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Quantitative research assessment and its unintended consequences

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Chapter 5.

The challenge of assessing academic books: The UK and Lithuanian cases through the ISBN lens

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5.1. Introduction

Assessing academic books is a major challenge for countries with performance-based research funding systems or national research assessment exercises. The limited availability of information to support the assessment of books is particularly challenging. Despite a substantial body of research on evaluating books and ranking their publishers, there is a scarcity of studies examining how the actual publishers of books submitted to research assessment exercises can be identified and how their activities can be determined. In this paper, I study the use of the ISBN Manual and the Global Register of Publishers to obtain this information. My focus is on books submitted to the research assessment systems in Lithuania and the United Kingdom from 2008 to 2020.

Assessment of books in Lithuania and the United Kingdom

Policymakers in some countries assume that a prestigious publisher guarantees higher research quality, so they tie publishers' status to financial incentives (Dagienė 2023a). Sometimes, decisions about what counts as “prestigious” are made along geographic lines: Lithuanian policymakers, for example, believe domestic book publishers do not deserve the highest rank, so only foreign publishers guarantee two- or threefold funding points. Such incentives have led Lithuanian researchers to seek out foreign book publishers (Dagienė et al. 2019), and, in the end, some questionable foreign publishers have been granted prestigious positions in Lithuania. Furthermore, according to national policies, books self-published locally are not eligible for research assessment and are being rejected as submitted outputs, even as some books self-published abroad receive maximum funding. Additionally, only specific genres—not always clearly defined—are eligible for research assessment in Lithuania; an analogous situation was identified in Italy, where Basili and Lanzillo (Basili and Lanzillo 2018) stressed the need to classify research products.

In contrast to Lithuanian practices, the UK Research Excellence Framework (REF) guidelines instructed evaluators to be neutral with respect to the standing of book publishers. Even so, institutions and departments insisted that researchers publish with more established and reputable academic publishers and university presses (Deegan 2017). Instead of publisher prestige, research policymakers in the United Kingdom increasingly focus on or even require open access to scholarly outputs (Hill 2018). This requirement has sparked an ongoing debate around open access in anticipation of future policy changes (Ayrís et al. 2014; Collins, Milloy, and Stone 2015; Crossick 2015; Deegan 2017; Finch 2012; Jubb 2017; Universities UK Open Access and Monographs Group 2019; Vincent and Wickham 2013). It was expected that UK universities would lead the implementation of open access to books, as the role of universities in scholarly book publishing has been continually discussed over the decades (Esposito and Barch 2017; Hahn 2008; Thatcher 2007). According to some researchers, university publishing became more active and transformed significantly not only because of technological change (Bonn and Furlough 2015) but also because for-profit trade publishers were not interested in every scientific work (Sisättö, Mäki et al., 2012). Still, only a few university presses in the United Kingdom can compete effectively with those publishers that are part of international media conglomerates (Fyfe et al. 2017).

Challenges in identifying book publishers

In the changing book publishing landscape, reputational capital still matters for scholars and established publishers alike. For scholars, books produced by elite publishers lead to higher chances of promotions and awards, even though the academic prestige economy creates perverse incentives (Collyer 2018; Fyfe et al. 2017; Nosek and Bar-Anan 2012). Despite this, the brand of the publisher remains a proxy for quality within academia (Crossick 2015). For publishers, esteemed “trademarks” carry their own intrinsic value. Although newcomers strive to meet expectations and establish their reputation within academia, reputable publishers often opt to acquire well-known brands rather than starting new publishing houses from scratch (Goodson, Dillman, and Hira 1999).

Crossick (Crossick 2015) noted that in 2013, the four leading academic publishers released twice as many monographs as they did in 2004. He emphasized that this growth was entirely organic and not the result of acquisitions. It is worth noting that these four publishers were asked to provide the numbers of books they published. Interestingly, the same publishers were recognized in the research on the oligopoly of publishers of peer-reviewed journals (Larivière et al. 2015). In fact, identifying publishers and their actual titles using bibliographic data of books presents a significant challenge due to the numerous brands (or imprints) that publishers use to attract authors and readers, as well as the mergers and acquisitions within the publishing industry.

Several studies have underscored the challenges in identifying book publishers due to events such as mergers, consolidations, and closures. In the analysis of arts and humanities research outputs submitted to REF2014, Tanner (Tanner 2016) found that 46% of the submitted books were published by the top 10 unique publishers. In this context, “unique” refers to publishers that were not repeated in the REF data set and were operational in 2014. However, the publishing landscape underwent significant changes in 2015, during the preparation of Tanner’s report. For instance, Informa, the parent company of the academic publishing group Taylor & Francis (and owner of Routledge, ranked fourth in Tanner’s top 10), acquired Ashgate Publishing^{39,40}, (ranked fifth). Additionally, Springer Nature completed its merger with Palgrave Macmillan⁴¹ (ranked second). If these changes had been taken into account, the list of top publishers would have looked different. In another study analysing the concentration of publishers for books submitted to the Flemish database, Guns (Guns 2018) discovered that the top 10 publishers accounted for 28.7% of all books. Guns assigned a unique publisher name to each combination of ISBN prefix and year, utilizing various sources that overview acquisitions and imprints. However, he acknowledged that if divisions and imprints were treated as separate entities, different patterns might emerge, especially at the disciplinary level.

³⁹ Save Ashgate Publishing. Progressive Geographies <<https://progressivegeographies.com/2015/11/20/save-ashgate-publishing>> accessed on 7 November 2022.

⁴⁰ Springer Nature merges Major Reference Works portfolios of Palgrave Macmillan and Springer, October 12, 2016. Springer. <<https://www.springer.com/us/about-springer/media/press-releases/corporate/springer-nature-merges-major-reference-works-portfolios-of-palgrave-macmillan-and-springer-/10862304>> accessed on 7 November 2022.

⁴¹ Ashgate acquired by Informa (Taylor & Francis). Ashgate Publishing Blog. <<https://ashgatepublishing.wordpress.com/2015/08/03/ashgate-acquired-by-informa>> accessed on 7 November 2022.

There is a clear need for further exploration of data sources on book publishers to better understand and monitor the processes of publisher oligopoly/concentration. Currently, scientometricians lack evidence to determine whether non-English speaking or smaller countries are experiencing an “oligopoly” of book publishers. This area certainly warrants more in-depth research.

Over the decades, the scientometric community has sought ways to assess scholarly books, discovering various sources for bibliographic information (Halevi, Nicolas, and Bar-Ilan 2016; Torres-Salinas and Moed 2009), and testing book metrics (White et al. 2009; Zhu et al. 2020). Many researchers analysing book evaluation practices have noticed that ISBNs are mandated for research outputs globally. However, those who have conducted research on book metrics based on citations or publisher titles listed in bibliographies have questioned the usefulness of ISBNs. They argue that ISBNs are not suitable for tracking citations or identifying publishers (Williams et al. 2018; Zuccala et al. 2018; Zuccala and Cornacchia 2016). Those interested in book publishers have suggested keeping the publisher names as recorded in library catalogues (Sile et al. 2021; Zuccala et al. 2015); that is, as provided by the publishers themselves on book copyright pages. It has been noted, however, that this option would lead to a dozen ways of recording even well-known publisher names (Guns 2018; Tanner 2016). No means of identifying book publishers using any existing identifier has yet been proposed.

The ISBN Manual and the Global Register of Publishers

So far, no study seems to have systematically analysed the International Standard Book Numbers (ISBN) Manual itself or empirically explored the ISBN metadata compiled in the Global Register of Publishers (GRP). The ISBN Manual is a practical guide to the key regulations of the ISBN Standard for users within the book publishing industry; as such, it mirrors actual book publishing practice. The GRP provides metadata relating to publishers worldwide, including the ISBN blocks that have been assigned to them. Both sources supply firsthand information about ISBNs for investigating book publishing processes. These sources were helpful in exploring the practicalities of assessing book publishers in different countries (Dagienė 2023a) and cleaning the data of books submitted for research assessment in Lithuania (Dagienė et al. 2019) and to the Research Excellence Frameworks in the United Kingdom (Dagienė and Li 2021).

Research questions

To further inform book assessment practices in Lithuania, the United Kingdom, and other countries, I will address the following research questions:

RQ 1: Using the ISBN Manual and the GRP, is it possible to determine the genre of a book?

RQ 2: Using the ISBN Manual and the GRP, is it possible to determine the publisher of a book and the role the publisher has played in producing the book?

RQ 3: Can the GRP be used to determine the primary activities of book publishers? This may help to determine with whom researchers publish their works: universities, academic

publishers, or other actors such as libraries, research institutions, or companies providing publishing services.

RQ 4: Can the GRP be used to develop an in-depth understanding of researchers' book publishing practices? This may help to establish book assessment criteria suitable for national use.

This paper is organized as follows. Section 5.2 overviews data sources, ISBN prefixes as elements used to enrich metadata, and primary activities of book publishers for the purpose of the subsequent analysis. To address the first research question, Section 5.3 investigates how books and their genres are represented in the ISBN Manual. To address the second and third research questions, Section 5.4 studies the types of publishers and their roles in book publishing as defined in the ISBN Manual, illustrating the considerable complexities related to imprints, mergers, and acquisitions. The bibliometric analysis presented in Section 5.5 answers the fourth research question by exploring the GRP metadata to identify book publishing practices in the United Kingdom and Lithuania. This section shows the top publishers of books produced by researchers in the United Kingdom and Lithuania, the number of books per publisher, the primary activities of ISBN registrants, and the countries in which publishers are based. Finally, Section 5.6 summarizes the findings, draws conclusions, and discusses implications for research assessment practices.

5.2. Research design and data compilation

A mixed-methods approach was taken to answer the research questions, combining a qualitative analysis and a bibliometric analysis.

In the qualitative analysis, I sought to determine three related phenomena: the genre of a book, the publisher of a book, and the roles a publisher plays in producing a book, which emerged from the analysis of book evaluation practicalities (Dagienė 2023a). I analysed the seventh edition of the ISBN Users' Manual and the corresponding Frequently Asked Questions. Both documents are freely available on the International ISBN Agency website⁴² as day-to-day instructions or sets of practical rules for national ISBN agencies and publishers across the globe. I also communicated with Stella Griffiths, the executive director of the International ISBN Agency, who thoroughly answered questions that arose while analysing the documents and exploring the empirical data.

Previous research (Dagienė 2023a) revealed that publishers in the ISBN system could be identified by a publisher prefix extracted from an ISBN comprising five elements (Figure 1). The first three elements—GS1, registration group, and registrant—identify a publishing entity (a particular publisher, its imprint, or any other company or individual) who assigned the ISBN of a book. Thus, publisher prefixes were used to identify the formal publishers of the books submitted to research assessment systems.

⁴² ISBN Users' Manual. International ISBN Agency <<https://www.isbn-international.org/content/isbn-users-manual/29>> accessed on 26 January 2023.

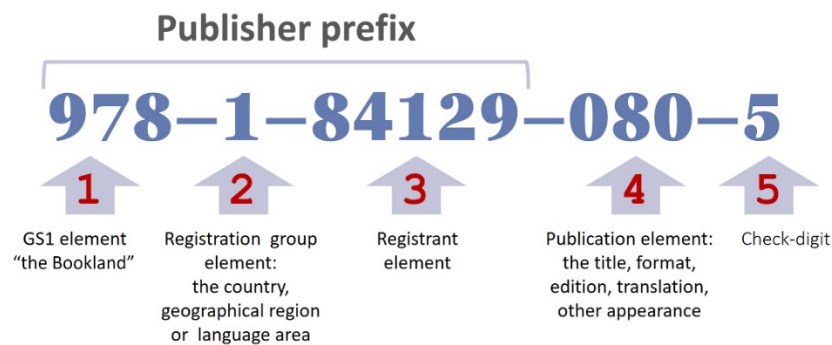


Figure 1. Structure of an ISBN, showing publisher prefix used to recognize the registrant of the ISBN.

I also performed a bibliometric analysis, in which I examined two research assessment systems: the Research Excellence Framework (REF) in the United Kingdom and the annual quantitative research assessment exercise in Lithuania. In both systems, books are evaluated among other research outputs to inform the allocation of public funding for university research. Both book assessment systems rely on expert assessment, but they do so differently. In the United Kingdom, experts are requested to provide an expert assessment of the scientific content of the submitted books and not to pay attention to the publisher's standing. In contrast, Lithuanian experts are requested to determine the prestige of the publishers of the submitted books. Lithuania has been using a metric-based approach to book assessment for three decades. Here, the prominence of the publisher, as determined by the experts, determines the funding scores the institutions receive.

The REF system has the unique feature that data is made openly available for the two most recent editions of the framework: REF2014 and REF2021⁴³. The Research Council of Lithuania likewise provided book ISBNs submitted between 2008 and 2020 for research purposes. Thus, the ISBNs from REF2021 and Lithuanian data were added to data sets explored in a previous study (Dagienė and Li 2021). The distribution of ISBNs submitted as authored books and chapters in edited volumes from 2008 to 2020 is presented for each country in Figure 2.

⁴³ REF 2021 submission system validation rules. Research Excellence Framework.

<<https://www.ref.ac.uk/media/1723/submissions-system-validation-documentation-for-ref2021-feb2021.pdf>> accessed on 23 October 2022.

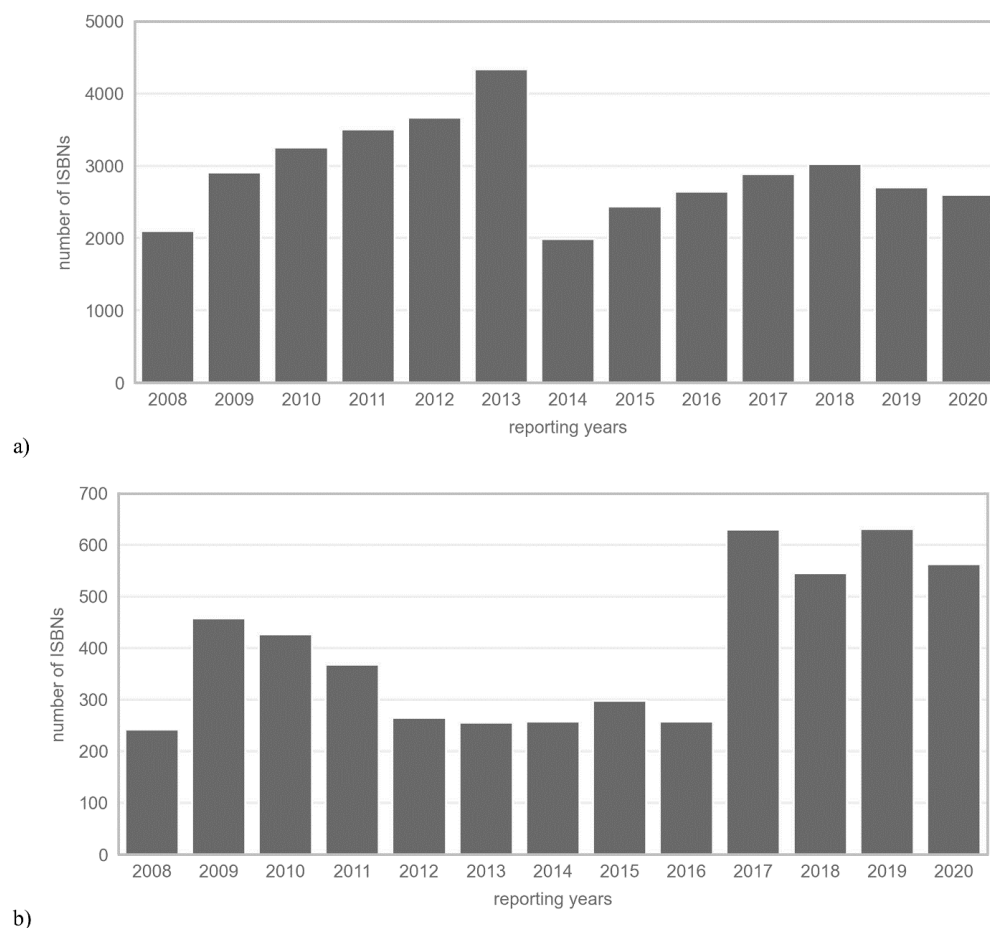


Figure 2. Number of books submitted to the research assessment systems in (a) the United Kingdom and (b) Lithuania by publication year.

5.2.1. Data gathering and processing

The initial empirical data contained valid ISBN codes extracted from the UK (38,050 ISBNs) and Lithuanian (5,199 ISBNs) data sets, along with years of publication and publishers' names manually added by institutions in the submission stage. In the next step, additional metadata were gathered from the Global Register of Publishers⁴⁴ (GRP). This freely available registry is maintained by the International ISBN Agency; formally, it is the primary source by which to recognize the registrants of book ISBNs. It is worth emphasizing that the GRP provides book publishers' names under "registrant name," along with other metadata related to the book publisher as identified by its registrant name or ISBN prefix (Figure 3).

⁴⁴ Global Register of Publishers. International ISBN Agency <<https://grp.isbn-international.org>> accessed on 18 January 2023.

Cambridge University Press		registrant name
Country	United Kingdom	ISBN registration country
Agency Name	United Kingdom and Ireland	
ISBN Prefix	978-0-511, 978-0-521, 978-1-009, 978-1-107, 978-1-108, 978-1-139, 978-1-316, 978-1-911623	distinguished publisher prefixes
Status	ACTIVE	
Address	University Printing House Cambridge CB2 8BS United Kingdom	
Web Site	http://www.cup.cam.ac.uk	
Admin Phone	+44 1223 325577	
Admin Fax	+44 1223 325151	
Admin Email	ukcustserve@cup.cam.ac.uk	primary activities

Figure 3. ISBN metadata available on the GRP website.

Using publisher prefixes extracted from the ISBNs in the initial data sets, the names of all registrants were gathered from the GRP employing the Selenium package in Python alongside other pieces of available metadata. The initial data was enriched with registrant names (often just names of publisher imprints), URLs, business contacts, and the country in which a particular ISBN was registered.

5.2.2. Constructing “unified titles” of publishers

A publisher might utilize many prefixes and brands. As a starting point to unify publisher names, I chose prefixes in the GRP metadata field “ISBN Prefix.” Different registrant names owned by the same parent organization were identified by prefixes repeatedly appearing in the metadata field “ISBN Prefix.” Figure 4 shows how the prefixes 978-0-19 and 978-0-511 recur in the “ISBN Prefix” sets of different well-known academic publishers’ brands. In fact, both of these publishers have more prefixes registered in other countries, but only prefixes extracted from the initial data sets were considered.

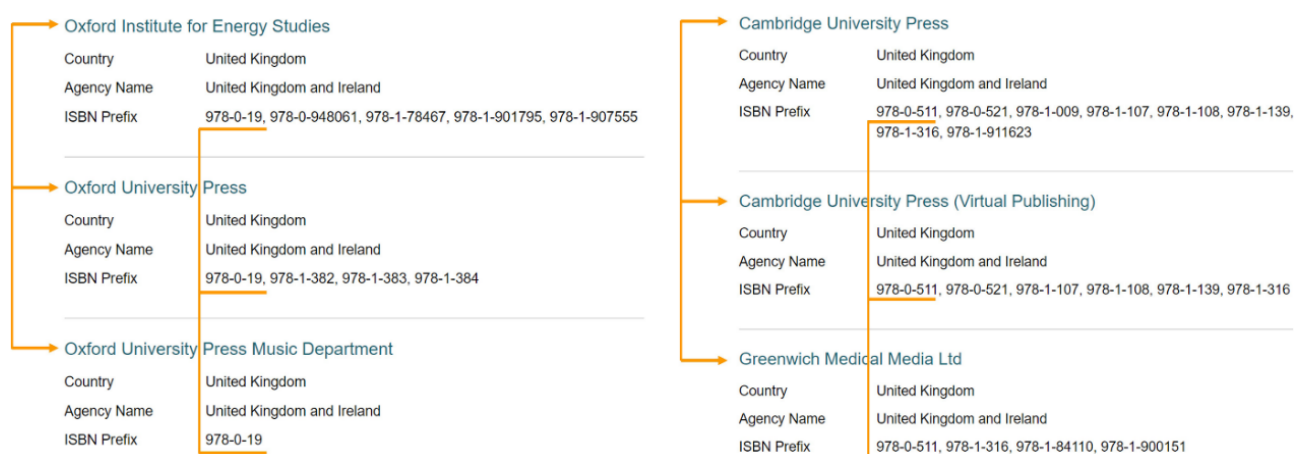


Figure 4. The same prefixes appear in different registrants’ metadata in the GRP: the prefix 978-0-19 links imprints of Oxford University Press, and 978-0-511 links brands of Cambridge University Press.

Having extracted all prefixes and their registrant names, I used Python code to compile intermediate results, or “GRP names,” indicating all registrant names linked to the same prefix. Figure 5 shows the GRP name sets for the top 10 prefixes by number of ISBNs assigned; these GRP titles, in turn, determined the final piece of data: the “unified title” or parent publisher.

prefixes	GRP titles	unified title
978-0-19	Clarendon Press; Early English Text Society; German Historical Institute London; IRL Press at Oxford University Press; Oxford Institute for Energy Studies; Oxford University Press; Oxford University Press Music Department	Oxford University Press
978-0-230	Baby Campbell; Campbell Books Ltd; Environment Press (an imprint of Macmillan Press Ltd); Macmillan; Macmillan Audio Books; Macmillan Caribbean; Macmillan Children's Books; Macmillan Digital Audio; Macmillan Education; Macmillan Education UK; Macmillan English Campus; Macmillan General Books; Macmillan Journals Ltd; Macmillan London Ltd; Macmillan New Writing; Macmillan Press; Macmillan Publishers Limited; Macmillan Reference Ltd; Mantle; Palgrave Macmillan; Palgrave Pivot; Pan Books; Pan Macmillan; Papermac; Picador; Piccolo; Red Globe Press; Sidgwick & Jackson Ltd; TFPL Multimedia; Tor; Young Picador	Springer Nature
978-0-415	ABP (UK) Ltd; Architectural Press; Ashgate Publishing Limited; Birkbeck Law Press; Brunner-Routledge; CRC Press; David Fulton Publishers Ltd; Earthscan Ltd; Estates Gazette; Focal Press; Frank Cass Publishers; Gestalt Press; Gower Publishing Ltd; Informa Healthcare; Informa Law; Psychology Press Ltd; Routledge; Routledge Academic; Routledge Falmer; Routledge India; RoutledgeCurzon; Spon Press; Taylor & Francis Ltd; UCL Press	Informa (Taylor & Francis)
978-0-521	Cambridge University Press; Cambridge University Press (Virtual Publishing)	Cambridge University Press
978-0-7190	Chetham Society; Manchester University Press	Manchester University Press
978-1-107	Cambridge University Press; Cambridge University Press (Virtual Publishing)	Cambridge University Press
978-1-137	Macmillan Education UK; Palgrave; Palgrave Macmillan; Palgrave Pivot; Red Globe Press	Springer Nature
978-1-138	Ashgate Publishing Limited; Birkbeck Law Press; CRC Press; David Fulton Publishers Ltd; Focal Press; Gestalt Press; Gower Publishing Ltd; Informa Healthcare; Psychology Press Ltd; Routledge; Routledge Academic; Routledge Cavendish; Routledge Falmer; Routledge India; Spon Press; Taylor & Francis Ltd	Informa (Taylor & Francis)
978-3-319	Springer Nature Switzerland AG	Springer Nature
978-90-04	Koninklijke Brill N.V.	Brill

Figure 5. Top 10 prefixes by number of books in the REF ISBNs, ISBN registrant titles linked to these prefixes in the GRP, and unified titles (parent publisher) attributed to these prefixes.

Not all prefixes are connected with their parent publishers in the GRP metadata. For some registrant names, a significant amount of manual work was needed to identify the parent organization.

5.2.3. Identifying primary activities of book ISBN registrants

When assessing the quality of books based on their publishers' standing, it is beneficial to understand the primary activities of those who assign ISBNs. Such metadata could shed light on the actual contribution of ISBN registrants to the quality of books. An initial analysis of the GRP metadata revealed that the GRP does not include specific metadata indicating the primary activities of book publishers. But it does provide useful information for identifying them using links to registrants' websites (“Web Site”), contact details (“Admin Email”), and postal addresses (“Address”) assisted in uncovering the organization responsible for registering ISBNs and its primary activities (as shown in the ‘primary activities’ block in Figure 3). Manual title-by-title inspection revealed a wide variety of activities corresponding to the following main categories: academic publishers; university presses and other university departments; general publishers; specialized publishers; publishing services and self-publishing; and nonpublishers (i.e., ISBN registrants for whom publishing is not the primary activity).

Academic publishers includes well-known academic publishers such as Springer Nature, Elsevier, SAGE, Walter de Gruyter, and other smaller publishers of scholarly books. Oxford University Press (OUP) and Cambridge University Press (CUP) were included in this category because they are not typical university presses, which are usually subsidized by their universities (Sisättö et al. 2012). Instead, OUP and CUP contribute to their universities' central budgets and are under similar pressures to commercial companies (Ferwerda, Pinter, and Stern 2017). However, the tax-exempt status of these presses—a long-standing source of resentment to other, truly commercial, companies—means that they cannot be considered entirely commercial publishers. Simply put, this category consists not only of commercial publishers (of any size) but also of not-for-profit publishers issuing only scholarly literature in any format (from printed to open access only).

University presses & departments comprises all university presses other than OUP and CUP, along with faculties, libraries, and other university departments.

General publishers consists of book publishers issuing publications for general audiences, including nonfiction, fiction, poetry, and comics. Some of these publishers engage in academic book publishing activity as part of their broader publishing program by issuing anthologies, interdisciplinary projects, and other writings.

Specialized publishers reflects the discovery that a significant share of REF book publishers are devoted solely to publishing books and related materials on a single topic, such as dance, football, translations of a particular author, faithful facsimile editions of medieval illustrated manuscripts, or esoteric studies.

Publishing services and self-publishing covers contract publishing companies, which offer editorial, copywriting, proofing, printing, book sales, distribution, marketing, and many other services. Some Lithuanian universities contract such companies to produce their scholarly books, so these companies assign ISBNs from their publisher prefixes. In addition, some Lithuanian researchers pay fees to printing houses to hide self-publishing because self-published books are not eligible as research outputs in Lithuania, where book publisher status is vital for research assessment. As was found in earlier research (Dagienė 2023a), a few books self-published abroad were awarded prestigious status because their title pages indicated universities or their departments as publishers, even though the ISBNs of those books were registered by individual faculty members. It must also be noted that whether the ISBN applicant becomes a self-publisher or an established publisher depends on the rules applied by the regional or national ISBN agency (see Section 5.4.1). This category also includes services for self-publishing, such as Amazon Kindle Direct.

Nonpublishers comprises organizations whose main sphere of activity is something other than publishing, such as independent research institutions (e.g., think tanks) established by governments, intergovernmental organizations, private funds, or researchers. Nongovernmental organizations such as the OECD, the World Bank, the International Trade Centre, and the European Union's diplomatic service fall into this category. The same applies to charitable foundations that work with schools, communities, agencies, governments, and NGO partners worldwide and at local, regional, and national levels. Also included are philanthropy projects,

“various learned societies” (e.g., the Royal Society or the ACM), museums, art galleries, public libraries, and other organizations with nonpublishing missions.

As mentioned, analysing the primary activities of book publishers revealed that some registrant names were not connected by prefixes in the GRP metadata. For example, searches for the primary activity of Oceana Publications led to Oxford University Press (OUP), which purchased Oceana in 2005⁴⁵. A similar situation arose with Foundation Books, an imprint of Cambridge University Press (CUP) India⁴⁶, and with the Journal of Roman Archaeology, owned, managed, and published by CUP⁴⁷; both were attributed to CUP in the final data set. Such discoveries helped unify publisher titles even further.

Some additional sources were used to refine the initially compiled data. First, the International Association of Scientific, Technical and Medical Publishers (STM) prepared a list of imprints of its publisher members in March 2016⁴⁸; this list assisted in linking imprints to their parent companies in the final data set. Second, WorldCat Identities was handy when a registrant’s website was not provided in the GRP or did not open, and the publisher could not be found on the internet. This portal helped to investigate whether a registrant was (or had been) a publisher⁴⁹; if the answer was “yes,” the topics of the books they produced indicated whether they were general, specialized, or academic publishers. Third, PublishersGlobal provides a directory that helped in gathering information about publishers, their publishing programs, and their services⁵⁰. Fourth, the Open Library directory of the Internet Archive was used to determine the type of books issued by “disappeared” publishers⁵¹. Fifth, Crunchbase was used to find information on some of the acquisitions (e.g., that of Sense Publishers by Brill)⁵². These additional sources were convenient when a publisher shut down postacquisition and only its books could reveal the category to which it should be assigned.

The final UK data set comprises 38,050 ISBNs issued by 2,469 book publishers (“unified titles”), and the Lithuanian data set has 5,199 ISBNs published by 1,129 book publishers (“unified titles”). Section 5.5.1 analyses book publishers in the UK and Lithuanian data sets in more detail, and Section 5.5.2 shows the distribution of publishers by their primary

⁴⁵ OUP buys Oceana. November 11, 2005. Publishers Weekly
<<https://www.publishersweekly.com/pw/print/20051114/26216-news-briefs.html>> accessed on 19 January 2023.

⁴⁶ Foundation Books, an imprint of Cambridge University Press India Pvt. Ltd.
<<https://www.cambridge.org/core/publications/publishing-partners/foundation-books#>> accessed on 19 January 2023.

⁴⁷ The Journal of Roman Archaeology is owned, managed, and published by Cambridge University Press
<<https://www.cambridge.org/core/journals/journal-of-roman-archaeology/information/about-this-journal>> accessed on 19 January 2023.

⁴⁸ List of imprints of publisher members of STM. Revised March 2016 <https://www.stm-assoc.org/2016_03_23_STM_Imprint_list.pdf> accessed on 16 October 2022.

⁴⁹ WorldCat Identities <<https://worldcat.org/identities>> accessed on 1 December 2022.

⁵⁰ Services in Publishing Services Directory. PublishersGlobal <<https://www.publishersglobal.com/directory/list-services/sort/popular>> accessed on 1 December 2022.

⁵¹ Publisher Search. Open Library is an initiative of the Internet Archive <<https://openlibrary.org/publishers>> accessed on 16 October 2022.

⁵² Koninklijke Brill acquired Sense Publishers for an undisclosed amount. Crunchbase Inc.
<<https://www.crunchbase.com/organization/sense-publishers>> accessed on 16 October 2022.

activities and number of books issued over the years. Section 5.5.3 analyses the countries in which ISBNs were registered.

5.3. Determining book genres

This section addresses my first research question: Using the ISBN Manual and the GRP, is it possible to determine the genre of a book?

One primary and widely accepted genre—the scientific monograph—is welcomed by policymakers in any country; even so, there is no unified definition of “monograph.” Although research assessment policies usually expect a monograph to be a solid book, English dictionaries describe a “monograph” as a formal piece of writing or a short book on a particular subject.

5.3.1. Books and book genres in research assessment

In the United Kingdom, Crossick (2016) describes the monograph as “an extended work that exists as an integral whole in which argument and evidence weave together in a long and structured presentation.” However, in the UK regulations, scientific works in book form are most often described as “books,” “monographs,” or “long-form research publications” (Crossick 2015; Lockett 2018) without unambiguous definitions.

Lithuanian policymakers, on the other hand, provide more definitions and clarifications, even though their main focus is on monographs. The first Lithuanian order for Requirements Applicable to Research Monographs, issued in 2001⁵³, provided the definition from Harrod’s Librarians Glossary: “A monograph is a non-serial bibliographic item, i.e., an item complete in one part, or a systematic or complete publication on a single subject.”

Since 2008, the Lithuanian regulations have contained an exhaustive definition of a monograph. Thus, books have been treated as scholarly monographs (and made eligible for research assessment) only if they have such features as being a “non-serial and non-continuous bibliographic unit (publication), which systematically and (or) exhaustively analyses one topic (subject), contains clear and prominent novelty elements, provides a solution to scientific uncertainty (which was not evident from the existing body of knowledge and level of methodology), assigned with ISBNs, and being longer than 140 pages.”

Nevertheless, in addition to monographs, the Lithuanian regulations list a wide variety of book genres eligible for research assessment, such as scientific study, research reference book, encyclopaedia, (bio)bibliography, and scientific dictionary. However, no formal definitions are given in the orders, leaving it to the experts to decide whether submitted books fit into any listed genres.

In addition to several items mentioned in the Lithuanian regulations, Basili and Lanzillo (2018) list the following genres identified in Italian research assessment policies: assessment

⁵³ Order No. 1704 “Requirements Applicable to Research Monographs” was signed by the Minister of Education and Science of the Republic of Lithuania on December 22, 2001.

lexicons, critical editions, conference proceedings, systematic indices, scientific comments, collections of own research articles, and publications of unpublished sources.

Moreover, inventive scholars create many more genres of books than research assessment policies could describe. Unfortunately, neither dictionaries nor research assessment policies have universally accepted unambiguous definitions of which books are considered scientific monographs and which are not—to say nothing of the ambiguities surrounding other genres. In the following subsection, I will examine how the ISBN Manual portrays a book and its genres.

5.3.2. Books and book formats in the ISBN Manual

In fact, the ISBN Manual (International ISBN Agency 2017) has neither “book” nor book genre definitions, stating only that “A definition of ‘Book’ is not included as continuing technological and market developments would rapidly make any definition obsolete.” Perhaps such a statement discouraged bibliometricians from exploring the ISBN Manual further in their works.

Instead, the ISBN Manual uses only three terms—work, manifestation, and item—describing books as products that may have many formats embodying essentially the same content. The world of books is multifaceted, resulting in an even more extensive number of ISBNs that may be associated with the same book. The ISBN Manual envisions many variations when different ISBNs are given to the same book content; each of these ISBNs may indicate a different print format, corrected or enhanced edition, translation, digital edition, or other forms of the same work or research product. Such a variety of ISBNs creates confusion for research assessment systems, which consider original research products but typically have no interest in their variations. Indeed, the ISBN Manual provides detailed guidance on the assignment of ISBNs to numerous formats of books issued for retail trade because “correct use of the ISBN allows different product forms and editions of a book, whether printed or digital, to be differentiated clearly, ensuring that customers receive the version that they require.” Moreover, the ISBN Manual explains the steps necessary to ensure that ISBNs are correctly assigned.

The most essential feature of ISBNs created for the book supply chain is that “a particular edition published by a particular publisher receives only one ISBN. This ISBN must be retained no matter where, or by whom, the publication is distributed or sold.” However, as the ISBN Manual states, a unique book can be either a “work” identified with a single ISBN (assigned by its primary publisher) or a “work” identified with multiple ISBNs (assigned by either direct publishers or other ISBN registrants). Collecting the metadata for those multiple ISBNs in one place would considerably simplify the assessment of books. Precise identification of a book (and its possible formats) is the most valuable ISBN feature from the perspective of book evaluation and book metrics seeking to assess individual books but not their publishers. This ISBN feature is already employed by librarians, who enrich the metadata linked to every book ISBN in library catalogues, suggesting directions for future research.

Because the ISBN Manual does not define a book or its genres, it is impossible to determine the book genre using ISBN-relevant metadata compiled in the GRP or even in internationally known library catalogues. The ISBN Manual does, however, explain that in the supply chain, each book and its various formats are identified by unique ISBN codes. Such identifiers could be valuable for research assessment systems seeking to assess individual books instead of evaluating scientific works according to the reputation of their publisher.

5.4. Determining book publishers

This section addresses my second and third research questions: Using the ISBN Manual and the GRP, is it possible to determine the publisher of a book and the role the publisher has played in producing the book? Furthermore, can the GRP be used to determine the primary activities of book publishers?

Using ISBNs from empirical data and metadata gathered from the GRP, this section will give a more detailed account of the complexities one might face in identifying actual book publishers. The not-so-apparent practicalities of assigning ISBNs highlight challenges in recognizing primary publishers. Here, I argue specifically against relying on a publisher's reputation as a proxy measure for book quality.

5.4.1. Who is the book publisher in the ISBN World?

According to the ISBN Manual, book publishers are “*individuals or corporations responsible for all stages in creating, producing, disseminating, and marketing digital or printed publications.*” When participating in the ISBN system, publishers and self-publishers must report all information about titles to which they have assigned ISBNs to the regional or national ISBN Agency⁵⁴.

According to the ISBN Manual, the book publisher's name should appear in a publisher statement on the book's copyright page (e.g., “Published by -----”). To comply with that rule, the book publisher's name should be the same as the ISBN registrant name found in the GRP metadata using the publisher prefix extracted from the book ISBN. However, this is not always the case in real life: Empirical investigation shows that even though universities or departments are named as book publishers on books' copyright pages, the GRP metadata occasionally reveals that researchers, faculty members, or other natural persons registered the books' ISBNs. Such findings differentiate the ISBN registration role from other publishers' responsibilities specified in the ISBN Manual, such as production, dissemination, and marketing.

Even though *ISBN registrant* is only one of the possible roles in book production, three types of registrants are recognized in the ISBN Manual: established publishers, intermediaries, and occasional publishers (Figure 6).

⁵⁴ About the ISBN Standard. ISBN.org by Bowker <https://www.isbn.org/about_isbn_standard> accessed on 26 January 2023.

Established publishers can be identified by a publisher prefix which consists of a set containing from 10 to 100,000 ISBNs. From such sets, publishers can assign ISBNs to the books they publish. Publisher prefixes can be given to legal entities (companies and institutions) or individuals declaring their intention to publish books (i.e., to become established publishers).

Intermediaries can only issue ISBNs in certain limited circumstances (i.e., the publisher asks an intermediary to produce different digital formats but does not provide the corresponding ISBNs, or the publisher is based in a country outside the ISBN system and so asks a distributor from another country to import and distribute the book and assign ISBNs). According to the ISBN Manual, this is quite rare, but the empirical data indicates that it also depends on the traditions prevailing in the country (Figure 15); for example, intermediaries rarely assign ISBNs in the United Kingdom, but almost 6% of Lithuanian book ISBNs were assigned by intermediaries. In this way, the ISBN registrant and copyright holders may differ.

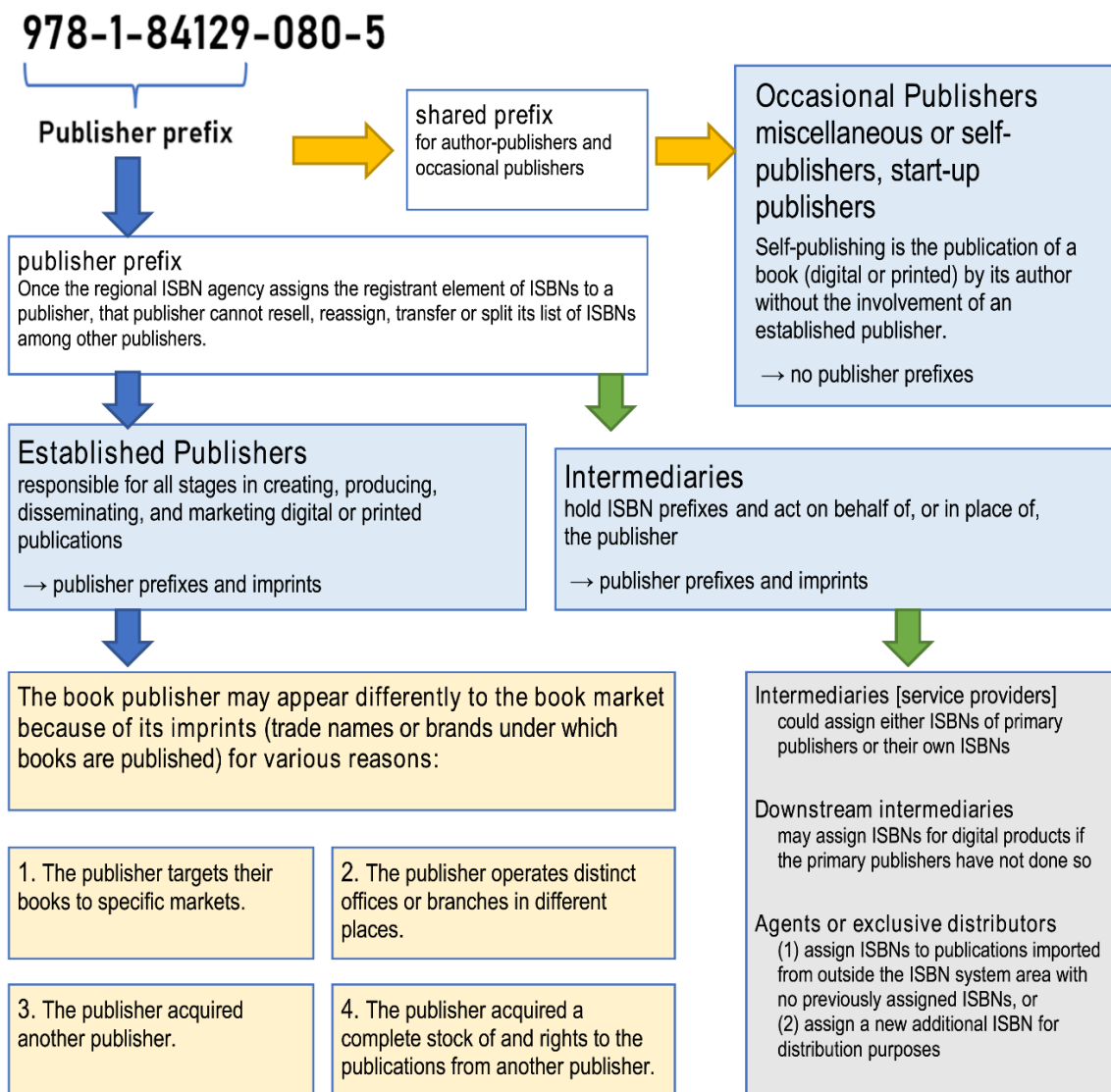


Figure 6. Types of publishers identified by publisher prefixes and their roles in book publishing as defined in the ISBN Manual.

Occasional publishers, also called *miscellaneous* or *self-publishers*, are usually authors or independent organizations having no intention of becoming book publishers apart from making their own books publicly available. They can obtain ISBNs for their books from shared prefixes. These shared prefixes in the GRP metadata have a variety of names, such as *Author-publishers (miscellaneous)*, *Various UK Author Publishers*, *Polish ISBN Agency*, and *Agencia del ISBN de España*.

However, if research assessment systems, mandating ISBNs, judge books by their publishers, they must be aware that regional or national ISBN agencies have different application procedures and protocols. These rules differ from country to country, causing confusion for implementers of research evaluation policies and for those being evaluated.

The ISBN system has flexible rules about who can hold publisher prefixes: legal entities, their departments independently, or individuals. There are differences among ISBN agencies in terms of how the ISBN system operates, and this often reflects legal requirements in the countries concerned; for example, in some countries, all publishers may have to be formally registered as legal entities before they may apply for ISBNs. Differences arose from empirical data when I attempted to identify which ISBN registrants were established publishers by analysing publisher prefixes extracted from ISBNs. The first difference in agency rules exists in *giving publisher prefixes for newcomers in book publishing*. Registration agencies may impose a limit on the number of ISBNs from a shared prefix that can be given to occasional publishers before they are allowed to request their own prefixes (along with a range of ISBNs). In some countries, registration agencies may decide that publishing three or four books over a few years is enough to merit the smallest publisher prefix (a block of 10 ISBNs), but in other countries, persons or organizations entering book publishing and requesting ISBNs for their books may obtain individual ISBN codes and receive self-publisher status at the beginning—a status deemed entirely legitimate in the ISBN world.

Another difference is that *only legal entities can be given publisher prefixes in Lithuania*. In general, any organization can receive publisher status and publisher prefixes, regardless of the organization's legal status. However, in Lithuania, a university faculty or department cannot act as a publisher. Instead, a single university department—usually a university press—holds the authority to assign all ISBNs. This policy differs from that in the United Kingdom or other European countries, where many universities have numerous departments owning publisher prefixes containing just 10 ISBNs and identifying them as small book publishers. Similarly, natural persons will not be given publisher prefixes in Lithuania if they do not operate an officially registered business. In other countries, there are several cases in which individuals are registered as established publishers and may assign ISBNs from their publisher prefixes. A deeper look at these individuals/publishers reveals that such individuals are usually intermediaries playing the ISBN registration role. In some cases, those ISBN registrants have been found to be book authors, and in other cases, their functions (e.g., as established publishers) are not apparent either from the book metadata or from internet search.

Academic publishing is constantly changing, and more intermediaries have become involved in assigning book ISBNs. I identified individuals, printing houses, companies offering print-on-demand or publishing services, and self-publishing platforms when I explored primary

activities of the ISBN registrants engaged in UK and Lithuanian book production. According to the ISBN Manual, third-party service providers should not typically be given a registrant element (publisher prefix) unless they are also publishers. As those intermediaries were identified in our data sets by their publisher prefixes, they acted as established publishers and did not violate the ISBN rules. For example, publishing service providers assigned more than 6% of Lithuanian but only 0.5% of British book ISBNs (see Section 5.5.2).

To conclude this subsection, even though the ISBN Manual attributes many roles to a book publisher, such as the creation, production, dissemination, and marketing of both digital and printed formats, the flexibility of the ISBN system allows anyone to register book ISBNs and be named as a publisher. However, the ISBN Manual and the GRP clearly identify the registrant of a particular ISBN—which means both sources point to “the ISBN registrant role.” Even so, “ISBN registrants” are not always responsible for the quality of the research presented in a book, contrary to what some research evaluators and academics seem to believe.

In the following subsection, I show why it may be challenging to identify the actual publisher of a book, even when the ISBNs were registered by a well-known publisher.

5.4.2. Complexities of identifying “parent” publishers

To demonstrate that even publisher prefixes cannot always help detect the book’s actual publisher, it is worth exploring the ISBN Manual to learn about situations that arise in assigning ISBNs. Analysing the ISBN Manual, I noted that publishers may hold many prefixes and be represented by numerous imprints. The ISBN Manual describes “imprint” as a trade name or brand under which a work is published, providing three notes regarding imprints. First, a publishing company may have multiple imprints in order to target their books at specific markets (e.g., HarperCollins Education, Voyager, and William Collins are all imprints of HarperCollins and not separate companies). Second, in some cases, “multiple imprints may be the result of mergers or acquisitions of different companies who wish to differentiate their brands.” Third, an imprint is a name and not only a logo.

The imprints of the same publisher may appear different from their parent companies, and researchers investigating book metrics have noted the implications for reporting about such publishers and their brands. Because of the constantly changing publishing landscape, some researchers focus on publishers’ titles as presented on the copyright pages of books (Tanner 2016), and others argue that imprints must be distinctly identified because they “do not necessarily have the same role as their ‘parent’ publishing houses” (Zuccala et al. 2015). The number of brands/imprints linked to a parent company may increase or decrease as a result of mergers or acquisitions.

The ISBN rules state that when the ownership of the prefix changes, the publisher must inform the ISBN agency responsible for that prefix to make relevant changes in the ISBN and GRP metadata. According to the ISBN Manual, when publishers merge, books may continue to be issued under the names of both publishers using either separate registrant elements or sharing the same one, depending upon market practice. If publishers follow the rules in reporting their imprints’ connections, the same prefixes will appear in the metadata of all related brands. In

the following subsection, I will explain the challenges that nonetheless arose in identifying parent publishers in the UK and Lithuanian data sets.

Operating under multiple imprints

The most significant challenge was connecting not-so-apparently linked imprints/brands to specific publishers. Three rationales behind publishers' use of multiple brands were identified by exploring the ISBN Manual, analysing empirical data, and consulting the International ISBN Agency.

The first rationale is that publishers target their books to specific readers (children, academics, poetry aficionados, etc.). For example, multinational publisher HarperCollins has decided that it suits their business to have one ISBN prefix (e.g., 978-0-00, holding 1 million ISBNs) and use the same prefix for nearly a hundred names/brands: Collins, Fourth Estate, Bartholomew, Fontana, Thorsons, etc. Another publisher, Dostoyevsky Wannabe, tells a vivid story about its creative use of imprints:

Still, we decided we liked making up imprints so we have a few and we'll probably have more later. Who doesn't like a good imprint anyway? We might firm up these imprints eventually and make them mean something more. We might. Or we might not. Actually maybe the imprints are grouped according to aesthetic design style. Are they? That might be it. Let's see if we can find out⁵⁵.

Linking all brands is simple when publishers have a single publisher prefix. However, many publishers have separate ISBN prefixes for each imprint name. By extension, university departments or an entire university can also choose to have their individual ISBN prefixes—their own ISBN blocks—distinct from that of the university press (further discussed in Section 5.5.2). Many obscure names of presses run by university departments were found in the data sets. Nevertheless, both models (one prefix, many brands; many brands, separate prefixes) are possible and are equally supported by the flexible ISBN system. As various cases were identified in the empirical data, all brands were appropriately linked in the final data sets used for the bibliometric analysis presented in Section 5.5.

The second rationale is that publishers operating separate and distinct offices or branches in different places may have a registrant element for each office or branch. The office responsible for a publication assigns it an ISBN, indicating the region it was registered in. For this reason, books published by international publishers such as Springer, Peter Lang, or Oxford or Cambridge University Press may have imprints (publisher prefixes) distinguishing books issued in the United States, the United Kingdom, Germany, India, Italy, and other countries.

The third rationale is that multiple imprints with different prefixes may result from mergers or acquisitions of other companies that wish to differentiate their brands. According to the ISBN Manual, the new owners should inform the national ISBN agency responsible for the acquired registrant element about the changes in ownership. If books continue to be published under the names of both publishers, they may have separate registrant elements or share the

⁵⁵ About Dostoyevsky Wannabe and its different imprints. Dostoyevsky Wannabe "Publishing." <<https://dostoyevskywannabe.com/about>> accessed on 1 December 2022.

same prefix, depending upon market practice. Publishers can continue to use unassigned ISBNs from the initially assigned registrant elements after an acquisition.

There are cases in actual book publishing where book publishers do not declare their imprints in the ISBN system; thus, their brands are not traceable in the GRP metadata. For example, many academics have heard of Lambert Academic Publishing, but they may not be aware that LAP Lambert is one of 17 academic brands owned by OmniScriptum. This parent company only introduces its imprints on its webpage⁵⁶, not in the ISBN system. In the GRP, OmniScriptum is presented under the registrant name *OmniScriptum GmbH & Co. KG*, registering ISBNs in Germany, and under two further registrant names, *International Book Market Service Ltd* and *VDM, Omniscritum*, which operate in Mauritius.

Merging, acquiring, and moving back and forth

In addition to the use of multiple brands, the ISBN Manual addresses other practicalities, such as mergers and acquisitions, that challenge those who seek to identify “parent” publishers. I discovered several such cases contemplated in the manual and borne out by the empirical data. In one instance, the imprints of purchased publishers were split, so one merged with the parent company, and another was spun off as an independent publisher. In another case, the acquired brand moved back and forth before becoming independent, and smaller competitors were absorbed by more prominent publishers. There are additional cases in which publishers do not join another publisher but instead sell their entire book program, or a part of their publishing program, or one of many book series. All these practices are considered legitimate in the book publishing business but create confusion when books are assessed by the standing of their publishers. Below, these examples are explained in more detail.

Splitting imprints of the purchased publisher. Before Taylor & Francis acquired Ashgate Publishing in 2015, Ashgate Publishing had two brands: Gower Publishing and Lund Humphries. Both brands still have the prefix 978-1-4724 in their GRP metadata. This prefix is found in 287 REF books across seven registrant names (see column “GRP titles” in Figure 7).

In fact, Taylor & Francis acquired only Ashgate but not Lund Humphries, which relaunched as an independent publisher in December 2015⁵⁷. In the GRP system, Lund Humphries holds five prefixes, of which two (978-1-4724 and 978-1-84822) were found in the REF data. Double-checking the distribution of books assigned from those prefixes over the years (Figure 7) and consulting the library catalogues led to the decision that books assigned from the prefix 978-1-84822 should be attributed to Lund Humphries as an independent publisher. Nevertheless, one could argue that only books issued after 2015 can be attributed to Lund Humphries, which maximizes the number of books assigned to Informa (Taylor & Francis).

⁵⁶ Our brands. Omniscritum <<https://www.omniscritum.com>> accessed on 1 December 2022.

⁵⁷ Onwuemezi, N. Lund Humphries relauches as indie publisher. *The Bookseller*, December 3, 2015.

<<https://www.thebookseller.com/news/lund-humphries-relauches-indie-publisher-317843>> accessed on 1 December 2022.

unified titles: ● Informa (Taylor & Francis) ● Lund Humphries

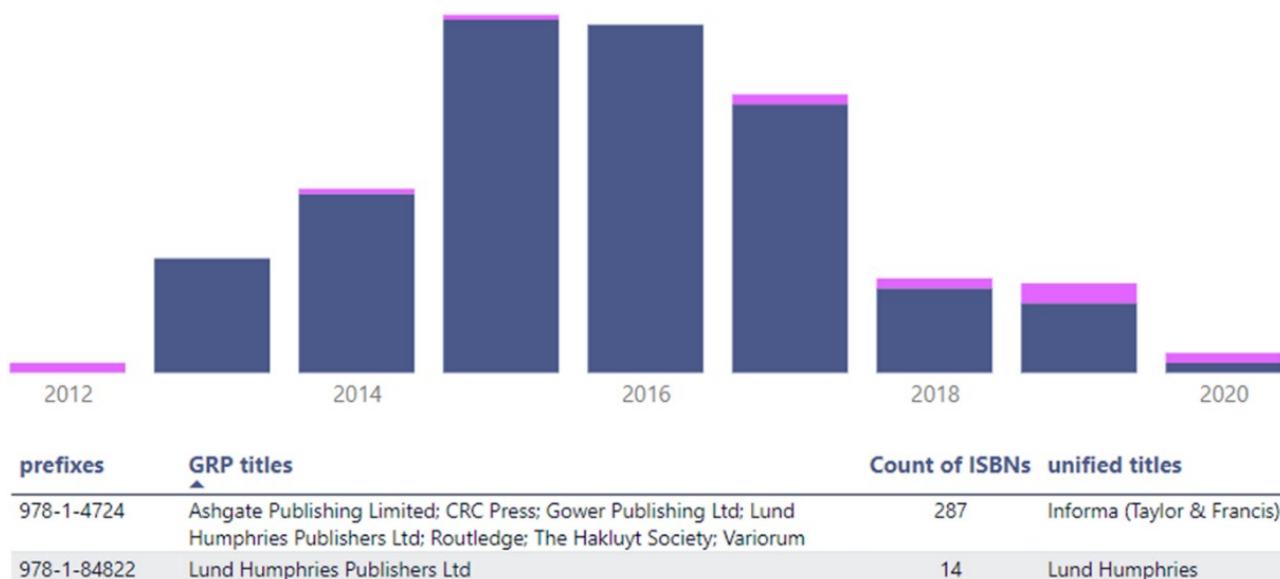


Figure 7. Dealing with the prefixes 978-1-4724 and 978-1-84822.

Imprints moving back and forth. The University College London (UCL) Press may be the most notorious example of a brand migrating between publishers. Figure 8 shows that in the GRP metadata, UCL Press appeared among many brands attributed to Informa (Taylor & Francis) under the prefix 978-0-415, as an imprint of Cavendish Publishing Limited under the prefix 978-1-84472, and with five additional prefixes. According to Ayris et al. (2014), “The UCL Press imprint was licensed to a commercial publisher(s), but no one had published under the imprint since 2007.” Consulted library catalogues indicate that REF books with this prefix were published by Routledge and, as the STM list of imprints suggested, Cavendish was a Taylor & Francis brand at that time. For these reasons, two books published under the prefix 978-1-84472 in 2008 and 2010 should be attributed to Informa (Taylor & Francis).

prefixes	GRP titles	Count of ISBNs	unified titles
978-0-415	ABP (UK) Ltd; Architectural Press; Ashgate Publishing Limited; Birkbeck Law Press; Brunner-Routledge; CRC Press; David Fulton Publishers Ltd; Earthscan Ltd; Estates Gazette; Focal Press; Frank Cass Publishers; Gestalt Press; Gower Publishing Ltd; Informa Healthcare; Informa Law; Psychology Press Ltd; Routledge; Routledge Academic; Routledge Falmer; Routledge India; RoutledgeCurzon; Spon Press; Taylor & Francis Ltd; <u>UCL Press</u>	2092	Informa (Taylor & Francis)
978-1-78735	UCL Press	39	UCL Press
978-1-78277	Institute of Education Press; <u>UCL Press</u>	10	UCL Press
978-1-911307	UCL Press	5	UCL Press
978-1-910634	UCL Press	4	UCL Press
978-1-911576	UCL Press	4	UCL Press
978-1-84472	<u>UCL Press</u> an Imprint of Cavendish Publishing Limited	2	Informa (Taylor & Francis)
Total		2156	

Figure 8. University College London (UCL) Press appearances in the GRP metadata.

An additional issue with the UCL-related prefix 978-1-78277 relates to the Institute of Education Press, based at UCL's Faculty of Education and Society, which issued several books from 2013 to 2019. The prefix attribution decision was simple when it was found that the institute officially merged with UCL Press in 2019⁵⁸; finally, the unified title "UCL Press" shows an independent publisher holding five prefixes (Figure 9).

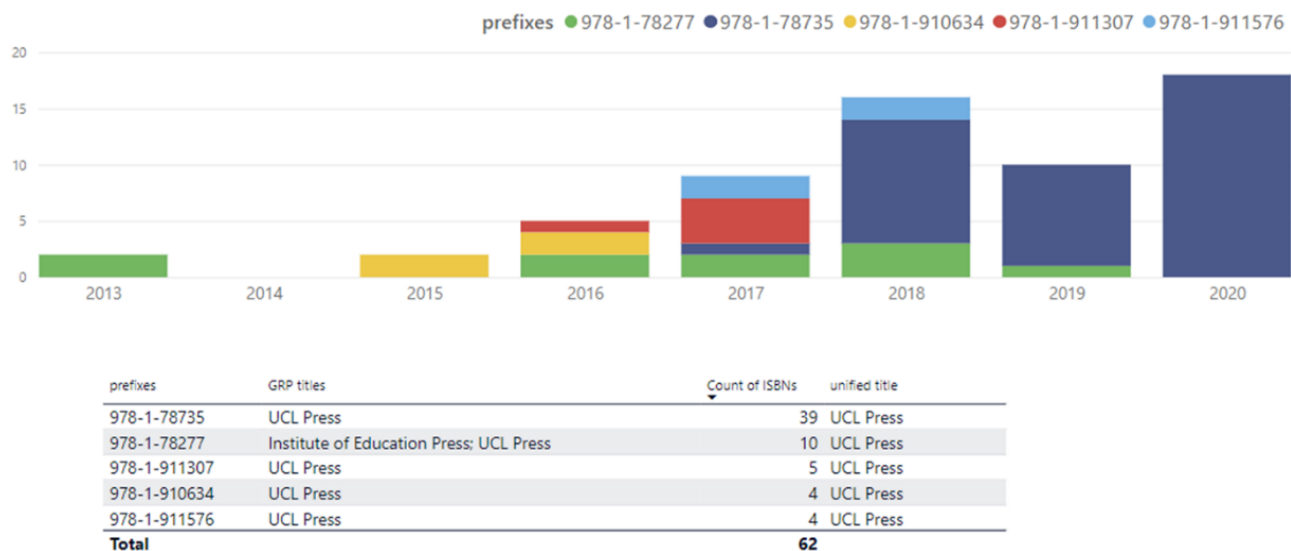


Figure 9. UCL Press prefixes and book ISBNs issued from 2013 to 2020.

The situation of UCL Press becoming independent after migrating from one publisher to another is not unique in the REF data set. For nearly 12 years, David Fickling Books operated as an imprint—first as part of Scholastic, then of Random House—before setting up as an independent business in 2013⁵⁹.

Absorbing competitors. Although some brands have survived after mergers with more prominent publishers, others have disappeared. This can be seen in the case of Cavendish Publishing, which was acquired by Taylor & Francis in 2006. After the acquisition, for some time, books were issued under a new name, "Routledge-Cavendish,"⁶⁰ until Cavendish Publishing finally disappeared in 2012⁶¹.

Book copyrights or book series sold to another publisher. Research assessment policies oriented to assessing books by their publishers must also consider the situation in which publishers sell part of their program or the entire book series to another publisher. I came across this case in identifying the primary publishers of 187 books whose ISBNs were assigned from the registrant prefix 978-1-4742. This prefix appeared in the GRP metadata of both megapublishers Bloomsbury and Taylor & Francis (Figure 10). As those publishers are

⁵⁸ UCL IOE [Institute of Education] Press. UCL Press <<https://www.uclpress.co.uk/pages/ucl-ioe-press>> accessed on 22 October 2022.

⁵⁹ About us. David Fickling Books <<https://www.davidficklingbooks.com/AboutUs.php>> accessed on 1 December 2022.

⁶⁰ Cavendish Publishing Limited. WorldCat Identities, OCLC <<https://www.worldcat.org/identities/lccn-no95015467>> accessed on 22 October 2022.

⁶¹ Cavendish Publishing Limited. Companies House <<https://find-and-update.company-information.service.gov.uk/company/02235830>> accessed on 22 October 2022.

independent, I needed to determine which one actually published these books. I inspected initial REF data, searching for the publishers that institutions included, along with ISBNs bearing the relevant prefix. Bloomsbury is indicated as the publisher for some books, Taylor & Francis for others. Library catalogues and search engine results have resolved the mystery, because some library catalogues have included a statement “First published ... by Bloomsbury Academic” from the book’s copyright page, along with corresponding information presented in the books issued by Taylor & Francis. As attested in the ISBN Manual, selling rights to book series, distribution, or different formats is normal in book publishing. Consequently, Bloomsbury is set as responsible for these prefixes and their ISBNs in the final data sets.

prefixes	GRP titles	Count of ISBNs	unified titles
978-1-4742	Arden Shakespeare; <u>Bloomsbury Academic</u> ; <u>Bloomsbury</u> Visual Arts; Fairchild Books; Methuen Drama; <u>Nomos/Bloomsbury</u> ; T&T Clark; <u>Taylor & Francis Ltd</u> ; The Arden Shakespeare	187	Bloomsbury
Total		187	

Figure 10. The same prefix was used to assign ISBNs for later editions.

There is one further case to consider, in which a publisher purchases copyrights of some books from the publishing program of another publisher. I discovered this in my data set while determining the unified title attributed to the prefix 978-1-84773 and the main activities of New Holland Publishers. According to the search results, New Holland Publishers sold copyrights to their natural history list to Bloomsbury in 2013⁶² and 1,400 titles to Fox Chapel in 2014⁶³. However, because the book in the data set was issued in 2010, New Holland Publishers was set as the unified title. There are other examples of this situation; the goal here is simply to demonstrate challenges in detecting book publishers by publisher prefixes.

In summary, although the GRP is the primary source for gathering reliable information on ISBN registrants, the GRP metadata do not always help unravel the twists and turns of complex interactions within the book publishing industry. In some cases, the detecting parent titles of particular book publishers requires considerable manual effort, as does determining the primary activities of ISBN registrants in parallel with the unique names of book publishers. Having enriched the metadata of the ISBNs, I proceed with a bibliometric analysis.

5.5. Analysing book publishing practices using GRP metadata

I now consider my fourth research question: Can the GRP be used to develop an in-depth understanding of researchers’ book publishing practices? Using ISBN metadata relevant to research assessment practices, obtained through a manual curation process (as discussed in Sections 5.3 and 5.4), I demonstrate that the GRP is a suitable source for bibliometric

⁶² Allen, K. Bloomsbury buys New Holland list. The Bookseller <<https://www.thebookseller.com/news/bloomsbury-buys-new-holland-list>> accessed on 22 October 2022.

⁶³ Fox Chapel buys 1,400 New Holland titles. Publishers Weekly, April 21, 2014 <<https://www.publishersweekly.com/pw/by-topic/industry-news/industry-deals/article/61952-fox-chapel-buys-1-400-new-holland-titles.html>> accessed on 22 October 2022.

analysing. As mentioned initially, reputational capital still matters for scholars and publishers alike, and the following subsections analyse whether researchers' publication practices have changed along with shifts in the publishing landscape and research assessment requirements. For instance, have British authors started to publish more books with universities? Or have Lithuanian researchers moved abroad to publish their research outputs? First, however, I will examine the publishers' portfolios and their changes over the years.

5.5.1. Publishers of UK and Lithuanian books

The final UK data set shows that just under 38,050 valid ISBNs were assigned from 3,804 prefixes attributed to 2,469 publisher titles. In the Lithuanian data, approximately 5,199 valid ISBNs were assigned from 1,561 prefixes linked to 1,154 unique publisher titles. These numbers indicate that an average publisher in the UK data set doubled the number of books produced, from four in 2008 to eight in 2020. Meanwhile, in the Lithuanian data set, an average publisher issued about two books nearly every year from 2008 to 2020 (Figure 11).

The top 10 publishers of UK books have published more than half of all REF books since 2009, and the other 2,459 publishers have produced considerably fewer books since 2013 (Figure 12). Conversely, for Lithuanian books, the top 10 publishers published fewer books than the other 1,144 publishers over the entire period.

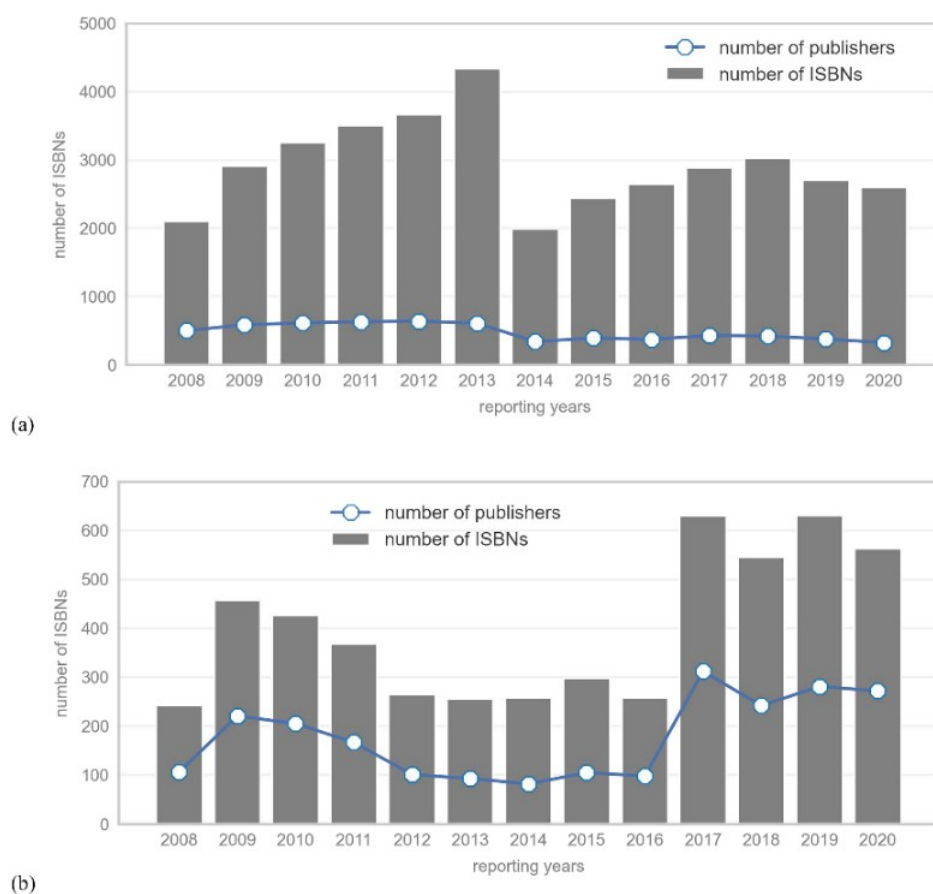


Figure 11. Number of publishers involved in production of
(a) UK and (b) Lithuanian books.

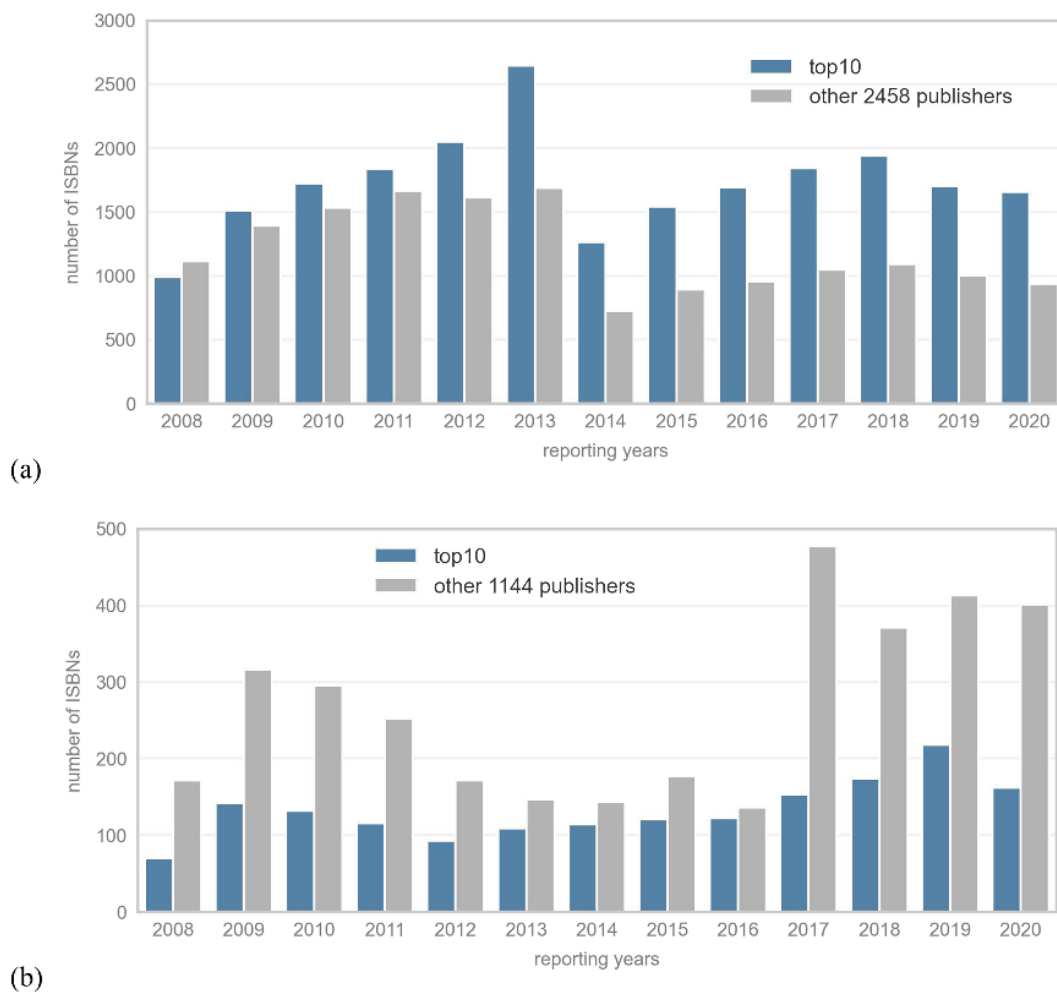


Figure 12. Number of books in (a) the United Kingdom and (b) Lithuania published by the top 10 publishers and others.

As seen in Figure 13, the UK and Lithuanian results differ in some additional respects. In the United Kingdom, the top 10 publishers produced almost two-thirds of books submitted for research evaluation from 2008 to 2020, whereas in Lithuania, the top 10 published just over one-third of such books. Moreover, in the Lithuanian setting, occasional publishers (i.e., those issuing 1–10 books) collectively “out-published” the top 10, whereas in the United Kingdom, these occasional publishers are responsible for only a tiny fraction of books published.

Looking deeper into the data, the top 10 publishers in each country include well-known academic publishers and local university presses or academic institutions (Figure 14). In the United Kingdom, Informa (Taylor & Francis) and Springer Nature lead the top 10 book publishers, followed by Oxford University Press (OUP) and Cambridge University Press (CUP). For reasons outlined in Section 5.2.2, the latter two are quite distinct from other university presses in their scope and operation; thus, we may say that only two university presses represent universities among the United Kingdom’s top 10 book publishers.

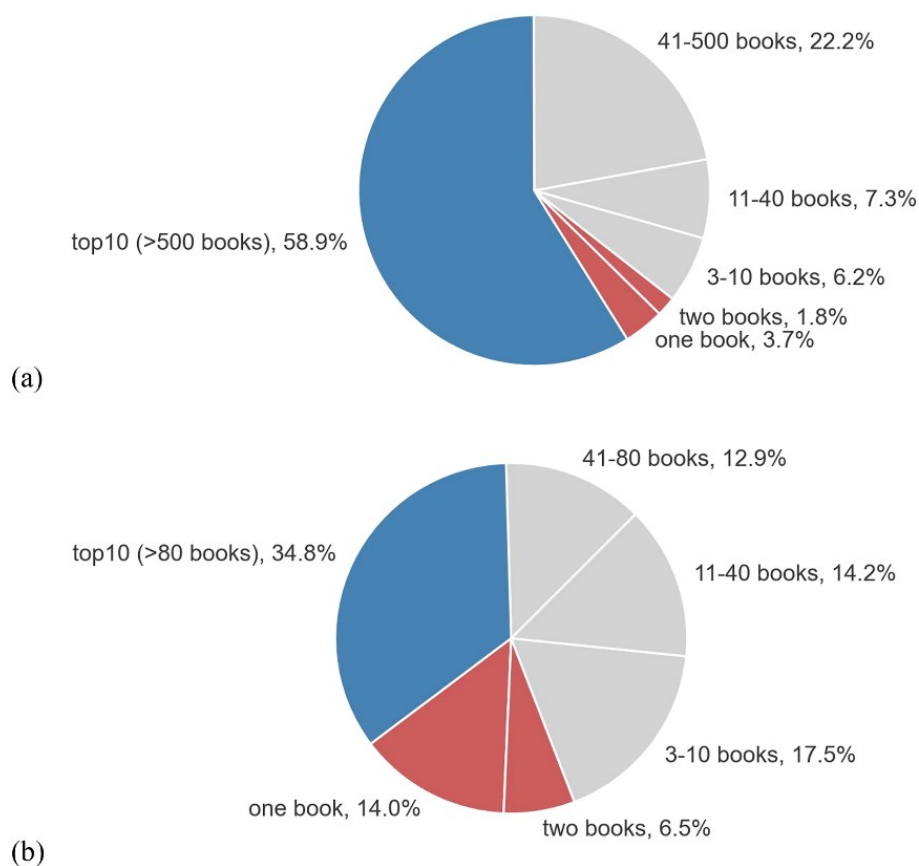


Figure 13. Share of books in (a) the United Kingdom and (b) Lithuania published by publishers of different size, as determined by the number of published books.

UK data, 2008-2020			Lithuanian data, 2008-2020		
	top 10 publishers (> 500 ISBNs)	Share of ISBNs		top 10 publishers (> 80 ISBNs)	Share of ISBNs
1	Informa (Taylor & Francis)	15.42%	→ Springer Nature		6.44%
2	Springer Nature	11.39%	Vilnius University		5.02%
3	Oxford University Press	8.95%	Vytautas Magnus University		4.79%
4	Cambridge University Press	6.82%	→ Informa (Taylor & Francis)		3.17%
5	Bloomsbury	6.60%	Institute of Lithuanian Literature and Folklore		3.02%
6	Brill	2.73%	Mykolas Romeris University		2.52%
7	→ Manchester University Press	2.04%	Klaipeda University		2.50%
8	John Wiley & Sons	1.75%	Institute of the Lithuanian Language		2.04%
9	→ Edinburgh University Press	1.72%	Kaunas University of Technology		1.67%
10	Boydell & Brewer	1.44%	Institute of Lithuanian History		1.67%
	Other 2,5K publishers (41.15%):			Other 1,1K publishers (67.14%):	
	73 publishers of 41-500 books	22.05%		399 publishers of 2-10 books	26.33%
	833 publishers of 2-10 books	8.04%		718 publishers of one book	13.81%
	56 publishers of 21-40 books	4.19%		12 publishers of 41-80 books	13.43%
	1461 publishers of one book	3.84%		15 publishers of 21-40 books	8.17%
	80 publishers of 11-20 books	3.03%		18 publishers of 11-20 books	5.40%
	Total	100%		Total	100%

Figure 14. Percentage of books in the UK and Lithuania published by the top 10 publishers and others.

In contrast to the United Kingdom, domestic higher education and research institutions made up most of the top 10 Lithuanian book publishers; only two international commercial publishers make the list. Every university and research institute in Lithuania has its own publishing department, which leaves almost no room for independent academic publishers. Moreover, in-house publishing is a long-standing tradition in Lithuania and perfectly suits the country's academic community: It meets the needs of researchers who wish to publish their books as quickly as possible in pursuit of degrees and promotions, and it is useful to institutions seeking to maximize book publications for funding and assessment purposes. In fact, Lithuanian university presses usually do not influence the content of works they issue; they simply manage production, distribution, and marketing of manuscripts already approved by faculties. A similar situation can be found in the Czech Republic (Broz and Stöckelová 2018) and other European countries (Ferwerda et al. 2017).

5.5.2. The primary activities of book publishers

Academic publishers produced more than two-thirds of the UK books in the data set and slightly over a quarter of the Lithuanian books (Figure 15). Interestingly, the share of UK books produced by universities is almost the same as that of Lithuanian books issued by “nonpublishers” (organizations whose main mission is something other than publishing). Self-publishing, meanwhile, includes books issued by companies providing publishing services (see Section 5.2.2), which usually act as intermediaries (Section 5.4.1).

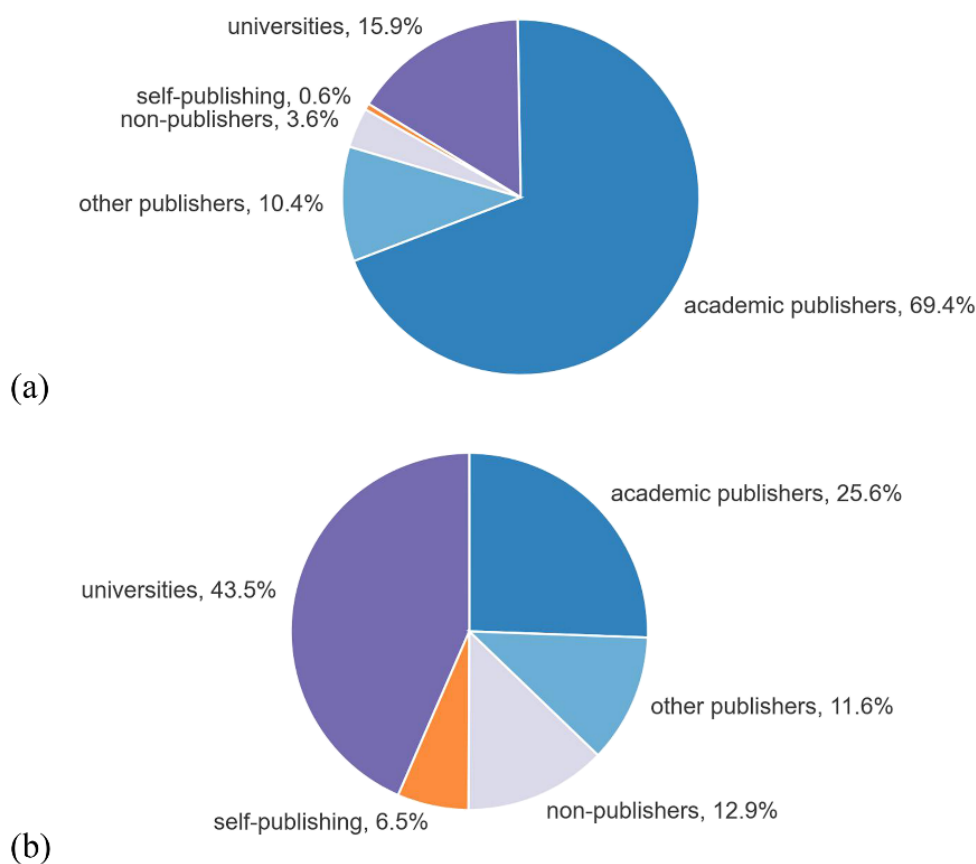


Figure 15. Share of books in (a) the United Kingdom and (b) Lithuania published by different types of publishers.

The large share of academic publishers and universities in the United Kingdom can be explained by the fact that UK institutions and departments selected the books they considered their best research outputs and “still insist that scholars publish with the more established and reputable academic and university presses” (Deegan 2017). The UK picture would change considerably if all scholarly books, not just those selected by institutions and submitted to the REF, were included in the analysis.

In the United Kingdom, the number of books published through publishing and self-publishing services is relatively small. In contrast, Lithuania has seen a significantly higher number of books being self-published or released by intermediaries, with a substantial portion being issued by nonpublishers. These findings for Lithuania are particularly noteworthy given the long-standing policy efforts aimed at internationalizing local research and encouraging researchers to publish with the most prestigious academic publishers.

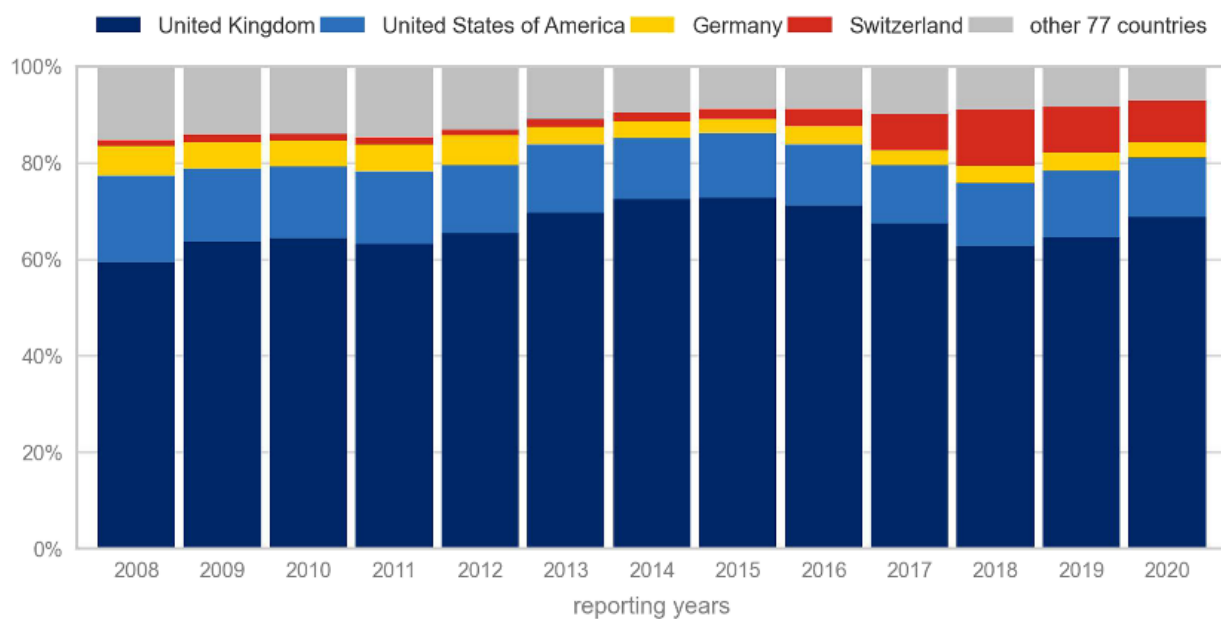
According to Lithuania’s research assessment policies, institutions receive several times more funding points for books issued by prestigious publishers, but only foreign publishers can be awarded this highest rank. In the following section, I will explore whether politicians have succeeded in incentivizing Lithuanian researchers to utilize foreign publishers.

5.4.3. Countries where ISBNs were registered

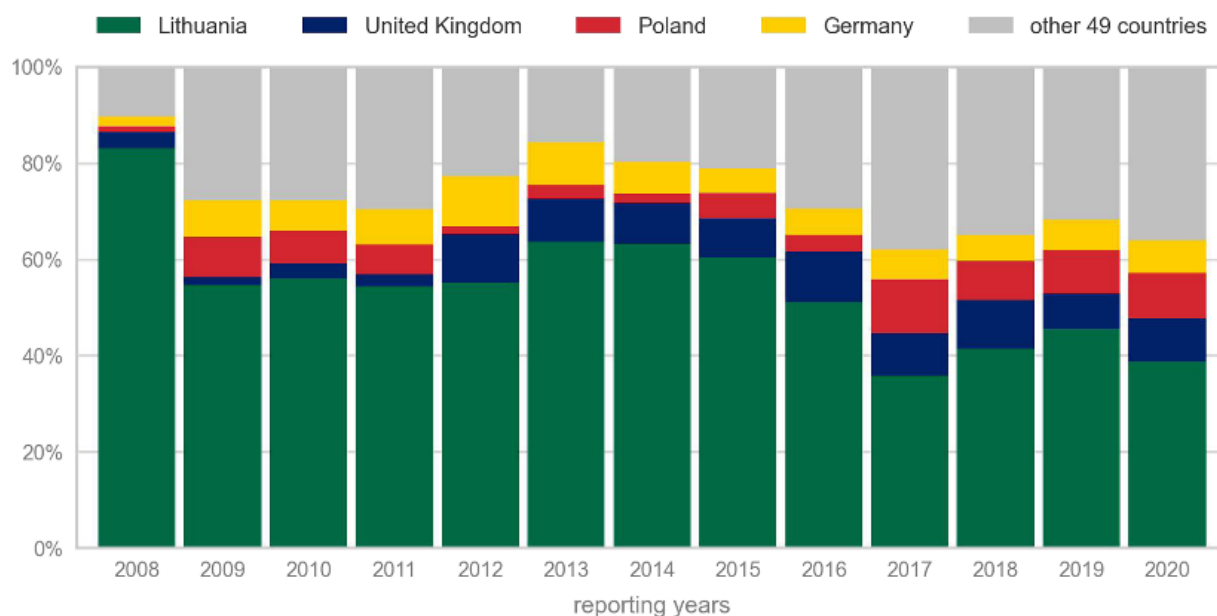
Because every prefix in the GRP metadata indicates only one country, analysing where ISBNs were issued was straightforward. The ISBNs of the 38,050 British books in the data set were assigned in 81 countries, but more than 98% of the REF-submitted books were published in Europe, which echoes results from another report (Tanner, 2016). British publishers produced 60–70% of all outputs over the years, and U.S. publishers issued more books than the publishers in the remaining 77 countries nearly every year. Figure 16 shows the results for the top four and other countries.

The Lithuanian results show ISBNs for 5,199 books registered in 53 countries. The portion of books published domestically plummeted in 2009, when only books in the sciences issued by prestigious foreign publishers became eligible for the annual research assessment. Since then, the number of domestically published books has slowly decreased year by year. In 2020, only 39% of books submitted for yearly research evaluation were produced in Lithuania.

A quote from an interview with a UK researcher, “I wanted to publish in the States, and ideally with a university press” (Butchard, Rowberry, and Squires 2018), encouraged me to examine with whom UK and Lithuanian researchers publish their books locally and abroad. Figure 17 shows the distribution of ISBN registrant categories in each of the seven randomly chosen countries, along with aggregate figures for the remaining countries.



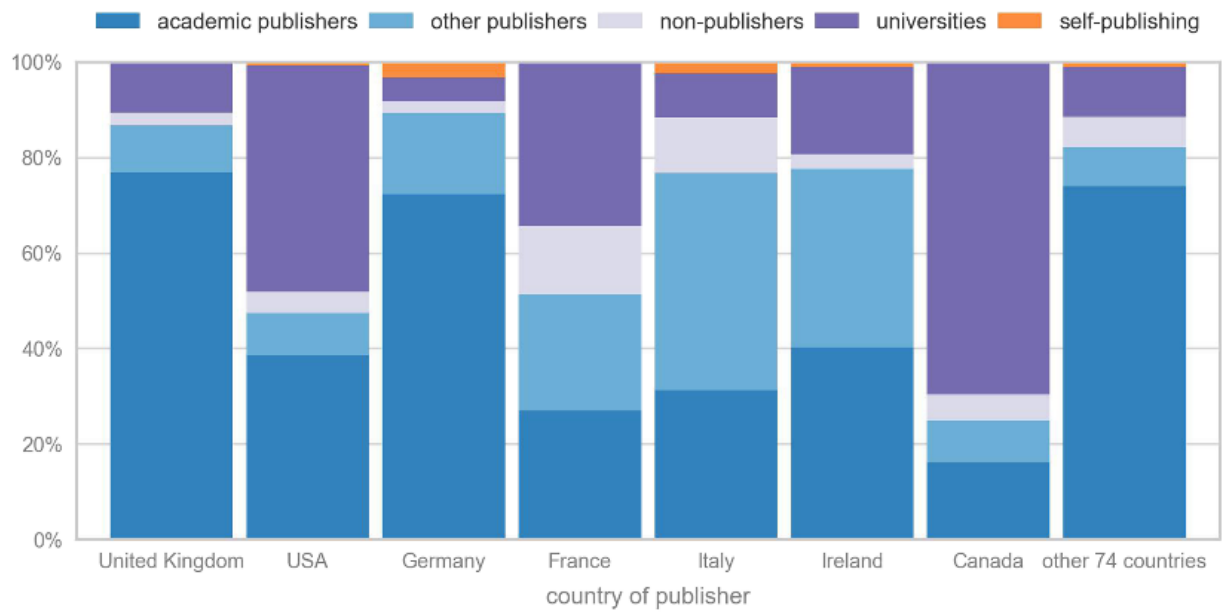
(a)



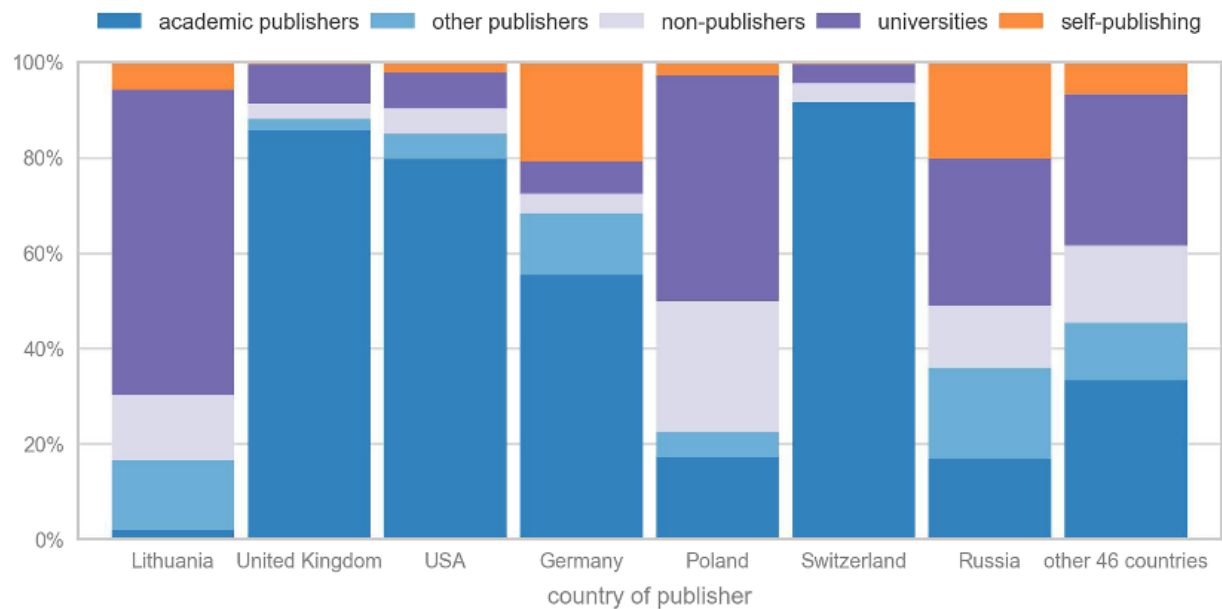
(b)

Figure 16. Share of books in (a) the United Kingdom and (b) Lithuania by country of book publishers.

For books submitted to the UK REF, British universities accounted for only 10% of the books published in the United Kingdom, whereas universities in Canada, the United States, and France accounted for a much larger share of the books issued in those countries. This indicates that British researchers published their books with universities in those countries more often than with academic publishers. By contrast, for books submitted to the Lithuanian research assessment system, Lithuanian universities published over 60% of the domestically published books. In Poland, Russia, and the remaining 46 countries, universities also accounted for a large share of the Lithuanian books published.



(a)



(b)

Figure 17. Distribution of books in (a) the United Kingdom and (b) Lithuania by country of publisher and by publisher type within each country.

5.6. Discussion and conclusions

The motivation for this research was to explore whether the ISBN Manual and the GRP can be used to develop an in-depth understanding of book publishing practices, and more specifically, whether the requirements of research assessment systems align with the standards of the book publishing industry.

I summarize the answers found to the four research questions presented in the introduction.

RQ 1: Using the ISBN Manual and the GRP, is it possible to determine the genre of a book?

The systematic analysis of the ISBN Manual revealed that publishers, librarians, databases, and information managers seem to operate without defining the genres of academic books, even though research assessment regulations set requirements for numerous genres of books. The ISBN Manual declines to define the term *book*, instead naming types of works that are *not* eligible to be assigned an ISBN. As the manual provides no basis for distinguishing among book genres, research assessment systems asking for specific genres require something not standardized in book publishing. Academic organizations that deal in book genres must therefore take care to define those genres and include definitions in a convenient reference, such as the Frascati Manual⁶⁴. This supports Basili and Lanzillo's (2018) suggestion that "academics and decision-makers could make further steps towards a pan-European framework for classification of research products in the SSH [social sciences and humanities]."

RQ 2: Using the ISBN Manual and the GRP, Is It Possible to Determine the Publisher of a Book and the Role the Publisher Has Played in Producing the Book?

The results show that the ISBN Manual defines book publishers' responsibilities as creating, producing, disseminating, and marketing digital or printed publications. According to the ISBN Standard, "The publisher is normally responsible for the content and for any financial risk involved in the process,"⁶⁵ meaning that a publisher is the person or entity responsible for initiating production and bearing the financial risk. However, this is not always the case for open-access books, where authors are usually copyright holders and publishing costs are covered by various sources. Further complexities can affect the development of book publishing, such as when institutions fund publications written by researchers in their employ (Ferwerda et al. 2017; Norwegian Association of Higher Education Institutions 2004). Irrespective of these issues, the ISBN registrant, responsible for making books publicly available, is one of many roles in book production apparent from the practicalities envisioned in the ISBN Manual. These registrants can be identified by publisher prefixes extracted from any book ISBN in the GRP.

It was possible to identify "parent" publishers using publisher prefixes and exploring their interrelationships in the GRP. In occasional cases, when GRP metadata does not capture every

⁶⁴ Frascati Manual 2015: Guidelines for collecting and reporting data on research and experimental development
<<https://www.oecd.org/innovation/frascati-manual-2015-9789264239012-en.html>> accessed 27 May 2023.

⁶⁵ ISO 2108:2017(en) Information and documentation—International Standard Book Number (ISBN)
<<https://www.iso.org/obp/ui/#iso:std:iso:2108:ed-5:v1:en>> accessed on 27 May 2023.

twist and turn in the convoluted interactions between publishers, it is still possible to detect parent publishers by consulting additional sources of information, such as library catalogues and online search results.

Even though the ISBN Manual provides comprehensive explanations of the complex interactions within the book publishing industry, the way in which a book's publisher is defined in the ISBN system may be very different from the understanding of a publisher from a research assessment perspective. In countries where publishers are being ranked for research funding distribution, policymakers assume that the publisher of a book can be seen as an indicator of the book's quality. However, the ISBN system offers a great deal of flexibility in who can assign ISBNs and be seen as book publishers—in essence, anyone can be a book publisher in the ISBN world. Awareness of this flexibility is crucial for designers of research policies and committee members who seek to assess research outputs consistently and fairly.

RQ 3: Can the GRP be used to determine the primary activities of book publishers?

Researchers may publish their books with many different types of publishers: universities, academic publishers, or other actors, such as libraries, research institutions, or publishing services firms. My results show that GRP metadata on book publishers (such as website URL and contact details) can be used to identify whether publishers are universities or higher education institutions, dedicated academic or commercial publishers, or organizations whose main mission lies outside book publishing.

RQ 4: Can the GRP Be Used to Develop an In-Depth Understanding of Researchers' Book Publishing Practices?

Answering this question may help to establish book assessment criteria suitable for national use. My empirical investigation demonstrates that GRP metadata can be used for bibliometric analysis. Moreover, this source of ISBN metadata is free for registered users and easy to use. As the GRP is maintained by the International ISBN Agency, it is a reliable source for obtaining insights into book publishing practices.

Implications for Research Assessment Practices

The findings of this study have several practical implications for bibliometric analysis and book evaluation. For bibliometric analysis, the findings provide a new understanding of the ISBN as a meaningful digital code for which first-hand metadata is freely available in the GRP. It is worth exploring other metadata sources available for ISBNs, such as WorldCat or other library catalogues, which might be the perfect complement to the GRP metadata. For book evaluation, the findings suggest not relying on book publishers' reputations but paying more attention to actual book publishing practices and their fit into the needs of future scholarly communication, as explained for instance in the Vienna Principles (Kraker et al. 2016). One of these principles, "scholarly communication should be immediately and openly accessible by anyone," has already been addressed by UK policymakers and is being widely discussed in the United Kingdom. Future research may demonstrate how the Vienna Principles can be incorporated in book evaluation policies.

The most obvious finding to emerge from this study is the potential of ISBN codes and the Global Registry of Publishers as sources of book metadata for scientometric analysis, policymaking, and the development of book metrics. By using ISBN codes and their open metadata in the Global Registry of Publishers, scientometricians can access reliable and firsthand information on the characteristics and provenance of books. The results of this study can inform experts and policymakers about the practicalities of the book industry and contribute to the improvement of research assessment practices. In addition, this study can also provide valuable insights for developers of book metrics, who can use the results to enhance their existing indicators or to create new ones that can then be used by experts in book evaluation.