Symbolic capital and scholarly communication in the humanities: An analysis of sociotechnical transition

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A formative century
The social, economic, political and technological contexts of academia and scholarly publishing

The previous chapter introduced the conceptual framework of the field theory as well as a method for analysis of specific fields, like that of academic publishing. In chapter 1, an analysis of the disciplinary fields within academia has shown and contextualised the specific social and epistemological academic practices of the Humanities. In the second chapter, academic publishing has been identified as a distinct social arena in which agents seek to acquire capital. Yet neither the disciplinary specificity in the norms and working practices of humanities scholars, nor the identification of the field of academic publishing as a distinct arena suffices to explain the specific properties of academic publishing for humanities disciplines. It is at the crossroads between those two developing currents—of academic publishing, and of disciplinary specialisation—that a specific *habitus* for humanities scholarly publishing has emerged.

In Bourdieusian terms, the current particular field of scholarly publishing is necessarily a contingency that continues to evolve as reiterated interactions between agents in it shape and reform their perceived needs or desires for capital. Its one principal type of agent, the scholar, is strongly driven by adherence to a normative framework that comprises the epistemic goals and social requirements of his discipline (see ch. 1). Publishing is thus affected when the epistemic or social circumstances of a discipline change. This may happen due to intrinsic developments, such as a breakthrough discovery or an influential new theory. It may also be caused by external pressures to the academic system, for instance investments in and political pressure on furthering of a particular branch of research, to which scholars react in turn. The other principal agent in the field, the publisher, is driven by incentives for a different mix of types of capital than academics. Both seek esteem, but each for their own purposes: the publisher must turn it into sufficient economic capital to maintain his business.

Moreover, all agents in the field, including publishers themselves, are influenced by factors external to the field: socio-economic developments, political currents, and, unduly deprecated by Bourdieu (see ch. 2), technological innovations and the socio-cultural uptake of them. None of these factors occur in isolation; they are at continuous interplay and vary in strength over time. The introduction of the digital medium and

especially that of the networked computer at the end of the twentieth century has been a particularly profound driver of change in recent times and will therefore be the topic of analysis in a separate chapter (4). In order to pave the ground for the analysis of the effects of the online medium on academic publishing, the current chapter provides a historical account of the most influential developments for the field until its introduction. The following contextual description will therefore feature the most formative field-internal and field-external pressures, from social, economic, financial, technological, and political factors—or a combination of those—in a largely chronologically structured narrative.

The present account is essentially qualitative in nature, as the combination of historical events, political currents, academic progress and economic trends is needed to sketch a full picture. This chapter's argument is constructed predominantly by recombining insights from contemporary and recent literature, while illustrating exemplary cases-in-point with specific data. Such an approach has often been employed in contemporary analyses of publishing, where it has been metaphorically referred to as describing 'the ecology of publishing'.[1] In policy perspectives on the cultural sector of society, viewing arts and culture as an ecology is establishing itself as an accepted approach, 'the ecology of culture'.[2] It seems that epistemological connections have not yet been made with the subdiscipline of publishing studies, however, as the ecology metaphor is so far only used in a rhetorical sense without attempts at methodological rigour or theoretical grounding. The current project's scope does not allow for extended comparisons with the methodological progress in, and potential relationships with, cultural policy studies. Yet a brief but critical exploration of the ecology metaphor is warranted here, because it strongly reverberates with the field theory that functions as a conceptual framework for the current study. No Bourdieusian influences have been explicitly acknowledged in the

1 See, for instance: Bill Cope & Mary Kalantzis, 'Changing knowledge ecologies and the transformation of the scholarly journal', in: Bill Cope & Angus Phillips (eds.), *The Future of the Academic Journal* (2nd edition, Oxford: Chandos, 2014), pp. 9–85; pp. 9, 74; Joseph J. Esposito, 'The wisdom of Oz: The role of the university press in scholarly communications', *The Journal of Electronic Publishing* 10.1 (Winter 2007), n.pag,; Joseph J. Esposito, 'Rival ecosystems: The increasingly porous boundary between institutional and consumer markets', *The Scholarly Kitchen* (29 October 2014), n.pag.; Michael Jubb, 'Introduction. Scholarly communications: disruptions in a complex ecology', in: Debra Shorley & Michael Jubb (eds.) *The Future of Scholarly Communication* (London: Facet 2013), pp. xiii-xxxvi, throughout; Michael Jubb, 'The scholarly ecosystem', in: Robert Campbell, Ed Pentz & Ian Borthwick (eds.), *Academic and Professional Publishing*, (Oxford: Chandos 2012) pp. 53–78, esp. pp. 53–54; Agata Mrva-Montoya, 'Beyond the scholarly monograph: Publishing research for multimedia and multiplatform delivery', *Journal of Scholarly Publishing* 46.4 (July 2015), pp. 321–342, esp. pp. 322–324; Keith Webster, 'The evolving role of libraries in the scholarly ecosystem', in: Robert Campbell, Ed Pentz & Ian Borthwick (eds.), *Academic and Professional Publishing*, (Oxford: Chandos 2012) pp. 315–336, esp. pp. 315–316; Lynne Withey, Steve Cohn, Ellen Faran, Michael Jensen, Garrett Kiely, Will Underwood, Bruce Wilcox, Richard Brown, Peter Givler, Alex Holzman & Kathleen Keane, 'Sustaining scholarly publishing: New business models for university presses', *Journal of Scholarly Publishing* 42.4 (2011), pp. 397–441, esp., pp. 398, 400–401.

2 The 'ecology of culture' is not to be confused with 'cultural ecology', a term that has been used in the discipline of anthropology since the 1950s and entails the study of human adaptations to social and physical environments. A key publication in the ecology of culture is: John Holden, *The Ecology of Culture: A Report Commissioned by the Arts and Humanities Research Council's Cultural Value Project* (London: Arts and Humanities Research Council, January 2015).

literature, but I will highlight parallels between the ecology metaphor and Bourdieusian concepts that may render the former more useful and sufficiently fitting for the analysis of scholarly publishing.

Both field theory and the ecological metaphor depart from the principle that each agent in the field, or species in the ecology, comes equipped with specific types of capital, or properties in a 'niche'. For example, large corporate publishers have maximal financial leverage, but not necessarily the highest esteem among academics. Two similar-looking agents might differ in regard of aspects that can only be distinguished in close observation, but that are nevertheless vital to their existence: such as scholars, who in some disciplines derive their reputation primarily from the monographs they author, while in others they never write books at all. Moreover, such specific niche properties may seem exotic in isolation, but constitute logical cause and effect in iterative, habitual interactions between agents in a cohesive system, or field. Illustratively, some schools in philosophy continue to write in French not by aesthetic eccentricity, as may seem to an outside observer, but from the epistemological tradition of their discipline that outweighs practical disadvantages (see ch. 1, esp. sections 3–5).

Furthermore, networked dependencies have organically grown between the diverse agents in a field, or species in an ecology, and are now necessary for the agents' survival: without scholarly authors' manuscripts, academic publishers would quickly go out of business—and without publishing, academia would plunge into a serious crisis in the registration, certification, dissemination, and archiving of knowledge contributions. Yet besides these dependencies between different types of agents, agents that have a highly similar disposition—monograph publishers, say, or scholars in the philosophy of language—there is a continuous competitive struggle for dominance in which the fittest survive. To this extent, the ecology metaphor can be seen as a lively, comprehensible echo of the more theoretical Bourdieusian descriptions of agents in a field, and their struggle to gain capital through exchanges. The metaphor is therefore certainly an effective rhetorical frame, and it may serve to elicit curiosity about the workings of scholarly publishing. While acknowledging this usefulness for broader audiences, however, the current analysis will still resort to Bourdieusian concepts, because the ecology metaphor lacks the extensive development of field theory which is useful because of its explanatory potential for the dynamics between agents in scholarly publishing.

A second set of associations that the ecology metaphor invokes, from environmental protection movements, deserves critical attention as well. Firstly, the environmental protection-concept firstly advocates that the broad variety of life-forms demonstrates nature's beauty, and secondly that each species merits preservation and protection precisely because it has survived thus far by a slowly-adapted strategy that is implicit, yet inherent to it. Metaphorically applied to the ecology of culture, survival is equated with economic success; emphasis on the variety of species would then form a counterweight to utilitarian views that species, or types of agents, would only have purpose in the economic sense, and that the onus would be on them to adapt or go extinct. In the field of academic publishing, specifically, there certainly is merit in accepting scholars' and publishers' incentives, even if they are not profit-oriented. Moreover, this association with environmental protection calls to mind the fragility of

ecosystems, and especially the repeatedly demonstrated, unfortunate phenomenon that actions benevolently intended to remedy a particular wrong in one specific niche of the ecosystem may cause unforeseen adverse effects or outright calamities in another (a phenomenon that can be recognised in the recent history of academic publishing more than once, as the following account will demonstrate).

However, such extension of the metaphor overlooks a crucial difference between natural and cultural systems. Nature is an organically grown system of dependent species, individuals of which intuitively focus on their own immediate survival which in turn guarantees the preservation of the species as a whole. Nature thus maintains equilibrium and perpetuates stability, whereas in culture each balance is a temporary one at best: here, agents are thinking, planning, scheming, and struggling to secure long-term success—beyond survival—for themselves at the expense of other agents. It should be kept in mind that the ecology metaphor is a rhetorical frame; extended use of analogies with environmental protection advocacy risks conflating it with a theoretical model. For this reason, the current analysis will not draw out the ecology metaphor any further, and instead remain faithful to Bourdieusian descriptions of the field and the capital that is exchanged in it.

Although quantitative sources are available that could be useful in an analysis of academic publishing, the following account will only sparsely feature quantitative data and statistics. This is due to issues with such quantitative data, which are most severe at both the highest aggregate level of national or international statistics, and in the smallest units of measurement possible, the private business.[3] Firstly, a lot of the key figures are simply not preserved: family-owned firms often have not preserved their archives, for instance, and statistics on national progress are not always kept well in times of crisis or rapid development. If data exists, however, that does not mean it is accessible: general market reports are often executed by commercial parties and therefore prohibitively expensive.[4] And while the business activities of stock-listed publishers can be reconstructed through their annual financial reports, private companies have good commercial reason not to make their business results public. Additionally, most university presses' results remain cloaked in the annual reports of their *alma maters* on which they depend.[5] Even when there is accessible data available that is uniform and reliable, its applicability remains

3 The lack of reliable and diachronically consistent statistics is a pressing issue not just in academic publishing, but in the world of the book as a whole. For extensive assessment of existing statistics as well as proposals for additional data collection, see: Miha Kovač, Angus Phillips, Adriaan van der Weel & Rüdiger Wischenbart, 'Book statistics: What are they good for?', *Logos* 28.4 (2017), pp. 7-17.

4 Examples: Outsell (2015: *Humanities and social sciences publishing: Market size, share, forecast, and trends*) or Simba (2014: *The Market for Social Sciences and Humanities publications*). A non-commercial pilot for a similar report, initiated by the International Publishers Association (IPA) and the World Intellectual Property Organisation (WIPO) demonstrates how difficult it is to obtain statistics, let alone to assess their reliability: *The Global Publishing Industry in 2016: A Pilot Survey by the IPA and WIPO* (Geneva, 2016).

5 Example: Leiden University Press is formally a subordinate of the University Library; its annual business results have not been separately listed in the official and public annual reports of Leiden University.

limited, especially for a comparison over an extended period of time.[6] For these reasons, a historical analysis of the development of academic publishing based on quantitative primary data would be a complicated and specialist undertaking. This does not fit in the scope of the current project: after all, the central topic here is the encroaching digital medium, and the reconstruction of the contingent field settings in specific numbers are mostly used as the illustrative context from which its developments could be analysed.

Yet a literature review for an historical contingency analysis of scholarly publishing, with specific attention to developments in publishing for the Humanities, is not without its issues and pitfalls either. Firstly, the coverage of this specific topic in the history of publishing is relatively scant. There is a solid, if by now slowly ageing, collection of studies on the recent history and contemporary issues in publishing, such as Clark and Phillips' insight in the British industry and Greco's reflections on the US perspective.[7] However, these focus predominantly on the trade fields. As argued in the previous chapter, the market for academic publications is different from the trade market in several crucial aspects, for instance its truly international character, and the importance of the institutional buyers. This renders markets in adjacent domains susceptible to different government policies: whereas trade publishing is influenced by cultural policy and subsidies, academic publishing is both intentionally and unintentionally, directly and indirectly, affected by politics on education and research. Moreover, scholarly reading of academic publications is vastly different from the leisurely consumption of trade books, which leads to a specific dynamic of demand for scholarly publishing and the uptake of specific new technologies. For instance, whereas the ePub has become the industry standard format for trade e-books that are read for pleasure, its flexible presentation affecting the reliability of page references is a disadvantage for academic readers, who therefore continue to prefer the stable PDF. As trade and scholarly publishing are related, but separate fields, specific circumstances in the academic context are relevant for scholarly publishing but not for trade. Trade publishing studies therefore do not capture all developments that are relevant for academic publishing.

In his monograph *Books in the Digital Age*, John Thompson presents an example of such a field approach that I propose. His monographic study of academic and higher education publishing in the combined markets of Britain and the United States is loosely based on Bourdieusian theory.[8] Supported by extensive interviews with staff from sixteen (unnamed) publishing firms, Thompson provides a thorough analysis of these two fields. As he explains, textbook publishing and scholarly publishing share similar characteristics: academics are the authors of works in both fields; institutions have an important role in the uptake of books through gatekeeping and selection—although scholarly books are acquired predominantly by libraries, and textbooks are prescribed

6 Example: Government figures on R&D employment are consistent, but at the same time not useful in an analysis of the market for academic publishing because the task description of an academic position has changed so much over the last fifty years.

7 Clark & Phillips, *Inside Book Publishing*; Greco, *The Book Publishing Industry*.

8 Thompson, *Books in the digital age*, for the legitimization of this approach, see esp. 'Introduction', pp. 1–12. Thompson's contributions to the implementation of Bourdieu's theoretical framework for the analysis of the publishing field are considered in chapter 2.

by universities, yet bought by individual students—and that both fields experiment with technological innovations more quickly and more intensively than the trade. This might be so, but the combination of two distinct fields in a wider focus also renders the study slightly unsatisfactory.

Moreover, there is another end to the means of Thompson's comparative study. His fields analysis serves to support his argument that scholarly monograph publishing by itself is not economically viable except at a handful of the most prestigious presses: 'it is possible to survive as an academic publisher only in so far as you are able and willing to move beyond the field of academic publishing per se and to publish different kinds of books for different kinds of markets'.[9] To ensure their survival, Thompson recommends scholarly publishers to move into textbook publishing—so-called 'field migration'. Because he is steering towards this strategy (and two others), Thompson leaves alternative business models for scholarly presses—such as structural subsidies, collaboration, and publishing fees[10]—largely undiscussed; his analysis of innovative digital projects is also dependent on the underlying premise that scholarly publishing frantically struggles to survive.[11] This monograph is thus not fully attentive towards the possibilities that alternative business models could offer.[12]

Beside Thompson's monograph, two recent edited volumes are important for the study of academic publishing. Abel and Newlin's *Scholarly Publishing* is a collection of reflective essays, authored by eminent senior professionals or recent retirees from American libraries, university book stores, and publishing firms of various types.[13] The detailed retrospection offered by this incumbent perspective is an absolute strength of the volume which renders it very useful for the current purpose of reconstructing an historical account; simultaneously, however, a retracting generation's view on recent and future developments runs an increased risk of becoming obsolete. Besides, all essays in this volume are very strongly US-centred; given the international differences in publishers' business practices, it should be kept in mind that not all strategies will be available outside the American markets.

The most recent volume on publishing for scholarship and science, *Academic and Professional Publishing* edited by Campbell, Pentz & Borthwick, provides an international

9 Thompson, *Books in the Digital Age*, p. 139.

10 Note that Gold Open Access, in which the author pays a 'processing fee' to the publisher, was not yet practised for books at the time of Thompson's writing. Nevertheless, he discusses such a reversal of the traditional business model, in which authors cover the publishing costs instead of readers.

11 The other two strategies Thompson recommends in *Books in the Digital Age* would be changing organizational culture (ch. 5, pp. 111–139) and 'list-diversification' (ch.6, pp. 140–166); the digital innovations are discussed in ch. 13 (pp. 330–376).

12 Such criticism is of course easily made with the current fifteen years of hindsight since *Books in the Digital Age* came out—but in this case, that does not subtract from the argument.

13 Richard E. Abel & Lyman W. Newlin, *Scholarly Publishing: Books, Journals, Publishers and Libraries in the Twentieth Century*, Millennial issue in series *Against the Grain*, Katrina Strauch & Bruce Strauch [series editors] (New York: John Wiley & Sons, 2002); notes on contributors are provided in an appendix at the back of the volume.

scope with contributions from mostly industry professionals and some researchers.[14] The volume covers an impressively broad range of topics, including aspects of the editorial process such as peer review or standards for electronic publishing, the issues with which are not immediately apparent in an economic analysis but vital for scholarly communication.[15] As mentioned in its introduction, the volume aims for an analysis of the current state of affairs.[16] The contributors arrive at such an analysis from notably different approaches, with or without the support of a theoretical framework. Their widely varying functions render it difficult to assess the merit of, and combine insights from, the brief pieces of recent history provided in the distinct contributions and leave the reader with a considerable burden to reconstruct an overview from the fragments.

A wealth of focused, detailed information on recent history can be found in the extensive coverage of the activities of specific academic publishers: both successful commercial houses such as Elsevier and Springer-Verlag as well as prestigious university presses in for instance Oxford and Harvard have been studied as individual cases.[17] As Frank de Glas cautions, however, this genre of studies comes with its own limitations.[18] Foremost, all business histories are usually published by the firm that is also the object of research, and many have even been specifically commissioned by it, often for a celebratory occasion like a jubilee (*Brill*), or commemoration at the retirement of an influential director (*Four Windows of Opportunity*). Such a celebratory spirit does not always lend itself well to a thorough analysis of any adversities the firm encountered, and therefore many business histories tend to highlight successful outcomes at the expense of considerations that were relevant when developments were ongoing.

14 Robert Campbell, Ed Pentz & Ian Borthwick (eds.), *Academic and Professional Publishing* (Oxford: Chandos, 2012).

15 For these two topics, see: Irene Hames, 'Peer review in a rapidly evolving publishing landscape', and Todd Carpenter, 'Electronic publishing standards', both in: Robert Campbell, Ed Pentz & Ian Borthwick, *Academic and Professional Publishing* (Oxford: Chandos, 2012), pp. 15-52 and pp. 215-242 respectively.

16 Robert Campbell 'Introduction: Overview of academic and professional publishing', in: Robert Campbell, Ed Pentz & Ian Borthwick (eds.), *Academic and Professional Publishing* (Oxford: Chandos, 2012), pp. 1–14; esp. pp. 1–2.

17 Respectively: Cornelis D. Andriesse, *Dutch Messengers: A History of Science Publishing 1930–1980*, Library of the Written Word Vol. 7: The Industrial World (vol. 1) (Leiden: Brill, 2008); Heinz Sarkowski, *Der Springer-Verlag: Stationen seiner Geschichte Tl. 1: 1842–1945* (Berlin: Springer-Verlag, 1992) and Heinz Götze, *Der Springer-Verlag: Stationen seiner Geschichte Tl. 2: 1945–1992* (Berlin: Springer-Verlag, 1992); Peter Sutcliffe, *The Oxford University Press: An Informal History* (Oxford: Oxford University Press | The Clarendon Press, 1978); Max Hall, *Harvard University Press: A History* (Cambridge [MA]: Harvard University Press, 1986). Other 'business histories' used in the following analysis include: David McKitterick, *A History of Cambridge University Press. Vol. 3: New Worlds for Learning 1873–1972* (Cambridge: Cambridge University Press, 2004); Sytze van de Veen, *Brill: 325 Years of Scholarly Publishing* (Leiden: Brill 2008); Johan de Vries, *Four Windows of Opportunity: A Study in Publishing*, trl. Maarten Ultee (Amsterdam: Wolters Kluwer, 1995) on Wolters-Kluwer; and *The SAGE-Story: 50 Years* (Thousand Oaks: SAGE, 2015).

18 Frank de Glas, 'Business history and the study of publishing houses', in: Marieke van Delft, Frank de Glas & Jeroen Salman (eds.), *New Perspectives in Book History: Contributions from the Low Countries* (Zutphen: Walburg Pers, 2006), pp. 83–100.

Secondly, also noted by De Glas, some of these studies lack a solid scholarly foundation and methodology; historical details are collected via a haphazard approach instead of meticulously integrated in theoretical frameworks.[19] This does not have to be problematic, but as only the most illustrious houses get dedicated studies, the lack of embedding in the wider context of academia and academic publishing may result in a one-sided account of 'winners' in this field. This is especially true in the case of the major university presses, which are outliers in terms of size, scope, and prestige. If there is the risk of bias here, that is certainly deepened when the business history is chronicled by recently retired executives of the firms themselves, such as Götze at Springer-Verlag, and Hall at Harvard University Press. Readers of such volumes should be cautious to separate historical facts from the relationship between author and business, and the author's reflection on his own career.[20]

Beyond De Glas' warning that non-methodological studies should be approached with caution, I would argue that it is necessary to scrutinize theoretical embedding and structured method as well, because they may be selected to support a specific assertion by the author. This is demonstrated above with the short review of Thompson's *Books in the Digital Age*. *Dutch Messengers* is similarly subjective, as Andriesse aims to convince the reader firstly that the success of Dutch academic publishers is intrinsically linked with extraordinary duos of authors and editors;[21] and secondly that it rode the wave of scientific discovery (which Andriesse subsequently declares dead). The wealth of information on the development of Elsevier, North-Holland and other Dutch publishing houses featuring in his analysis is subjected to an idiosyncratic argument—it is useful still, but its function should be kept in mind.

Finally, it is remarkable that the business histories of publishing houses all have their narratives cut off in the later 1980s or 1990s—even those studies published much more recently (*Dutch Messengers*, *Cambridge University Press*). Perhaps this is due to limited availability of sources: recent logs, correspondence and budgets may still fall under corporate responsibility, not to be shared with competitors or the general public yet. However, since corporate protection typically does not last decades, a more practical and unfortunately entirely probable reason for the unavailability of sources may be the digitization of organisational processes: this must have made much information that used to end up in business archives simply vanish in the migrations between software systems.

Yet another tentative explanation is more methodological: developments in the field have not only sped up since the invention of the World Wide Web in 1997; they have

19 De Glas, 'Business history and the study of publishing houses', pp. 83–85.

20 In fact, this caution should be broadly applied in reading any analysis of contemporary publishing, as many studies have been authored by publishers, consultants, librarians, or other professionals who have a determined stake in the current publishing industries. Occasionally, deeper investigation of an author may uncover resentment harboured against a firm or field: such is the case for Hendrik Edelman, who used to work at Nijhoff before he left in discontent with management, and started researching that company from a library perspective: Hendrik Edelman, 'Nijhoff in America: Booksellers from the Netherlands and the development of American Research Libraries – Part II', *Quaerendo* 42 (2012), pp. 46–75.

21 Andriesse, *Dutch Messengers*, pp. 8–10; see also: Adriaan van der Weel, 'A scientist writing book history: Review of Andriesse, Dutch Messengers', *Logos* 21.1/2 (2010), pp. 129–136; p. 129.

also taken unexpected turns and are difficult to position in the existing narrative threads of recent history. To an extent, a similar methodological issue is apparent in the following account as well: some applications of the rise of the digital medium have been included, as they seem to have come to full fruition and almost-universal implementation at the publishing field—for instance in the digitisation of editorial and organisational processes. However, this very project argues that the wider implications of the digital medium are still taking shape, in the iterative interplay between technological innovation and social uptake. These implications therefore merit a chapter of their own (ch. 4). The current chapter is a historical analysis: it describes the broad social, political and economic trends that have come to characterise the field of scholarly publishing today.

Without becoming unduly teleological, the following account aims to trace the roots and the development of agents and relationships in the field of academic publishing in general and scholarly publishing for the Humanities in particular. Political, social, and economic contexts influenced the logic that resulted, survived and evolved in their current *habitus*. This logic is largely similar in the western world, throughout Europe and the United States, because they have always shared a similar organisation of research and higher education, and international collaboration between them has only intensified over the course of the last century. The current account is therefore based on sources from both sides of the Atlantic, although I will duly point out relevant national or local characteristics.[22] This chapter is split in five topical periods: emergence of business from the end of the nineteenth century to the start of the Second World War; expansion and thriving from the end of the Second World War to the economic downturn following the turmoils of 1968; recession in the 1970s; business consolidation in the 1980s; and the rise of neoliberalism and New Public Management (NPM) since the 1990s. Such a periodization is demonstrably not a clear-cut division, as shifts in practices always evolve slowly and organically, and disruptions are always accompanied by continuity in practice. Yet it is a helpful narrative device, as it shows how momentous events may trigger long-term consequences and emphasizes the interconnectedness of political, social and economic influences.

Although the main objective of the current project is the analysis of scholarly publishing in the Humanities, this chapter is an analysis of academic publishing in its full breadth, for two reasons. Firstly, it is unhelpfully restrictive to solely focus on one specific disciplinary subset of publishing. This is caused by its origins: first, academic publishing seceded from general publishing as a specialist branch of business (or in Bourdieusian terms, a distinct field) in the dawning decades of the twentieth century. Much later, from the 1970s onward, a dichotomy between publishing for the STEM disciplines and for SSH scholarship emerged: the current chapter will explain how this was a consequence of enhanced differences in disciplinary practices and diverging reactions to political, social and economic factors. This dichotomy is not clear-cut, even though it is usually portrayed as such. Publication practices in some disciplines within the Humanities, for

22 Arguably, other parts of the Commonwealth, most importantly Australia and New Zealand, also historically share such organisational similarities. However, academic publishing cultures there have a strong local focus, perhaps in a legacy of the print era, when geographical distance was a substantial barrier. Aside from an occasional example, my analysis does not cover the Southern Hemisphere.

instance linguistics, have always resembled those of STEM research.[23] And in the Social Sciences, epistemological shifts cause such changes in publication practices that STEM publishers increasingly extend their activities to this domain. Although the formation of humanities scholarly publishing as a distinct field is momentous, it still shares many characteristics with its counterpart of STEM academic publishing. And academic publishing as a whole still shares roots with other fields of publishing, which continue to shape its logic and practices.

Yet even if one would ignore the origins and roots of humanities scholarly publishing, it would not be possible to describe it in isolation because other fields of publishing continue to exert influence on its practices. Trade publishing, for instance, may share a market segment of scholars beyond the immediate peer group, and of a generally interested non-academic audience, and can therefore pose competition on the market for publications. More significantly, academics in STEM disciplines and SSH are affected, albeit perhaps in different ways, by the same research policies and compete for the same funding programmes; their publishers are subjected to the same economic ups and downs and socio-political movements. However, in the academic landscape STEM research is absolutely dominant in terms of allotted budgets, numbers of active researchers, publications, and scale of collaborations with industry. This means that the developments in STEM publishing as well as public perceptions thereof pose another pressure on the measurably smaller, less powerful and less visible field of humanities scholarly publishing. Despite the split between STEM and SSH publishing around 1970, my account of the most recent decades will therefore continue to oscillate between developments in STEM and SSH. This narrative points out not just similarities between the two fields, but also pressures from the former on the latter.

1. Genesis and rise before 1940

Towards the end of the nineteenth-century, the population in Europe grew, and literacy rates were on the rise.[24] Many new universities were founded throughout Europe, to answer the growing demand for bureaucrats, jurists and other highly educated professionals. Moreover, existing universities were being transformed from primary centres of teaching to research-intensive institutions of education, in the newly established Humboldtian philosophy. For the professoriate, this marked a significant shift in emphasis in their activities. It had hitherto been possible to publish any research findings worthy of wide dissemination, but many university faculty focused on teaching

23 And vice versa, publication practices of some sciences, for instance mathematics, do not conform to the characteristics of the majority of STEM disciplines. Yet however interesting they are, those exceptions remain outside the scope of this research.

24 De Vries, *Four Windows of Opportunity*, ch. 2 (pp. 25–35); James Raven, 'The industrial revolution of the book', in: Leslie Howsam (ed.), *The Cambridge Companion to the History of the Book* (Cambridge University Press, 2014), pp. 143–161; pp. 149–152; Jonathan Rose, 'Modernity and Print I: Britain', in: Simon Eliot & Jonathan Rose (eds.), *A Companion to the History of the Book* (London: Blackwell, 2007), pp. 715–742; p. 723; Adriaan van der Weel, 'Modernity and Print II: Europe', in: Simon Eliot & Jonathan Rose (eds.), *A Companion to the History of the Book* (London: Blackwell, 2007), pp. 743–770; pp. 743–744.

and went without publishing any research for years on end. Under the new philosophy, publications became instrumental in academics' certification, i.e. to establish their expertise in research disciplines and justify their positions and professional ranks at university.[25]

The growth and transformation of the universities caused the number of academic authors to rise significantly, and with them, the number of research-related texts supplied to the markets. For commercial publishers, this development opened up opportunities to specialise their businesses: around the turn of the twentieth century, several new and existing publishers decided to engage in the newly developing field of academic publishing. Initially, none of the publishers turned to academic publishing exclusively; they mixed lists in adjacent or even unrelated fields, ranging from professional publications (for instance at Wolters) to literary works (at Elsevier and Kluwer).[26] More specialised firms, such as Brill, seem to have separated business processes and activities for international science and scholarship from publishing for the domestic trade markets.[27] The German Springer-Verlag was exceptionally focused already before 1920, with its list consisting mainly of titles in the natural sciences, engineering, and medicine—although even this firm indulged in its director's preference for a small list of books on chess.[28]

As they got increasingly attuned to the needs of the tight-knit science communities that formed a supply base as well as a readers' market, these budding academic publishing entrepreneurs adopted a so-called 'layered' approach: they would aim to build a list in various text types, such as monographs, handbooks, and encyclopaedias, all with a strong disciplinary or topical relation, aiming for the international academic market.[29] The German publisher Ferdinand Springer jr. (1881-1965), the third generation to enter the family firm, formulated a deliberate strategy to become invested in a disciplinary research field in 1907.[30] The first step would be to set up a journal on a current topic —petro-chemistry, for instance, which came to flourish in the first decades of the twentieth century. This would take significant investment in building relationships with potential authors and readers. Yet once such a community of users would be in place, it could be asked to perform editorial roles for the journal. Junior scientists, especially, would be invited to contribute evaluative reviews in the core journals or in specific review series. They could advance their careers through these reviews, which often

25 Prosser, 'Researchers and scholarly communication', pp. 39-40; Collini, *What are universities for?*, pp. 22–23.

26 De Vries, *Four Windows of Opportunity*, pp. 13–17; Andriesse, *Dutch Messengers*, pp. 11–19.

27 Van der Veen, *Brill*, pp. 61–64, 83–86.

28 Sarkowski, *Der Springer-Verlag Tl.1*, ch. 4 (pp. 162–236) describes the stormy growth until the end of World War I. The family's enthusiasm for chess is mentioned on pp. 137–138.

29 Dorien Daling, 'The encyclopaedia as pioneer of the journal: The early years of Elsevier's scientific publishing company', in: Marieke van Delft, Frank de Glas & Jeroen Salman, *New Perspectives in Book History: Contributions from the Low Countries* (Zutphen: Walburg Pers, 2006), pp. 31-48; esp. pp. 34-35.

30 Sarkowski, *Der Springer-Verlag Tl.1*, pp. 164–166. Sarkowski here cites Ferdinand Springer jr.'s memoirs as presented in a speech for the Heidelberg Rotary Club in 1952. This paragraph follows the steps he outlined.

resulted in specialised monographs or treatises.[31] As a counterweight to such increasing specialisation, the publisher would then commission senior academics to author handbooks and encyclopaedias.[32] Finally, the publisher could set up specialised indexing and abstracting services to provide adequate access to the disciplinary literature.[33] Sales happened preferably through subscriptions by individuals and institutions.[34] After a couple of years, this model might deliver a stable source of revenue for the publishing firm, which could then be invested in a similar colonization of another discipline.[35] This 'German method' inspired other European firms, for instance Elsevier.[36] The publication activities of learned societies and academies often fell behind the increased productivity of the commercial presses, especially because they had more trouble connecting with the considerable export market newly developing in the United States.[37]

In the United States, the Humboldtian reforms combined with the demand for highly-educated professionals in an industrialised and rapidly bureaucratizing world had also given rise to the founding of new universities as well as the transformation of existing colleges into universities, and the formalisation of graduate education.[38] These institutions now provided graduate, undergraduate, and professional education, and aimed at having faculty combine teaching and research in tenured positions.[39] The fruits of their research had to be published, but in the United States there was no dense network of commercial publishers, like in Europe, to take up this task. Commercial firms issued only about a quarter of all scholarly books, and 40% were published by University

31 See also: Hendrik Edelman, *International Publishing in the Netherlands, 1933–1945: German Exile, Scholarly Expansion, War-Time Clandestinity*, Library of the Written World, Vol. 13: The Industrial World, (vol.3) (Leiden/ Boston: Brill, 2010), p. 16.

32 Daling, 'The encyclopaedia as pioneer of the journal', p. 35.

33 See also: Edelman, *International Publishing in the Netherlands*, 1933–1945, p. 16.

34 Not coincidentally, subscription agencies sought to profit from the publishers' entrepreneurial spirit and focused on academic publications too in this time: for instance, distributor Swets-Zeitlinger was founded in 1901 for precisely this purpose. See: Van der Weel, 'A scientist writing book history', pp. 130–131.

35 According to Daling, it took around seven years for a journal to become profitable in Ferdinand Springer jr.'s strategic years (i.e. 1904–1933); compare this to Van Leeuwen's estimates that a journal could break-even in three to five years in the boom of the early 1960s. Daling, 'The encyclopaedia as pioneer of the journal', p. 47; J.K.W. van Leeuwen, 'The decisive years for international science publishing in the Netherlands after the Second World War', in: A.J. Meadows (ed.), *Development of Science Publishing in Europe* (Amsterdam: Elsevier, 1980), pp. 251–268; p. 265.

36 Daling, 'The encyclopaedia as pioneer of the journal', pp. 34–38.

37 Edelman, 'The growth of scholarly and scientific libraries', in: Richard E. Abel & Lyman W. Newlin, *Scholarly Publishing: Books, Journals, Publishers and Libraries in the Twentieth Century* (New York: John Wiley & Sons, 2002), pp. 193–208; p. 195.

38 Cecil M. Jagodzinsky, 'The University Press in North America: A brief history', *Journal of Scholarly Publishing* 40.1 (October 2008), pp. 1–20; p. 2; Henderson, 'Diversity and the growth of serious/ scholarly/scientific journals', in: Richard E. Abel & Lyman W. Newlin, *Scholarly Publishing: Books, Journals, Publishers and Libraries in the Twentieth Century* (New York: John Wiley & Sons, 2002), pp. 133–161; pp. 144–146.

39 Hendrik Edelman, 'Nijhoff in America: Booksellers from the Netherlands and the Development of American Research Libraries – Part III', *Quaerendo* 43.1 (2013), pp. 1–24; p. 2.

Presses.[40] To keep up with the growing research output, many universities founded their own University Presses to disseminate the knowledge produced at their home institution.[41] By 1919, thirteen university presses existed in the United States; their number continued to grow steadily during the interwar years.[42] Most of these newly-founded presses were explicitly set up as university service departments, although dependency relations with their mother institutes varied, as did business perspectives. Some, such as the University of Chicago Press, have always been not-for-profit departments of their home institution; others, such Stanford University Press, started as commercial business and were acquired and reincorporated with their universities (in the case of Stanford, in 1917 after twenty-five years of business). Many, for instance Harvard University Press, started to print primarily for internal circulation and developed into businesses later.[43] A few, most notably Princeton University Press and Yale University Press, continue as independent not-for-profit businesses, in close relationship with but not formally controlled by the university.[44] Despite their differing legal and financial positions, the university presses saw the benefits in collaboration because of their shared missions, and twenty-two of them founded the American Association of University Presses to this end in 1937.

Germany had been the epicentre of science and of science publishing until the Nazi-regime caused an exodus of 'Jews and Marxists, and [...] people who, although not belonging to either group, were unwilling to comply with the extreme demands of the regime' from 1933 onwards.[45] Its effect on academia and academic publishing was profound: more than 2400 academics were fired and many more went into early retirement under the rising Nazi-regime,[46] whereas at Springer-Verlag, for instance, no

40 Abbott mentions that by 1927, 40% of monographs were published by university presses, 25% by businesses, and 10% each by government, learned societies, and research institutes; 'Publication and the future of knowledge', p. 13. He does not mention the source of these figures. Andrew Abbott, 'Publication and the future of knowledge', plenary lecture at the Annual Assembly of the Association of American University Presses (Montreal, 27 June 2008), 31 pp., n.pag.

41 Jagodzinsky, 'The University Press in North America', p.1. On this same page he quotes Daniel Coit Gilman, the founding director of Johns Hopkins University Press in 1878: "It is one of the noblest duties of a university to advance knowledge, and to diffuse it not merely among those who can attend the daily lectures—but far and wide."

42 The precise growth figures remain unclear: Jagodzinsky mentions thirteen university presses existed in 1919 against no fewer than 61 in 1939; 'The University Press in North America', p. 3. The American Association of University Presses itself reports an annual growth of the Association with one member per year between 1920 and 1970; American Association of University Presses, 'Association History', online: http://www.aupresses.org/about-aaup/history [accessed 14 December 2018]. The discrepancy in numbers comes from the fact that Jagodzinsky counts the total number of university presses, and the AAUP only reports on its members; and because some University Presses have been shut down as well—Jagodzinsky only lists new foundings, and the AAUP listst net growth.

43 Hall, *Harvard University Press*, p. 43.

44 Many of these complicated statuses aim at maximizing advantages from tax exemptions and other beneficial national and state policies.

45 Van Leeuwen, 'The decisive years for international science publishing in the Netherlands after the Second World War', p. 251.

46 Andriesse, *Dutch Messengers*, p. 47.

fewer than fifty Jewish editors had to give up their positions.[47] Germany's most important academic publisher, Akademische Verlag (AV) in Leipzig, was discontinued altogether.

Some exiles moved east to Czechoslovakia and Turkey, but many more fled westward: to France, Switzerland, the Netherlands, the United Kingdom, Scandinavia, and, as the war spread over Europe, to the United States.[48] Several publishers initially treated the troubles in Germany as a business opportunity: Sijthoff and Elsevier, for instance, started publishing German academic authors in exile; first in German, and later, when the German market got increasingly constrained, in English translations.[49] By that time, the winter of 1939-1940, Elsevier had also set up a New York satellite office with the purpose of translating German scholarly literature for the American market, the rights for which had been bought from the discontinued AV.[50] With these, Elsevier planned to set up an overseas publishing programme in its major specialism, organic chemistry. The efforts were thwarted, however, when international banking was interrupted at the invasion of the Netherlands in May 1940; the Elsevier's New York office was left with little stock and limited funds. Its directors 'had no choice to found their own publishing company, Interscience, while continuing to market and reprint the available Elsevier books [...].'[51]

The significant population of exiled authors and publishers that took refuge in the Netherlands initially boosted the Dutch academic publishing industry, as many publishers established German-language departments and included (literary and academic) Exil books on their lists.[52] In the period of German occupation (1940-1945), however, publishing in the Netherlands got increasingly obstructed by the direct effects of Nazi-policy—censorship, university closures, and ousting of Jews foremost—as well as indirect hindrances such as paper scarcity and export bans. Generally, academic research and publishing continued, but were deprioritised at the expense of wartime (propaganda) printing in the allied countries. In the United Kingdom, strict paper

47 Springer-Verlag, 'History – Becoming Germany's leading scientific publisher (1906-1945)', https://www.springer.com/gp/about-springer/history [accessed 7 January 2019]. Notably, Springer-directors Ferdinand jr. and Julius jr. were themselves also forced out of their family firm in 1935 because of their Jewish descent (even though the family had converted to Christianity in the nineteenth century): Götze, *Der Springer-Verlag Tl.2*, p. 69.

48 Andriesse, *Dutch Messengers*, ch. 3 'German scenes', pp. 37-50; Edelman, 'Nijhoff in America – part II', p. 64.

49 Edelman, *International Publishing in the Netherlands, 1933-1945*, pp. 78–80, 122–125. Elsevier initially adopted a German-language academic publishing programme because of the sizeable market for it, no doubt, but director Klautz reportedly became increasingly ideologically driven to continue publishing exiled authors: Andriesse, *Dutch Messengers*, pp. 51–52.

50 Edelman, *International Publishing in the Netherlands, 1933-1945*, pp. 125–127.

51 This quote comes from Edelman, *International Publishing in the Netherlands, 1933-1945*, p. 127. Andriesse attributes the troubled start of the New York subsidiary to its director Maurits Dekker's procrastination in leaving the Netherlands: *Dutch Messengers*, pp. 63-65.

52 Edelman has studied the most important literary and academic publishers in the Netherlands extensively. He meticulously describes their business and lists a complete bibliography: *International Publishing in the Netherlands, 1933-1945*. Among the specifically treated firms are Sijthoff (pp. 63–74) and the academic publishers Elsevier, Brill, and Nijhoff (pp. 78–140).

rationing was perhaps the biggest constraint for production, and only lifted completely in 1949.[53] At Cambridge University Press, illustratively, the number of new titles dropped from 16,091 in 1938 to 4311 in 1942 and revenue was mostly derived from selling old stock, often at less than replacement costs.[54] In the Netherlands, 123 books and journals in English, French or German were published in 1938, against only 32 in 1942.[55]

2. Maturing and bloom in the 1950s and 1960s

The role of the United States in research and, symbiotically, academic publishing had already been growing since the late nineteenth century, and the heavy tolls of two World Wars in Europe further bolstered the relative position of the United States on the world stage, especially since the United States experienced a period of sustained high growth in the domestic economy. The GI-Bill of 1944 led to a sudden increase of university enrolments and was, after a brief lull, followed by an unprecedented expansion of higher education when the baby-boom generation enrolled from the later 1960s onwards.[56] In an echo of the turn-of-the-century rise, again colleges were upgraded to full universities, new institutions were created, and faculty were hired to cater to these large numbers of students, and naturally to contribute to academic research. The United States thus profited not only from the émigrés from Germany and Austria, but also from young researchers who could obtain a position at a prospering American institution much more easily than at the British or European universities, which were in the 1950s still recovering from the war.[57]

Furthermore, the American national and state governments equipped the expanding number of academics with vast budgets for education and research. Physics (especially nuclear physics), chemistry, and health sciences had been among the best-funded disciplines since the Second World War. Yet the USSR's launch of Sputnik in 1957 caused an anxious race to bring the US research and development to a yet higher level, with large endowments allocated to applied sciences and engineering.[58]

53 Sutcliffe, *The Oxford University Press*, p. 270.

54 McKitterick, *A History of Cambridge University Press*, vol. 3, pp. 286–287.

55 Edelman, *International Publishing in the Netherlands, 1933-1945*, 'Catalog of German, English and French books and periodicals published in the Netherlands between 1933 and 1945', pp. 163–198; esp. pp. 163–167, 193–194.

56 Edelman, 'Nijhoff in America – Part III', pp. 2–3; Edelman, 'The growth of scholarly and scientific libraries', pp. 199–200. Thompson reports that the higher education sector at large grew to seven times its size in the period 1945–1975: *Books in the Digital Age*, p. 181.

57 Edelman, 'Nijhoff in America – Part III', pp. 2–3.

58 Thompson, *Books in the Digital Age*, ch. 7; Meadows, 'European science publishing and the United States', in: A.J. Meadows (ed.), *Development of Science Publishing in Europe* (Amsterdam: Elsevier, 1980), pp. 237–250; pp. 238–239; Edelman, 'Nijhoff in America – Part III', pp. 11-12; Albert Henderson, 'The growth of printed literature in the twentieth century', in: Richard E. Abel & Lyman W. Newlin, *Scholarly Publishing: Book*s, Journals, Publishers and Libraries in the Twentieth Century (New York: John Wiley & Sons, 2002), pp. 1–23;, p.3; Sam Vaughan, 'Growth and change in trade publishing: What I learned at the library', in: Richard E. Abel & Lyman W. Newlin, *Scholarly Publishing: Books, Journals, Publishers and Libraries in the Twentieth Century* (New York: John Wiley & Sons, 2002), pp. 47–62; pp. 54–55; Robert J.R. Follett, 'Textbook publishing', in: Richard E. Abel & Lyman W. Newlin,

The Cold-War National Defense of Education Act of 1958 concentrated interest in and allocated budgets towards 'area studies',[59] social and political sciences, linguistics and English-language instruction.[60] Corrected for inflation, the US federal budgets for research and education rose from 526 million dollar in 1948 to 3,348 million in 1968.[61] As a consequence of all these factors of expansion, the number of American academic publications rose quite spectacularly: replicating figures from the Institute of Scientific Information, a forerunner of the Web of Knowledge, Meadows reports 52,184 active scientific authors in the United States in 1967, versus 135,307 in 1974.[62] This is an astonishing growth figure. In that same time, the relative proportion of US authors seems to have risen as well, from 27,219 ISI-listed authors in the United Kingdom, West-Germany and France combined in 1967 against 59,728 in 1974—so from a little over, to well under half of the US number.[63]

The favourable economic circumstances and market growth boosted commercial initiatives in the breadth of the academic publishing sector. By 1950, the university presses published about half of all scholarly books in North America, and their share in the production continued to grow.[64] The Association of American University Presses had set up a central office in New York in 1959, to professionalise its services for its growing number of members. In 1964, the Association even saw opportunity for a business subsidiary, legally a tax-exempt educational corporation, which provided services such as compiling bibliographies and consulting that were in demand by members as well as external parties—adding its revenues to the association's membership fees.[65] Furthermore, a large number of new university presses was founded in these decades, likely tempted by the potential to disseminate faculty research in exchange for a steady

Scholarly Publishing: Books, Journals, Publishers and Libraries in the Twentieth Century (New York: John Wiley & Sons, 2002), pp. 95–105; pp. 109–110.

59 These would comprise studies of languages and cultures, of Asia, Africa, South America, and Eastern Europe, specifically—because of potential relevance in the Cold War.

60 Edelman, 'The growth of scholarly and scientific libraries', pp. 201–203.

61 Hall, *Harvard University Press*, pp. 128–129.

62 Meadows, 'European science publishing and the United States', p. 238. It must be noted that the ISI did not include authors in the Humanities and many Social Sciences, certainly not in the 1960s. This presents a limited picture of academia, although it does not subtract from the reported overall growth trends, since its methodology is consistent over the years and between countries.

63 Whereas Meadows uses these figures to illustrate the shifted balance between the United States and Europe, it merits emphasis that the absolute number of active scientific authors in Europe almost doubled in seven years! Illustratively, although from just one discipline in one European country, the number of full professors in English Studies in the Federal Republic of Germany rose from 34 in 1960 to 360 in 1985: T. Finkenstaedt, 'Measuring research performance in the Humanities', *Scientometrics* 19.5-6 (1990), pp. 409–417; p. 410.

64 Abbott, 'Publication and the future of knowledge', p. 19.

65 American Association of University Presses, 'AAUP History', http://www.aaupnet.org/about-aaup/aaup-history/ (accessed 7 December 2018); Jagodzinsky, 'The University Press in North America', p. 5. The corporation's tasks included the coordination of cooperative programs, professional development opportunities, industry research and analysis, and representation.

stream of income for the home institution.[66] The American university presses thus profited from the quantitative growth in the supply of, and demand for, publications.

While these university presses, as well as learned society presses, 'continued to concentrate on national authors for a preponderantly national market', European commercial firms perceived that the quantitative dominance of American academia provided opportunities for rapidly internationalising academia.[67] Soon after the Second World War, they began—or, in some cases, like Elsevier, resumed[68]—investing in collaboration with partners or satellite offices on the other side of the Atlantic, and even in Australia and Asia.[69] Although it was by no means universal yet, English was emerging as the new *lingua franca* of science due to the sheer size of the combined US and UK markets. West-Europe and Scandinavia oriented itself towards the United States instead of Germany, and young academics got temporary or permanent research positions at American universities, where they quickly adopted methods, technology, and the language of their peers.[70] Moreover, academic specialisation called for international collaborations per research field. Especially Dutch publishers were quick to turn to English—perhaps because of the lack of a sizeable domestic potential.[71] The turn to English combined with the post-war low labour costs proved particularly profitable.[72] The evolving European

66 Jagodzinsky notes eleven new-founded university Presses in the 1950s, nineteen in the 1960s, and sixteen since 1970: 'The University Press in North America', p. 3. Note that the AAUP mentions eleven new members founded between 1970–1974, 'AAUP History'; combined with Jagodzinsky's figures, it can be deduced that only five new presses have been set up since 1976.

67 Van Leeuwen, 'The decisive years for international science publishing in the Netherlands after the Second World War', p. 254.

68 It should be noted that perhaps the most dependable and strong overseas connections, although initially largely confined to the Commonwealth, had been forged by Oxford University Press, which had operated satellite offices in Boston, Bombay, and Melbourne from before 1919. See: Sutcliffe, *The Oxford University Press*, esp. pp. 190–200.

69 See for instance: Van Leeuwen, 'The decisive years for international science publishing in the Netherlands after the Second World War', pp. 253–263; Daling, 'The encyclopaedia as pioneer of the journal', pp. 45–48; Campbell, 'Introduction', pp. 2–4; Andriesse, *Dutch Messengers*, ch. 4, 'Elsevier's Venture', pp. 51–98.

70 Götze, *Der Springer-Verlag*, p. 74.

71 Ibid.; Van der Weel, 'A scientist writing book history', p. 132. In addition, Götze and Van der Weel remark on chauvinist attitudes—in Götze's words, 'obstinacy'—that may have withheld publishers in Germany and France from turning to English, which the Dutch publishers did not have or at least did not show. This might not be untrue. Yet I think another factor more important: Dutch pre-university education (*gymnasium*) had traditionally included in the curriculum two or three foreign modern languages (German, French, and English) to allow future scholars access to international literature. The French and German education systems did not include any training in other modern languages beyond the national ones, especially not in the rivalry between the two countries following the First World War. See: Edelman, *International Publishing in the Netherlands, 1933–1945*, p. xiv–xv.

72 Edelman, 'The growth of scholarly and scientific libraries', p. 201. Edelman also claims that the Dutch boasted a tradition of high expertise in typesetting, which made their work attractive on the international markets. However, I have not been able to identify any other sources supporting this assertion. On the contrary, Frank de Glas suggests that typesetters feared that professional standards would lower in the 1950s, because of the continuous technological innovation. Their worries were countered by the founding of educational programs for publishers and book-producing professionals in the 1960s. See:

integration, first in the European Coal and Steel Community (1951), then the European Economic Community (1957), meanwhile facilitated international sales on the home continent, which helped businesses grow.[73]

Besides, these publishers started to exploit the increasing specialisation in science by 'twigging': constantly creating new, increasingly narrow journal titles, which they would use as levers to unlock potential in emerging sub-disciplines and through them grow their firm.[74] For instance, Elsevier, one of the largest players, adopted a tactic in the mid-1960s that deliberately served speed over quality:[75] it would first initiate a journal with rapid review, editing and production processes, to attract authors and their networks of colleagues as readers. Once the publisher had succeeded in establishing a secure supply-base for the title, it would raise the rejection rates. This would simultaneously increase the prestige of the existing title by selectivity, and deliver the surplus of rejected articles as potential contributions for yet-to-be-set-up new journal titles, and thus would allow the firm to expand further.[76] From a business perspective, twigging was a risky undertaking: start barring articles from sub-disciplines too soon and too few subscriptions to the main journal would remain—but lack of specialisation could provide an opening for competitors to capture a market.[77] When successful, however, it delivered a new market readily in the hands of the publisher. Through aggressive commercial tactics like this, the field of science publishing transformed into an increasingly international, competitive arena in which a handful of European corporations came to occupy dominant positions.

These publishing businesses each employed deliberate, if diverging, strategies to enlarge their market shares, and consolidate their own position in the worldwide market for academic publications. Elsevier, for instance, heavily invested in technology, such as offset printing and computer processing, as well as deliberate procedural innovation and division of labour in the editorial production to maintain competitive prices and thereby increase exports.[78] Kluwer, another Dutch firm, attempted to enlarge its reach over the international markets by taking over publishing firms in other countries, as this offered low-cost market entry and helped the firm gain critical mass while spreading

Frank de Glas, '1910-heden: Arbeidsomstandigheden', in: *Bibliopolis: Geschiedenis van het Gedrukte Boek in Nederland* (2003); online edition via http://bibliopolis.nl/handboek, par. 5.2.7 (n.pag.).

73 De Vries, *Four Windows of Opportunity*, p. 142.

74 Van Leeuwen, 'The decisive years for international science publishing in the Netherlands after the Second World War', p. 254.

75 Andriesse, *Dutch Messengers*, pp. 208-209.

76 Although there are quantitative sources attesting to the spectacular rise of the number of articles published, it is very hard to find quantitative support for the growing number of journal titles. This is due to bibliometric methodology: it relies on databases that do not (and inherently cannot) include all titles. One therefore never knows whether a title did not exist, or was simply not included in a study. For accounts of the exponential growth of the number of articles, see: Vincent Larivière, Éric Archambault & Yves Gingras, 'Long-term patterns in the aging of the scientific literature, 1900-2004', *Proceedings of the 11th Conference of the International Society for Scientometrics and Informetrics* (Madrid, ISSI 2007), pp. 449-456; fig. 1, p. 451.

77 Andriesse, *Dutch Messengers*, p.97.

78 Ibid., pp. 190-194, 206; De Vries, *Four Windows of Opportunity*, p. 17.

its risk geographically.[79] The German Springer-Verlag, thirdly, established so-called 'bridgeheads', co-publishing agreements and dissemination deals with agents in Europe, the United States, and Asia, to bring their products to new markets through proven-effective local cultures and relationships.[80] Through such strategies, which were often combined as international success got established, the commercial firms gained an advantage over smaller publishing firms as well as university presses and learned societies, which lacked the competitive incentives, economic capital, and staff expertise to attempt internationalisation, but continued to rely on specialised distributors for international dissemination instead.

Due to the overall economic upsurge in Europe, labour costs were rising in all sectors, including publishing;[81] this fuelled the inflation rates and relative devaluation of the dollar. Moreover, paper—and, to a lesser degree, printing ink—also became significantly more expensive due to scarcity.[82] These factors contributed to the production costs for academic publications in Europe. It is not surprising, then, that the prices of academic publications started to rise: the average science journal produced in the United Kingdom became 22% more expensive over the period 1960-1973.[83] Monographs seem to have followed a more modest trend: Meadows reports that monograph prices rose more or less in accordance with the UK Retail Price Index between 1964 and 1975.[84] Nevertheless, science book publishing programmes were cancelled at the large commercial publishing firms. Van Leeuwen convincingly argues that this was due to production costs growing prohibitively high, because of the technological and material investments and specialist staff training necessary for the continued production of high-quality printed books.[85] Also, book production processes are much harder to streamline, and they are thus less attractive for firms seeking to make production more efficient. From all this, I infer that book production must have moved towards smaller, specialized publishers, because the annual title production continued to grow.[86]

79 De Vries, *Four Windows of Opportunity*, esp. pp. 2–3, 17.

80 German original: 'Taktik von Brückenköpfe' in Götze, *Der Springer-Verlag*, p. 85.

81 Van Leeuwen, 'The decisive years for international science publishing in the Netherlands after the Second World War', pp. 265–267.

82 Altbach, 'Publishing and the Intellectual System', *The Annals of the American Academy of Political and Social Science*, 421: *Perspectives on Publishing* (September 1975), pp. 1–13; pp. 10–11.

83 Meadows, 'European science publishing and the United States', p. 241.

84 Ibid.

85 Van Leeuwen, 'The decisive years for international science publishing in the Netherlands after the Second World War', pp. 266–267.

86 Oda provides general statistics about the general US title production, and argues convincingly that the trade market is stably accounting for about 75% of titles. From that, sustained title growth in professional and scholarly publishing can be induced, although the former grew faster than the latter: Stephanie Oda, 'Growth and change in trade book publishing: What I learned from the numbers', in: Richard E. Abel & Lyman W. Newlin, *Scholarly Publishing: Books, Journals, Publishers and Libraries in the Twentieth Century* (New York: John Wiley & Sons, 2002), pp. 63-94; pp. 63–67, esp. Table 1, p. 65. Oxford University Press experienced increased competition from other University Presses in the 1950s and 1960s: Sutcliffe, *The Oxford University Press*, p. 273.

A piece of support for this line of reasoning comes from the business history of Leiden-based publisher Brill. This company had traditionally specialized in religious studies and text editions in all languages, and had equipped itself with specialized editors, typesetters and machinery to ensure healthy growth. A remark in the section on the late 'sixties and early 'seventies confirms:

> Brill was also seeing a continual increase in the number of manuscripts it received, because other publishing houses were less and less interested in specialized works with small print runs. Other publishers' lust for profit during the economic boom had the effect of strengthening Brill's position in its traditional niche market.[87]

This quote and Van Leeuwen's analysis illustrate the changing context for monograph production, shaped by academic specialisation, changing production processes, and new, competitive business logic that large-scale firms adhered to. Also in the United States, monograph production increasingly shifted to the university presses that saw it as their mission to publish manuscripts commercial publishers would not take on, especially those authored by scholars from their home institution.[88]

Although perhaps not intended as such by either type of firm, the transfer of monograph production from large commercial publishers towards smaller and not-for-profit presses should be seen as more than merely incidental. It was indicative of the developing structural dichotomy which shapes current academic publishing. In the first half of the twentieth century, a diverse ecology of academic publishers had emerged increasingly distinct from the general trade market: university presses, with a clear service-orientation, book programmes, and close ties to their alma mater; learned societies that usually acted as publishers of books and journals in any relatively narrow research domain only; small for-profit publishers, many of them traditionally family businesses, with specialist expertise in text types or subject matter; and larger commercial firms that produced a breadth of products in a range of academic disciplines, at maximal profitability.

After the Second World War, however, the market for international science publications had grown much faster, larger, and much more uniformly than that for published scholarship in the Humanities. Driven by profit motives, the larger corporate firms generally narrowed their focus and came to dominate international STEM-publishing with predominantly journals, leaving the more diverse population of, mostly, smaller commercial and not-for-profit publishing houses producing monographs, as well as various text forms for the SSH-domains in the other market sphere.[89] Academic

87 Van de Veen, *Brill*, p. 129.

88 Thompson, *Books in the Digital Age*, p. 108. The notion that university presses would be a venue for scholars from their alma mater is a distinctly American one.

89 Oxford University Press and Cambridge University Press are very significant for humanities monograph publishing; it should be noted that they are outliers in terms of sheer size and turnover, international reach, and diverse lists; see also: Thompson, *Books in the Digital Age*, pp. 88–89; Sutcliffe, *The Oxford University Press*; Hall, *Cambridge University Press*.

publishing had become an increasingly specialised field, in the Bourdieusian sense of the term, in the first half of the twentieth century. In the second half, the fields of science publishing on one hand and humanities scholarly publishing on the other drifted further apart, and developed diverging *habitus*.

Academic publishers themselves seem to have intuited the emerging dichotomy: a small league of internationally active commercial firms initiated the Association of STM Publishers in 1968 to further their specific common interests.[90] They identified three areas of activity: monographs and journals (for graduate level knowledge transfer); text books and manuals (for undergraduate education); and resources for industry, business, and society.[91] In this deliberate alliance, commercial science publishers recognised their *habitus* as distinct from other publishers, even though they still produced monographs: both from the smaller academic presses that had not adopted aggressive journal-oriented tactics or operated in local and national contexts (and languages); and from trade publishing, for which international markets were opening up too, but under completely different business requirements—or field logic (see ch. 2). Although most of the association's founding members at the time still published in a range of disciplines in both science and scholarship, they could not agree on opening up membership for presses that exclusively focused on humanities publishing, precisely because those firms would operate fundamentally differently.[92] While it was initiated to foreground the interests of science publishing, the STM Association and its name thus simultaneously helped reinforce the developing divergence of academia in two cultures, that of Science, Technology, Engineering and Medicine (STEM), versus that of the Social Sciences and Humanities (SSH), which would include the Arts and Law (SSH, A&L).[93]

3. Recession and divergence in the 1970s

If the dichotomy between STEM and SSH in academic publishing had taken shape largely invisibly in the late 1960s, the consequences of their divided field logics became visible in the first economic downturn after the Second World War. It was triggered by long-brewing social unrest: the maturing student population in the United States, born after the war, reproached their government for deliberately sacrificing young soldiers in the Vietnam War, which was in their eyes unnecessarily aggressive and unnecessarily costly. In 1968, the students' disquiet spread to European universities,

90 The founding members of the STM Group were: Pergamon, Elsevier, North-Holland, Wiley & Sons, Springer Verlag, McGraw-Hill, Dunod, Pitman, and, significant in light of the previous footnote, Cambridge University Press. See: Van Leeuwen, 'The decisive years for international science publishing in the Netherlands after the Second World War', pp. 265–266; Lex Lefebvre, 'The Story of STM', *Serials* 7.1 (1994), pp. 53–55; p. 53; Andriesse, *Dutch Messengers*, ch. 9, 'Towards the Internet revolution', pp. 243–263; esp. p. 244.

91 Andriesse, *Dutch Messengers*, pp. 244–245.

92 Ibid., pp. 245–247.

93 For the evolving use of the label 'Humanities', see Collini, *What are universities for?*, pp. 61–62. Snow's infamous 1959 lecture is perhaps the first explicit analysis of a dichotomy in academia; since then, the notion has grown omnipresent: Snow, *The Two Cultures*. For a recent work in the same vein that can also be interpreted as an especially vicious attempt at further cordoning off the Humanities, see: Kagan, *The Three Cultures*.

especially to France (the former colonizer of Vietnam), where it got mixed with general anti-establishment sentiments.[94] The wider electorate in Europe and the United States did not share the youngsters' anti-hierarchical attitude and therefore the colleges got increasingly unpopular.[95] When the United States put the first man on the moon in 1969, public opinion considered the arms race with the USSR won, and called for more restrained spending on research and education.[96] After more than two decades of ceaseless growth and government spending, federal endowments for education in the United States were restricted. This resulted in significant budget cuts for academic libraries, especially.[97] The American research libraries formed a crucial customer base: they spent around 60% of their budgets on European publications,[98] and the European publishers depended heavily on them—at Cambridge University Press, for instance, 80% of US-sales derived from library purchases.[99] The effects of the budget cuts were therefore notable, too: Oxford University Press's profits went abruptly down no less than 75% in 1970;[100] Harvard experienced shrinking sales of about 10% and ended with a serious deficit.[101] The dire situation was deepened by the devaluation of the dollar in 1971 that severely limited American purchasing power; overnight, the libraries lost considerable buying force. In the ensuing Oil Crisis of 1973, governments worldwide had to adopt austerity policies that affected research and library budgets.[102]

94 Van Leeuwen situates the economic downturn in 1968, but that is not correct: the 1968 student protests did not immediately affect international science publishing, but their trickle-down to policy did. Van Leeuwen, 'The decisive years for international science publishing in the Netherlands after the Second World War', pp. 264–265; contrast with the nuance in for instance Edelman, 'Nijhoff in America – Part III', p. 23.

95 Sutcliffe, *The Oxford University Press*, pp. 282–283; Edelman, 'The growth of scholarly and scientific libraries', p. 204.

96 Givler, 'University Press publishing in the United States', in: Richard E. Abel & Lyman W. Newlin, *Scholarly Publishing: Books, Journals, Publishers and Libraries in the Twentieth Century* (New York: John Wiley & Sons, 2002), pp. 107–120; pp. 110–111; Henderson, 'Diversity and the growth of serious/scholarly/scientific journals', pp. 154–155.

97 Thompson, *Books in the Digital Age*, pp. 181–182.

98 Edelman, 'The growth of scholarly and scientific libraries', p. 204.

99 McKitterick, *A History of Cambridge University Press. Volume 3: New Worlds for Learning* (1873–1972), p. 413.

100 Sutcliffe, *The Oxford University Press*, pp. 286–288

101 It must be mentioned here that business was precarious at Harvard University Press towards the end of the sixties, too. The sales figures on flourishing markets were impressive, but due to expensive and risky investments in IT, profits remained very modest, around 1%. When the crisis hit, deficits grew enormous, partly due to the high interest the Press had to pay the university for emergency loans. Hall attributes most of these issues to the problematic decisions by leadership of the period: *The Harvard University Press*, pp. 184–188.

102 Most publishers (including Oxford University Press) seem to have encountered the worst losses over 1974–1975: Sutcliffe, *The Oxford University Press*, p. 287. At Harvard University Press, the situation was slightly different, see previous footnote. Perhaps not surprisingly, most business histories of commercial companies brush over these rather unprofitable years quite quickly and dismissively, for instance: De Vries, *Four Windows of Opportunity*, pp. 142–156.

Through a series of connected prior developments, these budget cuts impacted disproportionally on smaller and not-for-profit publishers, among which the university and learned society presses. Firstly, the growth of academia in the 1950s and 1960s had provided fertile ground for ever-increasing specialisation of research disciplines into sub-disciplines and specializations—inevitably so, because the growing number of authors produced a vast number of publications that no peer reader could reasonably aspire to keep up with.[103] This specialisation had first elated publishers, because it allowed them to drastically increase the number of journals and monographs supplied to the market, despite growing cost levels. When the economic tide ebbed, however, the lagging number of monograph copies sold per-title became a cause for concern, and publishers remarked that their journals struggled and took ever longer to reach break-even.[104] Illustratively, *Biochimica et Biophysica Acta*, Elsevier's most successful journal, had grown from 1250 subscriptions in 1955 to 2650 subscriptions in 1965—yet in 1980 counted only 2100 subscribers.[105]

As a second factor, it should be noted that the commercial firms had adopted policies of deliberate twigging and specialisation, accompanied by strategic rejection policies to artificially increase the exclusivity of specific journal titles. Because of specialisation and the growing 'shelf weight' of the journals, they rationalised and enforced price rises estimated at an annual 13%—far above consumer price index level—from the mid-1960s onward.[106] Extent and specialisation may have been factors, but the price hikes certainly also were an instrument to obtain larger profits and ensuing dividends for the publishing firms' shareholders.[107] The university presses and learned societies, free from such direct capitalist pressures, had not followed either strategy, as it went directly against their idealist mission to refrain from publishing quality material or to profit unduly from knowledge dissemination—and it perhaps was just not part of their managerial repertoire.[108] They thus operated with much more narrow margins, and therefore often lacked the financial reserves to accommodate lagging sales.

103 For this reason, Philip Altbach describes specialization as "endemic in academe", 'Publishing and the intellectual system', p. 11.

104 Altbach, 'Publishing and the intellectual system', p. 11; Van Leeuwen, 'The decisive years for international science publishing in the Netherlands after the Second World War', p. 265. Andriesse states that '[s]etting up journals had never been difficult, and nor was it now, but setting up truly profitable ones in the 1970s proved no longer possible'; *Dutch Messengers*, p. 210.

105 Andriesse, *Dutch Messengers*, pp. 97–98.

106 Andriesse suggests that price raises at Elsevier were an unintended side-effect for the publisher, too, originating from the fact that the number of pages for each journal could not be accurately predicted, but this seems overly naïve (see also Givler's and Thompson's analysis, references in the next footnote); *Dutch Messengers*, pp. 211–212.

107 Givler, 'University Press publishing in the United States', p. 112; Thompson, *Books in the Digital Age*, p. 98. Jagodzinsky even attributes commercial publishers' shareholders' profit motive as main cause for price rises: Jagodzinsky, 'The University Press in North America', p. 7.

108 Thompson suggests both factors played a role, especially in the US: *Books in the Digital Age*, pp. 167–170. Andriesse remarks in the same vein that such business tactics worked as long as the university and learned society presses could not beat Elsevier and like firms in their efficiency of the publication process and accuracy of market estimations: *Dutch Messengers*, pp. 208–213.

This narrowness of their margins became particularly dire in combination with the fact that the smaller and not-for-profit publishers were predominantly active in the SSH domains. Once library budgets were frozen, the institutions had to become more selective in acquisitioning research publications. Yet, because of the substitutive nature of research results in the empirical sciences, they could ill afford to cancel subscriptions to core-journals in STEM fields, however expensive or exclusive. Moreover, the STEM research infrastructure included not just libraries, but also expensive laboratories that had been built over the course of decades; these prior investments made it seem particularly wasteful to forego updating and maintenance.[109] The austerity measures thus predominantly affected the sales of monographs, translations, and 'peripheral journals' for library collections, as these text types were typically not included in a deliberately planned infrastructure. This is to say that the Humanities were particularly affected.[110]

In response to diminishing acquisitions, the collaborating research libraries in the United States and Europe developed co-ordinated networks for interlibrary loans (ILL), as a means to bundle their purchasing powers—which probably caused a further reduction of acquisitions in its turn.[111] With statistics from the eighty member institutions of the American Association for Research Libraries (ARL), Henderson calculates that the ratio between interlibrary loans and collection size doubled in the years 1974–1998—from which he concludes that libraries increasingly rely on access rather than ownership.[112] Henderson supports his own observations with reports from library service provider OCLC, which reported a fivefold increase in ILL-requests between 1978 and 1989.[113]

These interlibrary loan systems may have been a factor in declining demand by individual buyers of books and journal subscriptions, too, as readers could now temporarily access literature at their institutional library as well as its networked partners. Moreover, the wide adoption of photocopying, in the United States formally permitted through the Fair Use Exception in copyright, allowed them to duplicate borrowed texts to keep.[114] More detrimental to the sales of research publications to individuals than loans and photocopies, however, were the rising cost levels of research publications combined with the ongoing proliferation of titles. These joint developments left academics exasperated as they felt it was becoming impossible to obtain the full

109 Givler, 'University Press publishing in the United States', p. 112.

110 Edelman, 'The growth of scholarly and scientific libraries', pp. 205–206; Meadows, 'European science publishing and the United States', p. 243. With 'peripheral', Meadows rather condescendingly denotes journals in other languages than English and/or with national, instead of international, importance.

111 Van Leeuwen, 'The decisive years for international science publishing in the Netherlands after the Second World War', p. 265.

112 Henderson, 'The library collection failure quotient', *Journal of Academic Librarianship* 26.3 (2000), pp. 159–170; pp. 162–167, esp. table 1.

113 Henderson, 'Diversity and the growth of serious/scholarly/scientific journals', pp. 155–156.

114 Photocopying had become gradually established since the invention of the commercial office photocopy machine by Xerox in 1959, and had become standard library equipment by 1970. The US Fair Use Exception dates from 1976. Henderson, 'Diversity and the growth of serious/scholarly/scientific journals', pp. 152-156; Altbach, 'Publishing and the Intellectual System', p. 12.

breath of relevant materials in any case, and certainly not at the high prices. As a result of relative price rises and title proliferation thus fewer copies of journals and monographs were sold to both individuals and institutions.[115]

Although the sales of scholarly texts stagnated, the stream of manuscripts supplied for publication did not slow at all: academia had grown in size and in competitiveness, and had introduced formal or informal publication requirements for its aspiring and permanent employees. The most estimable university presses were in the luxury position to accept only the best works of scholarship, but struggled operationally as the selection of manuscripts took so much time that publication processes got increasingly congested.[116] Moreover, they were torn between catering for the increasingly specialist scholarly disciplines with small reading audiences, and titles aimed at a broader audience for which they experienced fierce competition from the trade.[117] At Oxford University Press, such considerations led to an organised introspection by the so-called Waldock Committee, whose recommendations laid the foundation for significant business restructurings.[118] Many other university presses, especially those in the United States, retained their service-oriented mission to publish works of scholarship produced by their maternal institution's staff.[119] Therefore, they did initially not approach the increased supply of manuscripts as an issue to develop a business strategy for—they simply continued to publish dissertations and monographs, even when sales fell short. The title production of American university presses continued to grow significantly in the years 1975–2000—i.e. after the economic downturn.[120]

A quantified analysis of monograph sales exemplifies the difficult circumstances in which the presses operated. Assessments of monograph print-runs in its heydays diverge, depending on the type of publishers and the field of publication. In his study of the American university presses, Jagodzinsky mentions an average of 800 copies sold

115 Although the *overall turnovers* of publishing firms showed only minor contractions in the economic downturn of the 1970', the *margins per title* have become much smaller, especially at university presses. A similar trend, of rising title production coupled with lower per-title sales, can currently be observed in trade publishing.

116 Hall explains, from the time that he himself was an editor at Harvard University Press (1960–1973), that the congestion was significant because for a positive decision to publish, the editor, the director, and the board of syndics had to concur successively: *Harvard University Press*, p.156.

117 Sutcliffe, *The Oxford University Press*, pp. 273–276.

118 The committee was formed in 1967, when business went well, but there was growing unease among the syndics about the balance between specialist scholarly monographs and books for general curiosity; the report with 38 recommendations came out in 1970, when the crisis had hit and profits plummeted. OUP's operations were restructured in 1973. Sutcliffe, *The Oxford University Press*, pp. 282–285.

119 It is telling for the broad support for such a mission that Wilson, the publisher at Harvard University Press, reportedly did not allow for 'poaching' of promising authors from other universities with their own presses—he would want them to publish 'at home'. Hall, one of his employees, also anecdotally reports Wilson's outrage when Chicago University Press called upon successful Harvard authors in the early seventies: Hall, *Harvard University Press*, p. 160.

120 Elisabeth A. Jones & Paul N. Courant, 'Monographic purchasing trends in academic libraries: Did the "serials crisis" really destroy the university press?', *Journal of Scholarly Publishing* 46.1 (2014), pp. 43–70; esp. fig 1 p.55, pp. 60–61.

towards the end of the 1960s;[121] Pinter and Thompson both include commercial publishers of scholarly monographs in their analyses and arrive at estimates of approximately 2500 copies printed per title by 1970.[122] It must be noted that such large print runs may include significant overprinting, which was not uncommon in the favourable economic tide up to 1973. On the one hand, publishers then anticipated near-future market growth, and relied on the fact that academic books had a relatively long shelf-life.[123] Illustratively, Cambridge University Press even derived 75% of its revenue from backlist sales in the 1960s.[124] On the other hand, offset printing and budgeting on economies of scale made overprinting look attractive: the initial start-up costs for a title in offset are so high that the total amount differs little for 500 or for 1000 copies. In a print-run of 1000, the per-copy cost for a book is so much lower, that publishers were easily duped to think that they would be able to sell it for a significant per-copy margin. Instigated by the practice of overprinting, unsold copies were habitually remaindered.

Despite the differences in methodologies for assessing the bloom of the most profitable years, however, all agree that numbers have dwindled since: around 1990, as few as 400 copies of a typical monograph would sell.[125] Smaller figures, around 200 copies, seem to be the current market estimate.[126] Thompson arrives at a slightly higher sales estimate of 500 to 900 copies per title, but it must be taken into account that these figures are by now fifteen years old.[127] Moreover, they come from an anonymized analysis of two university presses, and thus may represent above-average performance,

121 Jagodzinsky, 'The University Press in North America', pp. 7–8.

122 Pinter estimates print runs of 2000–3000 copies: 'Development of book publishing business models and finances', in: Robert Campbell, Ed Pentz & Ian Borthwick (eds.), *Academic and Professional Publishing* (Oxford: Chandos, 2012), pp. 171–194; p. 172. Thompson mentions 2500 copies typically sold: *Books in the Digital Age*, p. 93.

123 Thompson explains the phenomenon of overprinting, and even argues that publishers did not monitor their sales carefully in the heydays of the 1960s: *Books in the Digital Age*, pp. 93–94. Note, however, that despite this he explicitly mentions 2500 copies sold, not printed, on average in the 1970s (p. 93).

124 McKitterick, *A History of Cambridge University Press. Volume 3: New Worlds for Learning* (1873–1972), p. 386. Although this figure is illustrative, Cambridge University Press is an outlier in the field of university presses, among other factors because it derives significant parts of its turnover from bibles, and from English language teaching (ELT), the sales of which are very stable.

125 Pinter mentions typical print runs of 200-600 copies and uses 400 sales in her example calculations (before 2012): 'Development of book publishing business models and finances', pp. 184–185. Jagodzinsky also presents typically about 400 copies sold: 'The University Press in North America', pp. 7–8. Estimates up to 500 copies, but many much lower, can be found by various contributors in: Mary M. Case (ed.), *The Specialized Scholarly Monograph in Crisis, Or, How Can I Get Tenure If You Won't Publish My Book?* (Washington [DC]: Association of Research Libraries 1999).

126 Caren Milloy, 'Innovative approaches to publishing open access monographs – It's not business as usual', JISC Blog (11 july 2013). Informal enquiry to Stephanie Paalvast confirmed 200–300 copies for Brill (private conversation at Brill, 15 April 2019). In a quote from publishing veteran and librarian Robert Darnton: "It used to be, when I was at Princeton in the early to mid 1980s, we would estimate that university libraries would buy 800 copies of a new book—you could count on that. Now that number is down to about 300, and in certain niches, like colonial Latin American history, maybe half that.' In: Craig Lambert, 'The "Wild West" of academic publishing: The troubled present and promising future of scholarly communication', *Harvard Magazine* 2015.01 (January/February 2015), n.pag.

127 Thompson, *Books in the Digital Age*, pp. 93–97.

or inadvertently include academic-trade, trade, or textbook titles.[128] In any case, shrinking print runs have caused prices to rise even further in a vicious spiral, as fixed initial costs will have to be recouped through a smaller number of sales. In the early 1970s, the surging inflation moreover caused another significant problem with warehoused stock with a long shelf-life: the books now devaluated more quickly than costs could be recovered, and therefore the publishers had to make significant inventory write-offs much sooner than they were accustomed to.[129]

Journal subscription rates continued to rise too, and often much more steeply than those of monographs. Depending on the geographical market and the academic discipline, estimations arrive at annual journal price rises between 4% and 13% until well into the 1990s.[130] Journals in the STEM-fields have got relatively more expensive than those in the SSH-disciplines, because they have grown in size more quickly. Moreover, corporate publishers have not hesitated to exploit the inelastic demand for science publications, and have raised their subscription rates much more steeply than learned societies and university presses.[131] Counter-intuitively, however, those smaller publishers with more diverse lists have been affected by these developments most severely: as libraries do not readily cancel science journals, larger shares of library budgets had to be dedicated to those subscriptions, leaving disproportionally shrinking allotments for publications in the social sciences and Humanities, including monographs.

4. Reformation and consolidation from the 1980s

As the balance between the supply of and demand for academic publications was thus unsettled, STEM-academic publishers sought to remedy the effects by optimizing the production processes and consolidating the business structures of their firms in the

128 First, Thompson mentions that about 500 monograph copies were typically sold in 2005 (*Books in the Digital Age*, p. 93); he then presents two anonymized examples from university presses, the sales figures of which can be extrapolated to 47% of titles in SSH-fields selling under 625 copies, and 85% under 890 copies (pp. 95–97). He does not comment on the differences between these numbers. Stieg Dalton also reports on 500 copies as sales average for university presses, but as with Thompson, this number may include textbooks and trade titles: Margaret Stieg Dalton, 'The publishing experiences of historians', *Journal of Scholarly Publishing* 39.3 (2008), pp. 197–219; p. 211.

129 Hall explains that Harvard University Press could not uphold its policy for writing off inventory only after six years, because the press ran in debt: *Harvard University Press*, p. 188. At Cambridge University Press, a ten-year cover-cost window was the standard and proved much too long with rising inflation: McKitterick, *A History of Cambridge University Press. Vol.3*, pp. 385–386.

130 Taubert & Weingart mention journal price rises of 200–300% in Europe in the period 1975–1995, which can be recalculated to 3.6%–5.7% annually: 'Changes in scientific publishing: A heuristic for analysis', in: Peter Weingart & Niels Taubert (eds.), *The Future of Scholarly Publishing: Open Access and the Economics of Digitisation* (Cape Town: African Minds, 2017), pp. 1–33; p. 14. The figures come from: Patrick Legros, Victor Ginsburgh & Mathias Dewatripont, *Study on the Economic and Technical Evolution of the Scientific Publication Markets in Europe* (European Commission, January 2006). Thompson cites older data (published in *Logos* 9.1, 1998) and claims that journals were thirty times as expensive in 1997 than in 1970, an annual increase of 13%; *Books in the Digital Age*, p. 98.

131 Thompson, *Books in the Digital Age*, pp. 100–101. Taubert, 'Recent processes of change from the perspective of academic publishers', in: Peter Weingart & Niels Taubert (eds.), *The Future of Scholarly Publishing: Open Access and the Economics of Digitisation* (Cape Town: African Minds, 2017), pp. 69–94; esp. pp. 74–75.

1980s and 1990s. These firms were especially sensitive to consolidation, because of the high level of investments needed for the publishing and printing technologies, quick production cycles, and large-scale production of journals.[132] Such investments could more steadily be supplied by larger corporations. Academia itself had meanwhile also internationalised, and especially in journal publishing the English titles had gained ground.[133] For management and shareholders, large-scale, streamlined publishing processes were attractive because of their transparency.

The new instrument of choice to enlarge the firms' operating scales for many academic publishers was conglomeratisation: mergers with and take-overs of other publishing firms. Springer, for instance, already active in Berlin and Heidelberg took over Birkhäuser, active in Basel and Boston, in 1985, and soon followed through with a series of takeovers of other German, Austrian and Swiss book distributors and publishers.[134] Furthermore, it transformed some of its 'bridgeheads' in other countries to full-fledged satellite offices that published locally-acquired academic materials.[135] Crossing the Atlantic in the other direction, SAGE, an American relative newcomer (since 1965) specialising in social sciences journals, handbooks and reference works, followed a similar strategy: its London office had been active as a distributor since 1971, but turned to publishing British and European research in 1981. A SAGE New Delhi office was set up in that same year to act as a distributor while building infrastructure to commence publishing in India several years later.[136] In the Netherlands, law-publisher Kluwer, already the merged result of several smaller firms, became the object of a duel between Elsevier and Wolters Samson that both wanted to acquire it; the race was won by the latter and led to the establishment of Wolters Kluwer in 1987.[137] Elsevier then deliberately set out for targets abroad to enlarge its position in the international market instead. With the take-over of Oxford-based Pergamon Press in 1991 the firm doubled in size; in 1993, it merged as an equal with British publisher Reed.[138]

This process of international mergers and acquisitions in the academic publishing industry has continued since the 1990s, as highlights in the recent histories of the top-five largest academic publisher illustrate. SAGE continued to acquire publishing firms as well as publishing programmes from for instance learned societies, and through this process strategically sought access to the STEM-markets in what the company itself brands 'a period of accelerated growth', between 1995 and 2005.[139] Taylor & Francis went public

132 Thompson, *Books in the Digital Age*, pp. 60–61.

133 Götze reports, however, that Sprinter still published 40% of its titles in German by 1994: *Der Springer-Verlag*, p. 77. However, Springer seems to be an exception to the rule of the field, and this proportion would diminish quickly in the years to come.

134 Ibid, pp. 198–203.

135 Ibid., pp. 221–224.

136 *The SAGE-story*, pp. 13–15, 22–23.

137 For extensive coverage of the bidding wars, yet markedly from the perspective of Kluwer, see: De Vries, *Four Windows of Opportunity*, pp. 183–207.

138 Andriesse, *Dutch Messengers*, pp. 260–263; Taubert & Weingart, 'Changes in scientific publishing'.

139 *The SAGE-story*, pp. 33–41 (quote from p. 33). Later, SAGE acquired for instance the journals of the Institute of Mechanical Engineers in 2010, and most journals from the Royal Society of Medicine in 2012.

on the London Stock Exchange in 1998 and in the same year bought Routledge, which had a large publishing list in the Humanities and whose brand name is yet retained as an imprint. The company reported a total revenue of €590 million in 2017.[140] Wiley-Blackwell was established through a merger of the two companies that constitute its name in 2007; in the decade before, John Wiley & Sons had already grown significantly through acquisitions of several smaller publishers.[141] Springer-Verlag was bought by Bertelsmann, a trade media concern, in 1998 and resold in 2003; mergers with a part of the Dutch Kluwer concern in 2004 and with the majority of the Nature Publishing Group and Palgrave-Macmillan in 2015 ultimately reshaped it to Springer Nature which reported revenues of €1.6 billion in 2017.[142] Reed Elsevier, now known as the RELX Group, is the largest with its 2017-turnover exceeding €8.3 billion. Its impressive list of acquisitions in the last three decades comprises other publishers, information service companies, and start-ups in software and data technology.[143]

The enlarged scale of these academic publishing firms exacerbated the effects outlined above (sections 3.2 and 3.3) of the dichotomy between journal programmes and monograph publishing, and thereby widened the gap between conglomerating STEM-publishing and humanities scholarly publishing, in which smaller firms continue to play a role. Because of their long incubation times and distinct production processes, that leave little room for scaling up, and small margins, books could no longer be produced by the conglomerating corporate firms. Monographs, and therefore humanities scholarly publishing, thus became causally connected predominantly to smaller and non-commercial publishing organisations. Meanwhile, publication practices shifted away from books and towards quick-circulating journals in economy, psychology and other disciplines from the Social Sciences.[144] The publishing field changed accordingly: the large conglomerate publishers incorporated Social Sciences journal publishing in their streamlined fleets of titles, and firms with a strong presence in social sciences publishing, such as Sage, started behaving more like the STEM conglomerates.[145]

Moreover, as can be inferred from the examples above, this process of subsequent mergers and acquisitions is by no means unique to academic publishing: trade

140 Taylor & Francis became administratively part of Informa in 2004, but continues independently as its academic publishing branch.

141 Wiley had merged with VCH in 1996, and had acquired Van Nostrand Reinhold (1997), Hungry Minds (2001), and Whatsonwhen (2006) among others: Weingart & Taubert, *The Future of Scholarly Publishing*, pp. 73–75.

142 Ibid, pp. 70–73; see also 'Springer: Driving academic publishing since 1842', Springer.com: https://www.springer.com/gp/about-springer/history [accessed 16 January 2019].

143 RELX Group website: https://www.relx.com/our-business/our-business-overview [accessed 16 January 2019]; Richard Morais, 'Double Dutch no longer', *Forbes* (11 November 2002), n.pag.

144 Such a shift can be observed in bibliometrics, because coverage in the Web of Science increases for the fields that move more to journal publishing, and for which journal publishing shifts to larger firms. See: Thed van Leeuwen, 'The application of bibliometric analyses in the evaluation of Social Sciences research: Who benefits from it, and why it is still feasible', *Scientometrics* 66.1 (2006), pp. 133–154; esp. pp. 135–141.

145 *The Sage Story*, pp. 33–41.

publishing has also become increasingly internationalised and conglomerated.[146] Even though the small-scale academic publishers in the SSH do not all compete directly with trade publishers, the increasingly competitive general trade market proved to be another complication, as hybrid trade-academic titles had traditionally helped humanities monograph publishers generate an alternative stream of income that now became less readily available.[147]

As the macro-economic tides continued to affect the academic publishing field in waves, technological developments were on a steady march, albeit not a linear one.[148] Publishers had benefited from electronic type-setting, a very time-consuming task, since the later 1960s.[149] Cautious explorations with computers and digital services, such as databases for collection management and acquisition programs, had been initiated by publishers and libraries from the 1960s onwards, in optimistic bursts of experiments.[150] These were not always successful: at Harvard University Press, an experiment with automated sales proved a rather costly failure of 266,000 dollars spent between 1968 and 1972, when it was terminated.[151] Forced by the austerity measures in a constricted market after the Oil Crisis, experiments continued in a more modest pace, yet increasingly structural fashion.

At first, digital end-products were not the objective of these deliberate technological applications yet:[152] from the 1980s onwards, publishers initially aimed to digitize information flows for company management, such as the bibliographical metadata and sales reports, as they were searching for increased managerial efficiency and cost

146 Thompson argues that consolidation was present in all media industries: *Books in the Digital Age*, pp. 54–59. Although industries other than publishing lie beyond the scope of both Thompson's and the current analysis, I believe that consolidation and upscaling can be observed in many industries outside the media domains as well since the 1980s.

147 Thompson, *Books in the Digital Age*, p. 61.

148 Ralph M. Shoffner remarked that the developments are not linear, not even meandering, but more labyrinthine: 'So I began with the thought of tracing the evolution of computer and electronic products in libraries from their inception to the present day. As I got further into the data, I realized that the path of development has not been straightforward. Indeed, the path has been more than crooked; it resembles a maze. In some cases, opportunities and logical paths of development have been missed or for some reason, not taken; in others, technical solutions that seem less elegant have won the day.' In: 'Appearance and growth of computer and electronic products in libraries'; in: Richard E. Abel & Lyman W. Newlin, *Scholarly Publishing: Books, Journals, Publishers and Libraries in the Twentieth Century* (New York: John Wiley & Sons, 2002), pp. 209–255; p. 209.

149 Note that there was no electronic connection between editorial production and printing at that time. Therefore, print proofs produced on specific proofing presses were type-set electronically and then printed in larger print-runs on production presses. See Frania Hall, *The Business of Digital Publishing: An Introduction to the Digital Book and Journal Industries* (London: Routledge, 2013), pp. 7–13; Peter Adams, 'Technology in publishing: A century of progress', in: Richard E. Abel & Lyman W. Newlin, *Scholarly Publishing: Books, Journals, Publishers, and Libraries in the Twentieth Century* (New York: John Wiley & Sons, 2002), pp. 29–39; pp. 31, 33–34; Van der Weel, *Changing Our Textual Minds*, p. 121.

150 Shoffner, 'Appearance and growth of computer and electronic products in libraries', p. 211.

151 Hall, *Harvard University Press*, p. 188.

152 A notable exception is *Excerpta Medica Abstracts Journals*. This had existed as a journals database run by Dutch physicians since 1946. After Elsevier bought it (in 1972) and rebranded it to EMBASE, electronic user access became available from 1974.

reductions.[153] As desktop computers and operating systems grew more user-friendly, editorial workflows transitioned to the digital machine as well, as Thompson describes in quite some detail.[154] Such business developments required significant investments in hardware, software, infrastructure, and considerable staff training from publishers. Whereas the transition to computer-assisted business management was essential, not all publishing firms would, or could, afford the substantial expenses necessary for the transformation of their publication processes. Instead, they sought to outsource specialist activities, such as typesetting and printing—and new partners, especially in low-wage countries, rose to the occasion.[155]

The paper end product long remained the only objective of publishing, while digital files of various types were initially seen as the residual products of internal editorial and management processes. Only from the 1990s onwards, the realisation dawned on publishers that digital content and metadata formed the most valuable asset to their firms.[156] Standardised digital files could be used as inexhaustible sources for iterations of product instances, i.e., different paper editions of a text, as well as digital end-products, for which carriers, such as CD ROMs, were being developed. Yet systematic workflows for archiving digital files were still to be developed; it did not help that that those files were still stored on physical carriers that were going obsolete, like floppy disks.[157] Even at larger publishing firms, the lack of attention to proper management of digital files from the early days was lamented, as if often meant content was lost, or conversion and emulation software had to be developed to work with not-updated digital files.[158] The files belonging to smaller presses often resided with intermediaries and subcontracted parties to which they had outsourced the complex digital production processes. This must have entailed significant losses for those publishers, while they also ran behind in gaining digitization knowhow.

The World Wide Web (WWW) had been in existence since January 1991, but the development of user-friendly browsers in the mid-1990s as well as the lifting of commercial use restrictions since 1995 have proven essential preconditions for the commercial dissemination of digital text. The rise of the WWW gave rise to predictions of a veritable revolution for electronic books and journals.[159] Libraries had been buying

153 Thompson, *Books in the Digital Age*, pp. 309–317; esp. p. 313.

154 First, typesetting transformed into desktop publishing; authors' word processing skills developed later and with trial-and-error, as did digital copy-editing and versioning, although both got significantly easier with Microsoft Word. PDF came to replace photomechanical creation of offset plates after 1995. Thompson, *Books in the Digital Age*, pp. 406–412.

155 Taubert, 'Recent processes of change from the perspective of academic publishers', p. 79; Thompson, *Books in the Digital Age*, pp. 111–112.

156 Thompson, *Books in the Digital Age*, pp. 314, 412. Thompson suggests that digitization 'encouraged [...] publishers to think hard about what their distinctive contribution to the value chain actually is', because it emphasized that producing print is certainly not it (p. 314).

157 Ibid., p. 412.

158 Ibid., p. 413.

159 Thompson gives examples of jubilant forecasts by consultancy firms such as Pricewaterhouse-Coopers and Arthur Andersen, some commissioned by the publishing field: *Books in the Digital Age*, p. 310. See also: Van der Weel, *Changing Our Textual Minds*, pp. 134–141.

digital products before this time as well, for instance reference works to be accessed via CD-ROMs, but the required investments had proven prohibitively high for most but the largest academic libraries.[160] The transition of the journal to the online medium was crucial for user-uptake. Initially, the electronic versions of journals appeared alongside the paper product, and library's subscriptions often included both versions of the text. Yet as end-users proved increasingly capable, willing and satisfied to process digital articles, it was an attractive proposition for libraries to cut the paper copy and save both money and storage space. In reaction to the diminishing demand for them, publishers are still increasingly abandoning print journals altogether, which contributes to more streamlined production processes as well as significant savings. For the large science-publishing conglomerates, such as Elsevier, paper products have become insignificant: they depend on 'well-managed fleets of digital journals' as well as digital datasets and derivative products.[161] Especially with niche publishers in the Humanities, the production and dissemination of print journal copies continues to private subscribers, but on a limited scale mostly.[162] However, researchers' workflows no longer depend on paper journals, and neither do publishers' business models.[163]

In comparison with journal articles, however, digital monographs are met with much less enthusiasm by the end users, for various reasons. From a practical perspective, extensive linear texts are difficult to process by reading on-screen, and flexible formats that facilitate reading, such as the ePub, are not well-suited to academic use for citations and references. Symbolically, the book has specific values attached to it that are not easily reconciled with a digital form. The exceptional position of the monograph in the Humanities has been depicted in chapter 1, and typical use patterns for monographs can explain scholars' adherence to the paper form.[164] Although the publisher's technological

160 A consortium of 11 publishers, among which Springer, Blackwell, Pergamon, and Elsevier, and 11 libraries, among which the British Library, the Central Medical Library in Cologne, and the University of California Berkeley Library, had been pondering on an electronic document delivery service since 1980. However, the costs for producing content (on the publishers' side) as well as retrieving it (in the libraries) had only by 1987 come down enough to actually initiate a pilot project for this. ADONIS, as the project was called, was a document delivery service supplying full-text copies of articles from over 200 then-current biomedical journals, stored on CD-ROM. Even in 1987, it was only feasible with significant innovation subsidies from public bodies as well as publishers' collective investments. See: Constance Orchard, 'ADONIS and electronically stored information', *The Serials Librarian* 15:3–4 (1988), pp. 85–91, esp. pp. 85–86; Götze, *Der Springer-Verlag*, p. 257.

161 David Green & Rod Cookson, 'Publishing and communication strategies', in: Campbell, Pentz & Borthwick, *Academic and Professional Publishing*, pp. 99–144; p. 136.

162 Esposito nuances this: "Print plays a far larger role in SSH than in STM. In part, this is a function of the greater role of books in SSH": Joseph J. Esposito, 'The Market for Social Sciences and Humanities publications', *The Scholarly Kitchen* (17 September 2018), n.pag.

163 This is not to say that researchers do not use paper anymore—in fact, they do, especially for intensive reading: Michael L. Newman & John Sack, 'Information workflow of academic researchers in the evolving information environment: an interview study', *Learned Publishing* 26.2 (2013), pp. 123–131, esp. p. 128. Rather, researchers do not use a publisher's printed copy of journals, but typically (70%!) turn out separate articles on office laser printers: Carol Tenopir, Donald W. King, Sheri Edwards & Lei Wu, 'Electronic journals and changes in scholarly article seeking and reading patterns', *Aslib Proceedings* 61.1 (2009), pp. 5–32, esp. pp. 17–18.

164 Humphreys et al., *Reimagining the Digital Monograph*, pp. 11–15.

expertise puts him in an indispensable position for the development of digital products, scholarly users ultimately control and direct the movement to 'liberate the monograph from the constraints of print', by formulating new functionalities for the book in the research process.[165] As the current analysis targets the publishers' position in the field of scholarly publishing, it should here suffice to highlight some of the reasons why monograph publishers continue to experiment with digital formats and electronic delivery of books regardless of yet-limited and often mercurial user uptake.

From a business perspective, Thompson points to book publishers' eagerness to imitate the success of digital journals, in the large firms and in their own lists, and the prolonged search for a new source of revenue to compensate for the shrunken market.[166] He also argues that monograph publishers would be afraid of losing the opportunity for digital books to start-ups, or other new entrants to the market, especially because such newcomers had been heavily investing in IT.[167] Although the quest for sustainably profitable business models in monograph publishing continues, these motivations seem not fully convincing in the economic reality. A stronger incentive may lie in the attraction of e-books from the perspective of research libraries' acquisition strategies: the libraries save on physical storage space and the books can be delivered to end-users online (with all the advantages of the digital medium). Individuals' book-buying habits differ culturally between research disciplines, but in general, research libraries are currently responsible for the majority of demand in the market for monographs.[168] Their buying behaviour thus strongly influences publishers' production strategies: experiments with print-on-demand, pay-per-view, patron-driven-acquisition of e- and p-copies, and other business models are primarily directed at libraries and other institutional buyers.[169] Although none of these new models has proven universally viable yet, it has been established that digital accessibility of a title usually improves its print sales, which is another reason for publishers to continue offering it.[170] Currently, many monographs exist simultaneously in online and printed form; currently, typically 20% of the investment in book production at university presses is directed towards production and dissemination of printed copies, albeit usually in limited print runs.[171]

Despite the modest numbers of per-copy sales, the number of monograph titles produced is still consistently rising. In some humanities subfields, the proportion of books in the total landscape of publications even seems to be increasing, despite the fact that the number of journals and articles have also risen strongly in the last two decades.[172] Although a large title production tends to be interpreted as a sign of a

165 Thompson, *Books in the Digital Age*, pp. 332–333.

166 Ibid., p. 330.

167 Ibid., pp. 309–310, 331.

168 Ibid., p. 86.

169 Taubert, 'Recent processes of change from the perspective of academic publishers', pp. 79–82.

170 Thompson, *Books in the Digital Age*, p. 370.

171 Withey et al., 'Sustaining scholarly publishing', p. 401.

172 Esposito, 'The market for Social Sciences and Humanities publications'; Engels, Ossenblok & Spruyt, 'Changing publication patterns in the Social Sciences and Humanities', p. 373, 386–387. Taubert &

flourishing book trade, Thompson warns us that in the case of scholarly monographs, it may actually be a disconcerting signal of market saturation.[173] In general, he argues that a broad title production would lead to a shorter shelf-life for monographs: the more books come out, the more quickly a monographic study is likely succeeded by a similar, but more recent one—and simply by any new title demanding attention. And although new humanities research is usually complementary to older studies instead of outdating them, the most recent title does have the best sales position. The large title production thus turns book publishers' business models to focus on quick throughput instead of steady sellers. Thompson supports this argument by describing book sales patterns at his sample selection of university presses: 80% of sales occur in the first year after publication, a further 15% in year-two—a few copies are sold after that, but hardly ever beyond the seven-year window.[174] Comparison with the much longer shelf-lives of the twentieth century indeed points to shortening cycles.

Thompson adds the changing role of the retailer to the exacerbating factors for American university presses. The super-sized book retailers that have risen since the 1990s have been pushing for a broader title production to fill their extensive display-shelf space, supposedly their main attraction. Thompson argues that university presses have met that request, but have got confronted with increasingly significant and problematic returns of unsold stock.[175] I wonder about the weight of this specific effect. The problem does not exist in markets without super-sized retailers—nor in most countries with their own national language, in which scholarly monographs in English tend not to be disseminated via general retail bookstores.

Yet beyond the role of retailers, the abundance of publications remains an issue. After all, library acquisition budgets have to be allocated over a growing number of monographs combined with an also growing number of articles, published in a proliferation of journals in both STEM and SSH research.[176] Moreover, price rises for journal subscriptions have not slowed down at all: a conservative comparison of estimates by Taubert & Weingart arrives at an annual 5-8% increase of subscription

Weingart claim that academic journal article production currently grows 9% annually: 'Changes in scientific publishing', pp. 18–21.

173 Thompson, *Books in the Digital Age*, p. 54.

174 Ibid., pp. 94–98.

175 Thompson reports that return rates for American monographs and textbooks by University Presses had risen to 22% in 2002; *Books in the Digital Age*, pp. 170–174.

176 Based on indexed journals in the Web of Science and research evaluation databases, academic journal publishing annually grows with 9% on average, which means roughly a doubling in size per decade: Taubert and Weingart 'Changes in scientific publishing', p.20; Tenopir & King report 39,565 journals in 2003 versus 69.262 in 2008, which equals a growth of 9.1% per year: Carol Tenopir & Donald W. King, 'The growth of journals publishing', in: Bill Cope & Angus Phillips (eds.), *The Future of the Academic Journal* (2nd edition, Oxford: Chandos, 2014), pp. 159–178; table p. 167. Ossenblok et al. arrive at a much more modest growth of 9-16% for journal publishing in the SSH in the *decade* 2000–2009, which confirms that journal publishing grows much faster in STEM than in SSH disciplines; 'Co-authoring of journal articles and book chapters in the social sciences and humanities (2000–2010)', pp. 883–884.

rates in euros in the period 1986-2006, and 9% for 2008-2010.[177] Thompson cites an annual average increase of over 14% in US dollars, even.[178] Publishers typically justify their rates by necessarily increased investments in digital infrastructure on one hand, and on the other to the very phenomenon of overproduction itself: editors have to process a costly rising tide of submissions—and although they go largely unnoticed by the academic community that buys access to published articles only, the rejected ones cost considerable effort, too.

Despite the widely varying quantifications of title proliferation and price hikes, the qualitative trend can be clearly observed: research libraries will have to spread their budgets very thinly over a growing number of publications. As has been established (section 3.3), it is more urgent for most university libraries to retain subscriptions on STEM-journals than to acquire other types of materials and/or in the SSH-disciplines. Since the 1990s, the rise of the bundle deal, in which libraries subscribe to a large number of journals for a lump-sum subscription fee, has further protected the standing subscriptions to journals.[179] Unable to afford journal subscriptions, but pressured by scientists and publishers against cancelling them either, librarians consider it likely that SSH publications, and monographs in particular, will be the primary victim.[180]

5. Digitization and opposition since the 1990s

The economic downturn of the 1970s directly resulted in a more dire financial position for academic libraries, which restricted their buying behaviour. Indirectly and over the course of the following decades, the economic low also caused a political shift towards neoliberalism, manifested in New Public Management (NPM) of academic research institutions. Because of the tight symbiosis between research and publishing, the rise of NPM did not go unnoticed there either. An extensive economic, sociological or philosophical analysis of neoliberalism and NPM as its instrument goes beyond the scope of the current project.[181] Yet in order to portray the most important consequences for academic publishing, a brief introduction must be given here.

177 Taubert & Weingart, 'Changes in scientific publishing', pp. 14–15; they assess earlier estimates, among others in the following study: Patrik Legros, Victor Ginsburgh & Mathias Dewatripont, *Study on the Economic and Technical Evolution of the Scientific Publication Markets in Europe* (European Commission, January 2006).

178 Thompson reproduces figures from a confidential report by the UK Competition Commission, written for the proposed merger between Reed-Elsevier and Harcourt in 2001: *Books in the Digital Age*, p. 101 (table 4.3). Perhaps the dollar-euro exchange rates account partly for the difference in estimates, or perhaps the Competition Commission calculated the STEM-industry average? Due to the confidentiality of the report, this cannot be verified.

179 Taubert & Weingart, 'Changes in scientific publishing', p. 15. The term 'Big Deal' for these bundle agreements was coined by: Kenneth Frazier, 'The librarian's dilemma: Contemplating the costs of the "Big Deal"', *D-Lib Magazine* 7.3 (2001), n.pag.

180 Weingart & Taubert, *The Future of Scholarly Publishing*, p. 97.

181 See for such extensive analysis for instance: Mark Olssen & Michael A. Peters, 'Neoliberalism, higher education and the knowledge economy: From the free market to knowledge capitalism', *Journal of Education Policy* 20:3 (2005), pp. 313–345; Hans Radder (ed.), *The Commodification of Academic Research: Science and the Modern University* (Pittsburgh: University of Pittsburgh Press, 2010).

Neoliberalism departs from two major traditional liberalist assertions: that individuals are self-interested and rational actors, and that the market is both the practical instrument with which individuals can pursue their interest, and an ideological ideal type.[182] However, it critically distinguishes itself from classical liberalism by adding a third premise: that the government should take an active role in creating optimally equipped individuals as well as optimally working markets, to allow individuals to build up maximum capital towards their interest.[183] Importantly, the definition of markets is not restricted to the trade in physical goods: neoliberalism perceives also markets for services, such as health care, and for intangible goods. In fact, the recognition of knowledge as a form of economic good is one of the most important drivers of international neoliberal policy.[184] The perception of knowledge as economic good leads to the view of research and education as a market. Combined with the legitimisation of political intervention in such markets, this resulted in the instrument of New Public Management, which came to profoundly affect universities and research institutes.

Under neoliberalism, academia is seen as a producer of knowledge, both through teaching and research; it is the designated role of the government to ensure that production in both branches of academia is optimal. To this end, governments have enlarged their influence on academia since the 1980s and 1990s, for instance through increasingly direct control of funding. Because the number of students surged again in the 1980s, and government funding was tied to student enrolment, education became financially more important for universities.[185] Moreover, research funding became externalised as well, and got linked to the performance of universities and research institutes.[186] Because governments are not involved in research or education themselves, but only in managing them, they must rely on reports of performances; to facilitate quick analysis by external managers, such reports increasingly often provide quantified indicators instead of qualitative assessment.[187] Producing publications had already been considered a primary indicator of research productivity, and citations came to be regarded as their validation—bibliometric reports of both were by this time facilitated

182 Olssen & Peters, 'Neoliberalism, higher education and the knowledge economy', pp. 314–315.

183 Ibid., pp. 318–319.

184 Ibid., pp. 320–332. Descriptions of neoliberalism often phrase this perception of knowledge as a form of 'capital'. Note that I deliberately avoid this term here, to prevent conflation with the Bourdieusian sense of capital: the neoliberal definition of capital is ultimately economic, in the sense that it supposes that the value of any form of capital can be expressed in financial terms. Bourdieu, contradistinctively, argues that forms of capital carry non-economic value which can be of paramount importance, dependent on the specific *habitus* in a field; conversion to financial gain is certainly not always in the interest of agents. For this reason, Bourdieu implies that fields have a much wider scope than markets —markets can be part of fields, but fields include mechanisms such as hierarchy, dominance and misrecognition that are not present at markets. For a discussion, see: Swartz, *Culture & Power*, pp. 117–121.

185 Collini, *What Are Universities For?*, pp. 34–36. Becher & Trowler, *Academic Tribes and Territories*, pp. 10–12.

186 Collini, *What Are Universities For?*, pp. 36–37.

187 Taubert and Weingart attribute the rise of performance indicators not only to the limited capacities of external managers, but also to an ideological 'crisis of trust' in the 1980s, which caused demands for 'transparency and efficiency': 'Changes in scientific publishing', pp. 11–13. See also: Michael Power, *The Audit Society: Rituals of Verification* (Oxford, Oxford University Press, 1999).

by well-developed computer technologies. In this way, NPM connects publishing to academic assessment—and through that, to funding—and so confirms publishing's crucial role in academia. However, whereas publication practices had hitherto been mostly controlled by disciplinary communities of peers, now external agents (university management, funding bodies, and national governments) exert unprecedentedly strong pressure.

The deeper involvement of non-academic managers can be observed in NPM practices that are now ubiquitous at universities.[188] The trust in self-governance of scholarly communities by leadership of senior professionals and a pattern of professional norms has been limited by a hierarchy of external management, controlling through cost centres and contractual specifications. Importantly, Olssen and Peters argue, accountability of scholars has shifted from 'ex-ante' formulation of goals, aims and rules which are all assessed by collaborating peers, to an 'ex-post' system that is based on monitoring outputs and comparing performances in a competitive setting.[189] Scholars know their performance will be compared to that of others at some point, but they cannot know in advance how those others will perform; therefore they will pre-emptively aim to outperform others through maximising their own 'output': producing publications. Communities of peers are now simultaneously pools of competitors, and publishing is the main locus for this competition: this forms a business-like, competitive climate in which researchers must 'publish or perish'.[190]

For university presses, NPM has had similar consequences. They are regarded as departments of the universities they are connected to and therefore increasingly fall under managerial responsibility rather than the executive power of the publisher, or collegial consensus by advisory boards of academics.[191] They too must report on their productivity by generating quantitative indices of it: for instance title production counts and detailed sales reports. Moreover, especially smaller university presses report that they experience managerial emphasis on financial accountability and intensified pressure for self-sustainability.[192] This is a direct result of the neoliberal perception of knowledge as a marketable economic good, above and beyond its intrinsic value.[193]

188 Olssen and Peters describe many of these practices, and provide a helpful table of the most important differences between NPM and the preceding form of public management: 'Neoliberalism, higher education and the knowledge economy', pp. 326–330; esp. fig.1, p. 329.

189 Ibid., p. 328.

190 Origgi considers the rise of scientometrics, audit culture, and the publish-or-perish adage among 'dramatic changes' in research and publishing: 'The new markets of academic reputation', *The Future of Science and Ethics: Rivista Scientifica a Cura del Comitato Etico della Fondazione Umberto Veronesi* 1.2 (2016), pp. 67–76; pp. 67–68.

191 In the United States, this proportion has risen to about one third of all university presses: Charles Watkinson, 'Why marriage matters: A North American perspective on press/library partnerships', *Learned Publishing* 29.1 (2016), pp. 342–347; p. 343.

192 Thompson, *Books in the Digital Age*, pp. 108–109.

193 After all, neoliberal theory supposes that the logic of supply and demand will lead to success for the best products on any and every market. In this theory, the market for academic publications—knowledge in material form—should be no exception to this rule, and therefore university presses should be able to function financially independently if they would conform to market demands. However, a

For academic publishing in general, NPM's emphasis on productivity or 'output' has furthered the already rising dominance of journal articles over other publication types such as monographs, through two mechanisms. Firstly, journal articles are much shorter than monographs and can therefore be completed and submitted more quickly. Subsequent review, editing and production processes by publishers also take less time. The resulting shorter publication cycles are very attractive for authors, who want quick results because they are subjected to periodical assessments. Secondly, such assessment is grounded in databases that generally index journals much better than books;[194] therefore, articles optimally help boost scores for quantitative indicators. As the easily-quantifiable publications get over-represented, uncounted contributions to knowledge easily disappear from view: monographs, but also non-English, local, and small journals that are not indexed by the major bibliometric databases, as well as new and still-informal communication in experimental, digital forms.

Publishers continually attune their business to shifting preferences of their customers, academic authors and readers. Especially the large STEM publishing corporations have tapped into the heightened need for performance indicators in academia, by developing online tools for supplying them real-time alongside their publications, or in specific 'dashboards' for individual or managerial use. The large STEM publishers were able to do so because of their prior investments in digital technologies combined with their economies of scale. They now routinely exploit performance indicators as marketing instruments, and, more perniciously, also demonstrably reshape their production to boost their indicator scores.[195] NPM's insistence on quantified research evaluation has therefore enlarged the dominance of the already economically powerful corporations even further.

Research assessment frameworks in NPM have made it increasingly important for scholars to strategically choose for specific publication forms and outlets. Yet still a stubborn image exists of them, even among publishers, as a passive reading audience that only focuses on specialised content and remains blissfully unaware of the mundane market problems in academic publishing.[196] Perhaps the normative framework of

market for knowledge, if it would exist, is not homogeneous, but divided over disciplines. Some of these have significantly more production capacity and buying power than others, and university presses service predominantly the economically not-so-powerful groups. Moreover, neoliberal ideology completely overlooks disciplinary differences in academia and their influences on supply and demand: the distinction between cumulative research in the Humanities and substitutive research in the STEM fields, for instance, renders demand for publications more urgent in the latter group of disciplines (see also ch. 1., esp. section 4).

194 Gunnar Sivertsen, 'Scholarly publication patterns in the social science and humanities and their coverage in Scopus and the Web of Science', in: Ed Noyons (ed.), *Context Counts: Pathways to Master Big and Little Data*, Proceedings of the science and technology indicators conference (Leiden, 3–5 September 2014), pp. 598-604.

195 Pranay Parsuram, *Scientometric indicators and their exploitation by journal publishers*, unpublished MA thesis, supervised by Fleur Praal, MA Book & Digital Media Studies, Leiden University, 2019; esp. pp. 27–42.

196 Rick Anderson explores attitudes of scholars as well as stereotypes on publishers' perceptions of authors: 'Scholarly-communication reform: Why is it so hard to talk about, and where are the authors?', *The Scholarly Kitchen* (16 May 2016), n.pag. As usual on this weblog, the comments under this post are also very informative.

science, which above all maintains that academia is, or should be, a self-contained and disinterested social system (see ch. 1), indeed plays into the perception that academics should remain distanced from business considerations. Probably, another cause can be found in the observation that academic publications are usually acquired—be they bought or licensed—by institutions such as research libraries, and thus available without individual cost or selection efforts to the end-users.[197] It is, however, a misperception to portray researchers as uninterested in market concerns, both on the supply and on the demand sides of publishing. Academics do inform themselves about the publication practices in their own discipline—they have to, in order to succeed in the field and rise above competitors. In the Bourdieusian sense, knowledge on publication and communication practices is part of the disciplinary *habitus*. Therefore, researchers tend to be aware of publishers' positions and activities in their own field of disciplinary communication—although their discipline-internal orientation might render them prone to mistake specific disciplinary practices as representative for academia as a whole. Scholars react against publishers' practices that would disadvantage them.

An early example of such a reaction can be found on Elsevier's policy of setting extra subscription fees in hindsight if journal size exceeded plans, from the 1960s onwards. As quoted by Andriesse, not just librarians, but also prominent professors (who directly influenced librarians' acquisition policies) reacted first with irritation and later growing resistance against such pricing tactics.[198] In a similar alliance with a stakeholder group that usually has diverging interests, scholars joined the protest initiated by lawyers, the professional audience for research publications, against publication prices and Wolters Kluwer's monopolist profits in the 1990s.[199] Despite some coverage in news media, such protests seem to have remained relatively invisible and of limited consequence, except in the affected research communities themselves. In general, the publishing business with its patterns of mergers and business take-overs, and the resulting value for shareholders, usually attracted positive attention in news media and public opinion until the end of the twentieth century.[200]

By that time, however, NPM-practices had foregrounded academia's large and still-growing expenditures on publications. As these constitute a significant transfer of public assets to private-sector publishers in the form of university funding and library budgets, neoliberal logic dictates that this should be put under surveillance and, if possible, be

197 Although the position of institutional buyers is unique to the field of academic publishing, a distinction between buyers and reading audience is found in an adjacent one: although institutions and students buy textbooks, their popularity and success of textbooks is shaped by teachers, in what is called an 'adoption system'; see Thompson, *Books in the Digital Age*, pp. 198–203. Note that children do not buy their own trade books, either.

198 Andriesse, *Dutch Messengers*, pp. 208–209.

199 De Vries, *Four Windows of Opportunity*, pp. 234–235. Note that De Vries finds these protests utterly unjustified and writes, with considerable contempt: "When a company delivers a good product and acquires a considerable market-share thanks to take-overs and mergers, and makes a profit to boot, at a given moment there are bound to be complaints from the initially thankful customers. [...] In this case the story-tellers are lawyers, the ones who make the legal texts, who have yet to encounter buyers' resistance for their own unbelievably expensive services. [...]"

200 Ibid., *Four Windows of Opportunity*, pp. 232–237.

limited. Such logic ignores the fact that many university publishers are administratively part of academia, and many others are otherwise not primarily commercially oriented. The diversity among academic publishers is not widely known among the general public, and even academics are generally unaware of publishers' positions outside their own discipline. In the public debate, academia's—in themselves legitimate—worries about the sustainability of library acquisitions in light of ever-rising costs got conflated with public indignation about presumed private profit margins. These were in reality only obtained by a handful of corporate STM publishers, but their dominance in STEM research rendered them so visible that their reputation coloured the perception of academic publishing overall. Public opinion thus turned against publishers as unjust private profiteers from the public activity of research.

While the corporate merger and take-over processes continued on a growing scale driven by the logic of the stock-markets in the 1990s, NPM's doctrines thus increasingly shifted public opinion to disavowing companies that turned public assets into private profit. As is often the case, these socio-economic developments could not have existed if not for technological advancements to match their initial direction. The rise of digital publications and sharing networks to disseminate them—various international electronic networks, but most importantly the open WorldWide Web (WWW) from 1991—had two effects. Firstly, the intangibility and reproducibility of digital products, and their immediate worldwide distribution options shaped expectations of their free (*libre* and *gratis*) availability: publishers' investments in creating digital publications are easily and systematically undervalued.[201] Secondly, and crucially, the rise of digital technologies such as desktop publishing software in combination with the WWW finally made it possible, at least theoretically, to produce high-quality communications and to distribute them among disciplinary peers, without any intermediation from extra-academic agents in the field. Idealist academics thus initiated collaborative movements to disintermediate publishers, as if publishers had hitherto been just tolerated in scholarly communication practices. Stevan Harnad, perhaps the foremost pioneering activist, said it thus:

> For centuries, it was only out of reluctant necessity that authors of esoteric publications made the Faustian bargain to allow a price-tag to be erected as a barrier between their work and its (tiny) intended readership because that was the only way to make their work public in the era when paper publication (and its substantial real expenses) were the only way to do so.[202]

This is a false retrospective: scholars have always actively engaged with publishers for the optimal effect of their formal communications; despite conflicting interests, authors and publishers also enhance each other's performance and further reciprocal aims. Yet this

201 Even publishers themselves have also fallen in this trap of equating their value contribution with their physical production, see: Thompson, *Books in the Digital Age*, p. 314.

202 Stevan Harnad, 'Publicly retrievable FTP archives for esoteric science and scholarship: A subversive proposal', presentation at *The Network Services Conference* (London: 28–29 November 1994), n.pag. 'Esoteric' here means publications not authored with the prospect of profit, but only for dissemination among peers (opening paragraph of the 'Subversive proposal').

rhetoric of liberating scholarship from publishers' grip illustrates the growing aversion against the large commercial publishing firms.

Not coincidentally, pioneering efforts in digital research communication came mostly from disciplines in which networked computers had already been incorporated in the research processes, such as high-energy physics and computer science; they also initially took the form of shorter, informal texts like letters and discussions.[203] From this, alternative business models for journal publishing developed. In the Social Sciences the premiere title was probably *Psycoloquy*, an electronic, peer-reviewed journal in psychology and related disciplines that was launched in 1991, intended for 'brief account[s] of current ideas and findings on which [authors] wish to elicit feedback'.[204] Besides alternative routes for publishing research communications, many initiatives were directed at new methods for archiving and retrieving existing publications in repositories; a means of bypassing subscription access through libraries. The most notable, extremely successful example of such a repository is ArXiv, which was founded also in 1991 (then as the 'LANL preprint archive') for physics, but soon included papers from most STEM-disciplines and even linguistics.[205] Submissions are not peer reviewed, but moderated and categorized. Taken together, the successful implementation of both alternative dissemination networks and repositories can be considered the birth of the Open Access (OA) movement in academic publishing.

The birth of Open Access necessarily coincides with two major technological developments that have become important to digital publishing: the Portable Document Format (PDF) as a digital product, and the World Wide Web as a dissemination mechanism. The latter had been developed since the 1980's at CERN, the European Organization for Nuclear Research, as an internet protocol specifically for document transfer. CERN opened the WWW up for other research institutes and, months later, for the general public over the course of 1991. When CERN announced in 1993 that Mosaic, its graphical web browser, would also be freely and openly available, the popularity of the WWW came to surpass that of other internet protocols. In 1994, former CERN-employee Tim Berners-Lee founded the World Wide Web Consortium (W3C), which would be involved in creating further standards, most importantly perhaps those of XML and HTML (1996 and 1997, respectively), the languages in which text, images and metadata can be processed and rendered by browsers.[206] These languages are both based on SGML, a metalanguage for marking up texts that had been in use in publishing since the 1980s, and in which innovative publishers were thus relatively well-versed.

Meanwhile, commercial software company Adobe was working on a format that would render digital documents typographically identical across operating systems and

203 Stevan Harnad, 'Post-Gutenberg galaxy: The fourth revolution in the means of production of knowledge', *Public-Access Computer Science Systems Review* 2.1 (1991), pp. 39–53.

204 Ibid.

205 Paul Ginsparg, 'Winners and losers in the global research village', *The Serials Librarian* 30.3–4 (1997),pp. 83–95; esp. pp. 85–86.

206 Tim Bray & C.M. Sperberg-McQueen (eds.), 'Extensible Markup Language', W3C working draft WD-xml-961114 (14 November 1996).

devices, and identical to print.[207] It launched the Portable Document Format (PDF) to this end in 1993, accompanied by a high-profile marketing campaign.[208] PDFs could be created and opened only with Adobe's proprietary software (Acrobat and Acrobat Reader) that were initially both sold commercially. Once it realised that the software's price was an impediment to the uptake of the PDF format, however, it made Acrobat Reader freely available in 1994—and this immediately boosted the popularity of PDFs.[209]

Although the very earliest stirrings in open digital publishing date from a few years earlier, as we have seen, Laakso et al. classify 1993–1999 as the 'Pioneering years' of small groups and experimental set-ups in their rigorous study of the development of OA journal publishing. Many of the early initiatives did not survive (*Psycoloquy* initially did, but was suspended in 2002), yet by the turn of the millennium, about 35,000 articles had appeared in over 700 openly available outlets.[210] In 1999, a coalition of researchers, libraries and journal publishers launched OAI-PMH, an XML-based protocol to facilitate the transfer of publication metadata, which rendered effective digital cataloguing and electronic delivery of publications possible, and enhanced their discoverability. This was a boost for digital library services, and therefore caused a surge in the uptake of digital publications by academic end-users; it also strengthened the OA-movement in academia.[211] In 2001, scientists initiated the *Public Library of Science* (*PLoS*), a set of journals under their own maintenance, which deliberately bypassed traditional publishers—*de facto* it operates a not-for-profit business model with article-processing fees (now dubbed Gold OA).[212] In 2002 and 2003, three now-canonical principle statements on the Open Access ideology were issued: the successive Budapest, Bethesda, and Berlin declarations.[213] Deliberately worded in partial overlap, these documents have shaped the definition of Open Access publishing as well as the ideological justification that research results should be publicly available (see also the next chapter).[214] In these 'Innovation years' 2000–2004, Laakso et al. calculate, the

207 PDF is based on PostScript, a page-description programming language also developed by Adobe. Page-description languages describe text, images and graphics and their placement on a page on a structural level for digital publishing, beyond the description of the output as a bitmap.

208 Adobe Corporate Communications, 'Who created the PDF?' (18 June 2015), n.pag.

209 Sophie Knowles, 'How did the PDF become so popular?', *PDF Pro Blog* (14 December 2015), n.pag.

210 Mikael Laakso, Patrik Welling, Helena Bukvova, Linus Nyman, Bo-Christer Björk & Turid Hedlund, 'The development of open access journal publishing from 1993 to 2009', *PLoS ONE* 6.6: e20961 (2011), n.pag.

211 Ball says the rise of OA in these years coincided with the shift towards electronic delivery; I do not think the two developments are separate—they are intrinsically linked, as electronic delivery is a *sine qua non* for OA. David Ball, 'Open Access: Effects on publishing behavior of scientists, peer review, and interrelations with performance measures', in: Peter Weingart & Niels Taubert (eds.), *The Future of Scholarly Publishing: Open Access and the Economics of Digitisation* (Cape Town: African Minds, 2017), pp. 165–198; p. 178. See also ch. 4 of the current work.

212 P.O. Brown, M.B. Eisen & H.E. Varmus, 'Why PLoS Became a Publisher', *PLoS Biology* 1.1 (2003), n.pag.

213 The texts of the initiatives are available online: Budapest https://www.budapestopenaccessinitiative.org; Bethesda http://legacy.earlham.edu/~peters/fos/bethesda.htm; Berlin https://openaccess.mpg.de/Berlin-Declaration [all accessed 1 February 2019].

214 Peter Suber, *Open Access* (Cambridge [MA]: MIT Press, 2012), pp. 7–8.

number of OA-journals quadrupled to 2837 titles in which over 90,000 articles were available in 2005.[215]

Further consolidation of the OA-movement was facilitated by the development of digital infrastructures and the increasing ease and availability of self-publishing software. For instance, Adobe turned the monitoring and development of the PDF over to the International Standardisation Organisation (ISO) in 2007;[216] ISO had already become the warden of HTML in 2000. Moreover, retrieval aids for open access publications got improved as well, for instance through the Directory of Open Access Journals (DOAJ) that came to act both as an index and a seal of quality—but also through the rise of Google Scholar. By 2009, 191,000 articles were available in 4767 OA journals; that constituted a 6.5% market share.[217]

The global economic crisis of 2008–2009 led to worldwide governmental austerity measures that entailed significant (and repeated) budget cuts for universities and libraries. By the same mechanisms as explained above, these resulted in downsizing of libraries' acquisition plans, from which SSH again suffered disproportionally, and monographs in particular. The few American and British universities that had been able to sustain their library's acquisition plans with their significant independent assets through previous economic lulls now had to size down too, as they had often invested heavily in the stock markets—and much of their wealth had thus evaporated.[218] Besides the practical budgeting effects, the economic crisis reinforced the legitimization of public scrutiny towards corporate business: the financial sector was the foremost object of criticism, but resentment against publishers has been growing since then, too.

6. Chapter conclusions

The changes in the field of humanities scholarly publishing over the last hundred years have been profound: academic publishing appeared from the mixed lists of trade publishers, and grew on the favourable tides for academia until around 1968. Then, the emerging divide between the sciences and the Humanities translated into a dichotomy between STM-publishers and all others. This schism has only widened in the last fifty years: Big Publishing now focuses almost exclusively on electronic journal publishing for the STEM disciplines and the empirical Social Sciences.[219] Publishing in the Humanities resembles it only to a limited extent: it is much smaller in total size and average business scale, and boasts a variety of organisation types that produces a wide range of monographs, edited volumes, reference works and journals, both in print and in digital formats. The current chapter has identified these trends and provided them with ample

215 Laakso et al,, 'The development of open access journal publishing from 1993 to 2009'.

216 Adobe Corporate Communications, 'Who invented the PDF?'.

217 Laakso et al., 'The development of open access journal publishing from 1993 to 2009'.

218 Bob Nardini, 'A long tale: Why book selection is always up for debate (Part 1)', *The Scholarly Kitchen* (9 October 2018), n.pag.

219 These would be fields like psychology and cognitive sciences, geography and demographic studies, and economics. Their increasingly empirical method and emphasis on quantitative results would shift them more into the epistemically 'hard' category of Becher & Trowler's classification (see ch. 1.3), which renders their practices different from those in the Humanities.

statistical and narrative support from business and practice. Yet in order to get a clear view on these historical developments, it is helpful to transpose them to the conceptual Bourdieusian theory. In section 2.2, I have outlined Bourdieu and Wacquant's directive method for the analysis of a specific field in three steps: via first a reconstruction of the field and its position versus other fields, then its agents and their capital, and last the *habitus*.[220] The section concluding this chapter will follow these three steps, first in a brief analysis of the field of academic publishing at large as it existed roughly until 1968, and subsequently in a more extensive recapitulation of the specifics of humanities scholarly publishing as it formed into a publishing field in its own right in the latter half of the twentieth century.

In the first decades of the twentieth century, the development of universities in the Humboldtian philosophy helped shape a structure for professional academic careers. Scholars employed in this new academia found themselves in need of publishing beyond its traditional means of disseminating knowledge: published texts would form proof of their academic merits, as the investment and support of a publisher implied (and implies) inherent acknowledgement of the quality of those texts. Over a span of several decades, new and existing publishing firms began specializing in the academic market; its demands, for instance for increasing specialisation, international audiences, and stringent quality control through peer review, began to diverge so widely from the trade that it became difficult for publishers to further both trade and academic interests. In Bourdieusian terms, the field of academic publishing seceded from the field of publishing in general. This move may have been instigated by publishers, but it was heavily influenced by developments in academia.

The then-established field of academic publishing remains symbiotic to academia: publishers exchange capital with scholars on both the market for manuscripts and the market for published texts, and they include academic involvement in the review and editorial processes. Through its direct link with academia, the field of academic publishing has unintentionally moved into closer and more subordinate position to the 'field of power', especially for its acquisition of economic capital: unlike other fields of publishing, the markets for scholarly texts (both in manuscript and in final, published form) are heavily influenced by legislation and educational policy, as well as sociocultural developments. The national policies for the founding of new universities in Europe and the United States are a straightforward example: these affected the supply of manuscripts to publishers to such an extent that new presses were founded, and raised the demand for current publications as well as backlists. The increasingly international orientation of academia from the beginning of the twentieth century, but particularly after World War II furthermore implies a relationship between the field of academic publishing and the Anglo-American field of power specifically, because it has become internationally dominant. It exerts financial pressure, but its cultural and political influences are also important. The move of many young European academics to the United States in the 1950s is an apt illustration of this influence, as is the international expansion of many firms in the following decade.

220 For an extensive discussion of Bourdieusian theory, see chapter 2 of the current work.

The close relationship between academic publishing and academia itself has provided perhaps the most distinct characteristic of the field in comparison to trade publishing: the foregrounding of symbolic capital.[221] With the development of professional academia emerged a market for prestige, as this is the main currency that could gain scholars employment. Over the course of the twentieth century, academia implemented an increasingly formal and structured prestige system, for which it used publishing to deliver the main stream of capital. Scholarly publishers have certainly done so. Yet given the fact that their own primary orientation remains economic, they have also optimized profitability in the process. For instance, they fostered specific publication venues for disciplines and subdisciplines by strategically attracting both eager junior as well as eminent established scholars from specific research; and they capitalised on exclusivity by tactically rejecting publications and thereby opening up new markets.[222] Many publishers thus combined academia's primary orientation on symbolic capital with their own economic expansionism, typical of business at the time. They have done so by shaping their *habitus* to fit the needs of specific research disciplines: from the increasing focus on journals in the science fields at the beginning of the century to Elsevier's deliberate business policies of speed over quantity.

For university presses, most of which are financially dependent on their home institution, the alliance with academia is even closer than that of independent firms. They have therefore always oriented themselves more strongly towards symbolic capital than to economic capital. This also explains their persistent *habitus* of monograph publishing: monographs earn symbolic capital for the press as well as its alma mater by direct prestige transfer from the authoring scholars. When monograph publishing came to demand specific production processes due to technological innovations in the 1960s, publishers implicitly had to choose between following primarily business logic, i.e. foregrounding economic capital, or the logic of academic prestige, i.e. symbolic capital. Around 1968, this gave rise to the split of the field of academic publishing into two distinct fields: that of publishing for the STEM disciplines (which later came to include some of the Social Sciences) and publishing for the Humanities.

Although Bourdieu and Wacquant recommend analysing the position of the field as a whole as the first step, I believe an analysis of the emerging field of scholarly publishing for the Humanities should start at a description of the agents that have come to collectively form it. The publishers specializing in humanities disciplinary publications are, more than STEM publishers, a heterogeneous amalgam of organisations. Large corporate publishers have a relatively low combined market share of 10%; a variety of smaller commercial firms, university presses, learned societies and institutional collaborations make up the rest of the field. All these publishing agents provide services specifically tailored to humanities research processes: these often deliver stand-alone publications with a national or regional sphere of influence, which require one-off production

221 This is not to say that symbolic capital is absent from trade publishing: it is present there, too, but it is a less crucial part of the capital exchange processes.

222 This refers to Springer's strategy at the dawn of the twentieth century, and Elsevier's deliberate twigging tactics after the Second World War, respectively. See sections 3.1 and 3.2, respectively.

processes and specific expertise at local offices.[223] It is therefore very difficult to set up large-scale, internationally valid business models for these disciplines. For this reason, a common characteristic of the variety of humanities publishers is the fact that they have *not* undergone the corporatisation with which the international STEM publishing businesses answered the economic downturn of the 1970s.

The specific mix of capital at their disposal shaped a particular *habitus* of humanities publishing, and thus gave rise to a separate field. Other than with the secession of academic publishing from general publishing, the diverging *habitus* of humanities publishers was already apparent before the field emerged as distinct. For instance, the limited implementation of technological innovations, national or regional focus, and the continued emphasis on strong relationships with individual authors are direct consequences of the disciplinary characteristics of humanities research. These traits were present at some publishing firms while the field of academic publishing as a whole matured after the Second World War. The post-1968 economic downturn, with its subsequent shrinking demands for publications, was a trigger for a re-orientation of publishers towards the capital already at their disposal. Whereas the large commercial firms catering to STEM research improved their position by focusing on economic capital and economies of scale primarily, the smaller firms involved in the Humanities aligned themselves even more closely to academia's economy of prestige to stay in business.

Several specifics of humanities research render the economic capital of its dedicated smaller presses relatively unstable and particularly vulnerable to macro-economic fluctuations. The cumulative nature of humanities research in combination with the lack of a clear research front and the 'rural' distribution of researchers over topics, firstly, render its publications price-elastic. This means that in times of shrinking budgets or rising prices—or the frequently seen combination of the two—libraries can temporarily or permanently decide to put off buying some of the humanities publications, whereas they cannot afford to cancel publications from the STEM disciplines. After all, STEM's substitutive contributions towards moving research fronts cannot be missed. Humanities' research, secondly, enjoys longer windows of relevance. This can be advantageous because libraries may set up retrospective acquisitions programmes; however, it also renders sales monitoring less effective and market predictions insecure. The issue is exacerbated because, lastly, especially monograph publishing still requires the production of physical, print-on-paper copies: needless to say, this commands upfront investment as well as warehousing and distribution costs.

To compensate for the instability of their economic capital streams, humanities scholarly publishers have sought to harness the other forms of capital within their reach. They maintain close relationships with individual scholars as well as disciplinary communities in academia. For instance, there is intensive communication between publishing professionals and scholars in editorial boards, and between manuscript authors and editors in the review and publishing processes. University presses especially

223 For instance, the use of English is still far from universal in humanities publications. See: Engels et al., 'Changing publication patterns in the Social Sciences and Humanities', pp. 384–386, esp. table 3; Esposito, 'The market for Social Sciences and Humanities publications', n.pag.

stand in close relation with their home institution—because of financial dependency, but also because presses have as their core mission to support their alma mater's prestige. In the United States, in particular, these university presses aim to publish works by their 'own' faculty, as well as trade and textbook titles that are relevant to local non-academic communities and thus support the university's mission.[224] Neither of these trends is observed on the other side of the Atlantic, although in Europe, local academic communities working in another language than English may centre on specific university presses. In any case, university presses worldwide have sought closer alliance with universities and their local audiences—academic or otherwise relevant—because of the presses' unstable economic positions. Structural subsidies and increased managerial control have indeed brought more stability, but also low financial reserves (as subsidies are often granted only to the break-even point) and restricted autonomy.

The field of humanities scholarly publishing is thus characterised by a heterogeneous population of generally small organisations. They are catering to idiosyncratic research disciplines and small communities, and for this reason they cannot aspire to gain substantial economic capital as leverage. Instead, they focus on the exchanges of symbolic capital, in which they continue to be key players. Due to the relationships between agents in this field, symbolic capital is also widely distributed over disciplinary and local communities: this means that, with a few exceptions that boost overall renown, the esteem for individual publishers varies depending on the research communities they serve most actively. Publishers therefore have a *habitus* of targeting particular communities, for instance by specialising in publishing in a subdiscipline, at the expense of not being involved in others; they invest in individual relations with authors and one-off production processes. This pattern of distributed symbolic capital thus directly derives from social capital. This renders it particularly elusive as it can hardly be quantified, unlike symbolic capital in the STEM-publishing field, which has become connected with technology and economic power, and is expressed in quantified parameters.

This is not at all problematic to agents in the field whom it directly concerns; depending on their age and experience, they have internalised their disciplinary communities' patterns of prestige in their *habitus* and seek relationships with presses accordingly. It is an issue beyond the confines of the field's esteem exchange, however. As humanities scholarly publishers do not make clear which specific mix of economic, social and symbolic capital they strive for, the heterogeneity in their field leads to misperceptions in the public opinion. Outsiders who do not understand specific prestige patterns of small humanities publishers often equate them with the symbolic capital that they do know: that of corporate publishing for the STEM disciplines. Here, bibliometric indicators, Impact Factor most importantly, that are supposed to represent esteem have notoriously come to be used as marketing tools to boost the publishers' economic position, often at the economic expense of academia. This has already sparked reactions from the 'field of power', and even academia at large, that want to curb the publishers' power for instance through pushing the Open Access agenda.

224 See: Thompson, *Books in the Digital Age*, pp. 142–159; Givler, 'University Press publishing in the United States', pp. 112–115.

Outside agents in the 'field of power', as well as academia itself, can thus deliberately and unwittingly intervene in the streams of capital exchange in the field of humanities scholarly publishing. Such interventions affect the balance between symbolic, social and economic capital at the publishers' disposal. Moreover, external forces that influence the field of power also directly and indirectly shape publishers' business. The rise of the online medium is perhaps the most formative external force of the last three decades, and the following, final chapter of this study is therefore dedicated to the direct and indirect socio-technological consequences for the field of humanities scholarly publishing.