFs where information asymmetries and differing interests may lead to a fear that employment bargains will be reneged at a future date or that optimal firm-specific investments will not be made by either labour or management.[1108] Providing feedback and suggestions on production processes allows firms to benefit from the workers' experience and knowledge of the technology, organisation and

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1100 Jeremias Prassl, 'Collective Voice in the Platform Economy: Challenges, Opportunities, Solutions' (ETUC 2018) 14.

1101 Simon Deakin, 'The Contract of Employment: A Study in Legal Evolution' [2001] Historical Studies in Industrial Relations 1, 29.

1102 As mentioned in chapter 2, this can range from manual labourers to creative workers, cutting across generations and disproportionately affecting women. Standing (n 46) 59; Ursula Huws, 'ICapitalism and the Cybertariat: Contradictions of the Digital Economy' (2015) 66 Monthly Review 42.

1103 Peter Frase, 'Beyond the Welfare State' [2014] *Jacobin* <https://bit.ly/3d3G5fS>; Eve Chiapello, 'Evolution and Co-optation' (2004) 18 Third Text 585, 593.

1104 Schneider, 'An Internet of Ownership' (n 148).

1105 Francesca Martinelli, 'Innovative Cooperation's Model in Europe: A Solution to the Growing Uncertainty in the World of Work' (2018).

1106 Schor (n 173) ch 6.

1107 John P Bonin, Derek C Jones and Louis Putterman, 'Theoretical and Empirical Studies of Producer Cooperatives: Will Ever the Twain Meet?' (1993) 31 Journal of Economic Literature 1290, 1303; Graeme Nuttall, 'Sharing Success: The Nuttall Review of Employee Ownership' (Department for Business, Innovation & Skills 2012) BIS/12/933 22–28.

1108 Ben-ner (n 1094) 293.

market environment.[1109] Moreover, the costs of monitoring diminishes, in comparison to KMFs, as workers are incentivised to monitor each other.[1110] Going beyond agency theory, motivation crowding theory suggests that feelings of independence and self-governance can act as intrinsic motivation to work in the interest of the organisation, even where there may be little or no direct financial reward on offer.[1111] This is of particular relevance in knowledge-intensive and creative industries where workers may have to work extra hours, without compensation, to complete a project.[1112]

The recent empirical evidence on this offers a nuanced picture of the commercial benefits of labour management and ownership and the conditions needed to achieve it. One study that compared sales per employee between 300 US firms that are majority or fully employee owned, with similarly sized comparator firms that are investor owned, substantiates the idea that growth in employee stake in firms and influence in decision-making lead to improvements in productivity.[1113] Another study, examining a panel of 7000 French firms, 500 of which were employee owned, reveals that worker cooperatives (SCOPs) in France are as productive, if not more, than KMFs.[1114] The fact that worker cooperatives prioritise job stability means that they are willing to introduce wage flexibility, if it will ensure the survival of the firm.[1115] However, in a longitudinal study of two of the largest employee owned retailers in Europe, the John Lewis Partnership and Eroski, it was found that the former had lower absenteeism and higher job satisfaction rates among worker-members than their capital-managed counterparts, while the latter had higher absenteeism rates and lower job satisfaction rates. The authors of the study attribute this to differences in the quality of management across the two firms; in balancing the need to respond to crises with agility and decisiveness, with the goal of invigorating and implementing a culture of shared ownership.[1116] While workers in

1109 Dow, 'The Theory of the Labor-Managed Firm' (n 1032) 77.

1110 This fundamentally differs from hierarchical monitoring as worker cooperatives preserve the right of individual members to challenge authority and commands. Jaumier (n 1078) 223.

1111 Frey and Jegen (n 1091) 595, 597–598.

1112 Ana Alacovska, 'Informal Creative Labour Practices: A Relational Work Perspective' (2018) 71 Human Relations 1563, 1585–1586. Alacovska offers a relational perspective on creative labour practices, emphasising how feelings of friendship and kinship motivate non/under-remunerated work.

1113 Brent Kramer, 'Employee Ownership and Participation Effects on Outcomes in Firms Majority Employee-Owned through Employee Stock Ownership Plans in the US1' (2010) 31 Economic and Industrial Democracy 449, 466–467.

1114 In the printing and publishing, paper and wood industries, worker cooperatives have been found to more productive (in terms of output) than KMFs. Fakhfakh, Pérotin and Gago (n 1042) 867.

1115 Gabriel Burdín, 'Are Worker-Managed Firms More Likely to Fail Than Conventional Enterprises? Evidence from Uruguay' (2014) 67 ILR Review 202, 226.

1116 Basterretxea and Storey (n 1034) 315–317.

LMFs may be willing to take on more responsibility, a lack of vigilance in monitoring performance and ineffectively communicating business needs – including engaged member participation – may hamper these goals.

It is for these perceived advantages that worker ownership has long received policy level attention at European level. During the 1980s and 1990s, the European Parliament recognised the role of cooperatives in improving working conditions,[1117] regional development through job creation and preservation in local communities[1118] as well as contributing to women's integration into the workplace.[1119] In view of this, the Parliament called for, *inter alia*, investigations into how the formation of worker cooperatives can help rescue distressed businesses[1120] and for incentives to be "provided for innovative sectors and that steps should be taken to facilitate access by women to new technologies".[1121] In parallel to these developments, the idea of creating a trans-national European cooperative was also promoted, the origin of which dates back to the earliest consultations on establishing a European commercial company in the 1960s.[1122] It was noted in policy discussions, and subsequently in the recitals of the European Cooperative Society (SCE) Regulation, that cross-border cooperation between cooperatives was inhibited by legal and administrative barriers – given the lack of harmonisation of national cooperative laws – and that the Community was 'anxious to ensure equal terms of competition' for cooperatives with limited liability companies.[1123] Following the enactment of the SCE Regulation, the European Commission issued a far-reaching Communication[1124] to promote the visibility and use of cooperatives. More recently, the role that cooperatives may have in providing start-up support, administrative and accounting spaces as well as workspaces for self-employed persons was particularly noted in a 2016 study commissioned by

1117 European Parliament Resolution of 13 April 1983 on cooperatives in the European Community [1983] OJ C128/51.

1118 European Parliament Resolution of 11 February 1994 on the contribution of cooperatives to regional development [1994] OJ C61/231, recital 12; European Parliament Resolution of 9 July 1987 on the contribution of cooperatives to regional development [1987] OJ C246/94, recitals 3-4.

1119 European Parliament Resolution of 18 September 1998 on the role of cooperatives in the growth of women's employment [1998] OJ C313/234; European Parliament Resolution of 26 May 1989 on the role of women in cooperatives and local employment initiatives [1989] OJ C158/380.

1120 European Parliament Resolution of 13 April 1983 on cooperatives in the European Community [1983] OJ C128/51, recital 3.

1121 European Parliament Resolution of 18 September 1998 on the role of cooperatives in the growth of women's employment [1998] OJ C313/234, recital 3.

1122 Chantal Chomel, 'The Long March of the European Cooperative Society' (2004) 291 RECMA - Revue Internationale de L'Économie Sociale 1, 2.

1123 Council Regulation (EC) 1435/2003 of 22 July 2003 on the Statute for a European Cooperative Society (SCE) [2003] OJ L207/1.

1124 European Commission Communication on the promotion of co-operative societies in Europe, COM(2004) 18 final.

the European Commission.[1125] The European Parliament has also observed the interest in developing cooperative alternatives to collaborative economy companies.[1126]

Notwithstanding the appeal of worker cooperatives and their positive reception, it still remains difficult for entrepreneurs to establish cooperatives, nationally and especially transnationally, in comparison to KMFs. The next section discusses this further.

7.2.4 The Scarcity of Worker Cooperatives

There has been theoretical and empirical research on the reasons for the scarcity of worker cooperatives and other LMFs for at least 60 years.[1127] Over this period, a number of hypotheses have been tested, most notably: whether worker-members tend to underinvest in the firm ('horizon problem'), whether workers are less productive ('shirking' and 'free-riding' problems), whether members seek to replace exiting members with employees so as to maximize individual refunds ('degeneration problem'), whether LMFs fail to retain good managers ('management problem') and whether there are fewer LMFs being born in comparison to KMFs ('birth rate problem').[1128] As indicated by the empirical research described in section 7.2.3, it would appear that worker cooperatives are not inherently dysfunctional. They have the capacity to be as productive as KMFs and have high survival rates. In contrast to the shibboleth that worker cooperatives inevitably degenerate into KMFs, researchers have found that time-tested cooperatives undergo periods of cyclical degeneration and regeneration.[1129] Even if they require particular attributes and commitment to the LMF, *it is* possible for LMFs to retain good management.[1130] In areas where they do have shortcomings – such as lower average wages compared to peers in comparable KMFs[1131] – it can often be attributed to the fact that worker cooperatives are different by design from their capitalist counterparts. For instance, empirical research in Italy has found that worker

1125 Bock and others (n 1031) 27.

1126 European Parliament Resolution of 15 June 2017 on a European Agenda for the collaborative economy [2017] OJ C331/125, recital 11.

1127 Benjamin Ward, 'The Firm in Illyria: Market Syndicalism' (1958) 48 The American Economic Review 566.

1128 Oliver E Williamson, *The Economic Institutions of Capitalism* (China Social Sciences Publishing House 1985) 266.

1129 Chris Cornforth, 'Patterns of Cooperative Management: Beyond the Degeneration Thesis' (1995) 16 Economic and Industrial Democracy 487, 494; Yohanan Stryjan, 'Understanding Cooperatives: The Reproduction Perspective' (1994) 65 Annals of Public and Cooperative Economics 59, 62–65.

1130 Mitu Gulati, TM Thomas Isaac and William Klein, 'When a Workers' Cooperative Works: The Case of Kerala Dinesh Beedi' (2002) 49 UCLA Law Review 1417, 1443,1450.

1131 For evidence from Italy, the country with the greatest incidence of LMFs among market economies, *see* Pencavel, Pistaferri and Schivardi (n 1083) 23.

cooperatives have (marginally) lower and more volatile wages compared to peers in comparable KMFs. This is complemented with having more stable employment.[1132] It would therefore seem that worker cooperatives prioritise stability and retention of members over wage certainty.

Instead, at present, it would appear that the two major reasons for the scarcity of worker cooperatives are a very low birth-rate[1133] and, if and when created, coordination problems as the entity scales.

The low-birth rate has three major factors: a lack of information about the worker cooperative option, the lack of a conducive legal environment and scarcity of financing options.[1134] An example can illustrate how visibility continues to be a pertinent problem for potential co-operators. A recent study commissioned by the European Commission acknowledges the importance of digital tools in supporting the platform-mediated labour market and noted instances of good practices that include platform cooperatives,[1135] yet the recent Directive regarding the use of digital tools and processes in company law falls short in making the cooperative form a visible and viable alternative for entrepreneurs. For instance, Member States are only required to provide online formation procedures and online templates of company constitution instruments for company forms mentioned in Annex IIA, such as the UK Private Company Limited by Shares or Guarantee.[1136] The provision of templates for other limited liability company forms, such as a cooperative, remain optional.[1137] This appears to be the result of path dependence – as entrepreneurs have shown a preference for the company forms specified in Annex IIA[1138] – yet this may make such entities a default choice, especially for start-ups. In short, cooperatives and companies will no longer be in equal competition, as set out in the aforementioned recitals of the SCE Regulation.

1132 Pencavel, Pistaferri and Schivardi (n 1083).

1133 Dow, 'The Theory of the Labor-Managed Firm' (n 1032) 78.

1134 Ben-ner (n 1094) 289–290. This is particularly true when worker cooperatives are formed 'defensively' – as a last resort by workers to prevent business closure and maintain jobs. Timothy Kerswell and Surendra Pratap, *Worker Cooperatives in India* (Palgrave Macmillan 2019) 80. This makes the durability of Argentina's empresas recuperadas (worker-recuperated enterprises) all the more remarkable.

1135 Bock and others (n 1031).

1136 Directive (EU) 2017/1132 of 14 June 2017 relating to certain aspects of company law (codification) [2017] OJ L169/46, arts. 13(g)(1), 13(h)(1) [as consolidated on 1 January 2020]. The amending Directive was Directive (EU) 2019/1151 of 20 June 2019 amending Directive (EU) 2017/1132 as regards the use of digital tools and processes in company law [2019] OJ L186/80.

1137 Directive (EU) 2017/1132, art. 13g(1)(2nd para).

1138 This is also apparent from the platform cooperatives that have been registered in the past five years, as shown in Appendix No. 2. For instance, several of the platform cooperatives in the United Kingdom have registered as Private Companies Limited by Guarantee, although there is the option of registering as a Co-operative Society under the *Co-operative and Community Benefit Societies Act, 2014* (c. 14). The difference in formation costs between the two are not significant. I think Mark Simmonds for this point.

This lack of familiarity with the worker cooperative form also makes it difficult to finance their formation. In the absence of sufficient collateral, the workers' own savings or loans from friends and family, worker cooperatives traditionally have difficulty in obtaining debt financing. As a consequence of legal regulation and/or ideological principle, worker cooperatives can only accept limited non-member equity investment.[1139] In any case, conventional financiers, such as private equity funds, are dissuaded from investing in worker cooperatives as they are not profit-oriented and the requirement to be majority member-controlled inhibits the grant of substantial equity positions to external investors. Instead, they often have to rely on a single, large private customer,[1140] a sympathetic public authority,[1141] and/or community contributions, through mechanisms such as crowd-funding.[1142] (Admittedly, the quality and value of LMF membership is hard to estimate even for the most ideologically-committed capital contributor.[1143]) This financing challenge is also seen as one of the major deterrents to the formation of SCEs,[1144] as a minimum capital of EUR 30,000 is required,[1145] which is beyond the scope of many small businesses that may wish to operate across borders.[1146]

Turning to the coordination issues that occur upon the formation of worker cooperatives, collective action theory suggests that the heterogeneous preferences of equal worker-members make it difficult to arrive at decisions expeditiously.[1147] Competing with capitalist firms means that there are time-constraints on decision-making and worker-members may not respond to the market rapidly enough.[1148] This is borne out by the studies on the larger worker cooperatives, such as Eroski, discussed in section 7.2.3.[1149] In view of this, worker-members have to work longer hours, under more stress, with serious consequences for their own health.

1139 Kazuhiko Mikami, 'Cooperatives, Transferable Shares, and a Unified Business Law' (2016) 87 Annals of Public and Cooperative Economics 365, 374.

1140 Jaumier (n 1078) 219.

1141 Mulder (n 1080) 83–86.

1142 RP Burrasca and others, 'An Introduction to Financing for Cooperatives, Social Enterprises, and Small Businesses' (The Community Wealth Building Network of Metro Denver 2015) 12–14.

1143 Dow, 'The Theory of the Labor-Managed Firm' (n 1032) 79.

1144 Only 41 are in operation as of 2018. Libertas – Europäisches Institut GmbH, 'List Of European Cooperatives As Of 25 August 2018' (25 August 2018) <https://bit.ly/3ji9kjh>. This does not include The Mobility Factory SCE or pc polypoly coop SCE that were registered after this list was compiled.

1145 SCE R, art. 3(2).

1146 Antonio Fici, 'The European Cooperative Society Regulation' in Dante Cracogna, Antonio Fici and Hagen Henrÿ (eds), *International Handbook of Cooperative Law* (Springer 2013) 120, 145, 149. However, see chapter 7 on this minimum capital requirement not being a deterrent for TMF. This may be because the formation of this secondary cooperative brought together primary cooperatives that had already been operational for a few years.

1147 Hansmann (n 1053) 1779–1782.

1148 Atzeni and Vieta (n 1093) 53.

1149 Basterretxea and Storey (n 1034).

This coordination problem is accentuated as cooperatives scale or internationalise. With advances in modern technology, such as those discussed in section 7.3 below, it is possible for workers to cooperate across borders even if their enterprise is small in scale. In certain sectors, like the creative and tech industry, it is difficult to avoid as the workplace is globalised.[1150] However, coordinating such business practices in a distributed manner, without the use of a third-party platform intermediary, involves high transaction costs. The evidence from the few worker cooperatives that have grown in scale[1151] and internationalised[1152] their operations indicate a negative trend in participatory management, mutual monitoring and solidarity. It has been seen that contrasting cooperative cultures and restrictive legislation on worker organising in the host state inhibit the replication of cooperative practices.[1153]

Having canvassed the appeal and drawbacks of worker cooperatives, the remainder of the chapter explores how the organisational innovations developed by DAO platforms would potentially address some of these start-up and coordination problems. This analysis is predicated on the understanding of blockchain as an institutional technology which can coordinate economic activity in novel ways. [1154] To do so, the next section sketches how smart contracts and DAOs work, before presenting a particular DAO platform and the governance structure it has designed for DAOs created through its platform.

7.3 Understanding the Technology: Smart Contracts and DAOs

Developers of DAOs and DAO platforms[1155] draw inspiration from transaction cost economics and the nexus of contracts theory of corporations, where the corporation is viewed as a 'complex set of contracts among managers,

1150 Vili Lehdonvirta and others, 'The Global Platform Economy: A New Offshoring Institution Enabling Emerging-Economy Microproviders' (2019) 45 Journal of Management 567.

1151 Tom Webb and George Cheney, 'Worker-Owned-and-Governed Co-Operatives and the Wider Co-Operative Movement' in Martin Parker and others (eds), *The Routledge companion to alternative organization* (Routledge 2014) 64; Ben-ner (n 1094) 297.

1152 Anjel Errasti, Ignacio Bretos and Enekoitz Etxezarreta, 'What Do Mondragon Coopitalist Multinationals Look Like? The Rise and Fall of Fagor Electrodomésticos S. Coop. and Its European Subsidiaries' (2016) 87 Annals of Public and Cooperative Economics 433.

1153 Bretos, Errasti and Marcuello (n 1052) 85.

1154 Davidson, Filippi and Potts (n 1055) 641.

1155 Hence, why projects like Colony cite Coase's seminal article on the Nature of the Firm on the first page of their White Paper. Alex Rea, Aron Fischer and Jack du Rose, 'COLONY: Technical White Paper' (Colony, 27 July 2018) 1 <https://bit.ly/2SWTgZh>. This has now been superseded, although the reference to Coase remains. Alex Rea and others, 'COLONY: Technical White Paper' (Colony, 2 October 2020) 3 <https://bit.ly/3xXI4L1>. While there are differences between these white papers, the launch of Colony v.2 in December 2020 was intended to issues with their software application while still being the "Colony as advertised" in the earlier whitepaper. Jack du Rose, '(Re)Introducing Colony' (*Colony Blog*, 10 December 2020) <https://bit.ly/3qlLk08>. Where there are significant differences between these two white papers, I will note them.

workers, and contributors of capital' that mediate relationships in a hierarchical structure to internalise and diminish transaction costs.[1156] This is reflected in their belief that decentralised (autonomous) organisations can emerge from a complex set of 'smart contracts'. Smart contracts are software deployed on a blockchain (most famously, Ethereum) which, for a small transaction fee ('gas'), is capable of receiving and storing cryptocurrency (e.g., 'Ether') and tokenized representations of assets. They also contain conditions subject to which an exchange of assets and transactions will take place (e.g., passage of time, a certain event). As such, a smart contract can act as an escrow account, as well as automate certain functions of ordinary contracts. A simple example of a smart contract involves a transfer of cryptocurrency for an asset. Once the payment is made to the smart contract, for the contract to be executed, the nodes of the blockchain will verify that the transferees' wallets respectively hold the claimed sum of cryptocurrency and the asset. If validated, the smart contract will receive a message to automatically self-execute, and the exchange will take place. The blockchain will then be updated to reflect the transfer of asset ownership as well as the change in cryptocurrency amounts in the participants' wallets.[1157] As a result, third parties – whether they be title registries or courts – are not required to enforce the transaction. Unless the smart contract has a dispute resolution 'safety valve' built in, the parties will not be able to stop the performance of the contract.[1158] Moreover, smart contracts do not need to be triggered ('called') by human parties to a contract but can also respond to inputs from off-chain third parties (oracles) that a certain event has occurred.

Following the creation of smart contracts, the idea soon arose of an algorithmically governed organisation which responds automatically to inputs from both digital and analogue sources.[1159] The organisation would be composed of a collection of smart contracts which would have internal capital, discourage collusion among members, focus on automating transactions and, ultimately, have a peripheral role for human involvement. This idea was operationalised through the creation of The Decentralized Autonomous Organization (TheDAO), for the purpose of decentralised crowdfunding. TheDAO would allow participants to manage invested

1156 Frank Easterbrook and Daniel Fischel, 'Limited Liability and the Corporation' (1985) 52 University of Chicago Law Review 89, 89; Williamson (n 1128) 402.

1157 Ethereum, 'What Is Ethereum?' (*Ethereum Homestead Documentation*, 8 July 2018) <https://bit.ly/3zPADqQ>; Blockchain Hub, 'What Is a Smart Contract?' (*Blockchain Hub*, 2018) <https://bit.ly/3gTseKs>.

1158 De Filippi and Wright (n 589) 75.

1159 Quinn DuPont, 'Experiments in Algorithmic Governance: A History and Ethnography of "The DAO", a Failed Decentralized Autonomous Organization' in Malcolm Campbell-Verduyn (ed), *Bitcoin and Beyond: Cryptocurrencies, Blockchains, and Global Governance* (1st edn, Routledge 2018) 159.

funds directly and for governance rules to automatically self-execute, once certain conditions were met.[1160]

TheDAO set a minimum fundraising goal to be achieved within a defined period, failure to achieve which would have resulted in the funds being returned. During this 'Creation Phase', units of Ether could be sent to TheDAO's smart contract address, in exchange for which TheDAO would create and transfer 'DAO tokens'. These tokens conferred voting rights on their holders, in proportion to the number of tokens held. They would be freely transferable and divisible.[1161] As an entity, creating, storing and transferring tokens was the limit of what TheDAO could achieve autonomously.[1162] For creating and voting on funding proposals, it required human Contractors. The off-chain projects that would result from successful funding proposals would be directly governed by token-holders, in proportion to the tokens they held, and returns would be distributed pro rata. These tokens could also be sold for fiat currencies through exchanges.

The creation of TheDAO was met with a great deal of enthusiasm and during its initial creation phase, it raised US$ 150 million worth of Ether.[1163] It was intended that The DAO would be an archetype for future decentralised organisations and in a sense, it was successful. The successful crowdfunding of TheDAO – and the subsequent siphoning of over US$ 50 million of Ether and investigation by the US Securities and Exchange Commission (SEC) – has served as a cautionary tale for everyone involved in the blockchain ecosystem. While its name is a misnomer, as key decision-making powers resided in certain humans, it continues to be the prime example of a decentralised organisation. The ambition of creating DAOs persist,[1164] but tempered with the knowledge that they are exposed to governance risks endogenous to decentralised systems operating under the logic of smart contracts and are subject to an array of off-chain risk and regulation.

1160 Christoph Jentzsch, 'Decentralized Autonomous Organization to Automate Governance (Final Draft - Under Review)' (Slock.it, 2016) 3 <https://bit.ly/3xJEmV8>.

1161 Securities and Exchange Commission, 'Report of Investigation Pursuant to Section 21(a) of the Securities Exchange Act of 1934: The DAO' (US Securities and Exchange Commission, 25 July 2017) 6 <https://bit.ly/3zNYk2I>.

1162 Jentzsch (n 1160) 2.

1163 Securities and Exchange Commission (n 1161) 16.

1164 See Colony, Aragon, MakerDAO, dOrg, among many others.

7.4 Case Study of Colony

7.4.1 What Colony does

Colony is a platform that provides the infrastructure for creating an ecosystem of self-organising companies (i.e., 'colonies'),[1165] by lowering the costs of a diverse group of people coordinating their efforts and resources to realise shared goals, even when they do not necessarily know or trust each other. The ambition of Colony is that this coordination will occur in the organisation created through its platform in a meritocratic manner through the dynamic allocation of reputation.

Reputation is a number that is associated with a person, reflecting the value of their recent contributions to a colony. It may be earned by bootstrapping colonies, successfully completing tasks and constructively resolving disputes.[1166] This figure affects the extent of a person's control rights in the organisation as well as their share of rewards. Significantly, unlike currencies or securities, reputation cannot be transferred and is non-negotiable in crypto-capital markets.[1167]

Colony is still at an early stage of development and much of what is described below is based on its white paper, setting out the features the development team expects the layers of Colony to have. The development team have been building the Colony Network and Colony JS, a software library that enables independent developers to develop applications (dApps) that can interact with the underlying smart contracts. These colonies may be established to create software but also for tangible goods, such as jewellery. As one of the founders of Colony, Jack du Rose, began developing the platform as a way of solving problems he encountered while coordinating persons in a global, high-end jewellery supply chain,[1168] the illustrative examples in the following sub-section draws from the jewellery industry.

7.4.2 The Governance of Colony

To understand the governance of the Colony platform, it is necessary to consider the Colony Network, the Meta Colony and individual colony layers separately.

1165 The name was inspired by the archetypical ant colony, a complex adaptive system that may be found in nature. Gideon Rosenblatt, 'Is Colony a Glimpse of the Blockchain-Based Future of Work?' (*The Vital Edge*, 13 December 2017) <https://bit.ly/3wPyPfn>.

1166 Rea, Fischer and du Rose (n 1155) 15; Rea and others (n 1155) 14. In the Meta Colony, reputation can also be earned through reputation mining.

1167 Rea, Fischer and du Rose (n 1155) 14; Rea and others (n 1155) 13.

1168 The Blockchain Review, *How Blockchain Technology Is Enabling The Future of Work* (2018) <https://www.youtube.com/watch?v=o_erLhcDqMU> accessed 23 June 2021.

The Colony protocol[1169] is built on the Colony Network, a collection of smart contracts deployed on the Ethereum blockchain by the Colony development team. These contracts provide the broad parameters in which colonies may be created, such as the fees charged to use the Network, upgrades of its functionality and the reputation mining mechanism.[1170] Management of the Colony Network will be gradually ceded to a Metacolony, the first, parent colony to be created on the Network.[1171] When this has occurred, tokens in the Meta Colony (CLNY) will have been distributed and reputation can be earned in the Meta Colony through the completion of tasks, such as making updates to individual colony smart contracts. CLNY and reputation holders get to vote on the fundamental parameters of the Network (control rights) and receive a portion of the fee charged by the Network when individuals are paid.[1172] Moreover, CLNY holders act as reputation miners, calculating reputation scores off-chain and updating reputation scores on-chain, for which new CLNY tokens and reputation are conferred as rewards.[1173] The functionality of CLNY tokens will be set initially by the Colony development team and the Ethereum community but eventually by the Meta Colony.

Individual colonies may be created to achieve a single goal or multiple goals, over a short or long timeframe. They are entities with discrete purposes but act within the broad parameters set by the Colony Network. Regardless the goal, they will substantially share the membership and governance rules described below due to the underlying smart contract code. As these rules are embodied in code, when they are being used they are much harder to skirt than institutional and social rules in a worker coop-

1169 In general, protocols are a set of rules and steps that facilitate effective communication between computers. A brief history of protocols is discussed in Chapter 7. As with the internet, the Colony protocol is one of several layers of protocols arranged in a stack through which information travels from one computer to another. The Colony protocol is in between the Ethereum decentralised data processing layer and the layer of applications that are deployed using Colony. In short, the Colony protocol provides the rules for the division of labour, decision making and financial management of decentralised organisations.

1170 Rea, Fischer and du Rose (n 1155) 5; Rea and others (n 1155) 35. Individual colonies can opt in to the upgrades.

1171 Rea, Fischer and du Rose (n 1155) 7–8; Rea and others (n 1155) 37.

1172 Rea, Fischer and du Rose (n 1155) 7, 46–47; Rea and others (n 1155) 35–36. If the Network fee is paid in CLNY tokens, it is burned. If it paid in white-listed external crypto-currencies such as Ether and DAI, it will be distributed to a reward pot and a working capital pot. If the Network fee is paid in a native colony token that is illiquid, monthly Dutch auctions will be held in which the native token can be acquired in exchange for CLNY tokens. These CLNY tokens are then burned (destroyed). I thank Jack du Rose for this information.

1173 Rea, Fischer and du Rose (n 1155) 7, 19, 22; Rea and others (n 1155) 36, 38. Calculating reputation scores off-chain saves costs incurred by Ethereum blockchain transactions.

erative, where they may be under-enforced.[1174] When a colony is created, it will generate its own native token that may have financial or symbolic value.[1175] To achieve its goal(s), the work needed can be broken down into tasks and (sub) domains (e.g. assembly), in which tasks can be clustered. This is analogous to departments in an organisation. Domains can also be nested within wider domains, with the widest domain being the colony itself. Along with allocating a task to a domain, tasks will be tagged with relevant skills needed for its completion (e.g., #casting, #soldering). This may be a specific skill within a broader skill set (e.g., #design). Thus, there is an organisational tree and a skills tree, with participants able to earn and lose reputation in both.

To create and define a task, a person with sufficient reputation must deposit ('stake') colony tokens proportionate to the amount of reputation in the domain.[1176] Reputation and colony tokens may be initially assigned as control rights and working capital at the time a colony is created to allow certain persons to set up tasks.[1177] Otherwise, usually, a task initiator will submit a funding proposal from the pot (wallet) of a parent domain.[1178] The proposal will specify the amount of funds needed and can be denominated in the colony's own currency or in Ether. If there is only one funding proposal for a task, there are sufficient funds in the pot and there are no objections, the smart contract will begin to release funds to the pot of the task. This materialises Colony's emphasis on completing work efficiently rather than voting on every decision. Once the funds needed for payment are in place (the bounty), the manager will have to enter into a tentative agreement with a worker that has the necessary skill set and reputation.

1174 Reyes analogises these parameters with choosing a corporate statute: "The default rules in the realm of DBEs [decentralised business entities] are not defined by state corporation statutes, but rather by the rules of the underlying DLT [distributed ledger technology] protocol. Like a choice between corporate statutes, DBE creators choose the basic rules of their venture by selecting a DLT protocol from the menu of choices available" [citations omitted]. Carla L Reyes, 'If Rockefeller Were a Coder' (2019) 87 The George Washington Law Review 373, 405.

1175 Rea, Fischer and du Rose (n 1155) 12; Rea and others (n 1155) 10, 32. While tokenholders were given a vote on changing the supply of native tokens in a colony in the 2018 white paper, the 2020 white paper makes this right optional. In other words, root users (i.e., users whose accounts have been given higher-level administrative functions in the colony) can mint tokens unilaterally and at-will if they set up a colony in this way. Previously, tokenholders were also entitled to vote on arbitrary transactions, i.e., actions that are unforeseen by the colony and the Metacolony. However, the 2020 white paper clarifies that such transactions will require root user authorization. Rea, Fischer and du Rose (n 1155) 49; Rea and others (n 1155) 20.

1176 Rea, Fischer and du Rose (n 1155) 9; Rea and others (n 1155) 21. While the 2018 white paper made the staking of reputation obligatory, the 2020 white paper only requires the 'manager' role-holder is only required to have authorization permission and staking is optional.

1177 Rea, Fischer and du Rose (n 1155) 17; Rea and others (n 1155) 15.

1178 Rea, Fischer and du Rose (n 1155) 32–33; Rea and others (n 1155) 23.

When joining the Colony platform, workers would have tagged their skill-sets and managers can use this to search for one who is most appropriate for a task. After an agreement is reached, a task may be specified to them along with working guidelines, a due date and payment terms (for the worker, evaluator and manager).[1179] While the manager may also act in the capacity of evaluator, this role can be delegated to a separate person as well. The evaluator may be unknown to the worker, as they may only be identifiable by their public key.

Following the completion and evaluation of task, there will be 3 days to raise objections (now called motions) and disputes regarding the quality of the task performed. When there are no objections, the worker gets paid in the colony's native token or another approved crypto currency.[1180] If paid in native tokens, the workers' reputation in their domain increases, as well as all the wider domains of which it is part, including the colony itself (i.e., the top-level domain). Simultaneously, their reputation for performing the tagged skill increases, as well as any wider, parent skills of which the skill is a part.[1181] The sum of their top-level domain and top-level skills reputations determines their influence on decisions that affect the individual colony.[1182] To avoid disproportionate gains in reputation following the completion of a task, the bounty initially set could be tied to hours worked, rather than the rates charged by the worker.[1183]

If there is an objection (motion), an objector must be able to defend his/her objection. Its content should not only specify why a task is inadequate and what could be done better, but also suggestions as to the 'reputations' (i.e., Colony members with a certain level of reputation) that should vote if a dispute arises and reasoning for why these reputations should vote. This allows objections to be scaled to a larger group of peers, whether at a domain, colony or Metacolony level. This objection can only be made if an objector has a certain reputation score and stakes some of their own tokens.[1184] If no one makes a counter-stake to object to the objection, then the objection will pass, and the worker will receive less/no pay. If someone does sufficiently counter-stake within 3 days, then a dispute will arise. The staking of tokens is needed, not only to avoid frivolous objections, but also to compensate the persons involved in settling a dispute through voting.

1179 Rea, Fischer and du Rose (n 1155) 9; Rea and others (n 1155) 21–22.

1180 Rea, Fischer and du Rose (n 1155) 10; Rea and others (n 1155) 22, 28.

1181 Rea, Fischer and du Rose (n 1155) 16; Rea and others (n 1155) 22. The manager's token-holding and domain reputation rises or falls in the same manner, but their skill rating is not affected.

1182 Rea, Fischer and du Rose (n 1155) 14–15; Rea and others (n 1155) 13–14.

1183 Rea, Fischer and du Rose (n 1155) 13; Rea and others (n 1155) 10.

1184 Rea, Fischer and du Rose (n 1155) 39, Annex A; Rea and others (n 1155) 28, Annex A.1.

The weight of their votes is contingent on a person's reputation in the skill and domain in dispute.[1185] Being on the winning or losing side of a dispute has the corresponding effect of enhancing or diminishing reputation scores. The payment and reputational scores allotted to the worker or evaluator depends on the final score received after disputes are resolved. If the work is found to be inadequate, the worker will receive diminished payment and lose reputation in their domain and their tagged skill, as well as parent and child domains and parent and child skills.

In addition to payment for completed tasks to workers, managers and evaluators, persons in the colony holding native colony tokens and reputation are entitled to rewards from the revenue earned by the colony.[1186] This means that a worker in a colony, waiting for the next task to be assigned to them, can continue to earn (for a while) from the revenue they had helped generate.

7.4.3 Worker Cooperatives: Learning from the Colony Project

A close reading of the governance structure of colony, reveals a startling resemblance to LMFs, such as worker cooperatives. Firstly, the economic activities are carried out primarily for the benefits of its participants. Secondly, most, if not all, the capital of the organization is held by the participants. This is indicated by the fact that tokens and reputation are issued exclusively to the participants of a new colony,[1187] before gaining potential investors, and as such can only be gained through various forms of work: production, evaluation and management. This is akin to the common practice in the start-up technology sector of granting employees stock options,[1188] but in this instance it is coupled with the right to have a voice in significant strategic decisions.

Thirdly, as currently designed, colonies have voluntary, open membership by default. Restricted membership is not mentioned in any of the Colony White Papers. This is characteristic of initiatives in open source communities, where objective peer-review is critical and where, instead,

1185 Rea, Fischer and du Rose (n 1155) 42; Rea and others (n 1155) 31.
1186 Rea, Fischer and du Rose (n 1155) 44; Rea and others (n 1155) 11.
1187 Rea, Fischer and du Rose (n 1155) 13; Rea and others (n 1155) 10.
1188 Index Ventures, *Rewarding Talent, a Guide to Stock Options for European Entrepreneurs* (Index Ventures 2017) 12.

there are concerns about keeping participants motivated and committed.[1189] However, the key difference with open source communities is that colonies may not be limited to the private provision of public goods,[1190] for which values such as the long-term striving for excellence may come into play.[1191] Colonies may be used for the production of private goods as well.

Fourthly, Colony has what can be broadly described as dynamic meritocratic governance, where the weight of one's vote is dynamically adjusted according to one's contributions to a task, domain or colony. In itself, this is not contrary to cooperative principles as there are cooperatives which weigh voting power according to e.g., production.[1192] Participants still have a voice in the governance and strategic decision-making of the colony, as exemplified by the fact that anyone can set up a task for the colony to complete.

Fifthly, it is clear from the White Paper that the assets of a colony are conceptually distinct from that of the participants, as they are escrowed in a smart contract and associated pots. Access to these pots is conditional on a successful funding proposal. Funds for rewards and (replenishing) working capital are kept separate.[1193] Notionally, colony smart contracts can subsist indefinitely with tokens in escrow, even after it has been abandoned, indicating that it is technologically possible for the colony to have its own capital. Moreover, the payment of Network fees, which is reinvested to maintain the Network and to do useful supportive work (e.g., build applications) is also reminiscent of the cooperative practice of building financial reserves and investing in useful services (e.g., training) to sustain the mission of the business.

While taking these similarities into account, there are certain functionalities in Colony which can potentially overcome the start-up and coordination costs that worker cooperatives often face, especially when operating across borders.

Decentralised organisations prefigure ready-made governance structures that are easily accessible online and are native to globally distributed blockchains. While the governance mechanism is technically complex, as with other digital applications, once launched its use will be intuitive and user-friendly. As such, these organisations can provide capital and governance structures for digitally-native worker cooperatives to adopt.

1189 Georg von Krogh and others, 'Carrots and Rainbows: Motivation and Social Practice in Open Source Software Development' (2012) 36 MIS Quarterly 649, 664.

1190 Maria Alessandra Rossi, 'Decoding the Free/Open Source Software Puzzle: A Survey of Theoretical and Empirical Contributions' in Jürgen Bitzer and Philipp JH Schröder (eds), *The Economics of Open Source Software Development* (Elsevier 2006) 33. Rossi characterises open source software as public goods, but the openness of course depends on the particular type of license.

1191 von Krogh and others (n 1189) 661ff.

1192 PECOL, section 2.4(8)(a).

1193 Rea, Fischer and du Rose (n 1155) 44; Rea and others (n 1155) 11–12.

In terms of financing, worker cooperatives can consider implementing a system in which financial rewards and decision-making power are generated through useful patronage, represented as separate quantified units, but with only the financial rewards being exchangeable – as they are with native tokens and reputation on the Colony platform.[1194] If the token gains use-value, then it can be sold or swapped for other, more widely-used cryptocurrencies, which can tide over those who only have intermittent work. The relative transferability of a token compared to a partnership interest, a standard cooperative membership, or an employee share held in a trust, allows workers to diversify their risks, in the event their cooperative fails. At the same time, this allows for a certain amount of external investment to flow into the business. As (most) decision-making rights are not attached to native tokens independent of reputation, it may be acquired and held by third parties without diluting the decision-making rights of worker-members, as is the predominant concern with non-member investment.[1195] At the same time, this poses a dilemma for such cooperatives as it severely limits the available pool of investors, given that previous experience with non-voting investments in worker cooperatives (e.g., France's *titre participatif*) has been met with a lukewarm response.[1196]

In terms of collective action problems, a frequent criticism of worker cooperatives is time spent on meetings to reconcile heterogeneous interests,[1197] and as such taking actions on the basis of tacit consent, rather than majority voting or unanimity, may in fact be preferable. Similarly, the requiring of staking of reputation and tokens in raising an objection, can help avoid trivial disagreements about the quality of work. Turning to the aforementioned cross-border coordination issues, the fact that workers are drawn from different backgrounds prevents them from having a shared, homogeneous background in terms of politics, work and culture, features

1194 Financial reward here refers to both a cryptocurrency for work done and a token from the revenue of the colony. Reputation, like labour, is inalienable from the worker-member. The development of online reputation systems allow skills, organisational contributions and organisational value to be represented more tangibly, homogenously and dynamically than capital shares and labour membership. On the limitations of a LMF membership market due to the inalienability of labour, *see* Gregory K Dow, *The Labor-Managed Firm: Theoretical Foundations* (Cambridge University Press 2018) 8.

1195 It is also less clear-cut that a crypto-token issued by a worker cooperative, with the properties described herein, will constitute a security as compared to tradable shares in a worker cooperative, which generally will. Mikami (n 1139) 501; Zamagni and Zamagni (n 1044) 87–88.

1196 I am grateful to Philippe Honigman for this point. Law n°83-1 of 3 January 1983 [France] introduced this long-term investment instrument into French law and cooperatives were eventually permitted to issue them.

1197 Gerald F Davis, 'Can an Economy Survive Without Corporations? Technology and Robust Organizational Alternatives' (2016) 30 Academy of Management Perspectives 129, 137.

which are usually associated with worker cooperatives.[1198] Instead, reputation-weighted governance may be needed for organisations seeking to coordinate heterogeneous, pseudonymous group of actors that operate across a wide geographical territory with limited trust, state policing, and easily-enforceable regulation.[1199] While blockchain communities have only emerged in recent years,[1200] history is replete with examples of such organisations. Examples range from the Amsterdam Stock Exchange in the seventeenth century[1201] to modern Moroccan bazaars.[1202] Contemporaneous examples include Usenet newsgroups, massive multiplayer online gaming and open-source software developer communities. A common theme appears to be finding counterparties with desirable qualities (e.g., a certain set of skills and experience), while at the same time coordinating these individuals to ensure contractual performance and the pursuance of the collective interest.

This does not necessary require external enforcement, through judges or regulators, but can be achieved through the threat of diminished reputation. The risk of losing reputation is sufficient motivation for performance by a party, especially when it is in their interest to have continuous transactions with a counter-party,[1203] on a regular[1204] or irregular basis.[1205] As such, the fear of lost reputation will "crowd in" honesty in the long run.[1206] This is true of online communities and project-based work, particularly in creative industries.[1207] This, however, assumes that parties have sufficient information and knowledge of each other's reputations. Online reputations systems are able to address these information asymmetries somewhat, as

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1198 Zelda F Gamson and Henry M Levin, 'Obstacles to the Survival of Democratic Workplaces' in Robert Jackall and Henry M Levin (eds), *Worker Cooperatives in America* (University of California Press 1984) 225.

1199 This article outlines some of the problems posed by cooperation in large groups with anonymous interactions. Iris Bohnet, Bruno S Frey and Steffen Huck, 'More Order with Less Law: On Contract Enforcement, Trust, and Crowding' (2001) 95 The American Political Science Review 131, 131.

1200 DuPont (n 1159) 175.

1201 Edward Stringham, 'The Extralegal Development of Securities Trading in Seventeenth-Century Amsterdam' (2003) 43 The Quarterly Review of Economics and Finance 321, 324.

1202 Clifford Geertz, 'The Bazaar Economy: Information and Search in Peasant Marketing' (1978) 68 The American Economic Review 28, 29.

1203 Stringham (n 1201) 323–324, 336.

1204 Robert C Ellickson, *Order without Law: How Neighbors Settle Disputes* (Harvard University Press 1991) 55–58, 214; David W Brown, *When Strangers Cooperate: Using Social Conventions to Govern Ourselves* (Free Press 1995) 18.

1205 Paul R Milgrom, Douglass C North and Barry R Weingast, 'The Role of Institutions in the Revival of Trade: The Law Merchant, Private Judges, and the Champagne Fairs' (1990) 2 Economics & Politics 1, 7–8.

1206 Bohnet, Frey and Huck (n 1199) 132, 138.

1207 Josh Lerner and Jean Tirole, 'Some Simple Economics of Open Source' (2002) 50 The Journal of Industrial Economics 197, 218; Philip Schörpf and others, 'Triangular Love–Hate: Management and Control in Creative Crowdworking' (2017) 32 New Technology, Work and Employment 43, 46.

user reviews and ratings provides granular information about a potential counterparty in a digestible form. Yet, peer-to-peer systems are vulnerable to manipulation by platforms that host them and biased reviewers, raising concerns about the system's own trustworthiness.[1208]

However, the manner of its deployment in the Colony protocol makes the system less prone to cronyism. Managers of tasks are incentivised to intuitively and objectively choose workers based on a quantification of their demonstrated skills and recent contributions, rather than personal characteristics, as they stake their own tokens when initiating a task. This score is not generated through ratings by (potentially) anonymous individuals with little to lose. Instead, evaluators stand to receive diminished payment and a reduced reputation score for inadequate evaluations, while contesting a task or decision through the dispute resolution mechanism requires risking tokens and reputation. A teething concern about the democratisation of reputation systems is that it will ultimately not be sustained, with its growing complexity leading to the emergence of oligarchy. One empirical study has already observed this trend with regard to peer-production projects, leading to structural changes in authority and a re-orientation of organisational goals.[1209] A key distinguishing feature of Colony's reputation system, however, is its degradability, which prevents early movers from resting on their laurels and incentivises the continuous, useful engagement of all members in the governance of colonies. To embed such a system in a worker cooperative, a link to a user-friendly portal that provides up-to-date individual reputation scores and accrued financial rewards may be provided in the section of the by-laws concerning membership. Collectives such as dOrg have implemented a similar (though not identical) transparent reputation and reward system and future research can investigate whether this improves the governance of such organizations or contributes to new conflicts.

7.5 Conclusion

Colony is one of a handful of blockchain projects currently exploring how to design organisations that work in the interest of its multi-stakeholder constituents.[1210] These decentralised organisations reconfigure ownership within firms, enabling greater rights to the residual profits of the firm and control rights. In doing so, they bear a remarkable resemblance in the crypto-space to the early pioneers of worker cooperatives.

1208 Sofia Ranchordás, 'Online Reputation and the Regulation of Information Asymmetries in the Platform Economy' (2018) 5 Critical Analysis of Law 127, 134–138.

1209 Shaw and Hill (n 507) 219, 229.

1210 DAOstack, 'Home Page' (*DAOstack*, 2021) <https://bit.ly/3qi8wMy>; Aragon, 'Home Page: Govern Better, Together' (2021) <https://bit.ly/2TXpaVw>; Gitcoin, 'About: Govern Gitcoin with GTC' (*Quadratic Lands*, 2021) <https://bit.ly/35MwGFG>.

Undoubtedly, such projects entail risks and pro-active co-operators should be wary of them when experimenting with blockchain technology. The regulatory status of crypto-tokens are still in flux[1211] and sudden classification as a security can have deeply unpleasant, costly securities liability consequences for members.[1212] This chapter has concentrated on the capital and governance structures of cooperatives, but it is still unclear which legal structure would be suitable for the goals of decentralised organisations while still providing the benefits of limited liability.[1213] Moreover, for the promoters of such businesses, as well as interested participants, it is necessary to challenge and grapple with the complexity of these governance structures in which corporate governance-by-design is sought, as it potentially embeds power structures in new and unexpected ways. Decades of research on cooperative degeneration and regeneration highlight the importance of being alive to the possibility of oligarchy emerging.

On a more optimistic note, blockchain projects such as Colony provide considerable insight into the technological and theoretical possibilities (and limitations) of decentralised governance. The proposed capital and governance structure of colonies may hold lessons for LMFs, such as worker cooperatives, in the process of being formed and those confronted with cross-border coordination problems as they expand overseas. These decentralised governance structures allow us to imagine self-employed persons or small businesses in Bangladesh, Uzbekistan and the Netherlands collaborating together in a joint venture, where power is not distributed according to capital or bargaining power, but reputation tied to the quality of their non-capital contributions. As blockchain technology is adopted more widely, this may be a part of a broader movement to achieve a more engaged, more effective participatory democracy across nation states.[1214] By providing the contours of how worker cooperatives may draw lessons from these blockchain projects, this chapter has sought to contribute to the realisation of alternative economies[1215] in which there is greater scope for worker ownership.

1211 William Hinman, 'Digital Asset Transactions: When Howey Met Gary (Plastic)' (San Francisco, CA, 14 June 2018) <https://bit.ly/2TXApgZ>.

1212 For a case involving securities classification of a purported utility token, see *In Re: Munchee*, Administrative Proceeding File No. 3-18304, 11 December 2017, at 5-6.

1213 Reyes suggests the business trust. *See* Reyes (n 1174) 411, 414–415. dOrg, as mentioned previously, operates as a collective, while organized as a Vermont BBLLC. dOrg (n 1081).

1214 Maria-Lluïsa Marsal-Llacuna, 'Future Living Framework: Is Blockchain the next Enabling Network?' (2018) 128 Technological Forecasting and Social Change 226, 232.

1215 JK Gibson-Graham and Gerda Roelvink, 'The Nitty Gritty of Creating Alternative Economies' (2011) 30 Social Alternatives 29, 29–30.

Table 12: Abbreviations and Glossary

Blockchain Technology	A resilient, near-immutable, distributed and transparent database that can pseudonymously execute economic transactions. It can be public or private, thereby affecting who can interact with the blockchain.
CLNY	Meta Colony of the Colony protocol. The Meta Colony also has its own tokens referred to as CLNY tokens.
Crypto-Currency	Tokens that are a unit of account and are used as a means of payment.
DAO	Decentralised Autonomous Organisations that use blockchain technology and smart contracts as their primary or exclusive source of governance and respond to both digital and human inputs.
Investment Token	Tokens that have the characteristics of an equity instrument and embody expectations of future profit through the managerial efforts of others.
KMF	Capital Managed Firm
LMF	Labour Managed Firm
PECOL	Principles of European Cooperative Law
Off-chain	All transactions that are not represented on the blockchain
Oracle	A third party, trusted by parties of a smart contract, that relay information from the outside world to a smart contract
SCE	European Cooperative Society
SEC	Securities and Exchange Commission of the United States of America
Smart Contract	Software that embodies an agreement between parties and then (self) executes when certain conditions are met.
Utility Token	Tokens that give a right of access to an online platform, product or service.

8 Conclusion[1216]

Abstract

The penultimate, concluding chapter of this dissertation summarises the chapters of this dissertation, with a particular focus on their social and scientific contributions. It subsequently draws together the legal and policy recommendations made throughout this dissertation with a view towards how they can contribute to realising a democratic platform economy. Finally, I discuss some avenues for future research.

8.1 Scientific and Social Contributions of this Dissertation

Aside from the introduction and conclusion, each chapter of this dissertation was written as a stand-alone article or research paper that makes original scientific and social contributions. After an initial introduction, chapter 2.2. provided a brief tour of platform capitalism and sought to establish what makes platform capitalism distinct from earlier forms of capitalism. Three distinguishing features were identified. First, platform companies in both the gig and social media sectors, to varying extents, concentrate ultimate control over their corporate governance in the hands of a few persons and the more prominent actors exploit their dominant market position for, often, socially harmful ends. Second, through their capacity to collect, process and use personal data to mediate interactions and sell goods and services, platforms are able to reach and create new markets. Thirdly, and crucially for this chapter, it was argued that the business model of platform capitalism seeks to benefit from platform users experiencing what Merton terms role conflicts and role-set conflicts. Chapter 2.3. provided an overview of the core concepts of role-set theory and applied them to the platform economy, drawing on illustrative examples from a specific gig work platform, Uber, and a particular type of user, its drivers. Chapter 2.4. reflected on whether

1216 An earlier version of the author's benchmarking study appeared as an appendix in Trebor Scholz, Morshed Mannan, Jonas Pentzien & Hal Plotkin, *Policy Recommendations to Support Cooperative Ownership in the Digital Economy* (Berggruen Institute [forthcoming]). Some of the ideas presented in the conclusion are also in Morshed Mannan, 'Towards a Legal Framework for Platform Cooperatives: Potential and Obstacles', written submission to the United Nations Department of Economic and Social Affairs for the forthcoming Report of the UN Secretary General on Cooperatives in Social Development (2021), <https://bit.ly/2TaKS8v>.

the reconfiguration of decision-making and financial rights in a platform company through cooperative membership can address these role conflicts and role-set conflicts to the user's benefit, while also redressing platforms' accountability crises and data use practices. The chapter then evaluated the opportunities and challenges afforded by the status of cooperative member in addressing the numerous challenges posed by platform capitalism and concluded by summarizing and presenting directions for future research.

In other words, chapter 2 focused on how system-level and enterprise-level developments in the platform economy, described as 'platform capitalism', has had significant implications for the identity of individuals, in how they are characterized, how they perceive themselves and how they relate to others within their 'role-set'. It made a novel contribution to the literature on platform cooperativism by framing this counter-movement's emergence as involving the creation of a new status of member that subsumes other statuses – e.g., worker, investor, owner, data subject to name a few – within its remit. While there are limits to the extent to which membership can be a panacea to all the widely-reported ills that platform capitalism has brought forth, this analysis of members' statuses and roles demonstrated how the pursuit of micro-level changes can have a countervailing impact at the enterprise-level (e.g., creation of new business models) and the system-level (e.g., formation of a new population of platform cooperatives). In doing so, this chapter responded to the call of Limnios and colleagues to extend the nascent literature on member identity formation within producer cooperatives to other industries. It did so by focusing on the worker and multi-stakeholder cooperatives that predominate within the platform cooperativism movement.[1217]

Summary of Contributions of Chapter 2:

- ▷ Theory was developed for why there is an interest in the formation of cooperatives in the platform economy, grounded in a desire for persons to change their status in relation to online platforms.
- ▷ New typologies of cooperative-run platforms and platform cooperatives were presented based on the collection of new data from the Internet of Ownership directory, business registers in the European Economic Area and the Internet.
- ▷ Limitations of cooperative membership in resolving role-conflicts and role-set conflicts caused by the platform economy were identified and analysed. Suggestions were made as to how these limitations may be mitigated.

Chapter 3 turned to one of the most visible sectors of the platform economy: local gig work in the form of on-demand food delivery and cleaning. Having explored some of the normative arguments for why platform cooperatives are needed in the previous chapter, this chapter set out to

1217 Mamouni Limnios and others (n 178) 31.

empirically explore whether a latent demand for such cooperatives exists. As platform cooperatives are a new category of organisation that have yet to gain widespread public prominence, a forecasting method known as a Delphi study was used to assess whether there is a latent demand for broad-based worker ownership among stakeholders in these two sectors. This method brought together a diverse range of highly knowledgeable stakeholders – from corporate managers to platform workers to trade unionists – to have an anonymous, moderated conversation on the prospects and viability of extending financial rights and control rights to platform workers. As Delphi studies seek to achieve consensus among participant panellists, while still leaving room for dissensus, this method revealed the specific organisational decisions and participation rights that are most important for platform workers. The Netherlands was a particularly intriguing site for such research as it is a country that, on the one hand, has a long history of coordinated industrial relations and workplace participation, but on the other, lacks a strong culture of employee ownership. The literature (Chapter 3.2.) shows that there is a nascent interest in workplace voice and collective organising among gig workers, but such efforts are stymied by unfavourable regulations and worker representation institutions that were developed for more traditional employment arrangements. This raises the hypothetical possibility that self-help organisations such as cooperatives will fill this vacuum in representation, but it remains unclear if workers would wish to take on all the challenges of entrepreneurship that come along with it.

Chapter 3.3. elaborated on the rationale for choosing the Delphi method and presented two hypotheses concerning the type of decisions that local gig workers will wish to be involved in an 'ideal' platform economy, and the appropriate institutional mechanisms for realizing this involvement. The first hypothesis was that stakeholders will prioritise collective bargaining and information and consultation rights over decision-making rights in, for example, the design and governance of platforms. The second hypothesis was that, in the Netherlands, forming platform cooperatives will present a less attractive option for stakeholders than expanding the role of trade unions and works councils. After explaining the research method used (chapter 3.4.), the following two sections presented and discussed the main findings. In short, while the two hypotheses were confirmed, the need to extend voice over certain operational decisions and the attractiveness of equity ownership in platform companies was also acknowledged by some. This reinforced the importance of worker organising and representation, in the form of trade unions and works councils, in achieving important workplace gains such as improved pay and insurance coverage. However, at the same time, the experience of collective bargaining and codetermination in other countries with respect to local gig work also reveals the limitations of these forms of representation. As such, it provides an opening to worker-owned labour platforms, such as a platform cooperative, as a form of collective self-help.

Summary of Contributions of Chapter 3:

- ▷ Application of a relatively underused tool of legal research – the three-stage Delphi study – to investigate the views of platform stakeholders on the availability and desirability of workplace participation for platform workers.
- ▷ A nuanced distillation of the rights, decisions and forms of participation that are most important for platform workers in the Netherlands, according to knowledgeable platform workers and other expert stakeholders. While not foreclosing the possibility that platform cooperatives and other forms of broad-based ownership will be popular in a coordinated industrial system, the study revealed the limits of their appeal in organizing counter-power in such a context.
- ▷ Confirmation of the importance of industrial relations culture in choosing between different forms of worker participation in the context of local gig work platforms.

Having identified the conditions necessary for democratic firms to flourish in the platform economy, chapter 4 turned to the hypothetical example of an archetypical centralised platform, 'CoSocial', to posit ways in which its ownership and control could be democratised.

At a certain stage of growth, CoSocial is confronted with a decision on how it wishes to 'exit', which usually means one of two options: exit to distributed investor ownership by way of an initial public offering or get acquired by another company. As this chapter showed, such exits are often not a sustainable path for technological innovation, business activity or enhancing user experience on the platform. For instance, competitor companies often acquire promising, smaller competitors purely for the purpose of acquiring their intellectual property and shutting down their operations.

Instead, over the course of the chapter, three different strategies were presented for transitioning towards democratic-ownership and -governance by way of an *exit to community*. The three options presented were: (1) the acquisition of shares in the social media company by a trust that represent the company's stakeholders, (2) the transformation of the centralised platform into a federated network operated by a distributed cooperative, and (3) the registration of the company's shares on a blockchain-based network (i.e., tokenising shares) as a step towards a private placement and, eventually, distributed ownership of the tokenised shares. The choice to present more than one strategy was deliberate as the direction that such a platform company may wish to pursue may vary based on several factors, including the level of direct engagement by stakeholders (e.g., users) in governance, the decisions they are given a voice in, and the financial rights that are extended to them. For each strategy, a background section was provided to show how they have a basis in earlier organisations and transfer mechanisms, from age-old cooperative federations to community mesh networks, from employee stock ownership plans to experiments in

tokenising company shares. There was also an evaluation of some of the major implications that each strategy will have, in terms of governance and financial rights respectively. Finally, it was acknowledged that each of the strategies require enabling laws, policies and regulatory actions. This ranges from relatively modest interventions, such as modifying the terms on which an individual can participate in private placements, to bold moves, such as 'breaking up' a centralised platform, recognising blockchain-based shares, and providing tax incentives for business transfers to stakeholders. By introducing new exit strategies in this chapter – and acknowledging the need for further strategies to be proposed – the conventional understanding of an exit in the business and tech sector was replaced with an older understanding of exit: as an "[e]xodus which invents its own 'promised lands' as it goes along".[1218]

Summary of Contributions of Chapter 4:

- ▷ Positions multi-stakeholder ownership and governance of platform companies within the larger platform regulation discourse.
- ▷ Proposes 'exit to community' and a set of three new exit strategies for tech companies, including platform companies, to transition to democratic-ownership and -management. These options draw primarily on US federal, California and Delaware law. While there has been movement-building work to promote the idea of exit to community, this is the first legal, scholarly publication to do so.
- ▷ Evaluates the legal, financial and governance implications of each exit strategy.

Chapter 5 was primarily concerned with social media users as a stakeholder group. The chapter presented a normative case for user ownership and governance based on a three-fold argument: (1) social media companies extract surplus value from users and this is not adequately acknowledged, (2) social media platforms have a cultural value that users should have a role in managing and preserving, and (3) social media companies are political entities and the absence of democracy within these companies delegitimises their authority and is an affront to human dignity. This three-fold argument was based on a wide-ranging body of literature that critiques the contemporary economy, ranging from Fuch's scholarship on digital labour to Ellerman's work on neo-abolitionism. Building on this argument, chapter 5.3. presented a proposal for stimulating user ownership and governance of social media companies: the shareholding trust/foundation.

The first part of chapter 5.3 was devoted to weighing the advantages and disadvantages of a particular organisational form and based on this analysis, the non-charitable perpetual purpose trust was identified as being the most appropriate, given its inherent flexibility and for its capacity to both serve a specific purpose and enable indirect user ownership and

1218 Andre Gorz, *Reclaiming Work: Beyond the Wage-Based Society* (1st Edition, Polity 1999) 79.

governance. As such trusts are not available in every jurisdiction, the *Stichting Administratiekantoor* (STAK) – a type of foundation in the Netherlands used to split the legal and economic entitlement to shares – was introduced by way of comparison. The remainder of the section analysed the attributes of a non-charitable perpetual purpose trust – including the controversies surrounding this entity – before discussing its use as a new vehicle for business stewardship (e.g., in the US states of Oregon, Delaware). A transfer mechanism was then proposed that would make use of this trust, both as an intermediary to acquire voting shares in the social media company and as a democratically elected body to represent users. User representatives would be appointed from a global userbase to a trust protector committee, which would be responsible for directing the trustee in their duties. The option for using a STAK for this transfer process instead was then discussed, due to it being a distinct (yet comparable) entity that is memberless and established for specific purposes.

The penultimate section of chapter 5 engaged with the question of how the trust or foundation can meaningfully participate in the governance of the company they're acquiring. I submitted that this should not be limited to the voting rights of common shareholders but, as a representative body, the user representatives should have the right to consult, advise and consent to a wider range of decisions. Inspiration for such wide decision-making power was drawn from theoretical models, such as Turnbull's stakeholder mutuals, to the examples of client councils and works councils in the Netherlands. Of course, in the interest of good governance, it is necessary for the company, the user representatives and the userbase to be aware of the existence of these rights and for user representatives to be well-equipped to implement them. In view of this, a preliminary 'good governance checklist' was presented to help user representatives to know what rights they have, over what decisions, and the actions a company needs to take for them to implement those rights. As a corollary to this, a diagram was presented to help the global userbase visualise the decision-making process and their potential role in it. The chapter concluded with a reflection on some of the financial and tax policies that would be needed to support such share transfers.

Summary of Contributions of Chapter 5:

- ▷ Builds on the case for transferring existing social media companies to user ownership and governance.
- ▷ Critically evaluates the advantages and disadvantages of using a non-charitable perpetual purpose trust or a STAK for transitioning to user ownership and governance of social media platforms.
- ▷ Presents a checklist for allocating the rights of user representatives and assessing their involvement in governance, after the share transfer process begins and user representatives are appointed as a new group of intermediaries. This is accompanied by a diagram that visually represents the decision-making process.

After chapter 5, chapter 6 turned to another way of organising a democratic firm: the creation of a cooperative, as part of a wider network organisation. The preceding chapter examined type (3) prosumption, and chapter 6 in turn explored type (1) prosumption in the urban mobility sector. This was done through a comparative case study of two firms: (1) Eva Global Corp. and the ride-hailing cooperative Coop de solidarité Eva in Quebec that licenses technology from the former, and (2) The Mobility Factory, a secondary cooperative in the electric car sharing sector and two of their primary cooperatives, Partago and SomMobilitat, which own the intellectual property for their platform through the former entity. The choice of these cases was determined by the fact that they are 'most-similar' cases, in that the two cooperatives are similar in several respects but differ on a few key variables. While they both can be considered part of the sharing, solidarity, collaborative and platform economies in general, The Mobility Factory is tied more closely to citizens' movements for renewable energy and Eva is associated with efforts at building organisational alternatives for local platform labour. Both are interested in making urban mobility more sustainable, while also being for-profit.

What made these two cases of particular interest is their federated & networked structure. Both Eva and The Mobility Factory are network organisations where multiple businesses coordinate to develop a shared technology. In this sense, Eva and The Mobility Factory are 'shared-services' platforms, as they help their member entities to pool costs and share resources. While such shared-services platforms have been recommended in earlier literature, examples are scarce. In view of this, the overarching research objective of this chapter was to understand and explain the motivations for creating network organisations such as a cooperative federation and a social franchise. The intention was to develop hypotheses about the features of a platform cooperative's business model (i.e., variables) that makes being part of a network organisation attractive and determine the specific type of network organisation they belong to. In doing so, I hoped to take steps towards building a theory about why and how platform cooperatives share services. This chapter additionally followed-up on earlier theory-building research by Nelson et al. which encourages empirical research on the involvement of cooperatives in alliances and networks and the impact of such involvement on cooperative identity formation.[1219]

This also contributed to the overall research project of this dissertation as it evaluated whether nascent platform cooperatives, more broadly, need to operate within network organisations to make their business models viable. Given the relative novelty and rarity of shared-services platforms, the case study method was seen as being particularly appropriate for investigating the causal pathways that led to the use of a particular legal and governance structure by these businesses. Out of the small (but growing)

1219 Nelson and others (n 154) 305.

population of shared-services platforms, a purposive sample of two cooperatives was considered to be sufficiently rich in detail to shed light on other shared-services platforms that are emerging. Through interviews with leaders and members of these business organisations, along with an analysis of their formation documents and promotional material, the legal and governance structures of these two novel enterprises were examined closely.

Shared-services platforms embody ICA principle no. 6 ('cooperation among cooperatives') and facilitate ICA principle no. 4 ('autonomy and independence'), by enabling cooperatives to pool resources and build a shared technological infrastructure. The examples of The Mobility Factory and Eva not only show how platform businesses can grow in a cooperative manner, but they also demonstrate how it is possible to reverse the algorithmic gaze. The cooperative members of The Mobility Factory decide what features their car sharing application have and can be confident that the data used to improve it comes from *their* cooperative ecosystem. As Uber drivers go to court to enforce their right to access their collected and processed data and transfer their personal data to a 'data trust',[1220] Eva demonstrates how a cooperative alternative can give drivers access to their data – as well as a voice in the design of the application and setting the transaction fees charged. Instead of being strong-armed into consenting to the arbitration of their employment disputes in a foreign jurisdiction,[1221] Eva drivers know as members that they have several avenues to raise grievances, from public Telegram channels to in-person meetings at Eva's office in Montreal to a local court if necessary.

These case studies not only allowed for an in-depth explanation of the motivations that animated the decision to create a cooperative federation and social franchise, but it also provided an opportunity to analyse the legal and governance structures of each case based on earlier research on the governance of cooperative federations, social franchises, as well as property rights theory. In addition to presenting some of the difficulties these structures present, suggestions were also made about how shared-services platforms can be better governed as operators of shared infrastructure. Based on the aforementioned analysis, the chapter developed seven hypotheses concerning the choice of legal and governance structure of shared-services platforms and the variables that can determine this choice (e.g., in-house/external intellectual property development, need for tangible asset ownership, global/local branding, etc.)

1220 Edward Ongweso Jr., 'Uber Drivers Sue to Gain Access to Its Secret Algorithms' *Vice* (22 July 2020) <https://bit.ly/2TovXYN>.

1221 Tamar Meshel, 'International Commercial Arbitration in Canada after Uber Technologies Inc v Heller' (2021) 37 Arbitration International 361, 362–364.

Summary of contributions of Chapter 6:

- ▷ Examines the legal and governance structures of two novel network organisations, which I describe as 'shared-services platforms', neither of which have previously been the subject of academic study.
- ▷ Evaluates some of the opportunities and challenges that the use of these structures raise. Develops seven hypotheses regarding shared-services platforms, which may be tested as more shared-services platforms are formed.

Chapter 7 took its cue from Hansmann's hypothesis that organisational innovations can make worker ownership of firms viable in previously untenable circumstances, by exploring how the use of blockchain technologies by worker cooperatives may diminish the collective decision-making problems typically associated with such cooperatives when they scale in size and geographic scope. In comparison to chapter 5, which built a specific case for extending ownership rights to users, and chapter 6, which explored multi-stakeholder cooperatives and cooperative federations, this chapter focuses on the archetypical labour-managed firm, the worker cooperative. Chapter 7.2. first presented an overview of what a worker cooperative is using the Principles of European Cooperative Law, a set of principles that seeks to synthesise a common understanding of the attributes of cooperatives and cooperative law from across European jurisdictions. The following two sections explained the social and political appeal of worker cooperatives for workers and reviewed the literature that assesses the competitiveness of the labour-managed firm. This chapter thereby showed how the social and economic values contributed by worker cooperatives have precipitated continued interest in cooperatives among European policymakers. That being said, beyond certain regions such as the Basque country and the Emilia-Romagna region of Italy, worker cooperatives are relatively scarce in other parts of the world. This discussion was closed by setting out the main reasons for the scarcity of worker cooperatives, focusing specifically on their low birth-rate (e.g., problem with raising funding) and coordination problems as they scale (e.g., horizon problems). These problems are considered to have inhibited the growth of transnational worker cooperatives and global platform cooperatives.

The remainder of the chapter was devoted to exploring to how the organisational innovations developed by blockchain projects can potentially address this coordination and birth-rate problem. For this purpose, chapter 7.3. concisely explained what smart contracts and decentralised autonomous organisations are, before chapter 7.4. presented a case study of a particular project, Colony, to assess what their Ethereum-based protocol for creating and operating internet organisations can offer worker cooperatives. This penultimate section of the chapter delved into what Colony is and the reputation-based governance system they propose for managing interactions and resolving disputes in internet organisations. While the Colony project was still under development at the time of writing, their experi-

ments with reputation-based governance and native crypto-tokens offer useful lessons for worker cooperatives wishing to operate at a global scale. The chapter then concluded by discussing some of the broader potential and pitfalls of using blockchain technology for organisational innovations.

Summary of contributions of Chapter 7:

- ▷ Highlights that addressing the start-up and coordination problems of worker cooperatives is essential for transnational worker cooperatives and platform cooperatives.
- ▷ Introduces the organisational innovations of the Colony protocol, and in particular decaying reputation-systems, to the discourse on cooperative governance as a way of addressing these problems.
- ▷ Explains how worker cooperatives can embed blockchains protocols into their bylaws.

Based on the above research, the remainder of this conclusion is devoted to presenting short-, mid-, and long-term recommendations for the 'democratic platform economy'. The last section suggests some future lines of research on this topic that can, among other things, help materialise the recommendations. The final chapter of this dissertation – the epilogue – is my own provisional attempt at exploring one of my proposals: a benchmarking study on the 'friendliness' of legal frameworks towards platform cooperatives.

8.2 Towards a Democratic Platform Economy: Recommendations for the Years Ahead

As the needs of democratic firms in the platform economy vary considerably across sectors and jurisdictions – even the sectors and jurisdictions that were covered in this dissertation – these recommendations are left at a high level. This is also due to the fact that the needs of these democratic firms are only now becoming clear, with more firms being subject to research and analysis. It would therefore be premature to recommend sweeping new legislation, such as an EU Regulation for a new form of cooperative or an EU Directive on user participation.

8.1.1 Short Term

In the short-term, say, the next five years, education about worker cooperatives and other democratic firms can be expanded in both academic and professional institutions. This would require curriculum development efforts that address both theories on democratic firms as well as practical guidance on how they can be created. The courses that implement this curriculum should be open to students as well as a wider community. Instead of being a footnote on law school and business school syllabi, democratic firms should be featured more prominently, as it is these advisers who play a gatekeeping role in determining whether a capital-managed firm

is chosen over a democratic firm. The development of such curricula is well underway, most notably by the 'Platform Cooperatives Now!' online course taught by Trebor Scholz (The New School) and Jose Mari Luzarraga (Mondragon University).[1222] Further iterations or offshoots could tailor such curricula to the needs of particular jurisdictions or professional disciplines (e.g., law, accounting, finance).

For policymakers, this can involve revisiting the administrative procedures through which democratic firms are typically established so as to identify any bottlenecks that make their formation more costly compared to capital-managed firms. As I observe in chapter 7, the lack of an equal footing between capital-managed firms and democratic firms such as cooperatives in formation procedures make the latter less appealing. This more even footing can be achieved by reducing the fees and processing times of formation, as well as by developing optional model bylaws that democratic businesses can use as a foundation for their governance. In jurisdictions such as the United Kingdom, recent procedural reforms by the Financial Conduct Authority (the body responsible for registering cooperatives and other mutuals) and the initiatives of Co-operatives UK have helped narrow this gap. There is detailed, user-friendly guidance available to aspiring co-operators on the Financial Conduct Authority's website about the requirements for registration and many of the formation procedures have been digitised.[1223] However, not all jurisdictions have such a supportive framework.

For democratic firms, such as platform cooperatives, their main benefits for potential members must be communicated clearly and sustained in practice. In general terms, this will involve having transaction fees that are lower than corporate platforms and/or assuring members that their personal data is secure and not being abused. Both of these advantages are important for type (1) and (4) platforms, but the latter is particularly important for type (3) platforms, such as federated networks and social media cooperatives. For cooperatives as legal persons, joining or creating a shared-services platform with other cooperatives can be a way of sharing the costs of building an online platform. Members will have a greater say in the features of a platform, rather than being subject to inscrutable updates that would otherwise be foisted onto them through impenetrable EULAs. This, along with more general feedback, can be communicated through regular remote and in-person feedback sessions. To assuage concerns that future members will not freeride on the honest efforts of early members, sufficient probation periods can be introduced so that mutual trust is built. Examples of such practices have been discussed in chapter 6.

1222 Trebor Scholz, 'Platform Co-Ops Now! 2nd Edition' (*Platform Cooperativism Consortium*, 5 October 2020) <https://bit.ly/36bOiL4>.

1223 Financial Conduct Authority, 'Mutual Society Portal: Simple Steps Guide to Registration' (2021) <https://bit.ly/36aGzx1>; Financial Conduct Authority, 'Finalised Guidance 15/12: Guidance on the FCA's Registration Function under the Co-Operative and Community Benefit Societies Act 2014' (November 2015).

Maintaining these distinguishing features are expensive, especially for the democratic firms that operate in highly competitive sectors of the platform economy, such as on-demand food delivery and ride-hailing. Financing options are often limited for democratic firms due to the very features that make them democratic, such as restrictions on including investor members and constraints on conferring them voting power or allowing them to own more than a minority shareholding in the firm. These are important features that help preserve the distinction between capital-managed and democratic firms. There are no easy solutions to this. However, one option could be engaging in what I call *socially beneficial regulatory arbitrage*.

Capital-managed firms regularly engage in regulatory arbitrage, choosing to incorporate or form subsidiaries in jurisdictions that offer laws, regulations and taxation regimes that they view as being favourable. What I propose, as a short-term measure, is for platform cooperatives and other democratic firms to also engage in such arbitrage – but with some key differences. For instance, a worker cooperative could choose to register a Limited Cooperative Association (LCA) in Colorado or an LLC in Delaware to benefit from the flexibility they afford in attracting external investment,[1224] while still committing to being a taxpayer that avoids using labyrinthine corporate structures to lower their tax burden. The LCA statute of Colorado imposes guardrails on investor members, but with plastic entities like LLCs, it is possible to impose these constraints voluntarily, by limiting investor members' voting power or only offering a low, fixed interest for their investment. And this does not have to be limited to the United States. As I explained in chapter 6, the SCE, as a transnational European cooperative, also offers certain advantages in terms of corporate mobility that have been underexplored. One of them is to help a cooperative move to a jurisdiction that has more financing options available. This could be due to the availability of more financial instruments for cooperatives (e.g., withdrawable shares issued through a community share offering in the UK[1225]) or due to the existence of subsidies and funds for cooperatives operating in certain economic sectors. Indeed, as explained while discussing Partago and The Mobility Factory in chapter 6, it is also possible for municipalities to become members of cooperatives and thereby provide a large, reliable source of patronage for the cooperative. To further distinguish orthodox regulatory arbitrage from socially beneficial arbitrage, the choice of jurisdiction may not only be motivated by the flexibility or financial investment opportunities available there, but also the other types of worker representation present in that territory. As I showed in Chapter 3, there are several worker participation and representation models available and some, such as works councils, may help cooperatives serve the interests of their members better.

1224 Jason Wiener and Linda Phillips, 'Colorado – "The Delaware of Cooperative Law"' (*Fifty by Fifty: Employee Ownership News*, 11 July 2018) <https://bit.ly/2TrQXxL>.

1225 Co-operatives UK, *Community Shares Handbook* (Cooperatives UK 2020).

In the past, cooperatives were seen as legal entities that were deeply-embedded in their local communities, and as a consequence legislation was drafted with local requirements in mind. While it is important for cooperatives to continue serving communities, there are now opportunities to think about how they can also serve new, dispersed global communities. In fact, socially beneficial regulatory arbitrage does not have to be limited to cooperatives. As I show in chapter 5, this type of arbitrage can be used to create mission- or stewardship-oriented democratic firms like user trusts and user foundations, through the creative engineering of existing entities like non-charitable perpetual purpose trusts and STAKs. For these entities to be effective in fulfilling their purpose, it is important for them to adequately clarify the roles and decision-making powers of user representatives involved in the governance of platforms. Checklists like the one I present at the end of chapter, along with other governance tools, can be used to help these future user representatives discharge their functions more ably.

8.1.2 Mid Term

Socially beneficial regulatory arbitrage can only go so far in remedying structural issues, as it is limited by the legal and regulatory options that are currently available. Over the mid-term, say 5 to 10 years from now, there will be a need to create more durable incentives for the establishment of, or business transfer to, democratic firms. As experience with existing democratic firms grow, there will also be a need to address the costs of collective decision-making.

At this stage, the educational and promotional activities of earlier years will need to mature. Hopefully, some participants will create advocacy blocs that can call for a more enabling framework for democratic firm and bring democratic firms into the spotlight. This is an urgent need because, by this point, existing democratic firms will need such a framework to scale, and new entrants will expect greater business support. The most obvious support can be through the creation of tax incentives for the formation of, or conversion into, democratic firms. As I have argued in chapters 4 and 5, the experience in the United States in creating such incentives for worker cooperatives and broad-based ESOPs by lowering income and capital gains taxes can be instructive. Similarly, income tax reduction schemes for individuals subscribing to the shares of worker cooperatives could also provide them with a financial boost.[1226] This can be complemented by legal reforms that

1226 In France, the "Madelin" income tax reduction scheme allows subscribers of SMEs (2-250 employees and annual turnover of less than 50 million EUR) – including cooperatives – to reduce their income tax liability by 25%. If, for instance, 1 subscription share in a cooperative is valued at 100 EUR, then the real amount paid by the subscriber is 75 EUR. Les SCIC, 'Fiscalité FAQs' (*Les SCIC*, September 2016) <https://bit.ly/3hydSPR>. A 50% income tax relief and 50% capital gains tax relief is also available to investments of up to £100,000 per annum. Co-operatives UK (n 1225) 106.

draw on best practices from across the cooperative world, such as permitting cooperatives to issue non-transferable, withdrawable shares with a low rate of interest.[1227]

Some legal reforms will need to be more sector-specific. In jurisdictions where the law inhibits 'employer as a service' models like SMart (see Chapter 1), laws that support cooperatively owned staffing agencies will need to be enacted. As I mentioned in Chapter 4, draft legislation on this is currently under consideration in California. The example of Eva and the Brightly worker cooperative franchise that uses the Up&Go platform show that social franchising is gaining popularity. This may become more common when some democratic firms scale and seek options for expanding their reach with relatively low investment from their putative franchisor. However, franchise law is complex and varies across jurisdictions. Cooperatives wishing to use a social franchise to license their software and/or business format will need support in, for example, drafting a master franchise agreement that strikes a balance between protecting the rights of the social franchisor and potential social franchisees. Some of the difficulties in striking such a balance was discussed in Chapter 6.

In the European Union, a sector that has potential to grow and use cooperative entities is personal data management. Concerns regarding the uses and abuses of (personal) data have led to a growing interest in 'data cooperatives', which are not platforms but are "member-owned data management systems" that seek to limit access to, or reclaim community control over, (personal) data, which may otherwise be extracted by platform companies and others.[1228] An example of such a data cooperative is polypoly SCE, which allows members to co-own the polyPod, a tool that gives members access to a private server to store, analyse, correct, control and license their data. Moreover, the European Commission has recently published a Proposal for a Regulation on European data governance (Data Governance Act) which includes data cooperatives. If the primary purpose of data cooperatives is to enable users (i.e., data subjects) to regain control over their data, gain clearer insight into how it is used, and voluntarily pool the data for mutual benefit, then this proposal seeks to enable the collective exercise of these rights.[1229] With data cooperatives receiving such mainstream interest, there is also an opportunity to revisit the SCE, a legal entity form that has promise for organizing data, but is currently hampered by the costs and complexities involved in formation.

1227 Co-operatives UK (n 1225) 4, 85.

1228 Trebor Scholz and Igor Calzada, 'Data Cooperatives for Pandemic Times' (*Public Seminar*, 19 April 2021) <https://bit.ly/3xjXmtl>.

1229 Proposal for a Regulation on European data governance (Data Governance Act), COM(2020) 767 final, Brussels, 25.11.2020, recital 24.

Finally, as shown in chapters 4, 6 and 7, there is a growing interest among cooperatives in making use of the affordances of blockchain technology. For instance, as some democratic firms scale, they may encounter collective decision-making costs as the membership base becomes more heterogenous and social ties between members become weaker. The use of a decaying reputation system, which is partly on-chain and partly off-chain,[1230] may be a novel way of encouraging good behaviour among a large, pseudonymous group of members. Some cooperatives may choose to use it as a way of preventing the cooperative from tampering with their members' data and a means for giving users access to their own data. However, the use of blockchain is stymied by both the limitations of this experimental technology as well as the uncertainty surrounding its regulation. This particularly applies to financial regulation of crypto-tokens and shares issued on a blockchain. If consumer-facing decentralised applications and blockchain-based governance tools become more common in the next five to ten years, it would be ideal if regulators in more parts of the world issued guidance on the permissible uses of crypto-tokens and the conditions on which shares can be issued on a blockchain. This guidance would need to account for the differences between the corporate and cooperative form, particularly when it comes to issuing, transferring and redeeming equity.

8.1.3 Long Term

In the long term, it is possible to be a bit more ambitious about what a democratic platform economy would look like. If democratic firms are able to establish a strong presence in the platform economy over the next decade, it is reasonable to expect that this will not be in isolation from the rest of the economy. An economy with broad-based participation would not only have participation in workplaces or semi-public institutions like long-term healthcare (see chapters 3 and 5), but across all institutions. In other words, it would be a sea change from how most institutions are governed today.

If these democratic firms prove to be a success, and are accompanied with the necessary movement-building, it becomes possible to think about how nation-states or even national blocs can leverage these organisations as part of policies for the digital economy that balance national interests with international solidarity. As I suggest in a forthcoming book chapter with Simon Pek, there is precedent for this in the history of the non-aligned movement and in efforts at constructing a New World Information and Communication Order (NWICO) under the aegis of UNESCO.[1231] A 21st century policy framework that is tailored to the digital economy could include the use of sovereign wealth funds or taxes from large platform

1230 Rea and others (n 1155) 16.
1231 Mannan and Pek (n 169).

companies to incubate home-grown democratic alternatives.[1232] National cooperative authorities could be responsible for overseeing these large investments.[1233] What makes this option attractive is that such sovereign wealth funds typically have considerable assets under management and long-term investment horizons, which, with on the right terms, would make them the ideal source for patient capital in democratic firms. Access to such large sums of capital may be otherwise unavailable for the democratic firms that seek to internationalise and challenge the cash-rich titans of the platform economy.

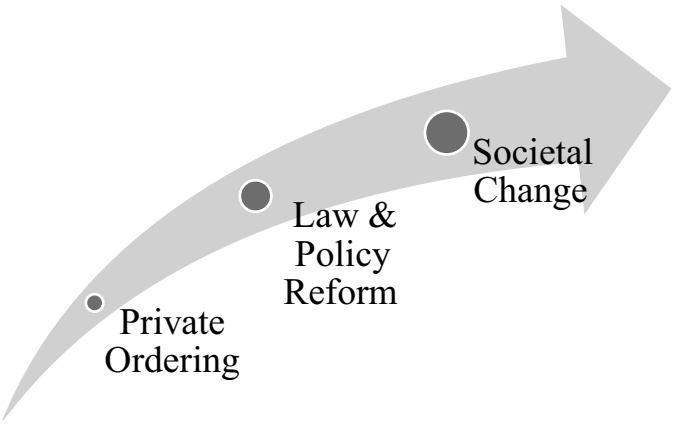

Figure 19: Steps towards a Democratic Platform Economy

8.3 Future Research

The roadmap that I sketched in chapter 8.2 will require, among other things, the support of other researchers – in academia and beyond. An immediate concern is the identification of obstacles to the formation and governance of platform cooperatives and discussing means to overcome them. In the last chapter of this dissertation – the 'epilogue' – I make an effort to contribute to this through the creation of a benchmarking study that evaluates the friendliness of a jurisdiction's legal framework to platform cooperatives.

1232 Christopher Mackin, 'Sovereign Wealth Funds Must Choose a Different Path' *Financial Times* (London, 7 April 2019) <https://www.ft.com/content/1bdec48a-4fef-11e9-8f44-fe4a86c48b33> accessed 11 June 2020; Geoffrey Adonu, 'Catalyzing Digital Economy in Africa: The Role of African Sovereign Wealth Funds' (Social Science Research Network 2020) SSRN Scholarly Paper ID 3631165.

1233 James Muldoon, 'The Co-Operativist Challenge to the Platform Economy' in James Muldoon and Will Stronge (eds), *Platforming Equality: Policy Challenges for the Digital Economy* (Autonomy Research Ltd 2020).

As Chapter 2 showed, studying how platforms impacts individuals' statuses and role perceptions is a useful way of understanding the core problems of the platform economy and the appeal for an alternative status – that of a cooperative member. While this chapter used the example of an Uber driver to illustrate this point, it would be useful to conduct empirical studies to evaluate whether workers in the platform economy experience role- and role-set conflicts. Such research could, among other things, integrate a class analysis. It would also be useful to see if users of, for instance, social media platforms experience similar role- and role-set conflicts.

Chapter 3 explored the appeal of employee ownership in the platform economy in a jurisdiction with a coordinated industrial relations culture: The Netherlands. It would be useful if a comparable study was conducted in a jurisdiction with an adversarial industrial relations culture, such as the United Kingdom or the United States. Moreover, Pencavel, Pistaferri and Schivardi, among others, contend that labour-managed firms have slightly lower wages than capital-managed firms, while having less volatile employment.[1234] An interesting line of future research may be investigating whether worker-owned platform cooperatives (e.g., in the ride-hailing, food delivery or cleaning sectors) are able to consistently provide higher wages than their corporate competitors, given that one of their explicit goals is to increase minimum wages.

Turning to type (3) platforms, such as social media platforms, proposals for user ownership and governance could be followed up with empirical research on (a) how users can best contribute to stakeholder governance and (b) how officials in these companies perceive such proposals. Focus groups, both online and offline, may be an appropriate method for pursuing this research. As discussed in chapters 4 and 5, the cause of user ownership and governance is closely tied to other regulatory efforts (e.g., antitrust action) and would benefit from tax incentives. Here, legal scholars and economists can contribute to this cause by delving into how antitrust and competition law can stimulate cooperative ownership[1235] and the precise types of tax incentives that can be offered (e.g., at the federal level in the United States).

Shared-services platforms are an emerging trend within platform cooperativism, which offers considerable scope for further case studies on the subject as well as ethnographic research. In addition to testing the hypotheses presented in chapter 6, this future research could explore if *trust* is reposed in the leadership of these platforms or if there is mere *reliance*, due to their expertise and skills, rather than stronger, interpersonal bonds of trust.[1236] Another relevant stream of research would be about the choices that these shared-services platforms make about the licensing of their software.

1234 Pencavel, Pistaferri and Schivardi (n 1083).

1235 Vaheesan and Schneider (n 524).

1236 The distinction between trust and associated concepts of confidence, reliance, familiarity etc. are examined here: De Filippi, Mannan and Reijers (n 946).

As chapter 6 showed, there is considerable discussion about whether the software of platform cooperatives should be open source or not. Future research can contribute to investigating an overarching question of cooperative governance: how do cooperatives strike a balance between being a community and a commercial enterprise?

Finally, it would be worthwhile following-up in a few years whether cooperatives do use blockchain technology for governance or financing purposes – or whether it is a passing fad. This research can relate to another longstanding question of cooperative governance: do organisational innovations (such as using blockchain technology) make cooperatives more viable or instead threaten their distinct identity? These are some of the questions that merit further study.

9 Epilogue: A Legal Framework Benchmarking Study for Platform Cooperatives

Abstract

Based on the concluding chapter, and my experience conducting this research project, I present a benchmarking study and scorecard that I developed for evaluating the 'friendliness' of legal systems towards platform cooperatives.

Two important issues that are identified in the roadmap laid out in the preceding chapter are: (1) the considerable variation between jurisdictions with respect to the ease with which democratic firms can be established and governed, and (2) the uncertainty surrounding the business model of several types of democratic firm. As part of my personal contribution to this roadmap, I propose a legal framework benchmarking study for assessing the 'friendliness' of a legal framework towards the formation and governance platform cooperatives. I choose to focus on platform cooperatives in particular as almost all jurisdictions have some type of cooperative, which allows for comparisons to be made. Moreover, there is precedent for such benchmarking studies, not only by the World Bank through its (in)famous *Ease of Doing Business* rankings, but also by the cooperative movement. A recent example is the multi-year Legislative Framework Analysis of cooperative laws from across the globe, a project that resulted from a collaboration between the International Co-operative Alliance and the European Commission.[1237] Part of this analysis involved assessing how 'friendly' laws are to cooperatives in general.

Earlier, the US-based NCBA CLUSA International initiated the CLARITY project[1238] in 2005, which developed a 'toolkit' for encouraging the creation of legal and regulatory frameworks that facilitate the growth of cooperatives in developing countries. An important part of this toolkit involves distilling core and implementing principles for all cooperative enterprises, identifying (36) core reform issues and assessing the compli-

1237 ICA-EU, 'Data Map' (*coops4dev.coop*, June 2021) 4 <https://bit.ly/3whM3AG>.

1238 CLARITY (Cooperative Law and Regulation Initiative) "refers to a methodology and process designed to help national cooperative movements understand, analyse and evaluate their legislative and regulatory environments; to be able to formulate proposals and recommendations for reform; then develop and implement communication and advocacy strategies for cooperative law and regulation reform; which allows the cooperative business model to flourish." CLARITY Glossary of Terms, 2021 [on file with author].

ance of a given legislative framework against these principles and reform concerns on a CLARITY Cooperative Law Scorecard. The Scorecard is a spreadsheet that contains questions and information that helps guide cooperative lawyers in their legal analysis and results in a ranking that is based on adherence to the 12 core CLARITY principles.[1239] This Scorecard is accompanied with a Scorecard Analysis document that provides the rationale for the scoring process and is intended to be the basis for discussions with local cooperative leaders and stakeholders.[1240]

The CLARITY Principles and Scorecard have been applied in Nicaragua, Mongolia, Yemen and Mozambique—with it contributing to the development of a draft law for cooperatives in 2008.[1241] At present, CLARITY is being used in Ecuador, Guatemala, Kenya, Madagascar, Peru, and Tanzania. While CLARITY is currently undergoing reform, a number of benefits of using the principles have been identified. These include its capacity to raise awareness about the state of cooperative law in a country, assess whether the relevant law enables or disables cooperative formation, identify areas of potential action, and justify reform initiatives.[1242]

As mentioned in the introduction, I am part of an expert working group involved in evaluating and reforming the CLARITY project. The project has inspired my own thinking about a benchmarking study for platform cooperatives, but my own study and scorecard differs in important ways. Firstly, my focus is on a subset of cooperatives, instead of all cooperatives in a jurisdiction. As a consequence, I am interested in specific aspects of a country's law that can facilitate or inhibit platform cooperatives in particular. While CLARITY has been considering sector-specific analyses, it has yet to deploy this.[1243] Secondly, my scorecard is not concerned about weighing the compliance of a country's law with a particular core principle. Instead, the replies to the scorecard essentially require yes/no answers and a specification of the relevant legal provisions that prompted the answer. With certain responses it is possible to add a comment further explaining any nuances that may affect a legal analyst's response. As such, my scorecard

1239 OCDC, *Creating Clarity: Assessment, Analysis, and Outreach for Cooperative Legal Reform*, vol 2 (OCDC and USAID 2009) vi. These principles build on the ICA's 7 Cooperative Principles. They are: "(1) protect democratic member control; (2) protect autonomy and independence; (3) respect voluntary membership; (4) require member economic participation; (5) promote equitable treatment; (6) promote access to markets; (7) provide coherent and efficient regulatory framework; (8) protect due process; (9) avoid conflicts of interest; (10) promote education, training, and information; (11) cooperate with other cooperatives; (12) demonstrate concern for the cooperative community and the members and communities they serve." OCDC, *Cooperative Advocacy: A Practical Guide for Advocating Cooperative Legal and Regulatory Reform*, vol 3 (OCDC and USAID 2013) 8.

1240 OCDC, *Creating Clarity: Assessment, Analysis, and Outreach for Cooperative Legal Reform* (n 1239) 92.

1241 ibid 29.

1242 ibid 14.

1243 I am grateful to Edward Potter for this point.

is less concerned about ranking between jurisdictions. Its main purposes are to identify particular areas of the law that may hinder the formation of platform cooperatives and serve as a basis for opening a conversation with local stakeholders on the need for reform. I now turn to how the scorecard can be applied.

As with the CLARITY Project, there are certain *key reform concerns* that have become evident over the course of writing this dissertation. While there is some overlap with general reform priorities for developing a 'good' cooperative law, most of the key reform concerns are distinct for platform cooperatives. The six (6) key reform concerns that need to be addressed are:

1. Digitalization of procedures for registering and operating a platform cooperative (see generally, Chapters 6 and 7).
2. Accessibility and affordability of platform cooperatives (see Ch. 7.2.4.).
3. Flexibility of cooperative governance (see Ch. 4.2.2., 6, 7).
4. Compliance with ICA principles and values in cooperative law (see Ch. 2.4.)
5. Financial and fiscal support for platform cooperatives (Ch. 4.2.2.4, 6.4.1, 6.4.2.)
6. Employment and competition law supporting platform cooperatives (Ch. 2.4, 3.6, 3.7).

Based on these key reform concerns, and what platform cooperatives have been trying to achieve in spite of the absence of these reforms in many instances, it is possible to distil a set of *key principles to facilitate the emergence of platform cooperatives.* These five (5) key principles are:

1. Promote the <u>accessibility</u> and <u>digitalization of procedures</u> for forming and operating as a platform cooperative.
2. Promote the <u>flexibility</u> of platform cooperatives operating locally or globally.
3. Promote <u>compliance</u> with ICA principles and values.
4. Encourage <u>external financing</u> of cooperatives in keeping with their distinctive features.
5. Encourage a <u>supportive, ancillary regulatory framework</u> that is conducive to the operation of platform cooperatives.

It is possible that as more innovation takes place within the realm of platform cooperativism, further reforms will need to be considered. This may range from addressing issues raised by blockchain-based platform cooperatives issuing tokens that have (some of) the characteristics of equity (see Ch. 7.4.3., 4.2.3.4) to ensuring good governance practices by an emerging group of data cooperatives (see Ch. 5.1., Appendix 2). At this juncture, it is not possible to determine what is the best way of addressing those issues and dilemmas.

With these principles in mind—as well as the assumptions about the platform cooperative mentioned below—a local legal analyst has to complete the scorecard on a Yes or No basis. Yes, is scored with 1 and No is scored with 0. The higher the score, the more 'friendly' the legal system is to platform cooperatives. The highest possible score is 44. Other than the aggregate score, the subtotals may provide a more specific indication of which areas of law or administrative procedure merits particular scrutiny.

The comments are intended to buttress the responses of national experts who participate in the study. Once the scorecard is completed, an analysis worksheet akin to the CLARITY Scorecard Analysis worksheet can be completed to explain the rationale for why a certain friendliness score was received, discuss its implications, and suggest further action. Once the first version of this study has been examined in a workshop involving a group of experts and implemented in trial jurisdictions, it will be possible to assess whether some of the questions have to be reconsidered and if more comment boxes have to be included.

Given the description above, this benchmarking study can be considered a 'revolutionary' benchmark instead of a 'reformist' benchmark. According, to Seabrooke and Wigan, reformist benchmarks are created by NGOs outsourcing the work to experts, who then try to secure support from stakeholders and engagement from political actors. In contrast, revolutionary benchmarks are initiated by expert-activists, who then seek support from mainstream NGOs. The content of the former typically conforms with widely-received norms in a given field so as not to alienate donors, while the latter is likely to make more critical interventions that challenge the fundamental basis of a system.[1244] This benchmark is intended to question the logic that capital-managed firms should be the dominant form in the platform economy, by seeking to place cooperatives on a more even footing. Moreover, as the 44 reform issues in the spreadsheet indicate, this benchmarking study does not blindly extol the benefits of open markets or critique the role of the state in economic activities.[1245] While these qualities make it an uphill task to ensure that the benchmark will be 'certified' by NGOs or political actors, as Seabrooke and Wigan argue, such benchmarks are nevertheless "important weapons in global battles over the right to govern economic activity".[1246]

The next section provides instructions for completing the Scorecard.

1244 Leonard Seabrooke and Duncan Wigan, 'How Activists Use Benchmarks: Reformist and Revolutionary Benchmarks for Global Economic Justice' (2015) 41 Review of International Studies 887, 891.

1245 André Broome, Alexandra Homolar and Matthias Kranke, 'Bad Science: International Organizations and the Indirect Power of Global Benchmarking' (2018) 24 European Journal of International Relations 514, 533.

1246 Seabrooke and Wigan (n 1244) 891.

9.1 'Friendliness' of a Legal Framework towards Platform Cooperatives: Scorecard

Instructions

Please provide responses to the questions in the spreadsheet, based on the assumptions about platform cooperatives provided below.

Assumptions about the Platform Cooperative
You are setting up a Platform Cooperative with the following information:

- ▷ The cooperative will initially have three (3) members. Two (2) members are nationals of your jurisdiction, and one (1) member is a foreign national.
- ▷ Six (6) members join as independent contractors within the first month of formation, with four (4) persons being nationals of your jurisdiction and two (2) persons being foreign nationals. They will become eligible for membership after a three (3) month probation period.
- ▷ The cooperative is engaged in for-profit commercial activities in the platform economy. Some activities may be subject to a special licensing regime (e.g., ride-hailing, short-term rentals), which may be accounted for in the comments.
- ▷ The cooperative is able to define its own purpose in its bylaws.
- ▷ The cooperative is a multi-stakeholder cooperative with one category of member being worker-members.
- ▷ The cooperative does not own real estate but leases a small office space.

Yes is scored with 1 and No is scored with 0. The higher the score, the more 'friendly' the legal system is to platform cooperatives. The highest possible score is 44. Other than the aggregate score, the subtotals may provide a more specific indication of which areas of law or administrative procedures merits particular scrutiny. The enabling examples are intended to show positive illustrations. If the national experts find that identical or comparable examples exist in their jurisdictions, they may tick 'yes' in the scorecard. The comments are intended to buttress the responses of national experts who participate in the study.

Table 13: Benchmarking Study v1.1., that assesses the 'friendliness' of a legal regime towards the formation and governance of platform cooperatives

	Features of a Legal Framework that indicate 'friendliness' towards the formation of platform cooperatives		Enabling Example	Yes	No	Relevant Laws & Rules
	Digitalisation of Procedures for Registering and Operating a Platform Cooperative[1247]					
1	Principle: accessibility & digitalisation of procedure	There is a centralized cooperative registry with national coverage	KVK (NL)			
2	Principle: accessibility & digitalisation of procedure	There is an online database to search for consolidated cooperative records	Mutuals Society Portal (UK)			
3	Principle: accessibility & digitalisation of procedure	There is an online database to search for individual cooperative records	Mutuals Society Portal (UK)			
4	Principle: accessibility & digitalisation of procedure	There is an online system that can be used for every step of cooperative registration (from electronic application submission using a fillable PDF or digital form to obtaining documents concerning the cooperative, such as the registration certificate and annual financial reports, through an online portal)	Mutuals Society Portal (UK) Simple Steps Guide to Registration			
5	Principle: accessibility & digitalisation of procedure	There is a fully online system of payment for the fees relating to the formation of a cooperative (including any one of: wire transfer, online banking and mobile transfer)	Registraire des enterprises Québec			
6	Principle: accessibility & digitalisation of procedure	Electronic signatures are valid for online registration of cooperatives.	Mutuals Society Portal (UK)			
7	Principle: flexibility for platform cooperatives.	Electronic signatures are valid for authorizing representatives of a platform cooperative (e.g., if a legal representative abroad has to file court proceedings or make a payment on behalf of the cooperative).	CCBSA, 2014, s. 45(1)			
8	Principle: accessibility & digitalisation of procedure	Electronic signatures are valid for routine cooperative management (e.g., signing meeting minutes) [Please note in the comment box what the limits are in using electronic signature for relevant business transactions, if any.]	§6:227a, DCC, §157(2), DCCP (Hogan Lovells, 2020)			
		Comment:				

1247 This article provides that "[n]o cooperative or method or act thereof which complies with this Code shall be deemed a conspiracy or combination in restraint of trade or an illegal monopoly, or an attempt to lessen competition or fix prices arbitrarily in violation of any laws of the Philippines."

9	Principle: flexibility for platform cooperatives.	It is possible to open a bank account online without any requirements as to physical presence (including nationals of other countries opening a corporate bank account from abroad).	Directive 2014/92/EU of 23 July 2014, §§15, 16(2), recitals 34-37, 39			
10	Principle: flexibility for platform cooperatives.	A registered address in a jurisdiction is sufficient for a cooperative to be validly formed [in other words, it is immaterial if the central place of administration or principal place of business of a cooperative is online or in another jurisdiction.]	Guidance on the FCA's registration function under the Co-operative and Community Benefit Societies Act 2014, November 2015, paras 3.6			
11	Principle: flexibility for platform cooperatives.	It is possible to submit mandatory disclosure documents (e.g., an annual report) electronically or by post.	Mutuals Society Portal (UK)			
12	Principle: accessibility & digitalisation of procedure	The internal, external and cooperative auditing[1248] of a cooperative can be completed with electronic documents if the business is maintained entirely online (i.e., there is no requirement for the inspection of original hard copies in a physical premises.) [Please note in the comment box what the powers of auditors are with respect to internal, external and cooperative auditing.]	Guidance on the FCA's registration function under the Co-operative and Community Benefit Societies Act 2014, November 2015, paras 4.10-4.16, 7.20-7.21, 7.40			
		Comment:				
1. Subtotal for Infrastructural Features:						
Features of Cooperative Law[1249]						
13	Principle: accessibility & digitalisation of procedure	The list of documents needed to form a cooperative is available to the general public.	Mutual Societies: Forms (UK)			

1248 Cooperative audits refer to audits to determine where an entity is a bona fide cooperative. This assessment can be done on the basis of the ICA Statement of Co-operative Identity, Values and Principles.

1249 Questions 14-15 are based on the Starting a Business Questionnaire, questions 4.2.2 to 4.2.3, available online at <https://www.doingbusiness.org/content/dam/doingBusiness/pdf/db2020/DB20-Starting-a-Business-Questionnaire.pdf>. See World Bank Group, *Doing Business 2020*, Washington DC: World Bank, 2019.

14	Principle: accessibility & digitalisation of procedure	The list of all fees (and amounts) required for cooperative formation is available to the general public.	Mutual Societies: Forms (UK)			
15	Principle: compliance with ICA principles and values	There is a distinct legal entity form for co-operative firms.	§2:53(1), DCC			
16		It is permissible for cooperative firms to use a variety of legal entity forms. [Please note in the comment box whether the use of other legal entity forms, such as a private company limited by guarantee, trust, foundation or blockchain-based limited liability company is conditional on not using the cooperative marque.]	CA, 2006, s.5 (Cooperatives UK, 2017)			
		Comment:				
17	Principle: accessibility & digitalisation of procedure	The cost of registering a cooperative is similar to the cost of registering other legal entities that can be used by a cooperative firm [Please note in the comment box how much the difference is on average and what the reasons for the differences are].	The Netherlands (compare cooperatives & BVs)			
		Comment:				
18	Principle: flexibility for platform cooperatives.	Forming a cooperative does not require more than 3 members.[1250]	CCBSA, 2014, s. 2(2)(b)			
19	Principle: flexibility for platform cooperatives.	No nationality restriction for membership of a cooperative (including indirect discrimination, e.g., by prohibiting cooperative shares/equity being held by a citizen in a cooperative registered in another jurisdiction.)	Cooperatives organised as LLCs (US) (Cooperative Development Institute)			

1250 Note that the CLARITY Analytical Rubric indicates that democratic member control is best protected by giving cooperatives "autonomy in determining size and qualifications for membership" CLARITY, 'Enabling Cooperative Development: Principles for Legal Reform' (OCDC and USAID 2006) 9.

20	Principle: flexibility for platform cooperatives.	No nationality restriction for directorship or management of a cooperative (including restrictions in terms of a proportion of the board being of a certain nationality) [Please note in the comment box what those restrictions are]	Cooperatives organised as LLCs (US) (Cooperative Development Institute)			
		Comment:				
21	Principle: flexibility for platform cooperatives.	Cooperatives are permitted to have investor-members [Please note in the comment box any limitations to cooperatives having such a class of members.]	CCBSA, 2014, s. 24(1)			
		Comment:				
22	Principle: flexibility for platform cooperatives.	A registered cooperative can adopt consensus-based decision-making (e.g., holacracy, sociocracy)	United Kingdom (Seeds for Change Change, 2013)			
23	Principle: compliance with ICA principles and values	It is optional for a cooperative to have delegated management through a managing committee or board of directors.	Cooperatives organised as LLCs (US) (Barbieri & Glick 2009)			
24	Principle: flexibility for platform cooperatives.	A registered cooperative can opt for voting rules for internal decision-making that departs from 'one member, one vote' (e.g., quadratic voting)	Cooperatives organised as LLCs (US) (Barbieri & Glick 2009)			
25	Principle: flexibility for platform cooperatives.	There is no restriction as to the geographical scope of the cooperative's business activities.	Cooperatives organised as LLCs (US) (Sexton 2009)			
26	Principle: flexibility for platform cooperatives.	Online/Virtual meetings of a managing committee/board of directors are permissible under the law.	CCA, 1998, s. 48(3.1) [Canada]			
27	Principle: flexibility for platform cooperatives.	Online/Virtual general assemblies are permissible under the law.	CCA, 1998, s. 48(3.1)			
28	Principle: flexibility for platform cooperatives.	Voting online in managing committees/board of directors has the same legal effect as voting in person.	CCA, 1998, s. 65(3)-(4)			

29	Principle: flexibility for platform cooperatives.	Voting online in general assemblies has the same legal effect as voting in person.	CCA, 1998, s. 65(3)-(4)			
30	Principle: flexibility for platform cooperatives.	Appointing proxies to vote on a member's behalf is permissible under the law.	CCBSA, 2014, s. 44(3)(b)			
31	Principle: compliance with ICA principles and values	The cooperative registrar is not responsible for the internal dispute resolution of cooperatives.[1251]	CCBSA, 2014, s. 137(1)			
32	Principle: compliance with ICA principles and values	The cooperative enjoys independence from external government interference in making business decisions.[1252] [Please note in the comment box how the government may interfere in the managerial autonomy and operational freedom of the cooperative.]	CCBSA, 2014, ss. 26(1) – 27(1)			
33	Principle: compliance with ICA principles and values	The law permits the creation of reserve funds, comprising a percentage of the cooperative's surplus.[1253] [If yes, please note in the comment box if the law mandatorily requires the creation of a reserve fund or if it is voluntary.]	CCA, 1998, s. 7(1)(g)(iii)			
		Comment:				
34	Principle: compliance with ICA principles and values	The law encourages cooperatives to educate and train their members, elected representatives, managers and employees to further the effective development of their cooperative [e.g., through the allocation of part of a financial year's results for educational purposes.]	§56, Law 27/1999 of 16 July 1999			
35	Principle: compliance with ICA principles and values	Cooperation among cooperatives is encouraged by cooperative legislation [e.g., through the inclusion of this principle in the law.]	CA, 1982, s. 4(6) [Quebec]			

1251 *See* question 10a of CLARITY Scorecard. OCDC, *Creating Clarity: Assessment, Analysis, and Outreach for Cooperative Legal Reform* (n 1239) 86.
1252 *See* question 2b of the CLARITY Scorecard. ibid 79.
1253 *See* question 8b of the CLARITY Scorecard. ibid 86.

36	Principle: compliance with ICA principles and values	Concern for community is encouraged by cooperative legislation [e.g., through the inclusion of this principle in the law.]	CA, 1982, s. 4(8)			
2. Subtotal for Features of Cooperative Law						
Ancillary laws and regulations that support the operation of platform cooperatives						
37	Principle: encourage external financing of cooperatives in keeping with their distinctive features.	Cooperatives are permitted to receive grants and donations. [Please note in the comment box if your response is influenced by the tax status or legal entity form of the cooperative.]	CA, 1982, s. 233(3)			
		Comment:				
38	Principle: encourage external financing of cooperatives in keeping with their distinctive features.	There are tax incentives[1254] or subsidies for the formation of, or conversion into, cooperatives [Please note in the comment box whether this answer would change if the members are not nationals of the jurisdiction where the cooperative is registered.]	26 U.S.C. § 1042 (USA)			
		Comment:				
39	Principle: encourage external financing of cooperatives in keeping with their distinctive features.	There are tax incentives for subscription of cooperative membership/ shares [Please note in the comment box whether this answer would change if the members are not nationals of the jurisdiction where the cooperative is registered.]	"Madelin" income tax reduction scheme			
		Comment:				

1254 María Pilar Alguacil Marí, 'Tax Treatment of Cooperatives in Europe under the State Aid Rules' in Johann Brazda, Markus Dellinger and Dietmar Rößl (eds), *Genossenschaften im Fokus einer neuen Wirtschaftspolitik*, vol 4 (Lit Verlag 2013).

40	Principle: encourage external financing of cooperatives in keeping with their distinctive features.	There is preferential procurement for cooperatives and the terms of these incentives are wide enough to include platform cooperatives. [Please note in the comment box whether your answer would differ if the majority of the cooperative's membership is globally dispersed as opposed to being in the same jurisdiction where the cooperative is registered.]	Directive 2014/24/EU of 26 February 2014, §§4(d), 74, 77; recitals 2, 78, 118, 124[1255]			
		Comment:				
41	Principle: encourage external financing of cooperatives in keeping with their distinctive features.	There are public subsidies available for the economic activity that the platform cooperative is engaged in. [Please note in the comment box which sectors are eligible for such subsidies, e.g., renewable or clean energy.]	Subsidy scheme for Cooperative Energy Production (the Netherlands)			
		Comment:				

1255 Facilitating SMEs is an explicit objective of Directive 2014/24/EU of the European Parliament and of the Council of 26 February 2014 on public procurement and repealing Directive 2004/18/EC, recitals 2, 124. Recital 78 goes further by suggesting that Member States have the option to support SMEs by, for instance, requiring a procurement contract to be divided into smaller lots so that it becomes easier for SMEs to bid for them. The Directive is also intended to encourage the participation of cooperatives and other employee-owned organizations in providing "certain health, social and related services, certain education and training services, library, archive, museum and other cultural services, sporting services, and services for private households" (recital 118). As such, Article 77 read with Articles 4(d) and 74 allow the reservation of certain socio-economic activities valued at more than 750,000 EUR to cooperatives and other social enterprises under a light-touch regime for up to 3 years, before being exposed to EU-wide competition. *See* Crown Commercial Service, 'The Public Contracts Regulations 2015 & The Utilities Contracts Regulations 2016 Guidance on the New Light Touch Regime for Health, Social, Education & Certain Other Service Contracts' (Crown Commercial Service, October 2016) 14 <https://bit.ly/2TwxfRn>. While relatively recent legislation, such as the UK's *Public Services (Social Value) Act, 2012* has sought to encourage procurement that improves economic, social and environmental well-being, there continues to be a perception that such practices are inherently contrary to (EU) procurement law. *See* Matthew Jackson, 'Creating a Good Local Economy through Procurement' (Procure Network Partners and URBACT 2016) <https://bit.ly/3hvMpyc>.

42		Changes in the control of the cooperative (e.g., mergers, transfer of undertakings in the vicinity of insolvency) must always be subject to the approval of membership. [Please note in the comment box if business laws, such as insolvency law, preclude member involvement in certain circumstances. Also mention if the acquiring entity has to be a specific legal entity.]	CA, 1982, ss.156-157			
		Comment:				
43		Depending on how the cooperative and work relationship is structured, the applicable labour and employment laws are able to accommodate both worker members that are employees of a cooperative as well as those that are not. [This question seeks to understand whether there is a presumption of an employment relationship for worker members. Please note in the comment box any nuances to this position, including the existence of third categories of employment status other than employee and independent contractor/self-employed.]	United Kingdom (Footprint Workers' Co-operative and Seeds for Change Lancaster Co-operative, 2015)			
		Comment:				
44		Cooperatives enjoy special protection from-or under-applicable competition law.[1256] [Please note in the comment box any nuances to this position, including whether this depends on the risk conferred on members, members' employment status, type of cooperative, its economic activity and its prominence in a given geographic or product market.]	§8, Philippines Cooperative Code, 2008[1257]			
		Comment:				
		3. Subtotal for Ancillary Laws				
		TOTAL (1 + 2 + 3):				

1256 This builds on principle 6 of the CLARITY Analytical Rubric focusing on Sector-Specific Law and Regulations. CLARITY (n 1250) 17.

1257 Questions 1-7 are based on the Starting a Business Questionnaire, questions 4.1.1. to 4.1.7, available online at <https://www.doingbusiness.org/content/dam/doingBusiness/pdf/db2020/DB20-Starting-a-Business-Questionnaire.pdf>. See World Bank Group, *Doing Business 2020*, Washington DC: World Bank, 2019.

Samenvatting (Dutch Summary)

De opkomst van democratische bedrijven in de platformeconomie: drijfveren, obstakels en het pad dat voor ons ligt

Er is een toenemende bezorgdheid over de schadelijke effecten van het platformkapitalisme, variërend van de uitholling van werknemersrechten tot twijfelachtige praktijken op het gebied van corporate- en data governance. Dit promotieonderzoek bestudeert de opkomst van 'democratische' alternatieven voor platformbedrijven met een op kapitaal gerichte (vennootschaps) structuur ('kapitaalplatforms'). Deze democratische alternatieven verlenen belangrijke zeggenschaps- en financiële rechten aan belanghebbenden die intellectuele-, sociale-, financiële- en gebruikswaarde aan het bedrijf toevoegen ('democratische bedrijven'). Dit onderzoek is gericht op het verkrijgen van inzicht in de drijfveren voor het oprichten van dergelijke bedrijven, hun beperkingen, de obstakels waarmee zij te maken krijgen, alsmede de wijze waarop democratische bedrijven kunnen worden gestimuleerd. Voor dit promotieonderzoek zijn interdisciplinaire onderzoeksmethoden gebruikt, waarbij doctrinair onderzoek is gecombineerd met Delphi-studies en casestudyonderzoek. Wat de reikwijdte betreft, richt het project zich specifiek op "prosumptie"-platforms in de Verenigde Staten, Canada, het Verenigd Koninkrijk, Nederland, België en Spanje. Prosumptie wordt opgevat als activiteiten waarbij de grenzen tussen productie en consumptie vervagen. Prosumptie betekent niet alleen dat bij het verrichten van werkzaamheden zoals het maken van stockfoto's, 'ride-hailing' en voedselbezorging persoonlijke goederen voor commercieel gebruik worden ingezet, maar het erkent ook nieuwe vormen van waardebijdrage, zoals het gebruik van sociale media en het delen van elektrische auto's.

Tot dusver heeft de oprichting van dergelijke democratische bedrijven in de platformeconomie slechts beperkte aandacht gekregen vanuit de rechtswetenschap. Dit onderzoeksproject tracht in deze leemte te voorzien door de volgende onderzoeksvraag en twee deelvragen te beantwoorden:

Hoe kan de democratisering van door kapitaal beheerde prosumptieplatforms de sociaaleconomische zorgen wegnemen die door het platformkapitalisme worden gecreëerd, en hoe kan dit democratiseringsproces worden bevorderd?

- ▷ Wat zijn de belangrijkste beweegredenen voor en uitdagingen bij de oprichting en het bestuur van democratische bedrijven als levensvatbare alternatieven voor prosumptieplatforms met een op kapitaal gerichte (vennootschaps)structuur?
- ▷ Hoe kunnen de obstakels voor de oprichting en het bestuur van democratische bedrijven worden weggenomen of overwonnen?

In hoofdstuk 2 van het proefschrift bespreek ik waarom de democratisering van platformbedrijven in toenemende mate in de aandacht staat. Het hoofdstuk gaat in op de sociaaleconomische zorgen die het platformkapitalisme oproept. Ik leg uitgebreid uit op welke wijze en waarom platformcoöperativisme is ontstaan als antwoord op deze zorgen. Ik gebruik de *rolset*-theorie van Merton om deze sociaaleconomische zorgen te duiden en te beargumenteren dat een verandering in status – van platform prosumer (bv. als Uber-chauffeur) naar coöperatielid – een aantrekkelijke manier is om rol- en rolset-conflicten op te lossen die zich voordoen bij platformkapitalisme. Ik erken ook dat coöperatieleden hun eigen rol- en rolset-conflicten ervaren en presenteer opties om deze conflicten op te lossen. Daarmee draag ik bij aan de theorievorming over waarom democratische bedrijven, zoals platformcoöperaties, in opkomst zijn.

Hoofdstuk 3 vult hoofdstuk 2 aan door empirisch te onderzoeken naar of er een latente vraag bestaat naar de zeggenschaps- en financiële rechten. Daartoe worden in dit hoofdstuk de resultaten gepresenteerd van een Delphi-studie die is uitgevoerd met de diverse stakeholders van een on-demand voedselbezorgings- en schoonmaakplatform in Nederland. Deze onderzoeksmethodiek brengt een consensus onder panelleden aan het licht dat platformwerkers een stem zouden moeten krijgen in bepaalde operationele beslissingen, maar dat er tegelijkertijd terughoudendheid bestaat over het toekennen van financiële rechten (bv. de toewijzing van aandelen). Hoewel dit kan worden geïnterpreteerd als een oproep tot een grotere vertegenwoordiging van platformwerkers in dergelijke arbeidsplatforms, blijkt hieruit weinig steun voor het toekennen van de verzameling van rechten die verbonden zijn aan het lidmaatschap van platformcoöperaties. In dit hoofdstuk leg ik uit hoe exogene factoren, zoals de bijzondere cultuur van arbeidsverhoudingen in Nederland, van invloed kunnen zijn geweest op deze reacties. Ik sluit af met een evaluatie van de beperkingen van conventionele vormen van werknemersvertegenwoordiging en -raadpleging in de platformeconomie en beargumenteer hoe dit echter nog steeds ruimte laat voor de groei van platforms waarbij de zeggenschaps- en financiële rechten in handen zijn van platformwerkers.

Met een beter begrip van waar, en onder welke voorwaarden, democratische bedrijven aantrekkelijk kunnen zijn, is het mogelijk om strategieën uit te stippelen over de wijze waarop dergelijke bedrijven kunnen worden gestimuleerd.

Hoofdstuk 4 gebruikt het hypothetische voorbeeld van een fictieve – maar archetypische – technologische start-up om verschillende strategieën te belichten voor het omvormen van kapitaalplatforms tot democratische bedrijven. Er worden drie strategieën gepresenteerd voor een dergelijke 'exit naar de gemeenschap'. De eerste strategie behelst de verwerving van aandelen door een trust die de belanghebbenden van het bedrijf vertegenwoordigt. De tweede strategie betreft de omvorming van een

gecentraliseerde platformexploitant tot een netwerk van entiteiten met een federale structuur waarbij een coöperatie de coördinerende functie heeft. De derde, en meest ambitieuze strategie, vereist de koppeling van aandelen aan een 'crypto'-token op een blockchain-netwerk en een herverdeling van deze crypto-tokens onder de belanghebbenden van het platform. In het hoofdstuk wordt uitgebreid ingegaan op de wijze waarop elke strategie kan worden verwezenlijkt, de gevolgen ervan voor de zeggenschaps- en financiële rechten van belanghebbenden, relevante voorbeelden en mogelijke beleidshervormingen. Belangrijk is dat het hoofdstuk de basis legt voor de tweede helft van het proefschrift.

Hoofdstuk 5 gaat voornamelijk over sociale-mediagebruikers als prosumenten van sociale-mediabedrijven. Ik presenteer een drieledig normatief argument waarom gebruikers meer zeggenschaps- en financiële rechten zouden moeten krijgen in deze bedrijven, waarbij ik gebruik maak van kritische mediastudies en politieke theorieën over ondernemingen. Bij gebrek aan wetgevende initiatieven om dergelijke rechten aan gebruikers toe te kennen, pleit ik voor het gebruik van een aandeelhouderstrust of een stichting (bv. Stichting Administratiekantoor, STAK) om de overdracht van dergelijke rechten aan gebruikers te regelen. Ik leg uit waarom indirecte vertegenwoordiging via een 'user trust' of 'user STAK' het meest geschikt is voor deze specifieke context en zet een mechanisme uiteen dat kan worden gebruikt om aandelen over te dragen aan een van beide entiteiten. Ik bespreek ook hoe gebruikersvertegenwoordigers die zitting hebben in de raad van toezichthouders van de trust of in het bestuur van de stichting, de belangen van een wereldwijde gebruikersbasis het best kunnen vertegenwoordigen. Met het oog hierop stel ik het gebruik van een checklist voor "good governance" voor om de vertegenwoordigers van de gebruikers bewust te maken van de rechten die zij hebben, wat de reikwijdte van hun beslissingsbevoegdheid is, en welke acties een organisatie moet ondernemen opdat de vertegenwoordigers die rechten kunnen uitoefenen.

Hoofdstuk 6 onderzoekt prosumptie in de stedelijke mobiliteitssector. Hiervoor heb ik een diepgaand vergelijkend casestudyonderzoek met betrekking tot twee ondernemingen uitgevoerd: (1) Eva Global Corp. en de ride-hailing coöperatie Coop de solidarité Eva in Quebec (Canada) die technologie van eerstgenoemde in licentie heeft, en (2) The Mobility Factory, een secundaire coöperatie in de elektrische autodeelsector en twee primair gerelateerde coöperaties, Partago en SomMobilitat, die het intellectuele eigendom voor hun platform in eigendom hebben via eerstgenoemde entiteit. Door middel van zogeheten elite-interviews en een review van primaire bronnen over deze ondernemingen, onderzoek ik hoe deze coöperaties een wenselijk alternatief bieden voor hun zakelijke concurrenten (bijvoorbeeld door het verbeteren van de beloning van chauffeurs) en hoe zij kosten reduceren in afwezigheid van – of beperkt tot – externe investeringen. Een belangrijke manier voor coöperaties om kosten en risico's te bundelen, is het gebruik

van *shared-services*-platforms. Hierdoor kunnen zij de kosten van de ontwikkeling van software delen. Deze netwerkorganisaties kunnen op verschillende manieren gestructureerd en bestuurd worden. In dit hoofdstuk leg ik ook uit hoe deze shared-services-platforms in beide gevallen juridisch gestructureerd en bestuurd worden. Ik evalueer vervolgens hun potentieel en valkuilen op basis van eerder onderzoek naar de governance van coöperatieve federaties, sociale franchises en eigendomsrechtentheorie. Met deze analyse in het achterhoofd ontwikkel ik zeven hypotheses over de keuze van de juridische- en governance structuur van shared-services-platforms en de variabelen die deze keuze kunnen bepalen.

Hoofdstuk 7 kijkt naar het soort prosumptie dat inhoudt dat op afstand hooggekwalificeerd werk wordt verricht via een platform. In het bijzonder analyseer ik hoe blockchain-technologie zou kunnen worden gebruikt door coöperaties met transnationale activiteiten en een wereldwijd ledenbestand, omdat dergelijke bedrijven vanwege hun omvang en geografische reikwijdte doorgaans problemen ervaren met opstarten en met collectieve besluitvorming. Om dit onderwerp te verkennen, presenteer ik eerst een overzicht van werknemerscoöperaties en hun aantrekkingskracht, evenals een verklaring waarom ze relatief schaars zijn. Vervolgens presenteer ik de casestudy van Colony, een casus die ik heb geselecteerd omdat het initiatief behoort tot een kleine reeks blockchain-projecten die de coördinatie-uitdagingen van organisaties met wijdverspreide teams tracht aan te pakken. Ik gebruik deze casestudy om het potentieel te evalueren van blockchain-gebaseerde technologieën gericht op het verhelpen van coördinatie- en opstartproblemen. Naast relevante technische verklaringen gebruik ik elite-interviews en primaire bronnen om te onderzoeken hoe het op reputatie gebaseerde governancesysteem van projecten zoals Colony interacties beheert en geschillen oplost in internetorganisaties.

In het voorlaatste hoofdstuk van dit proefschrift worden de maatschappelijke en wetenschappelijke bijdragen die zijn geleverd samengebracht, en presenteer ik een reeks juridische- en beleidsaanbevelingen op korte, middellange en lange termijn. De conclusie eindigt met een beknopte discussie over toekomstig onderzoek dat nodig is om de opkomst van democratische bedrijven in de platformeconomie te blijven onderzoeken en ondersteunen. In een poging om bij te dragen aan een van de aanbevelingen – namelijk het creëren van een meer stimulerend wettelijk kader voor platformcoöperaties – presenteer ik in het laatste hoofdstuk mijn eigen zelf ontwikkelde wetgevende 'benchmarking tool' om de 'vriendelijkheid' van verschillende jurisdicties ten aanzien van platformcoöperaties te beoordelen. In tegenstelling tot bestaande diagnostische- en benchmarking instrumenten voor coöperatieve wetgeving, richt mijn eigen 'scorekaart' zich op kwesties die met name relevant zijn voor platformcoöperaties, zoals hun behoefte aan schaalvergroting en het feit dat ze niet gebonden zijn aan een vaste, fysieke werkplek.

Een overkoepelende conclusie is dat sociale-mediaplatforms en online-arbeidsplatforms weliswaar van elkaar verschillen, en dat de basis voor het pleidooi voor democratisering van deze platforms dus ook anders is, er wel degelijk gemeenschappelijke drijvende factoren zijn. Het gaat onder meer om de bezorgdheid over het gebrek aan verantwoordingsplicht van bedrijven, de zwakke privacybescherming en het onvermogen van belanghebbenden om vorm te geven aan de manier waarop deze platforms worden ontworpen. Deze gedeelde zorgen kwamen niet alleen naar voren uit mijn analyse van de secundaire literatuur over de platformeconomie, maar ook uit mijn Delphi-studie en casestudy's. Ondanks de vele sociale problemen en juridische hiaten die in de platformeconomie bestaan, blijkt uit mijn onderzoek dat er tegelijkertijd ook een zekere aarzeling bestaat over het potentieel van democratische bedrijven om deze complexe problemen aan te pakken. Deze problemen kunnen, heel algemeen, worden gecategoriseerd als opstart- en governance-uitdagingen. De drijfveren en belemmeringen die ik heb geïdentificeerd, beantwoorden de eerste deelvraag van dit proefschrift. Om de tweede deelvraag te beantwoorden, wordt een breed scala aan opties besproken om deze obstakels te overwinnen, van het gebruik van afbreekbare reputatie-instrumenten tot de gezamenlijke ontwikkeling van het intellectuele eigendom van het platform.

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Curriculum Vitae

Morshed is currently a Max Weber Fellow at the Robert Schuman Centre for Advanced Studies at the European University Institute in Florence working on blockchain governance. He wrote this dissertation at Leiden University, Leiden Law School.

Before being awarded a postdoctoral fellowship, Morshed was a Research Associate at the European University Institute. During the course of his PhD trajectory, Morshed was a Research Associate at the Institute for the Cooperative Digital Economy at The New School in New York City and was a visiting researcher at the Faculty of Law, University of Cambridge under the LERU PhD exchange programme.

After beginning his PhD research project at Leiden University in 2017, Morshed conducted research on workers' and platform cooperatives, corporate governance, freedom of establishment and, most recently, blockchain technology and artificial intelligence. He was a lecturer in Leiden's Advanced LLM and International Business Law LLB programmes, teaching courses on worker representation in the workplace, freedom of establishment and comparative corporate governance. He also served on the Exam Commission of Leiden Law School's Advanced LLM programmes for several years, including two years as its Chairman. During this time, Morshed was a national expert on Bangladesh's cooperative law for an International Cooperative Alliance-Asia Pacific research project funded by the European Commission and served NCBA CLUSA as an expert working group member to develop the 'CLARITY 2.0' principles for cooperative law reform. He is one of the drafters of the 'DAO Model Law', published by the Coalition of Automated Legal Applications (COALA), and is a section editor of the Internet Policy Review for its Glossary of Decentralised Technosocial Systems.

Earlier, Morshed moved to the Netherlands in 2014 to pursue a LLM in Advanced Studies in International Civil and Commercial Law at Leiden University on a Leiden Excellence Scholarship. In August 2015, he completed his degree with a cum laude distinction. Between late 2015 and 2017, Morshed worked as a Teaching/Research Faculty Member at the Company Law department of Leiden Law School, teaching courses on international business law and comparative corporate law. Before moving to Leiden, Morshed was a lawyer and lecturer in Dhaka, Bangladesh. He was called to the Bar of England & Wales in July 2012 and enrolled as an Advocate of the Bangladesh Bar Council in 2014.

Appendix No. 1. Cooperative-Run Platforms (i.e., pre-existing cooperatives that build online intermediation and communication tools for the benefit of their members)

Identity of Business Entity	Name		Economic Activity	Type of Legal Entity	Geographic Scope	Year of Establishment
Cooperative Legal Structure	1	Bank of the Commons	Its purpose is to provide disintermediated, democratically accountable ethical banking services through the adoption of FairCoin. Among its various services, it proposes to create a funding and trading platform for cooperative shares.	In the process of becoming a SCE registered in Italy	Global	2017
	2	Réseau Citiz	Cooperative car-sharing pioneer; now a network bringing together 13 car-sharing operators.	Société coopérative de consommation anonyme à capital variable. (France)	France	2002
	3	Central Cooperative Union-Bulgaria operating Coop Care	Platform that allows local cooperatives in Bulgaria to order hygiene supplies (e.g., disinfectants, cleaning detergents) and receive daily updates about COVID-19 situation in their region.	Central Cooperative Union (Bulgaria)	Bulgaria	1991
	4	Commown	Uses website to promote sustainable use of technology.	SCIC-SAS (France)	France	2018
	5	Comrade Cooperative building Wetonomy	A programmers' cooperative building a platform (Wetonomy) that allows cooperatives to launch their own DAOs, which can be used to shape their governance structures and (financial) incentive mechanisms.	Kooperativen (Bulgaria) (tbc)	Global	2017
	6	Co-operative Group Limited	The Co-op Group has developed a number of apps for its members to use, including ordering repeat prescriptions from the NHS.	Registered Society (United Kingdom)	United Kingdom	1844
	7	Coopaname	A self-employed persons' cooperative which provides members with legal, administrative and educational support as well as access to certain social security benefits by conferring on them the status of employee-entrepreneur. Also provides a business management and social networking extranet for members.	SCOP-SA (France)	Paris	2004

	8	Co-operative News	News website published by Co-operative Press Ltd, an independent registered co-operative society in the UK.	Co-operative Society (United Kingdom)	Global	1871
	9	Cooperative Responsible Creators z.b.o., so.p	Freelancers' cooperative to provide them with social security, while also allowing them to be autonomous in the traditional and new industries they work in. It is intended that an unspecified blockchain platform will be used to facilitate members' access to the market.	Zadruga (Slovenia)	Slovenia	2018
	10	COOP Jednota Group	An umbrella buyers' cooperative comprising consumer cooperatives, logistics centers and warehousing companies that has built an Electronic Data Interchange to enable improved communication between the central cooperative and suppliers as well as between its member organizations. Some of its member cooperatives also have a mobile shopping service and online shop.	Spotrebné Družstvo (Slovak Republic)	Slovak Republic	1996
	11	Cotabo	Taxi drivers' cooperative that has recently developed its own e-hailing platform to match customers to licensed taxi drivers.	Soc. Coop. (Italy)	Bologna	1967
	12	Courant d'air	Renewable energy cooperative, involved in energy production (e.g., co-owning wind turbines, solar panels) and promoting energy transition. Also, provides an e-car rental service through a platform.	SCRL/CVBA (Belgium)	Belgium	2009
	13	Digicoop	Workers' cooperative that develops online collaboration and project management tools.	SCOP (France)	France	2015
	14	DiGiDi d.b.a. Maecen.com	Digital distribution system for work produced by members since 2003. It's platform, Maecen.com is alternative to Patreon, as it enables P2P support of creative workers.	a.m.b.a (Denmark)	Denmark	2003

	15	Doc Servizi	Creative workers' cooperative network comprised of primary cooperatives in difference creative sectors. Among other things, provides business development, invoicing, payrolling and tax administration services as well as an e-commerce and business management platform for members.	Soc. Coop. (Italy)	Italy	1990
	16	Energiegewinner	Involved in the production of renewable energy (e.g., crowdfunding, co-owning and operating windmills and solar grids). Now entering the e-car rental market.	eG (Germany)	Germany	2010
	17	FreedomCoop	Boost collaboration between self-employed persons in Europe and provides alternative banking services using cryptocurrencies.	SCE	Global	2016
	18	GESCOP	Taxi drivers' cooperative group comprised of 3 cooperatives that owns a subsidiary, Alpha Taxis, which operates a radio-dispatch system, internal portal and smartphone application to hail licensed taxi drivers. Drivers own all the shares in Alpha Taxi.	SCOP (France)	Paris	1977
	19	GoiEner	Multi-stakeholder non-profit cooperative for the production and consumption of renewable energy	S.Coop	Basque Region	2012
	20	Hilversum Energie Transitie	Involved in promoting a transition to renewable energy through information sharing, the installation of solar panels and the sale of solar power and e-car rental.	Coöperatie, U.A. (The Netherlands)	Hilversum	2017
	21	hostsharing eG	Webhosting cooperative that gives members access to a suite of decentralized cloud, video conferencing and communication applications.	eG (Germany)	Global	2000
	22	Indycube Limited d.b.a as Indycube	Facilitates the work of self-employed persons through the provision of co-working spaces, invoice factoring and legal, HR and business management advice.	Co-operative Society (United Kingdom)	United Kingdom	2010
	23	Grupo de Cooperativas de las Indias	Artistic and cultural activities and the promotion of community engagement.	S.Coop.	Spain	2002

	24	LibreOps	LibreOps is a tech cooperative that builds and contributes to managing decentralized, free open-source software, including social networking and conferencing software.	(tbc)	Greece / Global	2018
	25	Lilith Cooperative	A cooperative of freelance musicians and cultural producers which provides its members with a financial administration platform while also conferring them the security of being an employee.	Uusosuustoiminta (Finland)	Finland	1997
	26	LochemEnergie	Involved in the production of renewable energy (e.g., solar panel installation and collaborative energy production) and supplemented by e-car rental through a platform.	Coöperatie, U.A. (The Netherlands)	Lochem	2011
	27	OP Financial Group	OP Financial Group is a cooperative financial services group which has, among other things, built a buying platform for its member cooperative banks and an invoicing and accounting tool for self-employed persons. (For the latter, it is not necessary to be a member of a cooperative bank that is part of the OP Financial Group to become a 'light entrepreneur'.)	Osuuspankki (Finland)	Finland	1891
	28	Robin Hood Asset Management Cooperative	Cooperative investment fund, whose assets are managed with the help of an algorithm called "The Parasite", to invest on Wall Street.	Osuukunta (Finland)	Global	2012
	29	SMartAt	Mutual risk cooperative that supports the self-employed and others in non-standard forms of work by becoming the employer of freelancers for the duration of time between a services contract being negotiated and the freelancer being paid. Among other things, provides an upfront payment guarantee to members as well as business development, legal, invoicing, and payrolling services.	e.Gen. (Austria)	Austria	2011

	30	Smartbe	Mutual risk cooperative that supports the self-employed and others in non-standard forms of work by becoming the employer of freelancers for the duration of time between a services contract being negotiated and the freelancer being paid. Among other things, provides an upfront payment guarantee to members as well as business development, legal, invoicing, and payrolling services.	SCRLfs (Belgium)	Belgium	1998
	31	SMartDe	Mutual risk cooperative that supports the self-employed and others in non-standard forms of work by becoming the employer of freelancers for the duration of time between a services contract being negotiated and the freelancer being paid. Among other things, provides an upfront payment guarantee to members as well as business development, legal, invoicing, and payrolling services. One of the autonomous projects launched by SMartDe.	eG (Germany)	Germany	2016
	32	SMartFr	Mutual risk cooperative that supports the self-employed and others in non-standard forms of work by becoming the employer of freelancers for the duration of time between a services contract being negotiated and the freelancer being paid. Among other things, provides an upfront payment guarantee to members as well as business development, legal, invoicing, and payrolling services.	SCIC SA (France)	France	2008
	33	Smart Ib	Entrepreneurial impulse cooperative that supports those in non-standard forms of work, from caregivers to artists. Among other things, it ensures that members receive social security benefits when they have active projects, provides an upfront payment guarantee as well as business development, legal, invoicing, and payrolling services.	Sociedad Cooperativa Andaluza (Andalucia)	Barcelona, Madrid and Seville	2013

	34	Smart It	Mutual risk social cooperative that supports the self-employed and others in non-standard forms of work by becoming the employer of freelancers for the duration of time between a services contract being negotiated and the freelancer being paid. Among other things, provides an upfront payment guarantee to members as well as business development, legal, invoicing, and payrolling services.	Soc. Coop. Impresa Sociale (Italy)	Rome, Milan	2013
	35	SMartSe	Mutual risk social cooperative that supports the self-employed and others in non-standard forms of work by becoming the employer of freelancers for the duration of time between a services contract being negotiated and the freelancer being paid. Among other things, provides an upfront payment guarantee to members as well as business development, legal, invoicing, and payrolling services.	AB (Sweden) but owned by Intercult Productions ek. for. and Smartbe	Sweden	2012
	36	Som Connexió	Provides telephone carrier, ISP and mobile internet services, in which subscribers are also a member of the cooperative .	SCCL (Barcelona)	Spain	2014
	37	TeleCoop	Ecological and solidarity-oriented telecom operator offering, among other things, a cooperative mobile plan.	SCIC	France	2020
	38	Up operating the Dôme platform through its subsidiary Dôme SAS	Dôme is an application that coordinates the actors in the elderly care sector so that the elderly may have more agency and have their data protected, while still receiving care at home.	SCOP-SA (France)	France	2016
	39	UrStrom	Involved in promoting transition to renewable energy and the production of renewable energy (e.g., solar panels). Now entering the e-car rental market.	eG (Germany)	Mainz	2010

	40	Webarch Co-operative Limited d.b.a. Webarchitects	Multi-stakeholder cooperative that provides ethical and eco-friendly web hosting, virtual servers and GNU/Linux sysadmin support services. One of the services they provide is setting up a virtual private server with Discourse, the free, open-source discussion board software, pre-installed. They have their own rack space in a data center powered by 100% renewable energy.	Co-operative Society (United Kingdom)	Global	1998
	41	Zelena Energetska Zadruga (ZEZ)	Renewable energy cooperative that, among other things, seeks to enable crowdfunding and the use of blockchain in the distribution and financing of renewable energy initiatives by its members.	Zadruga (Croatia)	Croatia	2013
	42	Cargonomia	Cargonomia is a social cooperative that acts as a logistics and distribution center for organic food. The website of the cooperative acts as a multi-sided matchmaking platform between consumers of organic produce, organic food & beverage producers and sustainable cargo-bike couriers.	Unincorporated association (tbc) that emerged out of Cyclonomia szociális szövetkezet (now deleted from the business register)	Budapest	2015
Charity/ Association which voluntarily adheres to the ICA's Statement on the Co-operative Identity (1995)	43	GreenNet Educational Trust operating GreenNet Collective	A collective that relies on worker and user contributions to provide ethical and eco-friendly internet services (e.g., webhosting and cloud storage) and design websites. Recently, they have launched GreenNet Jitsi, a video conferencing platform. Their servers in London, Canada and Germany are all powered by renewable energy.	Registered Charity (United Kingdom)	Global	1985
	44	SMartHU	Mutual risk association that supports those in non-standard forms of work, from caregivers to artists. Among other things, it organizes networking and knowledge-building events for members.	Nonprofit kft (Hungary)	Hungary	2014

Appendix No. 2. Platform Cooperatives (i.e., new enterprises whose primary economic activity is conducted through online intermediation and/or communication tools and who abide by the International Co-operative Alliance's Statement of Co-operative Identity)

Identity of Business Entity	Name		Economic Activity	Type of Legal Entity	Geographic Scope	Year of Establishment of Entity
Cooperative Legal Structure	1	Aanpakken	Helps match healthcare organizations who need self-employed healthcare professionals with each other and helps the latter with their administration and invoicing for their services.	Coöperatie U.A. (The Netherlands)	The Netherlands	2018
	2	Alternacoop	Short-term e-car rental and installation of charging ports.	Coop V. (València)	València	2017
	3	AppliColis	Courier service provider (bikes to electric vehicles) with a focus on urban sustainability.	SCIC (France)	France	2017
	4	Ark Ecosystem	A blockchain project that seeks to help start-ups deploy their own blockchain project.	SCIC (France)	Global	2017
	5	The Bristol Cable Limited	A media cooperative that fosters citizen journalism, so as to foster trustworthy and accountable media. It is a readers' cooperative, with the permanent staff being organized as a workers' cooperative.	Co-operative Society	Bristol	2014
	6	Collective Tools	Cloud services cooperative, with tools for document collaboration, discussion and project management.	Ek. För. (Sweden)	Global	2019
	7	Conecta MovEL	E-car rental services accessed through a digital platform, in a bid to improve urban transport and promote eco-friendly, healthy mobility.	S.Coop.Mad (Spain)	Madrid	2017
	8	Coöperatie Auto	E-car rental services accessed through a digital platform, in a bid to improve urban transport and promote eco-friendly, healthy mobility.	Coöperatie B.A. (The Netherlands)	Culemborg, Lochem	2018

	9	Coursiers wallons	Urban cargo transport services, from letters and parcels to food.	CVBA/SCRL (Belgium)	Mons/ Namur	2011
	10	Digital Cooperative Development Consortium	Multi-stakeholder (user, employee, producer and consumer) cooperative that provides a blockchain infrastructure (groundloop) on which members and non-members can launch applications that have been vetted by the cooperative. This is intended to allow other platform cooperatives to build applications on their blockchain.	Co-operative Society (United Kingdom)	Global	2018
	11	Dioxyde de Gambettes	Bicycle courier cooperative with a focus on sustainability and fair pay.	SCRLfs (Belgium)	Brussels	2008
	12	Equal Care Coop	Matching care givers with those who need care. Does the background checks and verifications and handles administration for both sides.	Co-operative Society (United Kingdom)	United Kingdom	2018
	13	Eraman	Bicycle courier cooperative for food delivery.	Koop. Elk. Txikia (Basque)	Vitoria-Gasteiz	2020
	14	Fairbnb Coop	Building an eco-friendly and legal short-term rental booking platform, where half of the platform commission goes towards funding social projects in the host community.	SCRL (Italy)	Global	2016
	15	Fairmondo (Germany)	Multi-stakeholder cooperative that is a fair-trade alternative to Amazon in Germany.	eG (Germany)	Germany	2012
	16	Fairmondo UK Ltd.	Multi-stakeholder cooperative that is a fair-trade alternative to Amazon in the United Kingdom.	Co-operative Society (United Kingdom)	United Kingdom	2017
	17	Feed the Future d.b.a Topino.be	Manages and intermediates a short-circuit purchasing network to facilitate the P2P and sustainable sale of fresh produce.	CVBA/SCRL (Belgium)	Wallonia & Brussels, Belgium	2012
	18	FemProcomuns d.b.a. Commons Cloud	Integrating various free software tools to build a cooperative-owned cloud service.	SCCL (Barcelona)	Global	2017

	19	France Barter	Facilitating an online bartering marketplace, where the self-employed can exchange their services for free products from businesses.	SCIC-SARL (France)	France	2014
	20	Gebiedonline	Builds neighborhood platforms to help connect people in villages and cities across the Netherlands. All of the member neighborhoods use the same platform and the same database which is managed by a non-profit cooperative. Each neighborhood platform appoints a representative to the cooperative.	Coöperatie, U.A. (The Netherlands)	The Netherlands	2016
	21	Guerilla Media Collective	Coordinating cooperative for Guerilla Translation and Guerilla Graphic Collective, for projects that require translation, graphic design and illustration.	S.Coop.And de Interés Social (Andalucia)	Global	2019
	22	Hof Homann eG operating Open Food Network Deutschland	A P2P platform, built with open-source technology, through which SME and Community Enterprises can sell their produce directly to consumers (e.g., in a farmers' market).	eG (Germany)	Germany	2019
	23	JoinData	Coordinates agricultural entrepreneurs, data suppliers and applications builders to facilitate data distribution and ultimately help farmers.	Coöperatie, U.A. (The Netherlands)	The Netherlands	2017
	24	Katuma	Coordinates the sale of produce from local small-scale producers with local community groups, using free software (AGPL v3 license).	SCCL	Catalonia	2012
	25	Label Emmaüs	Online marketplace for social and solidarity enterprises, particularly those that adopt the Emmaüs label.	SCIC-SA	France	2016
	26	La Pájara	Food delivery, messenger and logistics services, particularly for the handicapped.	S.Coop.Mad (Madrid)	Madrid	2018
	27	Les Coursiers Nantais	Bicycle courier service with a focus on eco-friendly delivery.	In the process of conversion from Association to SCOP	Nantes	2017

	28	Les oiseaux de passage	Matches travelers with hosts and host communities in a manner that encourages eco-friendly and conscientious travel.	SCIC	France	20166
	29	Lille.Bike	Bicycle courier service with a focus on eco-friendly delivery.	Couriers are part of the Optéos SARL SCOP	Lille	2010
	30	The Manchester Meteor Limited d.b.a. The Meteor	Non-profit media cooperative, consisting of production and community members, that focuses on local socio-economic issues that are neglected by the mainstream media.	Community Benefit Society	Manchester	2019
	31	Meet.coop	A commons cooperative organized as a consortium of cooperatives, other actors of the social and solidarity economy and users dedicated to developing an online meeting and conferencing platform.	Unknown but governance model indicates a secondary cooperative structure	Global	2020
	32	Mensakas	Bicycle courier service that emerged from a delivery courier's union campaign, RidersxDerechos. Each rider is an employee.	SCCL (Barcelona)	Barcelona	2017
	33	MIDATA	Seeks to enable citizens to securely store, manage and control access to their personal (health) data by forming cooperatives, which act as agents of member data.	Non-Profit Genossenschaft (Switzerland)	Switzerland	2015
	34	The Mobility Factory	Secondary cooperative that builds an e-car rental platform for its members as well as business development services.	SCE (Belgium)	Europe	2018
	35	Mobicoop	Multi-stakeholder carpooling cooperative that operates without commission and driver remuneration, comprised of user, worker, volunteer and other contributor members. The amounts charged can only cover the cost of the journey.	SCIC SAS (France)	France	2018
	36	Molenbike	Bicycle courier service, specializing in local, eco-friendly deliveries.	SCRLfs (Belgium)	Brussels	2017

	37	Mutual Interest Media	A media platform owned by its readers and writers.	In the process of being registered as a multi-stakeholder cooperative in the UK or Finland	Global	2020
	38	Open Food France	A P2P platform, built with open-source technology, through which small-scale farmers SME and Community Enterprises can sell their produce directly to consumers (e.g., in a farmers' market).	SCIC SAS (France)	France	2015
	39	Open Food Ireland	A P2P platform, built with open-source technology, through which small-scale farmers SME and Community Enterprises can sell their produce directly to consumers (e.g., in a farmers' market).	In the process of becoming a multi-stakeholder solidarity cooperative	Ireland	2020
	40	Olvo	Cargo delivery and logistics service, specializing in eco-friendly delivery.	SARL SCOP (France)	Paris	2016
	41	Partago	E-car rental services accessed through a digital platform, in a bid to improve urban transport and promote eco-friendly, healthy mobility.	CVBA/SCRL (Belgium)	Belgium	2015
	42	pc polypoly coop SCE d.b.a as Polypoly	A cooperative that allows members to share ownership of the polyPod, software that gives users greater transparency about the data that is collected about users, grants access to data and allows users to receive returns from the sale of their data. The cooperative is complemented by a polypoly enterprise and polypoly foundation.	SCE	Europe	2020
	43	Positive News Ltd.	A media cooperative, owned by its global readership and journalists, dedicated to promoting positive news stories.	Community Benefit Society	Global	2015

	44	Pwiic	Platform to connect daily service providers to those who need it. It also allows groups to form 'communities' online to help each other find services or form mutual aid groups.	CVBA/SCRL (Belgium)	Belgium and France	2017
	45	Rayon9	Cargo delivery service using e-bikes and storage/ inventory management.	CVBA/SCRL (Belgium)	Liège	2015
	46	Resonate Beyond Streaming Ltd. d.b.a Resonate	Multi-stakeholder music streaming cooperative originating in Germany with listeners, musicians, labels and collaborator members.	Co-operative under the Industrial and Provident Societies Act 1894-2014 (Ireland)	Global	2017
	47	Ridygo	Carpooling cooperative in France.	SCOP (France)	National (France)	2015
	48	Salus.Coop	Helps citizens gain control of their own health records while facilitating data sharing to accelerate research innovation in health care.	SSCL (Barcelona)	Global	2017
	49	Share.Coop	Helps develop e-commerce websites so as fund non-profits. For example, they match people buying real estate with a solidarity real estate agent. The buyer can donate a part of the brokerage fee to solidarity activities of their choosing that has been registered on the share.coop platform.	SCIC SAS with a focus on Solidarity Enterprise of Social Utility (France)	France	1997
	50	SignCo.io Limited d.b.a. Signalise.coop	Helps match member-interpreters to Deaf people who require their service. Will be co-designed and co-created with user groups.	Co-operative Society (United Kingdom)	Merseyside	2019
	51	Som Mobilitat	E-car rental services accessed through a digital platform, in a bid to improve urban transport and promote eco-friendly mobility.	SCCL	Mataró	2016

	52	Stadmakers Cöoperatie operating as Stadmakers Online	Members collaborate with larger non-member organizations in improving municipalities and cities in the Netherlands, so as to make it more equal, livable and beautiful. The platform helps 'city makers' to find each other – and each other's initiatives – easily.	Coöperatie U.A. (The Netherlands)	The Netherlands	2019
	53	Tapazz	Technology firm that builds software applications to enable users to let out rooms, vehicles and parking spaces on a short-term basis. Also builds hardware for controlling access to car.	CVBA/SCRL (Belgium)	Hasselt	2014
	54	Taxiapp UK Ltd. d.b.a. Taxiapp	UK taxi drivers' cooperative, which has developed its own platform for hailing licensed black cab drivers in London.	Co-operative Society (United Kingdom)	London	2019
	55	Toutenvelo	Last-Mile Cargo delivery, trailer sale and social 'freechise' of their brand.	SCOP	France	2012
	56	Toutenvélo de Caen	Bicycle courier cooperative for parcel delivery.	SCOP SARL	Caen	2017
	57	Toutenvélo de Dijon	Bicycle courier cooperative for parcel delivery.	SCOP SARL	Dijon	2020
	58	Toutenvélo de Grenoble	Bicycle courier cooperative for parcel delivery.	SCOP SARL	Grenoble	2016
	59	Toutenvélo de Marseilles	Bicycle courier cooperative for parcel delivery.	SCOP SARL	Marseilles	2019
	60	Toutenvélo de Rennes	Bicycle courier cooperative for parcel delivery.	SCOP SARL	Rennes	2012
	61	Toutenvélo de Rouen	Bicycle courier cooperative for parcel delivery.	SCOP SARL	Rouen	2016
	62	Tricargo	Last-Mile Cargo Delivery.	eG (Germany)	Hamburg	2018
	63	urbike	Bicycle courier cooperative for parcel delivery	SCRL/CVBA (Belgium)	Brussels	2018

	64	WeHelpen	Platform founded by an alliance of municipalities, civil society organizations, foundations and Rabobank to enable someone that needs help (e.g., ride to the hospital) to be connected to someone who can give that help for free.	Coöperatie U.A	The Netherlands	2012
	65	Xobb	Cooperative that builds an open digital infrastructure to improve the quality of life of citizens, particularly those who are visual or auditory challenges.	SCCL (Barcelona)	Barcelona	2017
Limited Liability Company Form which voluntarily adheres to the ICA's Statement on the Co-operative Identity (1995)	66	AlphaTaxis	Taxi Service.	SARL	Paris	2015
	67	Coop Cycle Birmingham Ltd.	Bicycle courier cooperative.	Private Company Limited by Guarantee (United Kingdom)	Birmingham	2020
	68	Dark Peak Data Co-operative	A user-run cooperative providing hosted open-source software for the benefit of their members.	Private Company Limited by Guarantee (United Kingdom)	Global	2014
	69	Magma T&DT Ltd. d.b.a. as 'Co-box' (Previously known as Co-box Cooperative Ltd.)	A cooperative cloud service provider that is P2P, encrypted and can be used offline. CoBox interface is built in Australia.	Private Company Limited by Guarantee (United Kingdom)	Global	2019
	70	Open Food Network UK	A P2P platform, built with open-source technology, through which small-scale farmers, SMEs and Community Enterprises can sell their produce directly to consumers (e.g., in a farmers' market).	Community Interest Company	United Kingdom	2015
	71	Part Up	Open-Source Platform that helps individuals to self-organize and temporarily collaborate with each other for a shared purpose.	BV, with 20% of BV shares held by Part Up Coöperatie U.A (The Netherlands)	Global	2014

	72	Platform 6 Development Co-operative	A platform dedicated to fiscally hosting new (platform) cooperatives (often while they are still projects/ collectives) and helping them raise funding.	Private Company Limited by Guarantee (United Kingdom)	Global	2018
	73	Centro Servizi Welfare	A platform that matches private citizens, companies or public bodies with welfare service cooperatives, such as elderly care and nutrition	S.r.l (Italy)	Verona	2018
	74	York Collective	Bicycle courier cooperative.	Private Company Limited by Guarantee (United Kingdom)	York	2020
Association which voluntarily adheres to the ICA's Statement on the Co-operative Identity (1995)	75	Asociación àpara el Desarrollo de los Bancos de Tiempo operating BdTonline	Association that, among other things, has built a time-banking platform. There is an annual assembly and members can participate through Loomio.	Association (Barcelona)	Spain	2012
	76	Better Media	Multi-stakeholder independent media cooperative.	Association in the process of registering as a multi-stakeholder Community Interest Company limited by guarantee (United Kingdom)	Global	2018
	77	Botxo Riders	Bicycle courier cooperative for food and parcel delivery.	(tbc)	Bilbao	2020
	78	Crow Cycle Courier Collective	Independent bicycle courier cooperative focused on minimizing carbon emissions.	GbR (Germany)	Berlin	2017

	79	Chaos.social	Federative instance running on Mastodon that is operated by and for German members of the Chaos community.	Unknown but presents itself as a cooperative on Platform6	Germany	2017
	80	Colis Cyclette	Bicycle courier cooperative for food and package delivery.	Association (France)	Carpentras	2019
	81	Cooby tec	Provides enterprise management and cloud hosting services as well as research consultancy (e.g., designing crypto-token systems)	Verein (Switzerland)	Global	2018
	82	Coop Cycle	Coordinates a federation of food-delivery courier cooperatives across France, Spain, Belgium, Germany, Poland and (soon) Canada. The association builds the shared platform software, smartphone application, develops the commercial offering, handles legal and administration, provides a payment warranty, and negotiates insurance, among other services. It is currently also a project partner with Olvo and Écotable in developing a fair-trade food ordering platform, Resto.Paris, for eco-responsible restaurants.	Association (France)	Europe (soon Global)	2018
	83	Coursiers Bordelais	Bicycle courier cooperative focused on emission-free cargo delivery.	Association déclarée (France)	Bordeaux	2017
	84	Associació Cultural Makeatuvida operating el Recetario	The association operates a platform to enable collaboration between creators on the reuse of waste to make furniture and accessories. It seeks to transition into becoming a consumer/producer cooperative.	Non-profit Association	Barcelona	2007
	85	fairkom	A society in Austria for the promotion of media communication and intangible commons that has developed an ecological instant messaging service that is open source, does not sell data, has individual customer care and is hosted within the EU.	Gesellschaft (Austria)	Global	2016
	86	Foodfairies	Independent bicycle courier cooperative.	GbR (Germany)	Berlin	2019

	87	Fulmo	Independent bicycle courier cooperative that is environmentally friendly.	GbR (Germany)	Leipzig	2020
	88	Guerilla Translation	In addition to their economic activity of paid translation/ editing work, the organization develops governance systems that not only value paid work but also pro bono work (e.g., supporting activist causes) and reproductive work (e.g. care work).	Association	Global	2013
	89	FairCoop	Promotes the use of FairCoin as a monetary reserve and for real exchanges.	(tbc)	Global	2014
	90	Kooglof!	Bicycle courier cooperative with a focus on ethical and emission free deliveries.	Association de droit local (Bas-Rhin, Haut -Rhin et Moselle)	Strasbourg	2020
	91	Les Coursiers Montpelliérains	Bicycle courier cooperative for food and package delivery.	Association déclarée (France)	Montpellier	2019
	87	Les Coursiers Stephanois	Bicycle courier cooperative for ecological parcel and cargo delivery.	Association déclarée (France)	Saint-Etienne	2021
	88	Naofood	Bicycle courier cooperative for food delivery.	Association déclarée (France)	Nantes	2019
	89	Networks.Coop	A think tank that seeks to foster collectively owned platforms.	(tbc)	Global	2008
	90	Osmose Collective	A platform running on the Ark blockchain dedicated to providing decentralized services, starting with cashless ticketing systems for cultural events. Multi-stakeholder membership is planned.	Association, with the objective of converting into a SCIC	Global	2019
	91	Oxfam-Magasins du monde ASBL operating Open Food Network Belgium	A P2P platform, built with open-source technology, through which small-scale farmers, SMEs and Community Enterprises can sell their produce directly to consumers (e.g., in a farmers' market).	ASBL (Belgium)	Belgium	2018

	92	Régie de Quartiers de Stains District	A bicycle courier cooperative.	Association de Préfiguration, with the objective of converting into a SCOP or SCIC	Paris	2014
	93	S!cklo	A bicycle courier cooperative that strives to provide an eco-friendly service.	Association de Préfiguration, with the objective of converting into a SCOP or SCIC	Grenoble	2019
	94	Tours'n Messengers	Bicycle courier cooperative for the delivery of parcels and cargo.	Association déclarée (France)	Tours	2019
	95	Wobbly	A federated platform built by volunteer developers for workplace organizing, specifically targeted at precarious gig workers. The platform enables gig workers to join or create nodes representing local workplaces, via which gig workers can communicate with each other through end-to-end encrypted channels, discuss and vote on proposals and coordinate with other workplace nodes on e.g., strikes.	Unincorporated association that is planning to convert into a cooperative in the mid-to-long term	United Kingdom	2018
	96	Zámpate	A bicycle courier cooperative for food delivery.	(Tbc)	Zaragoza	2020

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