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Guest editorial

Scholarly books and their evaluation context in the social sciences and humanities

Introduction

A famous novelist (Stephen King) once said: “good books do not give up all of their secrets all at once.” Knowing the author, this statement applies easily to horror and suspense fiction. Yet, it is fair to say that it is also applicable to “good books” published by scholars in the social sciences and humanities. Unraveling the secret to a scholarly book’s excellence, including its topicality, written delivery, influence, and longevity, clearly depends on time. Moreover, assessing what makes it “good” over “time” requires giving due consideration to the context in which the book was produced. In light of this, we have decided to open up a special issue in ASLIB Journal of Information Management concerning “Scholarly Books and Their Evaluation Context in the Social Sciences and Humanities.”

Initially, our aim was to elicit a variety of research contributions related to the following topics: scholarly book publishing, publisher prestige, quality and specialization, open access monographs, e-books, original language vs translated monographs, peer review standards and labels, commercial databases for books, national registries, books in social media and alternative metrics. This catalog is by no means exhaustive. Our impetus was simply to invite researchers to examine the special nature of books, which, thanks to Gutenberg’s press, have become widespread vehicles for sharing ideas and knowledge (Eisenstein, 2013). For centuries, books have thrived, and now, even in the midst of what was once “crisis” in the publishing industry, it would be an exaggeration to say that they are “dead” (Thompson, 2002). Calculating the number of citations books receive from journal articles and other books will neither help us process this industry threat, nor will the creation of new publishers necessarily motivate SSH scholars to produce more books. Likewise, current evaluation systems focused on the rapid production of research articles need not discourage book-oriented scholars either.

While scholarly books are typically excluded from national R&D reports, and considerations seem to be given too often to research papers indexed in databases like the Web of Science or Scopus, we encourage researchers and policy makers to push forward. Allowing scholarly books to do what they were designed to do – i.e. “give up all of their secrets” over time – lies with the facilitation of “quality” standards in refereeing, “quality” approaches to editorial publishing, and greater national and international record keeping. There has been some positive movement in this regard. In turn, we hope that the research community will continue to examine the visibility of scholarly books, and let stakeholders know when and where they resonate the most with scholars, as well as the general public.

Guest editorial team

In April 2016, a new COST Action titled the European Network for Research Evaluation in the Social Sciences (ENRESSH) was created, and what followed from a number of meetings was the idea that three of us, as active COST associates, might form a natural team. We are researchers holding positions at different institutes in Europe, ranging from an Associate Professor at the Department of Information Studies, University of Copenhagen, Denmark (A. Zuccala), Tenured Scientist and leader of the research group on academic books (Grupo de investigación sobre Libro Académico; ILIA) at the Consejo Superior de Investigaciones Científicas (CSIC) in Spain (E. Giménez-Toledo), and Researcher at the Istituto di Teoria e
Guest editorial

Tecniche dell'Informazione Giuridica of the National Research Council of Italy (ITTIG-CNR) in Florence (G. Peruginelli). Two of us share a background in the field of Library and Information Science, while one comes from a complementary background in both Computer Science and Law. Our mutual interest in scholarly books stems from a series of publications each has produced concerning editorial processes and business models in publishing, including the search for quality indicators relevant to books (Giménez-Toledo and Román-Román, 2009; Giménez-Toledo et al., 2012, 2015), the analysis of book reviews, library holding counts and indexing frameworks for evaluating books as “families of works” (Zuccala et al., 2014, 2018; White and Zuccala, 2018) and the evaluation of legal monographs, reflecting law as a research field with a highly professional and national orientation (Peruginelli and Faro, 2018; Peruginelli et al., 2018).

Contributions to the issue
A “special issue” lends itself to a host of expectations about what has come before or will come after. Our hope with this one in particular, was and is that it will stimulate further research pertaining to scholarly books. We are therefore pleased that it was attractive to many from our broader research community. After the first call was announced in November 2017, and up to the final (extended) submission deadline of May 2018, we received a total number of 14 papers. Following a review process, based on two unique referees per paper (28 referees), and a third editorial team review, we selected a final list of seven papers.

Thematic highlights

National contexts, productivity and visibility
Amongst the list of topics presented with the call, there was one in particular that did not inspire new submissions; however, this was not surprising. Much of the earlier research concerning the evaluation of scholarly books came about due to the introduction of new commercial databases, like the Scopus Index for books and Clarivate’s Book Citation Index™ (e.g. Gorraiz et al., 2013; Kousha et al., 2011). In terms of “context,” what the research community expected was that these new indexes would represent the publication and citation interests of scholars internationally, but this has not necessarily been the case (Torres-Salinas et al., 2014b).

National book registries are one solution to the problem, and can give vital opportunities for cross-country comparisons, if not illustrate how culturally situated and language-specific book publishing is. This is perhaps the main reason why we received many article submissions that were focused on national, rather than international contexts. Thematically, this means that it was difficult to order the articles, since we do not believe that the issues and interests of one country supersede another. What was important to us was to find some way of presenting them, so that each reflects a logical, thought-provoking transition from one topic to the next. The list starts therefore with an overview of scholarly book publishing trends in Europe (in Flanders (Belgium), Finland, Norway, Poland and Slovenia), including insights into publication diversity (as in Poland), and country-specific policies leading to the scholarly book’s visibility or “invisibility” (as in the case of the Czech Republic).

In the first article, Engels et al. point to a variety of epistemic reasons as to why books are vital to the scholarly communication landscape. Articles from SSH fields generally do not supplant books; rather complement them, and it is well-understood that SSH scholars write books to facilitate the “explanatory” power of their work, in contrast to STEM (Science, Technology, Engineering and Medicine) fields, oriented toward incremental discovery. When this research team decided to assess the share of monographs and book chapters produced by five different European countries from 2004 to 2015 (Flanders, Finland, Norway, Poland and Slovenia), they chose to focus on both Economics...
and History, rationalizing that the two fields similarly value book publishing. Thus, it is
the comparative cross-country patterns emerging from the study that proved to be
interesting rather than the subject comparisons. With Poland in particular, we see a large
drop after 2013 in the number of monographs published, particularly in the social
sciences. Changes like this are often attributed to performance evaluation systems, which
are often criticized for being detrimental. This might be slightly true for Poland, where
relatively new reforms were put into place, but detrimental effects are not normative,
especially when other countries with evaluation systems present stable monograph
publishing patterns (e.g. Slovenia) or even a slight pattern of growth (e.g. Flanders).

With the second article written by Kulczycki, we obtain further insight into the situation
in Poland, where the evaluation solution for books (notably the second cycle evaluation) is
“distinct from other solutions used in European countries” because of its micro-level
approach. In the absence of rated publisher lists (e.g. commonly used in Norway, Finland,
Denmark), Poland has decided to put more focus on definitions of the book/monograph as
well as other criteria (e.g. length, ISBN code: DOI) that need to be met for evaluation.
Essentially, “a book published by Cambridge University press is counted in the same way
as a book published by any small, local Polish publisher.” What stands out in this study is
the fact that after 2013, when Polish language monographs were at their peak, SSH authors
from this country began to write more often in different congress languages (e.g. French,
German, Spanish) as well as in English. This partly explains the drop in monograph
publications rates, seen in the previous study.

The Czech Republic is featured in the third article. Here, Broz and Stöckelová begin with
a positive statement regarding the significant rise in SSH book publications registered by
this country, citing the “gradual implementation of a performance-based system of research
evaluation since 2004.” Read further and it becomes more apparent, from the ethnographic
study of this sudden growth (i.e. interviews observations, policy document analysis), that
what has happened within this country’s research community is not necessarily all positive.
What the authors show is that the development of “in-house” publishing practices adopted
by various Czech universities, and the use of foreign low-quality presses, has led to
a “culture of orphaned books” and growing problem of “fake internationalism.”
The “university press” in the Czech Republic has become what the authors refer to as
author-managed self-publishing practices, which are not even occurring at the university
level, but at the level of faculty/departmental units. The “orphan” metaphor that they use for
scholarly books, establishes the fact that a large number never become visible, aside from
being featured in registries or annual reports. In sum, “these books are hardly ever read,
reviewed, purchased, or quoted.”

Performance-based systems: publisher lists and weighting schemes
The second two articles in this issue focus on performance-based systems, and the work that
has been done to enhance evaluation procedures for books. In many cases, publisher lists have
been adopted as well as weighting schemes. Usually, an editor evaluates a book before it is
published; thus, an academic text never results in a finished “book” without the work of the
editor. Publishers have thus become the focus of certain evaluation systems because
judgments at this level support both the quality of the text as well as the added value of its
editor. Policy makers responsible for creating publisher lists often pay attention to scholars’
perceptions (i.e. expert opinions) of what a prestigious publisher is in their field, but many
choose to differentiate further between those with an international vs national reputation, in
addition to those with and without rigorous external review procedures. With a publisher list
in place, the basic role of a point-based scheme and potential weighting scheme for scholarly
books, is to add value to it based on its publisher (i.e. prestigious or not; international or not)
and the time it takes for the scholar to produce it, compared to a journal article.
Mañana Rodriguez and Pölönen present a comprehensive discussion surrounding the development of publisher lists, noting that one of the practical reasons behind their construction is that “the extensive, detailed reading of the contents of each [scholarly book] title under evaluation by a panel of expert is costly and time consuming.” Both authors are familiar with such lists, as they exist in their respective countries; however, in Spain, one is used to evaluate scholars at an individual level, while, in Finland, a publisher list supports the assignment of level points to books produced in research departments, later rewarded with funding. Their idea to test for and examine a “merging” of such lists is interesting, for two reasons. First, it verifies the extent to which they can be so different at a country level, given the obvious fact that each will include national publishers, but the authors point to added problems concerning the way that publishers may be ranked from a field-specific standpoint. Second, the study provides necessary insight for how to approach a larger, international motivation: to develop a useful international publisher registry.

Verleysen and Engels present another type of experiment, a “thought” experiment, concerning how weights are assigned to monographs, and here the focus is mainly on the Flemish performance-based research funding system (PRFS). First, they point to the uniqueness of the Flemish PRFS, which applies a weight to all peer-reviewed publications based only on publication type. A monograph produced by a Flemish author, regardless of where it is published, receives a point of 4. Likewise, a research article receives a point of 1. In contrast, other countries apply added quality levels to their weighting schemes (i.e. Denmark, Finland, Norway) so that, for example, a monograph published in a Nordic country with a “lower quality” national publisher receives a lower point than another published with a “higher quality” international publisher. Notable is the fact that each of the Nordic quality-weighting schemes vary. Referring to the various country-based schemas as practical, though somewhat “arbitrary,” the authors decided to test the adequacy of the Flemish 4:1 ratio, by proposing an “indicator of scholarly effort.” Weight is thus related to publication size, and operationalized at the level of disciplines and universities, utilizing a publication’s medium number of pages. What the indicator shows is that the augmented weight ratio at an aggregate university level does not have negative consequences for the funding system in Flanders. But, at the individual level, it suggests that the effort made to write and publish six pages of text for a peer-reviewed monograph would take the same effort as writing and publishing one page for a journal article.

Alternative approaches to book evaluation

With the last two contributions, we learn more about the educational value of scholarly books, both in terms of their teaching impact and public uptake via social media. University students can be enlightened by the explanatory power of a new SSH book as much as any reader outside scholarly communication system; however, little research thus far has given attention to this (e.g. Kousha and Thelwall, 2016; Torres-Salinas et al., 2017). Alternative approaches to book evaluation are also not included in the national performance evaluation systems featured in this issue. In terms of inclusion, we mean that they are not tied directly to funding or other incentives, but may be recognized informally, or under consideration for newer policies. With social media in particular, there are opportunities to assess a book’s broader impact, but as the last study shows, opportunities do not come without caveats. Mas-Bledas and Thelwall point to the fact that scholarly books (i.e. edited with chapters and monographs) “do not have to follow the dense technical style typical of a journal”; and thus can “be more accessible to students.” In this paper, “accessibility” is measured in terms of the number of prestigious volumes added to teaching syllabi. In this sense, a “citation from a syllabus” becomes what the authors refer to as “an indicator of teaching value.” Publishers; however, are neither housed in every country, nor do they necessarily distribute books for use by students internationally. Hence, to test their assumption about
“teaching value,” the authors focus on a sample of Spanish-language books \((n = 15,117)\) written and published in Spain. In addition to matching all Spanish-language books mentioned in syllabi, the study examines further the extent to which the same books have received citations in Microsoft Academic. Year by year correlation measures between total syllabus mentions and total citation counts yield positive values, though this study’s most interesting finding is that more books in the initial sample had received at least one syllabus mention than at least one citation in Microsoft Academic. Here, the books mentioned most often via online syllabi tended to be “monographs” from “the field of law.”

In the seventh, and final study of this special issue, Torres-Salinas, Gorraiz, and Robinson-Garcia take into consideration the role of Altmetric.com in the evaluation of books. Here, the authors’ concern is not so much “the insoluble problem of books” but the degree to which alternative research tools are effective for evaluating their visibility and impact. A fine-grained analysis of Altmetric.com is thus welcomed at this junction in book evaluation studies, since it is one of few resources that indicate where and when scholarly books are mentioned in social media. DOI's are commonly used to trace journal articles, yet with books the opposite is true with ISBNs: “not all included in the Altmetric.com Book Collection have an ISBN code assigned to them.” However, the study shows that DOI's attached to books are increasing, and while a total of “75% of books with a DOI do not show information related to their point of access,” a significant number lead back to Google books (books.google.com) and other significant resources. Perhaps the most critical note made by the authors is that there is a strong lack of documentation offered by Altmetric.com. Tests made with a sample of books extracted Clarivate’s Book Citation Index™ show that in the absence of “clear documentation” related to “input data and how books are identified,” the use of this tool can lead to a research process based on “trial and error.” This study points to additional issues that have yet to be studied (e.g. the inherent language bias of Altmetric.com), though with a positive outlook on what can be done in the future.

**Conclusion**

Overall, we are convinced that the publication of this issue is both timely and relevant in view of ongoing developments concerning greater European and international collaborations. Some of the papers demonstrate significant efforts to reach data harmonization, while others provide the reader with a range of philosophical and political implications. The variety of topics that are discussed here expound current trends, new and critical challenges, as well as shared perspectives on scholarly books published in the social sciences and humanities.

We would like to thank Professor Dirk Lewandowski, the Editor-in-Chief of the *ASLIB Journal of Information Management* for accepting and facilitating our topic proposal. We would also like to express appreciation to the authors who submitted their manuscripts for consideration, and for their efforts concerning suggested revisions. Last but not least, we gratefully acknowledge all of the reviewers who provided detailed and constructive feedback to the authors, since it is without their work that we would not have produced this special issue.

We hope that you will enjoy reading this unique research collection!

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Are book publications disappearing from scholarly communication in the social sciences and humanities?

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**Abstract**

**Purpose** – The purpose of this paper is to analyze the evolution in terms of shares of scholarly book publications in the social sciences and humanities (SSH) in five European countries, i.e. Flanders (Belgium), Finland, Norway, Poland and Slovenia. In addition to aggregate results for the whole of the social sciences and the humanities, the authors focus on two well-established fields, namely, economics & business and history.

**Design/methodology/approach** – Comprehensive coverage databases of SSH scholarly output have been set up in Flanders (VABB-SHW), Finland (VIRTA), Norway (NSI), Poland (PBN) and Slovenia (COBISS). These systems allow to trace the shares of monographs and book chapters among the total volume of scholarly publications in each of these countries.

**Findings** – As expected, the shares of scholarly monographs and book chapters in the humanities and in the social sciences differ considerably between fields of science and between the five countries studied. In economics & business and in history, the results show similar field-based variations as well as country variations. Most year-to-year and overall variation is rather limited. The data presented illustrate that book publishing is not disappearing from an SSH.

**Research limitations/implications** – The results presented in this paper illustrate that the polish scholarly evaluation system has influenced scholarly publication patterns considerably, while in the other countries the variations are manifested only slightly. The authors conclude that generalizations like “performance-based research funding systems (PRFS) are bad for book publishing” are flawed. Research evaluation systems need to take book publishing fully into account because of the crucial epistemic and social roles it serves in an SSH.

**Originality/value** – The authors present data on monographs and book chapters from five comprehensive coverage databases in Europe and analyze the data in view of the debates regarding the perceived

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detrimental effects of research evaluation systems on scholarly book publishing. The authors show that there is little reason to suspect a dramatic decline of scholarly book publishing in an SSH.

**Keywords** Humanities, Social sciences, Book chapter, Book publishing, Monograph, Performance-based research funding

**Paper type** Research paper

**Introduction**
Publication patterns in the social sciences and humanities (SSH) are diverse. In the SSH book publishing takes a prominent role, both in terms of communicating with international peers and with a broader intelligentsia (Basili and Lanzillo, 2018; Hicks, 2004; Verleysen and Engels, 2014). Nevertheless, many criticisms of scholarly book publishing have been voiced. Harnad (1986), for example, advised against contributing chapters to edited volumes given the long delays that may occur in their publication process. Nederman (2005) warns that in academic evaluation contexts book chapters and edited volumes are hardly taken into account. In some humanities disciplines, however, the publication of a scholarly monograph is a requirement for professors to obtain tenure (Cronin and La Barre, 2004). In the field of history, for example, the publication of a monograph is considered a test of competency and of prestige, and a necessity in order to obtain tenure in the USA (Townsend, 2003). Yet the immanent disappearance of the scholarly monograph has also been predicted (Thompson, 2002) and has been attributed to research evaluation regimes (Williams et al., 2009). In sum, there is no shortage in opinions on the evolving role and position of books in the SSH and the factors influencing these evolutions. Systematic empirical information regarding the share of monographs and book chapters among scholarly publications is scanty available, however, thus complicating the interpretation of perceived evolutions, if any.

We fill this gap in the research literature by investigating empirically the evolutions of the shares of scholarly book publications using comprehensive publication data collected in Flanders (Belgium), Finland, Norway, Poland and Slovenia. For each country, we analyze the evolution of the share of monographs and book chapters for the humanities and the social sciences. Moreover, we analyze this evolution for the field of history within the humanities and for the field of economics & business within the social sciences. We discuss the implications of the empirical observations in relation to the often voiced concern that formal research evaluation regimes work against the production of books.

The structure of this paper is as follows. First, the literature review discusses factors that may influence SSH scholars in their choice of publication channels, and some of the available evidence regarding the evolving share of book publications among scholarly publishing. After the methods and data section, we present the results in a series of eight tables. The discussion summarizes the empirical findings and positions them in the light of the debate on the possible consequences of research evaluation regimes.

**Literature review**
Several factors may influence the choices of an SSH scholars to publish chapters, edited volumes or embark on a monograph. We distinguish between factors relating to the research process itself, factors relating to the process of publication, factors relating to the findability and visibility of publications and factors relating to informal and formal academic evaluation contexts.

**Research process**
With regard to the research process, the epistemic approach in the humanities and parts of the social sciences may be a fundamental reason for scholars to opt for book publications. For instance, Bonaccorsì (2018) argues that book publications are compatible with an SSH scholars’ need for long explanations, and Basili and Lanzillo (2018) suggest that monographs...
in particular allow scholars to establish and affirm their ideas. Similar arguments have led Crossik (2016) to emphasize the central position of the monograph in the culture and ecology in the humanities and most of the social sciences, and Bonaccorsi (2018) to state the books are the most important source in the SSH. Qualitative research by Hammarfelt (2017) illustrates the prestige of monographs in the field of history, and the commonness of book chapters in both history and economics. Similarly, Edwards (2012) argues that edited volumes allow for authoritative comparative perspectives across time, geographic localities and disciplinary borders. Reinforcing earlier arguments by Nederman (2005), she also emphasizes that edited volumes serve to establish scholarly communities, a process that is tightly linked to the research process itself. Cronin (2003), however, argues that there is no in-principle reason for scholars to not leave the monograph behind and move to a collection of journal articles and/or other formats. Thus, book publications and journal articles may not be so much opposed to each other, but the preference for one or the other rather be nurtured through scholarly cultures, and structural and demographic factors (Wolfe, 1990).

Recent empirical work shows that book publishing and journal publishing supplement each other rather than represent alternatives in the SSH (Sivertsen, 2016; Verleysen and Engels, 2012; Verleysen and Ossenblok, 2017; Verleysen and Weeren, 2016). Monographs, edited volumes and the chapters therein and journal articles represent different scholarly approaches that may all need to be used at different times. Williams et al. (2018), for example, report a preference of junior Italian authors for journal articles, while more established authors embark more often on book length publications. How such tendencies will evolve in increasingly digital and interdisciplinary environments, with digital humanities, large data sets and collaboration involving multiple disciplines becoming ubiquitous, is difficult to assess.

Traditionally, the SSH have been characterized as less focused on discoveries and much less cumulative in knowledge development than science, technology, engineering and medicine (STEM) fields, leading to fragmented competition within a certain paradigm (Bonaccorsi, 2018). However, the gradual evolution of disciplines such as archaeology (Jones, 2008) and art studies (Lewandowska and Mirosław Stano, 2018) into fields where many of the important breakthroughs are possible thanks to interdisciplinary collaboration, and the evolution of fields such as communication studies, economics & business, education, history, linguistics, literature, political science and sociology into fields that work ever more with digital data and techniques, might gradually introduce more of the across the board competition that is characteristic of the STEM journal landscape. Priority in publishing an analysis and results for example becomes more important with digital data sets, especially when they are available as the FAIR data. Moreover, such interdisciplinary and data intense collaborations often imply more co-authors, each with their own views and expectations with regard to publishing the results.

In sum, even though epistemic cultures may encourage book publishing, the gradual transformations of some specialisms and even whole disciplines into digitally driven and interdisciplinary scholarship may result in book publishing becoming less evident. This may be the case for publishing monographs if relatively less researchers work on their own, as well as for edited volumes and book chapters because the timelines need to coincide with those of collaborators.

Publication process
In terms of publication process, the delay that may occur when publishing edited volumes or book chapters therein may be a reason for avoiding such publications. Indeed, a survey by Williams et al. (2018) reports that the preference of junior authors for journal articles is motivated by the speed of publication, as well as the formal peer review process. Delays in publication may be even more prominent for monographs, as one or a few authors take on the entire working load whereas in the case of edited volumes the workload is more distributed (Edwards, 2012). The technological transformation from print to digital has also been
identified as a factor for the decline in book publishing (Elliot, 2015; Joseph, 2015), even though with e-publishing the publishing process of some volumes is now rather similar to that of many journals. Moreover, self-publishing and printing on demand may stimulate book publishing. Indeed, even though market consolidation for academic book publishing has been reported (Thompson, 2005), book publishing is still a more open market than the journal publishing industry, i.e. with less dominance of a few big players (Guns, 2018; Larivière et al., 2015). For the SSH, with paradigmatic pluralism present in most disciplines (Bonaccorsi, 2018), such an open market for book publishing probably stimulates book publishing, whereas the hegemony of a few big players in the journal publishing industry may be a gateway for the publishing of articles that follow mainstream or uncontested paradigms.

Findability and visibility of publications
In terms of findability and visibility of publications, the fact that most books still appear as physical entities only puts book publishing at a disadvantage compared to journal publishing, where most articles appear as digital entities (too). Digital entities are often easier to find, which may be an important factor in an era of increasing internationalization. Especially in the case of open access publishing, digital entities become also more accessible and, hence, can reach a broader, and global, audience. e-books have these characteristics too yet represent only a relatively small share of scholarly book publishing. Options for open access publishing and self-archiving with reasonable embargo periods are often more limited for book publications than journal articles. Moreover, books are often not indexed in international systems, especially citation indexes. Indeed, even in the most advanced global systems like CrossRef, Microsoft Academic or Google Scholar citations to and from books seem hard to trace, and Google Books is not fully integrated into Google Scholar (Donner, 2018).

In addition to the aforementioned factors relating to findability and visibility among scholars, findability and visibility for a broader public can be driving force for book publishing. Indeed, much scholarly book publishing is not solely focused on an academic audience and serves an explicit enlightenment role (Hicks, 2004). In the field of history, for example, book publishing is closely intertwined with the aim of reaching a broader audience (Zuccala et al., 2015). More often than not such books are written in a local language rather than in English. Within the target region of the scholar, the findability (e.g. in book shops and libraries) and visibility (e.g. through coverage in local media) of such books is often high.

Academic evaluation contexts
In academic evaluation contexts, book publishing has had different statuses, with monographs requirements on the one hand and negligence of edited volumes on the other hand. This may gradually be changing, with the requirement for a monograph becoming less common in the humanities (e.g. both with regard to the format of PhD theses and in view of obtaining tenure). Evaluation cycles may influence scholars’ decisions (not) to embark on a monograph project, e.g. when the envisioned time needed for completion is more than the interval between two evaluations (Williams et al., 2009). Moreover, the weights for scholarly book publications and journal articles can shape how authors perceive the value of a given publication type. For instance, since 1999, scholarly book publications in Poland have been assigned lower weights than journal articles in the Polish research evaluation system. Hence, publishing articles is a more efficient strategy for Polish scholars (Kulczycki, 2017). In Slovenia, growth of international publications was accompanied by growth of scientific monographs in Slovenian in the period from 1998 to 2005 (Sorčan et al., 2008). Sorčan et al. (2008) attribute this to importance of monographs for the national development of a scholarly field. According to an interview study of Finnish SSH professors, a (real or perceived) decline of the share of monographs may also be linked to universities’ recruitment policies that gradually placed more weight on peer-reviewed articles in international journals (Puuska, 2014). Indeed, the
aforementioned study by Williams et al. (2018) illustrates that younger scholars in particular may value the transparency of the journal publishing system. It is also a relatively widely held conviction among the Finnish SSH research community that research policy in general, and performance-based research funding systems (PRFS) in particular, favors English language journal articles (Sivula et al., 2015). This is the case even though books and national language publications are taken into account in the national quality index of peer-reviewed publication channels supporting the PRFS (Pihlström, 2014). Contrary to Norway and Denmark, Finland has also weighted book chapters and journal articles equally in its PRFS. Moreover, several PRFS make peer review of book publications explicit through lists of book publishers, book series, peer review labels and listing of peer reviewers (Gimenez-Toledo et al., 2016, 2018). Still, the claim that informal and formal academic evaluation contexts and processes hamper book publishing resonates well (e.g. Hammarfelt and de Rijcke, 2015). We will therefore discuss our findings in particular in relation to such claims.

Overall, we observe drivers that may cause book publishing to increase as well as drivers for book publishing to become less common. We have, therefore, decided: to investigate empirically the evolutions in terms of shares of book publishing in the humanities and in the social sciences in five European countries, and to analyze this evolution also specifically for two well-established fields, i.e. history as a field within the humanities, and economics & business as a field within the social sciences.

Empirical studies regarding the evolution of the share of scholarly book publications
Empirical evidence regarding the evolution of the share of scholarly book publications in the total volume of scholarly publications in a given country is rare. The main reason lies in the fact that in most countries comprehensive coverage data are not readily available. Norway pioneered a trend toward establishing comprehensive coverage databases, which identify those book publications that are peer-reviewed explicitly (Sile et al., 2017). Yet even where full coverage national publication databases are in place, several of them do not include edited volumes as a publication type that may be peer reviewed (Kulczycki et al., 2018). This is for example the case in most Nordic countries, for which a sizable share of monographs (4.9 percent) and book chapters (29.5 percent) among the SSH publications 2015 has been reported (Nordforsk, 2018). As such, the evolution of the share of book publications in the total volume of scholarly publications remains difficult to study, especially over longer time spans. What empirical evidence is available points to different evolutions. Engels et al. (2012) reported a stable share of book publications for the humanities for the years from 2000 to 2009, a period during which book publications were not taken into account in the regional Flemish performance-based funding system. For the social sciences, however, they reported a smaller and falling share of book publications. Aagaard et al.'s (2015) report stability in the publication patterns of Norway in an evaluation of the effects of the Norwegian publication indicator for performance-based research funding for institutions. Sivertsen (2016) finds the same, but journal publishing is more abundant among younger researchers. In Finland, there are indications based on data from selected universities that the importance of scholarly book publishing in an SSH fields did not diminish in the years 1997–2008. Due to differences in definitions, the shares are not directly comparable with the data used in this study (Puuska 2011; Puuska, 2014). For Slovenia, Sorčan et al. (2008) reported a 60 percent increase of the share of monographs in Slovenian in the period 1998–2005. In Poland, the share of scholarly book publications decreased substantially in the years 2009–2016, probably due to changes in the Polish research evaluation model (Kulczycki, 2018). However, interpreting these changes in book patterns, one needs to take into account that definitions of scholarly book types changed during this period too. In a comparison of data for eight countries, Kulczycki et al. (2018) report, for the period 2011–2014 and a selection of disciplines including economics & business, stable shares of monographs and book chapters for some countries (Denmark, Flanders and Norway),
potentially declining shares for others (Finland and Slovenia) and considerable year-to-year
variations for yet other countries (the Czech Republic and Poland). We here expand the
Kulczycki et al. (2018) study to the whole of the humanities and the social sciences and, in
particular, to all years for which comprehensive data are available in each of our countries.

In sum this study analyses the comprehensive coverage data on the share of peer-reviewed
book publications (book chapters, edited volumes and monographs) that are available from
Flanders and Slovenia for the period from 2004 to 2015. We supplement these data with data
on peer-reviewed book chapters and monographs from Norway for the period from 2005 to
2015 as well as data on all types of peer-reviewed book publishing for the period from 2009 to
2014 for Poland and 2011 to 2015 for Finland. This approach allows us to shed light on the
share of book chapters and monographs in humanities and in social sciences in five different
countries from Central, Northern, Southern and Western Europe, and to compare these shares
and their trends across countries. Moreover, we analyze the same trends for the disciplines of
history and economics & business, two well-established disciplines with a sizeable presence in
each of the five countries. This approach allows us to further the understanding of the overall
trends for humanities and social sciences, without assuming, however, that either history or
economics & business are somehow representative of humanities, respectively, social sciences.

Data and methods
Data for this paper were collected from five comprehensive coverage national publication
databases. For recent detailed and comparative descriptions of these databases (namely the
VABB-SHW or Flemish Academic Bibliographic database for SSH in Flanders, the VIRTA
information publication service in Finland, the Norwegian Science Index in Norway, the
Polish Scholarly Bibliography in Poland and the Cooperative Online Bibliographic System
and Services in Slovenia), we refer to Stele et al. (2017, 2018) and Kulczycki et al. (2018).
For VABB-SHW (Guns et al., 2018), VIRTA and NSI all publications are classified according
to the OECD fields of science classification (Organisation for Economic Co-operation and
Development, 2015) and, hence reported as such. For the Polish PSB, the organizational
classification of publications allows reporting of overall numbers for SSH, social sciences,
humanities, as well as economics & business, law and history. In the case of Slovenia, the
classification of publications in COBISS according to the Universal Decimal Classification
system was translated toward the OECD Fields of Science.

Clearly, each of the databases uses either its own classification system (COBISS and PSB),
or a local implementation of the OECD-Field of Science classification (NSI, VABB-SHW and VIRTA).
Thus, the classification of publications into disciplines and fields is not uniform across the five
databases. Similarly the way the requirement of peer review is implemented differs across
countries, as do other factors such as the definitions of publication types, the data collection
processes, the (potential) impact of (not) reporting publications, etc. Thus, differences in terms
of the shares presented per country should not be taken as exact representations of the
position of scholarly book publishing between the countries. Rather, the time trends
per country are illustrative of the evolving position of scholarly book publishing per country.
Differences between countries can be understood as general trends only.

A total of 336,681 peer-reviewed publications (each publication wholly counted at national
level) are taken into account for this study. For Flanders, 48,200 publications published
between 2004 and 2015, among which 73.8 percent journal articles and contributions to
proceedings, 2.0 percent monographs, 3.7 percent edited volumes and 20.5 percent book
chapters are included in this study. For Slovenia, the total number of publications 2004–2015
amounts to 92,522, among which 63.8 percent journal articles and contributions to
proceedings, 4.8 percent monographs, 9.4 percent edited volumes and 22.0 percent book
chapters. In the case of Poland, the total number of publications (2009–2014) is 128,275,
including 26.4 percent journal articles and contributions to proceedings, 10.6 percent
monographs, 7.1 percent edited volumes and 55.8 percent book chapters. In Finland for the years from 2011 to 2015, we count 40,057 publications, including 59.2 percent journal articles and contributions to proceedings, 3.8 percent monographs, 5.8 percent edited volumes and 31.1 percent chapters in books. Norway contributes with 27,627 publications from 2005 to 2015, of which 57.7 percent are journal articles, 38.0 percent are chapters in books and 4.3 percent are monographs. The assignment of publications to the OECD-FoS level 2 fields History and economics & business is available in the NSI for the period 2011–2015 only.

For the field of history, a subset of 30,893 peer-reviewed publications is taken into account. 3,103 of these publications stem from Flanders, 3,424 from Finland, 1,449 from Norway, 17,395 from Poland and 5,522 from Slovenia. Overall, 34.0 percent of these history publications are journal articles and contributions to proceedings, 9.5 percent monographs, 7.4 percent edited volumes and 49.1 percent book chapters. In the OECD-FoS classification, history and archaeology are grouped together, whereas here we attempted at considering History separately. For Flanders and Slovenia History and Archaeology are indeed separated from each other. For Finland and Norway this is not the case, whereas for Poland most archaeology units seem to be classified under history even though in the Polish organizational classification system archaeology is considered a separate field. For the three latter countries for which we consider a shorter time window (2011–2015 and 2009–2014, respectively) the numbers and shares presented in this paper thus pertain, at least to some extent, to history and archaeology together.

For the field of economics & business a subset of 52,897 peer-reviewed publications is taken into account. In total, 5,735 of these publications stem from Flanders, 1,820 from Finland, 1,654 from Norway, 28,152 from Poland and 15,536 from Slovenia. Overall, 52.5 percent of these economics & business publications are journal articles and contributions to proceedings, 6.3 percent monographs, 6.8 percent edited volumes and 34.5 percent book chapters.

**Results**

We here present results for the share of monographs and the share of book chapters for the humanities, for the field of history, for the social sciences and for the field of economics & business. In the tables below, shares are presented as they are calculated in the different national systems, meaning that for Norway the sum of the share of articles in journals and proceedings, book chapters and monographs is 100 percent, whereas in the four other countries the share of peer-reviewed edited volumes needs to be added in order to get the full picture.

**Humanities**

Table I presents the share of monographs in the humanities per year per country. Similarly, Table II presents the share of book chapters in the humanities per year per country. For the

<table>
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**Table I.**

Share of monographs in the humanities
period from 2004/2005 to 2015, the shares of both book chapters are rather stable in Flanders, Norway and Slovenia. The shares are also rather similar for Flanders and Slovenia, yet considerably higher in Norway. The share of monographs seems also rather stable in these three countries. Peer-reviewed monographs, however, make up less than 4 percent of the total number of peer-reviewed publications in the humanities in Flanders, around 5 percent in Norway and in most years considerably more than 5 percent in Slovenia. For the shorter time window 2011–2015, the shares in Finland seem rather stable for monographs and book chapters alike. The shares observed for Finland are similar to those for Norway. For Poland a sharp decrease in the share of monographs is manifest between 2012 and 2013, while the share of book chapters seems on a gradual decline since 2010 yet still at a comparatively high level. Overall, for humanities, the differences between countries in the height of the share of monographs seem the most striking observation.

History
For the field of history (Tables III and IV), we observe rather similar patterns than for the humanities as a whole. It should be noted, however, that somewhat more fluctuations are to be expected in the data for the field of history specifically as the population of researchers in history is much smaller than that of the whole of researchers in the humanities in each of the countries included in this study. Although monographs are

<table>
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<td>0.7</td>
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Table III.
Share of monographs in the field of history

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generally considered very important in the field of history, the percentages of monographs published are close to those for the humanities as a whole. In Flanders, the share of monographs in History is slightly lower than for humanities as a whole, except for the last two years. For Poland and Slovenia, the shares of monographs are very similar for History and humanities as a whole, whereas for Finland and Norway the share of monographs in History is high compared to humanities as a whole. A similar pattern emerges for the share of book chapters, except for Slovenia where book chapters in History represent a considerably higher share of the total output than do book chapters in the whole of the humanities. An interesting observation in comparing the countries with each other is that in recent years Poland is no longer the country where the shares of monographs and book chapters are the highest among the five countries studied in this paper: Finland and Norway have higher shares in 2013 and 2014.

Social sciences
Table V presents the share of monographs in the social sciences per year per country. Similarly, Table VI presents the share of book chapters in the social sciences per year per country. We observe different trends per country and per publication type. In Slovenia, both the share of monographs and the share of book chapters seem stable over the whole 12 year period that we could study. For Flanders, the share of monographs seems stable although it is higher in the two most recent years, while the share of book chapters seems...
consistently on the rise since the introduction of the Guaranteed Peer Reviewed Content (GPRC) (Verleysen and Engels, 2013) label. For Poland, the stark decline in the share of monographs between 2012 and 2013 is matched by a still remarkable yet much smaller decline in the share of book chapters around the same time. In Finland, the share of book chapters seems stable while the share of monographs has been declining gradually. A similar decline in the share of monographs in the total volume of peer-reviewed publications in the social sciences seems to have occurred in Norway a few years earlier. The share of book chapters seems stable in Norway at close to one in three publications in the social sciences. Overall, for the social sciences, the slight yet different trends between countries in the shares of monographs (stable in Slovenia, declining in Finland, Norway and Poland and possibly on the rise in Flanders) as well as book chapters (stable in Finland, Norway and Slovenia, declining in Poland and on the rise in Flanders) stand out most.

**Economics & business**

Tables VII and VIII present, respectively, the share of monographs and of book chapters in economics & business. As for the social sciences as a whole only for Poland large year-to-year variations are apparent. The shares of monographs and of book chapters are considerably lower than for the social sciences as a whole in Finland, Norway, and, to a lesser extent, Slovenia. For Flanders and Poland rather small differences only are apparent.

### Table VI. Share of book chapters in the social sciences

<table>
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### Table VII. Share of monographs in the field of economics and business

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Discussion

In this paper, we examine the shares of monographs and of book chapters among peer-reviewed publications in the humanities and in the social sciences for Flanders (Belgium), Finland, Norway, Poland and Slovenia. We study the period 2004–2015, as this is the longest timespan for which comprehensive coverage publication data from at least two of the countries are available. In addition to the humanities and the social sciences as a whole, we study the share of monographs and of book chapters in the fields of history and of economics & business.

The share of monographs among peer reviewed publications in the humanities seems stable in all countries except Poland. In the social sciences, the share of monographs among peer reviewed publications is at a lower base than in the humanities. Also, a gradual decline of the share of monographs in the social sciences seems to occur or have occurred in Finland and in Norway, whereas for Poland we again observe a sharp decline between 2012 and 2013. This sudden change in publication patterns in Poland can be linked to the reforms that were implemented in 2011 which changed the model of academic promotions in 2013 (Kulczycki et al., 2018). Self-publishing of monographs decreased after this reform because since then the Polish scholars can be promoted based on a series of articles rather than on the basis of a monograph only (Kulczycki, 2018). For Slovenia, the share of monographs in both humanities and in social sciences seems stable over the whole period 2004–2015. In Flanders, the share of monographs is the lowest among the five countries studied; in recent years, however, slight increases become apparent.

The share of book chapters in the humanities and in the social sciences seems stable in Finland, Norway and Slovenia. In Poland, we observe gradually declining shares of book chapters among the total volume of peer reviewed publications. In Flanders, the introduction of the GPRC label for peer reviewed books seems to have stimulated the publishing of book chapters, rather immediately in 2010 in the humanities and more gradually in the social sciences. The differences in the share of book chapters between countries remain large, with Norway and Poland at the higher end, Flanders and Slovenia at the lower end and with Finland holding a position in between the others. With the current longer term trends, the shares may gradually converge.

Before addressing some implications, a major limitation of this study needs to pointed out. Although in each of the five countries studied the same concepts are used, the actual definitions and implementations of what are peer reviewed publications, what are monographs, resp., book chapters and the OECD-FoS classification through which publications are assigned to fields are in all likelihood not identical. In fact the authors are aware of considerable differences implying that cross-country comparisons are not evident.

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**Table VIII. Share of book chapters in the field of economics and business**

<table>
<thead>
<tr>
<th>Year</th>
<th>Flanders</th>
<th>Finland</th>
<th>Norway</th>
<th>Poland</th>
<th>Slovenia</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>17.3</td>
<td>12.1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2005</td>
<td>13.7</td>
<td>12.4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2006</td>
<td>11.3</td>
<td>11.8</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2007</td>
<td>16.2</td>
<td>12.6</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2008</td>
<td>16.9</td>
<td></td>
<td></td>
<td>12.8</td>
<td></td>
</tr>
<tr>
<td>2009</td>
<td>21.7</td>
<td>62.8</td>
<td>6.8</td>
<td>12.8</td>
<td></td>
</tr>
<tr>
<td>2010</td>
<td>15.8</td>
<td>64.4</td>
<td>9.0</td>
<td>12.8</td>
<td></td>
</tr>
<tr>
<td>2011</td>
<td>16.3</td>
<td>10.8</td>
<td>22.4</td>
<td>56.1</td>
<td>11.7</td>
</tr>
<tr>
<td>2012</td>
<td>17.0</td>
<td>11.0</td>
<td>19.1</td>
<td>50.2</td>
<td>11.0</td>
</tr>
<tr>
<td>2013</td>
<td>19.7</td>
<td>8.7</td>
<td>14.2</td>
<td>37.6</td>
<td>11.7</td>
</tr>
<tr>
<td>2014</td>
<td>20.6</td>
<td>11.9</td>
<td>15.6</td>
<td>36.1</td>
<td>12.3</td>
</tr>
<tr>
<td>2015</td>
<td>20.9</td>
<td>12.7</td>
<td>14.4</td>
<td>13.8</td>
<td></td>
</tr>
</tbody>
</table>
At present, however, cross-country comparisons on the basis of data collected per country are the best possible option. Moreover, differences in measurement do not preclude comparisons in practice (Chang, 1997). A second limitation is that for Flanders and Slovenia only the whole period 2004–2015 could be studied. For Finland, Norway and Poland the available data concern shorter time spans.

These limitations notwithstanding, the data presented in this paper show that book publishing is not about to disappear from scholarly publishing in the SSH, nor from specific fields such as history and economics & business. This conclusion holds for each of the five countries studied. In the light of the factors reviewed in the literature review this implies that no particular (set of) factor(s) appears as so dominant that it becomes decisive for the future of book publishing in the SSH. Indeed, as we pointed out in the literature review, the epistemic culture of most of the SSH makes it unlikely that book publishing would go away. This implies that publishers are right to continue their efforts to provide authors with opportunities to publish books, also in the digital era. Historians, for example, have been reported to be open to e-books (Martin and Quan-Haase, 2013). Also, the emergence of “short monographs,” as launched through Palgrave Pivot and Routledge Focus, for example, may well sustain the share of monographs yet at the same time reduce the average length of the manuscripts. Edited volumes and the chapters that appear in them also serve important roles in scholarly community building, which makes them likely to remain important in the SSH. Publishers and scholars alike, however, are wise to pay close attention to the publishing process and its technological approach when embarking on book publications. The structured online visibility of the work to be published, including the open access, can influence the findability and visibility of the work to a great extent. Although currently this is mainly the case for the more academically oriented work, this will become crucial for book publications in local languages targeted toward a local intelligentsia. Several countries, e.g. Slovenia’s National (2015) strategy of open access to scientific publications and research data already actively encourage open access to book publications.

Most importantly our analysis shows that academic research evaluation systems are by no means necessarily in conflict with book publishing. Such an observation contradicts the claims by Chodorow (1999), Williams et al. (2009) and others, who have argued that formal and informal evaluation systems work against book publishing, in particular in the humanities. Only in the case of Poland do we see a rather abrupt change in publishing patterns, away from book publishing. Thus, a negative impact on book publishing is possible, yet appears to be less likely in more mature evaluation systems.

The case of Flanders illustrates that a formal PRFS aimed at distributing funding between universities and supplemented by formative evaluations by peers (cf. Sivertsen, 2017) may in fact encourage book publishing. Indeed, the shares of monographs and book chapters seem to be creeping up in Flanders, probably thanks to initiatives such as the GPRC-label and the formal recognition of series that apply peer review. Under such circumstances, the formal requirements of a PRFS may turn out to be beneficial for book publishing in the longer term, as the demand by (younger) scholars for transparent peer review of book publications results in systems that reconcile the epistemic contexts of scholars with the needs of scholars in view of formal and informal evaluation contexts and high quality publishing. Indeed, both publishers and scholars stand to win from further formalizing the peer review processes of books.

**Conclusion**

The data presented in this paper show that book publications are and remain vital for the SSH. Hence, book publications should also be taken into account fully in research evaluation. Indeed, this paper shows that in countries that have implemented formal PRFS...
the share of book publications tends to evolve gradually over time, mostly with only very slight year-to-year variation, both downward and upward. These observations for Flanders (Belgium), Finland, Norway, Poland and Slovenia contradict generalizations that PRFS are at odds with book publishing.

References


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The diversity of monographs: changing landscape of book evaluation in Poland

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Abstract

Purpose – The purpose of this paper is to determine the characteristic patterns of monographs in the humanities, social sciences and hard sciences published by Polish scholars. The study provides a comprehensive overview of the Polish book evaluation system to explain how monographs are assessed and illustrate how changes in the definitions of the types of scholarly book publications influence publication patterns.

Design/methodology/approach – This paper analyses bibliographic records of 42,307 monographs published by Polish scholars in the humanities and science fields from 2009 to 2016. Through a bibliometric analysis, the paper investigates the characteristic patterns of the monographs, including authorship, publication language and length, across three fields.

Findings – The present study demonstrates that changes in the definitions of scholarly book publications in Poland have significantly influenced the characteristic patterns of monographs. The analysis of the characteristic patterns across three fields reveals that the monographs are different in terms of all characteristics. In the entire period, 85.3 percent monographs were written in Polish, 10.1 percent in English, 1.4 percent in German, 1.1 percent in Russian and 2.1 percent in 39 other languages. The most significant changes are observed in authorship patterns.

Originality/value – This work offers empirical findings on the characteristic patterns of monographs in the humanities, social sciences and hard sciences from a non-English speaking country. It discusses a unique model of book assessment and shows certain consequences of various overly formalized procedures of evaluation. Thus, the study identifies the major challenges and implications of using highly formalized procedures for book evaluation.

Keywords Poland, Co-authorship, Book evaluation, Monograph, Publication patterns, Scholarly books

1. Introduction

It is well documented that scholarly books are the key type of publication used in the social sciences and humanities (SSH) (Giménez-Toledo and Román-Román, 2009; Williams et al., 2009). However, scholarly books can also be an important channel of scholarly communication for researchers in the hard sciences (Bonaccorsi et al., 2017; Storer, 1967; Tang, 2008).

Scholarly book publications play a major role in the assessment of institutions and authors. However, scholarly book evaluation is not an easy task and cannot be conducted in the same manner as an evaluation of journal articles. The evaluation of scholarly books and the evaluation of journal articles each have unique issues. In terms of scholarly book evaluation, the main challenges are integrating data for a metric assessment (Zuccala and Cornacchia, 2016), combining data on books as groups of work (Zuccala et al., 2018), constructing the lists and rankings of academic publishers (Giménez-Toledo et al., 2016) and developing commercial book citation indexes (i.e. the Book Citation Index) so that it is a viable tool for carrying out international studies concerning books (Torres-Salinas et al., 2013, 2014).

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Various European countries have been implementing specialized research evaluation systems in order to generate performance-based funding. Publications are the key outputs evaluated by such systems. Giménez-Toledo et al. (2016) showed that book evaluation can be implemented on the micro (e.g. an evaluation of publishers in Spain), meso- or macro-level (e.g. book publisher lists and labels for peer-reviewed publications). G. Williams et al. (2018) classify European book evaluation systems into three categories: qualitative, quantitative and database systems. In the evaluation of scholarly book publications, the most often used indicators are the profiles of book publishers (Mannana-Rodriguez and Giménez-Toledo, 2018), library holdings (Biagetti et al., 2018), book reviews (Basili and Lanzillo, 2018), citations (Zuccala et al., 2015), visibility (Giménez-Toledo and Román-Román, 2009) and internationalization indicators (Verleysen and Engels, 2014a). However, there are many other indicators (e.g. an inclusion in a particular series or a number of copies sold) which – according to the academic community – could or should be used in book evaluation (Peruginelli et al., 2018).

In Poland, the evaluation of scholarly books is conducted within the framework of the Comprehensive Evaluation of Scientific Units, which is the Polish performance-based research funding system (Kulczycki, 2017). This system has been used in Poland since 1991, but the last two cycles of evaluation, which took place in 2013 and 2017, were conducted using a new version of the parametric model that was proposed in 2010 and presented in detail in 2012 (Kulczycki, Korzeń and Korytkowski, 2017). The Polish solution for book evaluation is distinct from other solutions used in European countries (e.g. Denmark, Finland, Flanders, Italy, Norway and Spain), which have been assessed and well documented in previous research (e.g. Faggiolani and Solimine, 2018; Sivertsen, 2016; Verleysen, 2016). In terms of the three levels of evaluation described by Giménez-Toledo et al. (2016) and the three categories of systems classified by G. Williams et al. (2018), the Polish book evaluation system is a quantitative system that is implemented on a micro-level. However, the Polish book evaluation system is not similar to the Spanish book evaluation system, in which indicators regarding the quality of publishers support the decisions made by expert panels. In Poland, neither the prestige of book publishers nor book reviews, citations or book visibility is included in book evaluation. Moreover, there are no rankings or authorized lists of publishers. Rather, the system uses some formal criteria (e.g. the length of monograph) that the evaluated books must meet.

This study aims to determine the changes in the characteristic patterns, including co-authorship, publication language and length, of monographs in the humanities, social sciences and hard sciences published by Polish scholars. Moreover, changes in the definitions of the types of scholarly book publications are investigated. This study examines the data that were originally collected for the Comprehensive Evaluation of Scientific Units, from the period of 2009–2016. This analysis contributes to the discourse on the methods of scholarly book evaluation and the differences in monograph patterns across the humanities, social sciences and hard sciences. It also addresses several important issues regarding how to define the different types of book publications. The study is driven by two main research questions. The first question is conceptual in nature and addresses the issues regarding the definitions of publication types:

RQ1. How have the definitions of scholarly book publications changed between two cycles of evaluation?

The second question concerns the differences in the characteristic patterns of monographs across multiple academic fields:

RQ2. What are the field-specific monograph publishing patterns in the humanities, social sciences and hard sciences?
The paper is structured as follows: in Section 2, a description of the scholarly book evaluation in Poland is presented. In Section 3, I describe the data and outline the methods that were used for the analysis. In the following section, I present the results and specifically focus on authorship, publication language and length. The final section presents my main findings and provides some conclusions.

2. Different types of scholarly book publications in Poland

2.1 Assessment of publications in Poland

In the last two cycles of evaluation, research outputs from the 2009 to 2012 and 2013 to 2016 were assessed, respectively. A unit of analysis in the evaluation is a higher education institution, a unit within an institution of higher education (e.g. a faculty), a research institute or an institute of the Polish Academy of Sciences. All scientific units were categorized into four groups: the SSH group, the sciences and engineering (SE) group, the life sciences (LS) group and the art sciences and artistic production (ASP) group. However, scientific units from all fields were evaluated according to the same (non-field-specific) regulations.

The evaluation cycles were regulated by the Ministry of Science and Higher Education in Poland. The regulation for the 2013 evaluation was published in July 2012, and the final version of criteria was published after the entire process of evaluation was completed in March 2014. The regulations for the 2017 evaluation were initially presented in the first half of 2015 and finally published in December 2016.

A type of publication (e.g. article and scholarly book publication) determines the way in which a given publication is assessed. All journal articles are assessed according to the Polish Journal Rankings (Kulczycki and Rozkosz, 2017) and all scholarly book publications (e.g. monographs, chapters and edited volumes) are assessed according to the formal criteria. For each evaluated publication, a given scientific unit obtains a specified number of points.

In both cycles of evaluation, there were two important limitations in the assessment of the publications. The first is related to the limited number of publications that a scientific unit can submit for evaluation. This limit is expressed in terms of the formula $3N - 2N_0$, where $N$ is the arithmetic mean of the full-time equivalent academic staff members during the evaluated period (i.e. 2009–2012 or 2013–2016), while $N_0$ is the number of academic staff members who were not authors of any publication during the evaluated period. The other limit is connected to the limited number of monographs that a scientific unit can submit for the evaluation. In the 2013 evaluation, scientific units from the SSH group could not submit more than 40 percent of the total number of publications affiliated with this unit and limited by the aforementioned formula. Units from the SE and the LS groups could submit up to 10 percent, and units from the ASP group could submit no more than $1/3$ of $3N - 2N_0$. In the 2017 evaluation, the share for the SSH group remained the same, whereas for the SE the share was raised to 20 percent and for the ASP the share was decreased to 25 percent. It is worth mentioning that in both cycles of evaluation the majority of scientific units did not submit enough monographs to reach this limit.

The number of points obtained by a publication at that time depended on the publication channel. For an article, a scientific unit could obtain 1–50 points (the highest number of points was assigned to journals with the Journal Impact Factor). For a monograph, a scientific unit could obtain 20 or 25 points in the 2013 evaluation. In total, 25 points were assigned to monographs written in the so-called congress languages, which include English, German, French, Spanish, Russian and Italian, and for monographs written in a fundamental language for a discipline (e.g. Czech for Czech philology). In the 2017 evaluation, the distinction that depended on the language of the monograph was dropped, and all monographs were assigned 25 points. Moreover, up to 5 percent of...
monographs submitted by a given scientific unit could be acknowledged as an “outstanding monograph” if it was awarded by the Polish prime minister or if it received an award from the Polish Academy of Sciences or another prestigious academic association. The final points obtained for publications depended on the number of authors: up to ten authors: 100 percent of points; more than ten authors: 100 percent of points when at least 20 percent of authors are employees of a given scientific unit, 75 percent points when at least 10 percent of authors are employees of a given scientific unit, and 50 percent when less than 10 percent of authors are employees of a given scientific unit.

2.2 Definitions and types of scholarly book publications
Table I presents the definitions of monographs, chapters and edited volumes used for the evaluations conducted in 2013 and 2017. To be recognized as a monograph, a scholarly book had to meet various formal criteria. Moreover, in each evaluation cycle, there was a list of the publication types that were not recognized as monographs during the evaluation. There were disputes in the scientific community regarding how the 2013 evaluation did not recognize handbooks and textbooks as any type of scholarly book publication. Thus, in the 2017 evaluation this exclusion was dropped.

Evaluators (approximately 150 scholars) hired by the Ministry of Science and Higher Education in Poland in each evaluation cycle determined whether the publications met the criteria for recognition as a monograph. In 2017, two new criteria were added. First, a publication could only be considered a monograph if it had been published online or if a copy of it had been sent to libraries. This criterion was implemented to allow the evaluators to actually assess whether the other criteria had been met. Second, it was added that a publication could only be recognized as a monograph if the document was identifiable by an ISBN, ISMN, ISSN or DOI.

As Table II illustrates, all scholarly book publications were divided into three main categories: monographs, chapters and edited volumes. In 2013, types of scholarly books publications were differentiated according to the language in which the document was published. In 2017, this criterion was dropped, but three other criteria were implemented. In this way, the classification of the monograph depended on the following: the number of authors, the marking of the contribution and the authors’ affiliation.

Symbols representing the scholarly book publications in Table II were not used in the official regulations. However, these symbols are used in the present paper to clarify the presentation and analysis of the book evaluation system. Monographs A and B from 2013 were transformed in 2017 into monographs C and D but not into E and F. An analysis of the description of the E and F types demonstrates that these types represent edited volumes (in terms of the 2013 regulations) rather than monographs. Thus, the monographs E and F should constitute a separate category with edited volume L instead of being connected to C and D. Monographs E and F, however, were problematic for interpretation by stakeholders, scholars and even experts. Moreover, these blurred definitions caused scientific units to submit regular edited volumes not only to the L type but also to the E and F and even to the C and D types.

3. Methods
3.1 Data source
Aggregated data from the Polish Ministry of Science and Higher Education were used for this analysis. During the last two cycles of evaluation, in 2013 and in 2017, all scientific units submitted the questionnaire with, among other documents, bibliographical records of publications affiliated with those units from the 2009 to 2012 and 2013 to 2016. A bibliographical record from each institution, called an evaluation item, was assigned to one of the publication categories (i.e. article, monograph, edited volume and chapter) and
<table>
<thead>
<tr>
<th>Evaluation year</th>
<th>Definition of monograph</th>
<th>Criteria (Conditions)</th>
<th>Not recognized as monographs in evaluation</th>
<th>Definition and criteria for chapters</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>Monographs, specifically editions of source texts, lexicographies, atlases and multifaceted maps, translations with editorial work, thematic encyclopedias and lexicons, commentaries to laws, critical works of literary texts, biographical and bibliographic dictionaries, bibliographies and catalogs of monuments. Moreover, in the fields of the humanities and social sciences, as well as in the fields of arts and artistic production: conference proceedings</td>
<td>1. It must be a thematically coherent and peer-reviewed research paper 2. It must contain a bibliography 3. Its length should be at least six author sheets&lt;sup&gt;a&lt;/sup&gt; 4. It must be published as a standalone volume 5. It must present an original research problem</td>
<td>1. Monographic articles published in journal 2. Handbooks and textbooks 3. Novels 4. Poetry 5. Story collections and documentaries 6. Diaries 7. Monograph re-editions</td>
<td>The chapter (or map) length should be at least a half of an author sheet&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
<tr>
<td>2017</td>
<td>Monographs, specifically editions of scientific and artistic texts, atlases and maps, thematic encyclopedias and lexicons, commentaries to laws, handbooks and textbooks, biographical and bibliographic dictionaries, bibliographies, and catalogs of monuments</td>
<td>1. It must be a thematically coherent research paper 2. It must present an original research problem 3. It must be peer-reviewed 4. It must contain a bibliography (or footnotes/endnotes); this criterion is not obligatory for the maps 5. Its length should be at least six author sheets&lt;sup&gt;a&lt;/sup&gt; 6. It must be published as a standalone volume (not obligatory for the maps). The work was published online, or copies were sent to the libraries 7. It must be identifiable by an ISBN, ISMN, ISSN or DOI</td>
<td>1. Monographic articles published in journal 2. Novels 3. Poetry 4. Story collections and documentaries 5. Diaries 6. Monograph re-editions</td>
<td>1. The chapter (or map) length should be at least a half of an author sheet&lt;sup&gt;a&lt;/sup&gt; 2. Encyclopedia and dictionary entries should be at least one quarter of an author sheet&lt;sup&gt;a&lt;/sup&gt; 3. If a book chapter is classified as a conference proceeding and indexed in the WoS, then the chapter length does not matter</td>
</tr>
</tbody>
</table>

<sup>a</sup>An author sheet consists of 40,000 characters or approximately 6,000 words
<table>
<thead>
<tr>
<th>Type of scholarly book publication</th>
<th>2013 evaluation</th>
<th>2017 evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monograph</td>
<td>Symbol</td>
<td>Description</td>
</tr>
<tr>
<td>Monograph</td>
<td>A</td>
<td>Authorship of scientific monograph in a fundamental language\textsuperscript{a} for a discipline or in the congress languages\textsuperscript{b}</td>
</tr>
<tr>
<td></td>
<td>B</td>
<td>Authorship of scientific monograph in Polish (if Polish is not a fundamental language for a discipline) or in languages other than the congress languages</td>
</tr>
<tr>
<td>Chapter</td>
<td>G</td>
<td>Authorship of a chapter in a scientific monograph in a fundamental language\textsuperscript{a} for a discipline or in the congress languages\textsuperscript{b}</td>
</tr>
<tr>
<td></td>
<td>H</td>
<td>Authorship of a chapter in a scientific monograph in Polish (if Polish is not a fundamental language for a discipline) or in languages other than the congress languages</td>
</tr>
<tr>
<td>Edited volume</td>
<td>J</td>
<td>Being the editor of a scientific monograph published in a fundamental language\textsuperscript{a} for a discipline or in the congress languages\textsuperscript{b}</td>
</tr>
<tr>
<td></td>
<td>K</td>
<td>Being the editor of a scientific monograph published in Polish (if Polish is not a fundamental language for a discipline) or in languages other than the congress languages</td>
</tr>
</tbody>
</table>

\textbf{Notes:} \textsuperscript{a}A fundamental language for a discipline, e.g., Czech for Czech philology; \textsuperscript{b}Congress languages: English, German, French, Spanish, Russian and Italian

Table II: Types of scholarly book publications in the 2013 and 2017 evaluations
subcategories (e.g. monograph A) by an authorized person from a given institution. This means that a monograph authored by two scholars from two Polish scientific units was submitted by each of those units separately. In this way, in the data set, there are two evaluation items related to one monograph because multiple institutions submitted the same monograph.

For the 2009–2016 period, all scientific units submitted 364,911 evaluation items related to scholarly book publications. The present paper analyses the data on 59,452 evaluation items related to monographs A–D in all fields of science and analyses the data on the monographs in the humanities, social sciences and hard sciences separately.

The submitted data, assignments to publication categories, and whether the criteria of evaluation were met in a given category (see Table I) were evaluated by the experts. Experts could question a submitted evaluation item and reject it from evaluation if at least one of the criteria was not met. In the data set, each evaluation item related to a publication was classified by the experts, as: accepted, which means that the publication meets all the criteria; restricted, which means that the publication is not included in the final evaluation because a scientific unit submitted more bibliographical records related to the publication than it could be included in the evaluation or that there is no information regarding what share of these items meet the criteria of evaluation; and rejected, which means that the publication does not meet at least one of the criteria. In the set of 59,452 evaluation items, 67.91 percent are classified as accepted, 16.87 percent as restricted and 15.12 percent as rejected.

3.2 Data cleaning

Data related to evaluation items were manually de-duplicated to generate separate bibliographic records of monographs. This means that the evaluation items were merged into a single bibliographic record when they were recognized as items with the same title, ISBN number and publication year. Data provided by the scientific units were not automatically validated during the submission. Thus, various mistakes and types were recognized during the de-duplication process. Typos and obvious errors in titles and ISBNs were corrected by the author of the present paper for better de-duplication of the data. For each evaluation item, a scientific unit had to provide information about the number of authors affiliated with the unit and the number of authors not affiliated with the unit. In the de-duplication process, these two numbers were added together for each evaluation item. If two or more items were recognized (according to titles, ISBN and publication year) as related to the same monograph, but the total number of authors was different, the final number of authors was correct. If possible, external data sources (e.g. library catalogs) were used; if this was not possible, the lower number was changed into the higher one (e.g. if there were two evaluation items and the first had three authors whereas the other item had four authors, I changed the number of authors in the first item to four authors). The same procedure of correcting was implemented for the information regarding the length of the monograph, which was expressed by the number of author sheets. Finally, 50,461 evaluation items (only accepted and restricted) were de-duplicated into 44,180 monographs. In the final phase of data cleaning, however, 1,873 publications, which had, in the description of evaluation, item terms that clearly identified them as edited volumes (e.g. “proceedings” or “eds.”), were excluded from the final data set. Those excluded publications should have been originally classified not in the A–D types of monographs but in the E, F or L types. Those excluded monographs show that, on the one hand, some wrongly classified publications were accepted by experts. On the other hand, the excluded monographs show that some of the restricted items could not have been evaluated by the experts. At the last phase of data preparing, all maps were excluded from the final data sets.
3.3 Mapping bibliographical records to the fields
In Poland, evaluation items are classified to fields according to the organizational classification (Daraio and Glänzel, 2016). This means that all evaluation items submitted by a scientific unit classified in the evaluation process in the “Economics and Business” field are classified in this field. For research evaluation purposes, 33 different fields of science were used in terms of their disciplinary diversification. Those fields, originally called “joint evaluation groups (JEGs),” were categorized into four main groups: SSH, SE, LS and ASP (Kulczycki, Engels and Nowotniak, 2017).

For the purpose of this study, 50,461 evaluation items related to the acceptance or restriction of the A–D monographs were mapped to the fields of science and technology of the organization for Economic Co-operation and Development (OECD fields). I manually assigned each of over 1,000 scientific units to one of six OECD fields according to their JEGs and commissions. Those 50,461 evaluation items were de-duplicated, as described in the previous section. However, in the de-duplication process, monographs with two or more evaluation items assigned to different OECD field were retained. Thus, the final data set includes bibliographical records of 42,307 monographs, of which 41,045 (97.01 percent) are assigned to one OECD only, 599 monographs to two OECD fields, 20 monographs to three OECD fields and 1 monograph to four OECD fields. Finally, the results are presented in three main aggregated fields: humanities (the Humanities field from OECD FOS), social sciences (the Social Sciences field from OECD FOS) and hard sciences (four other fields from OECD FOS, i.e., Natural Sciences, Engineering and Technology, Medical and Health Sciences and Agricultural Sciences).

3.4 Data sets
Two data sets were used: to compare the number of evaluation items vs the number of monographs in the 2009–2016 period for all fields of science, and to describe the number of authors, the language and the length of monograph occurrence frequencies across the three aggregated fields: the humanities, social sciences and hard sciences. The following are descriptions of the two data sets that were used:

(1) Data set A contains bibliographic records for 50,461 evaluation items related to monographs from the 2009 to 2016 period submitted for evaluation (i.e. only classified as accepted or restricted) and for 42,307 monographs from the 2009 to 2016 period accepted for evaluation (i.e. only classified as accepted or restricted). For the comparison of the number of evaluation items with the number of monographs, the de-duplicated data for monographs was used. The number of evaluation items per year and the number of monographs per year were used as a unit of analysis.

(2) Data set B contains bibliographic records for 42,307 monographs from 2009 to 2016 period accepted for evaluation (i.e. only classified as accepted or restricted). For the analysis, the following were used:

- Two nominal variables, i.e., the language (all original values were re-coded to: congress languages, Polish and other languages) and – on the basis of mapping the bibliographical records to the OECD FOS – the field (humanities, social sciences and hard sciences).
- Two numeric variables, i.e., the number of authors and the monograph length.
- Two rank variables, i.e., the publication year (2009–2016), the category of the number of authors (single author, 2–3 authors, 4–10 authors and 11 authors or more). The category of the number of authors is a weakened scale measured by the number of authors. I use the aforementioned regulations of evaluations (e.g. counting multi-authored publications up to ten authors, monographs with at least four authors, etc.) to categorize the types of monograph authorship.
4. Results

4.1 Part A: number of evaluation items vs number of monographs

Table III shows the number of evaluation items related to monographs and the number of monographs from 2009 to 2016. In 2009, there were 4,670 monographs, whereas in 2016 there were 5,424. The highest number of monographs, 6,299, was in 2013. In 2009, there were 5,947 evaluation items related to monographs, of which 806 were classified as rejected. In 2016, there were 8,389 evaluation items, of which 1,366 were classified as rejected. The highest number of items was in 2013: there were 9,000 evaluation items, of which 1,333 were rejected. The mean number of accepted and restricted evaluation items per monograph was higher in each year of the 2013–2016 period than in the 2009–2012 period.

4.2 Part B: monograph patterns across humanities, social sciences and hard sciences

Table IV shows the number of monographs in humanities, social sciences and hard sciences in 2009–2016. The highest number of monographs is reported in SSH (16,693 and 13,502, respectively), whereas in hard sciences there were 12,112 monographs.

#### 4.2.1 Patterns of monograph authorship

Figure 1 displays the mean number of monograph authors across humanities, social sciences and hard sciences. In the original data source, 99.9 percent of bibliographical records \((n = 42,252)\) have information about the number of authors.

In the period of the first evaluation cycle (2009–2012), the mean number of authors in each field was stable: humanities (1.85 in 2009 and 1.86 in 2012), social sciences (1.58 in 2009 and 1.79 in 2012) and hard sciences (2.56 in 2009 and 2.72 in 2012). In the second evaluation cycle (2013–2016), substantial growth of the mean number of authors occurred in each field. In the social sciences and hard sciences, the highest mean numbers were observed in 2015: 4.31 and 6.15, respectively.

Figure 2 shows patterns of monograph authorship in the three fields. All monographs are presented according to the number of authors assigned to one of four categories: single author, 2–3 authors, 4–10 authors and 11 authors or more.

<table>
<thead>
<tr>
<th>Year</th>
<th>Monographs</th>
<th>Evaluation items</th>
<th>Mean number of accepted and restricted items per monograph</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Accepted and restricted</td>
<td>Rejected</td>
</tr>
<tr>
<td>2009</td>
<td>4,670</td>
<td>5,141</td>
<td>806</td>
</tr>
<tr>
<td>2010</td>
<td>5,128</td>
<td>5,603</td>
<td>855</td>
</tr>
<tr>
<td>2011</td>
<td>5,243</td>
<td>5,784</td>
<td>926</td>
</tr>
<tr>
<td>2012</td>
<td>5,535</td>
<td>6,052</td>
<td>940</td>
</tr>
<tr>
<td>2013</td>
<td>6,299</td>
<td>7,667</td>
<td>1,333</td>
</tr>
<tr>
<td>2014</td>
<td>4,871</td>
<td>6,392</td>
<td>1,358</td>
</tr>
<tr>
<td>2015</td>
<td>5,136</td>
<td>6,799</td>
<td>1,407</td>
</tr>
<tr>
<td>2016</td>
<td>5,425</td>
<td>7,023</td>
<td>1,366</td>
</tr>
</tbody>
</table>

#### Table III.
Number of evaluation items and monographs in the 2009–2016 period

<table>
<thead>
<tr>
<th>Field</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Humanities</td>
<td>1,487</td>
<td>1,564</td>
<td>1,594</td>
<td>1,744</td>
<td>1,833</td>
<td>1,608</td>
<td>1,759</td>
<td>1,913</td>
<td>13,502</td>
</tr>
<tr>
<td>Social sciences</td>
<td>1,785</td>
<td>1,992</td>
<td>2,029</td>
<td>2,126</td>
<td>2,542</td>
<td>2,000</td>
<td>2,063</td>
<td>2,156</td>
<td>16,693</td>
</tr>
<tr>
<td>Hard sciences</td>
<td>1,398</td>
<td>1,572</td>
<td>1,620</td>
<td>1,665</td>
<td>1,924</td>
<td>1,263</td>
<td>1,314</td>
<td>1,356</td>
<td>12,112</td>
</tr>
<tr>
<td>Total</td>
<td>4,670</td>
<td>5,128</td>
<td>5,243</td>
<td>5,535</td>
<td>6,299</td>
<td>4,871</td>
<td>5,136</td>
<td>5,425</td>
<td>42,307</td>
</tr>
</tbody>
</table>
In humanities, social sciences and hard sciences, most of the monographs were single-author monographs. There were significant changes in all fields in terms of authorship. After 2013, in humanities, social sciences and hard sciences the shares of single-author monographs decreased. However, there was a significant increase in the number of single-author monographs in hard sciences only in 2013.

4.2.2 Languages of monographs. In the 2009–2016 period, 85.3 percent of the 42,307 monographs were written in Polish, 10.1 percent in English, 1.4 percent in German, 1.1 percent in Russian and 2.1 percent in 39 other languages.

Figure 3 displays the share of monographs written in congress languages, Polish and other languages. There was a minor decrease in the shares of monographs in Polish in all fields and a small increase in the shares of monographs in congress languages. In humanities, social sciences and hard sciences, the highest shares of monographs in Polish can be observed in 2013.

Figure 4 shows the number of monographs in congress languages across humanities, social sciences and hard sciences. In humanities, in 2009 there were 250 monographs and in 2016 there were 347 monographs. In social sciences, there were 127 monographs in 2009 and 201 monographs in 2016. In hard sciences, there were 205 monographs in 2009 and 2016 monographs in 2016. In social sciences and hard sciences, there was a decrease in monograph numbers in 2016 compared to those in 2015.

Figure 2. The share of single and multi-author monographs across humanities, social sciences and hard sciences

Figure 1. A mean number of authors across humanities, social sciences and hard sciences
The majority of monographs in social sciences and hard sciences were written in English. In humanities, almost a half of the monographs were written in congress languages other than English.

4.2.3 Length of monographs. Figure 5 displays the mean length of monographs across humanities, social sciences and hard sciences. In the original data source, 98.9 percent of bibliographical records ($n = 41,834$) provided information about the length of the monographs.
The original unit of analysis reported by scientific units is an author sheet, which is of 40,000 characters, or approximately 6,000 words.

In humanities and social sciences, there was a slight increase in the mean length of monographs, whereas in hard sciences there was a slight decrease in the mean length of author sheets. The highest mean lengths for humanities and social sciences were in 2013 (17.9 and 16.5, respectively) whereas the lowest mean lengths for hard sciences occurred in the same year (12.9).

5. Discussion and conclusion
The results show that the characteristic patterns of monographs in the humanities, social sciences and hard sciences are different in terms of authorship, language and length. The highest number of monographs was published in the social sciences, and the lowest number of monographs was published in the hard sciences. In total, however, the number of monographs in all fields was similar. The majority of the monographs were published in Polish. Comparing these results with Flemish book publications (including chapters and edited volumes) in SSH, one can find substantial differences because the majority of Flemish books were published in English (Verleysen and Engels, 2014b). Nonetheless, some similarities can be found. For the 2009–2016 period in Poland, the share of single-authored monographs was 79.3 percent for the humanities, 68.3 percent for the social sciences and 57.3 percent for the hard sciences. Contrasting these shares with the Flemish situation in the humanities and social sciences from 2001–2011, one can observe that the share for the humanities in Flanders is similar (73 percent) but significantly different than that for the social sciences (34 percent) (Verleysen and Ossenblok, 2017).

The present study demonstrates that definitions of scholarly book publications in Poland have significantly changed between two cycles of evaluation, which influenced the way in which books have been classified and recorded in the database used in the evaluation. The Polish definitions of scholarly book publications are quite formalized and complex. A key criterion for monographs is their length, which is measured by the number of author sheets (at least six sheets). Similar criterion is used in Lithuania, where books from the SSH must be at least eight author sheets in length. This Lithuanian criterion is described by G. Williams et al. (2018) as an essentially bureaucratic decision. P. Williams et al. (2009) showed that researchers generally agree that a monograph is usually single-authored although multi-authored tomes can be classified as monographs as well. However, the authors argue that multi-authored edited volumes are not monographs. Comparing this claim with the changing landscape of book evaluation in Poland reveals that differentiating monographs by indicating the number of authors (Monographs C–F) yields various unusual results (e.g. a high mean number of authors in the hard sciences, as shown in Figure 1). Moreover, as G. Williams et al. (2018) argue, there are other various issues concerning defining books and differentiating them from periodicals or long reports. For instance, using an ISBN is not enough for differentiating monographs from other publication types because some countries (e.g. African countries) have not implemented ISBNS.

When only formal criteria in the Polish system are used, publishers are not assessed. From the Polish science policy perspective, a publisher is not a key element of the book evaluation system. This means that a book published by, for instance, Cambridge University Press, is counted in the evaluation in the same way as a book published by any small, local Polish publisher. Moreover, a lot of Polish academic could self-publish monographs which meet the correct criteria. Thus, in the present study, an analysis of the publishers was not subject to investigation. Not including publishers in the book evaluation and relying only on the formal criteria is a key weakness of the Polish system. Publishers are gatekeepers and play a crucial role in the quality of published books (Giménez-Toledo and Román-Román, 2009; Williams et al., 2009). In this way, although it is possible to
improve the publication patterns of Polish scholars the current Polish system for book evaluation is not an effective instrument for science policy.

Substantial changes in monograph authorship were recorded between the two cycles of evaluation. The number of monographs with 11 authors or more has increased since 2013. This results from consolidating two types of scholarly books publications in the evaluation regulations: in other words, monographs with edited volumes were combined into a single type, which was called a “monograph” (monographs E and F in the 2013–2016 period). Moreover, there was an increase in the share of monographs which have two or three authors from 2013 to 2015 and a decrease in 2016. Interpreting how the research evaluation system has influenced or determined changes in publication patterns must consider various factors, and the results of such an interpretation are very often provisional. However, although the regulations for the Polish evaluation were presented to scholars in July 2012 (for the 2013 evaluation) and the first half of 2015 (for the 2017 evaluation), scholars were able to modify their publication behaviors only for 2016.

The analysis of the number of monographs and the patterns of monograph authorship in all fields has revealed unusual results for 2013. This year experienced the highest number of monographs in the social sciences and the hard sciences and almost the highest number for the humanities. Moreover, in the humanities and the social sciences, there was a substantial decrease in the number of single-authored monographs after 2013, whereas in the hard sciences there was a substantial increase in the share of single-authored monographs in 2013. It is difficult to understand these unusual results when referring only to the regulations of the book evaluation system. However, this situation becomes much clearer when the reforms in academic promotion procedures are evoked. In September 2011, a deep structural reform was implemented in the area of academic promotions in Poland. Before this reform, researchers from the SSH took for granted that their thesis should be presented as a book. New rules legitimized and promoted submitting a set of articles as the habilitation thesis (a habilitation is the highest scientific degree in Poland) in all fields of science. At the same time, however, this new model was perceived as a tougher way to obtain a habilitation degree (i.e. publishing a book by a local publisher was perceived as an easier way of producing a habilitation thesis than publishing a few articles in top-tier journals). Thus, scholars could simultaneously use an old model of academic promotions up to September 2013. In 2009, there were 1,223 applications for a habilitation degree in Poland in all fields of science, whereas in 2013 there were 3,544 applications and 1,852 applications in 2014 (Rozkosz, 2017, p. 32). Comparing these numbers with the numbers of single-authored monographs submitted to the two cycles of evaluation in all fields reveal a clear similarity: there were 3,396 monographs in 2009, 4,698 in 2013 and 3,028 in 2014. The 2013 effect also occurred in terms of the length of monographs: monographs in the humanities and the social sciences were the longest in 2013, whereas monographs in the hard sciences were the shortest in the same year.

The development of book evaluation in Poland should be implemented gradually by redesigning the main regulations and principles of evaluation. The findings of this study suggest that the definition of scholarly book publications should be simplified in order to clarify the distinctions between different publication types. Moreover, the definition should exclude “self-published monographs” which were included into the Polish system only on the basis of formal criteria. The book evaluation system is a science policy instrument and as such should show the best way of communicating research results. Thus, focusing more on the quality of publishers, which is done in Flanders, Finland, Norway and Spain (Giménez-Toledo et al., 2016), could improve the way in which scholars disseminate their knowledge. As Zuccala et al. (2015) explained, ranking publishers is not an easy task, but it is possible.
References


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The culture of orphaned texts

Academic books in a performance-based evaluation system

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Institute of Sociology of the Czech Academy of Sciences, Prague, Czech Republic

Abstract

Purpose - The purpose of this paper is to contribute to the body of knowledge on how research evaluation in different national and organisational contexts affects, often in unintended ways, research and publication practices. In particular, it looks at the development of book publication in the social sciences and humanities (SSH) in the Czech Republic since 2004, when a performance-based system of evaluation was introduced, up to the present.

Design/methodology/approach - The paper builds upon ethnographic research complemented by the analysis of Czech science policy documents, data available in the governmental database “Information Register of R&D results” and formal and informal interviews with expert evaluators and other stakeholders in the research system. It further draws on the authors’ own experience as scholars, who have also over the years participated in a number of evaluation procedures as peers and experts.

Findings - The number of books published by researchers in SSH based at Czech institutions has risen considerably in reaction to the pressure for productivity that is inscribed into the evaluation methodology and has resulted in the rise of in-house publishing by researchers’ own research institution, “fake internationalisation” using foreign low-quality presses as the publication venue, and the development of a culture of orphaned books that have no readers.

Practical implications - In the Czech Republic robust and internationally harmonised bibliometric data regarding books would definitely help to create a form of research evaluation that would stimulate meaningful scholarly book production. At the same time, better-resourced and better-designed peer review evaluation is needed.

Originality/value - This is the first attempt to analyse in detail the conditions and consequences the Czech performance-based research evaluation system has for SSH book publication. The paper demonstrates that often discussed harming of SSH and book-writing in particular by performance-based IF-centred research evaluation does not necessarily manifest in declining numbers of publications. On the contrary, the number of books published may increase at the cost of producing more texts of questionable scholarly quality.

Keywords Czech Republic, Research evaluation, Classification, Book publication, Social sciences and humanities (SSH), Vanity publishing

Paper type Research paper

1. Introduction

Judging from statistics maintained by the state, the year 2008 was a successful one in the social sciences and humanities (SSH) in the Czech Republic. The number of books registered that year as scientific output in those disciplines doubled when compared with the year 2007. In absolute numbers, SSH researchers working for Czech institutions listed 1484 books in 2008, while in 2007 it was 749. This sudden “jump” was partly an effect of research institutions registering books published earlier, something that also explains the two sudden increases in 1998 and 2001. But while the earlier two increases were followed by
decreases, the one in 2008 resulted in a permanent rise in production. If we look at the figures based on the year of publication (rather than the year of registration in the system) we find a visible but more gradual trend of growing numbers of books being produced in Czech SSH (Figure 1).

This trend correlates with the gradual implementation of a performance-based system of research evaluation in the Czech Republic since 2004. In this paper we explore the systemic conditions and consequences of this at first glance paradoxical increase of productivity in book writing and publishing, which arguably represents the most conservative, labour-intensive and time-consuming academic activity. We thereby seek to contribute to the body of “lessons” (Bonaccorsi, 2018a) that can be learned from the various national research evaluation systems that have been introduced in continental Europe over the past two decades, in different forms, at different speeds, and at different stages of a research system’s development. We believe detailed, ethnographically informed studies are much needed as a starting point for a “comparative empirical study of evaluative cultures” (Lamont and Guetzkow, 2016, p. 40), which is in turn necessary if there is to be any meaningful revision of evaluation methodology and the development of bibliometric approaches to book publication.

Performance-based IF-centred exercises in research evaluation are often criticised for harming SSH and book-writing in particular (see, e.g. Ochsner et al., 2016). In this paper we demonstrate that this harm does not necessarily mean the number of books decreases. On the contrary, it means that the number of books published may increase but at the cost of producing more texts of questionable scholarly quality. This may be one of the many problematic and unwelcome consequences of the specific parameters of Czech assessment methodology (Good et al., 2015; Linková and Stöckelová, 2012; Stöckelová, 2012; Macháček and Srholec, 2017; Stöckelová and Vostal, 2017).

After briefly introducing the history and current state of the Czech research evaluation system, we focus primarily on books and their changing definition and valuation in the assessment methodology. We proceed by discussing the key, largely negative consequences of the specific parameters of the system of book publishing in the SSH, which include the rise of research institutions doing in-house publishing, “fake internationalisation”, that is,
using low-quality presses abroad as a publication venue and the development of a culture of orphaned books without readers.

In conclusion, we argue, largely in line with the Leiden manifesto (Hicks et al., 2015), that the real dilemma of research evaluation is not whether to employ bibliometrics or peer review. Rather, it is the details of the specific evaluation methodology in use (including both bibliometric data and peer review) that matter. Such details and nuances of implementation can substantially influence the resulting behaviour of individual academics, research organisations, and the direction of whole disciplines. In the Czech Republic, robust and internationally harmonised bibliometric data on books, like the data Giménez-Toledo et al. (2016), Zuccala and Robinson-Garcia (in press) and Zuccala et al. (2014) have been experimenting with and are calling for, would definitely contribute to a form of research evaluation that would direct and stimulate meaningful scholarly book production. At the same time, better-resourced and better-designed peer-review evaluation is needed. Without improvements on both these fronts, the national research evaluation will collapse into an administrative exercise of better or worse design that is harmful or at best ineffective at stimulating actual research quality.

2. Methodology
Given our disciplinary background in social anthropology and sociology, this study primarily applies an ethnographic approach. In this respect we join the growing, if modest, number of scholars who believe that ethnography can uniquely contribute to our analytical grasp of evaluation cultures (De Rijcke et al., 2016; Müller and De Rijcke, 2017; Strathern, 2000a). In social anthropology specifically, ethnography is the central research strategy “using the self – as much of it as possible – as the instrument of knowing” (Ortner, 2007, p. 40). While this often means long-term participant observation in places and contexts unfamiliar to the ethnographer, in order to study science evaluation in our academic milieu it meant that we had to consciously develop sensitivities to our own professional surroundings, which we, like everyone else, usually take for granted (for a recent debate on the use of indicators in academia that are based on such sensitivities, see Fochler and De Rijcke et al., 2016).

By attuning ourselves in this way we were able to record and analytically utilise our observations and first-hand experience as scholars employed at the two main research institutions in the country working within the system, namely, the Czech Academy of Sciences and Charles University. We also benefited from the greater insight of having over the years participated in various national and international evaluation procedures as peers and experts (as members of evaluation panels in the Czech Science Foundation, the Technology Agency of the Czech Republic, the Grant Agency of Charles University, the National Accreditation Agency or the European Commission’s Horizon 2020 programme). Our research also draws on the debates that took place between policy-makers, research managers, and researchers at a series of conferences that we organised as part of the “Responsible Research and Innovation” programme supported by the Czech Academy of Sciences’ Strategy AV 21.

In addition, our research included an extensive analysis of Czech science policy documents issued over the past 15 years, in particular, a set of policy manuals published by the Research and Development Council of the Czech government (see “resources”). To investigate the implementation and effects of the policies these documents introduced we combined that analysis with official statistics on scientific production. We also drew on two sets of interviews. The larger one contained over 100 interviews conducted since 2006 as part of work on three research projects that one of us participated in and that focused on the changing culture of scientific production in the Czech Republic and Europe (for key findings, see Stöckelová, 2009, 2014, 2016; Linková and Stöckelová, 2012; Dvořáčková et al., 2014; for
methodological design of the research projects, see Appendix). The other set of interviews was conducted specifically for this study. We aimed to fill the gaps that we found in our data during the analysis by talking to stakeholders in the evaluation processes that we describe and analyse here. We interviewed three members of the evaluation panels (see Section 5.5), two high-ranking science managers, two policymakers and one professional publisher. These women and men were from diverse SSH backgrounds such as media studies, history and philosophy. We selected our interviewees based mainly on the particular roles in the system that we were interested in. Our interviews were thematic but open-ended, so we were able to elicit rich accounts of the interviewees’ experience with the practices of interest. The interviews were treated as complementary to our ethnographic participant observations, rather than as a stand-alone method, which would raise questions of sampling and representation. When referring to informants in this study we mean both our interviewees and interlocutors in less formal ethnographic encounters.

Finally, we should make clear that our research and analysis are inevitably engaged. As Marilyn Strathern noted in the introduction to her pioneering volume *Audit Cultures: Anthropological Studies in Accountability, Ethics, and the Academy*, what the contributors to the book had in common were “their working lives as university academics” and in this sense it is perhaps “less interesting how they write their chapters than why they write them”, because, she suspects, “in several cases that ‘why’ has come directly out of their conditions of work” (Strathern, 2000b, p. 6; emphasis original). Thus, the above description of our multiple roles in Czech academia spells out not only the way we generated the data but also our positioning and stakes in the field. We cannot leave our perspective behind but we can reflexively clarify it. Ethnographic sensitivities we had to employ to study our own academic milieu not only drew on the “insights and frustrations of familiarity” (Strathern, 2000b, p. 3); our frustrations of academics facing the familiar evaluation system triggered the reaction we are qualified for, that of intellectual curiosity and research engagement.

3. A brief history of research evaluation in the Czech Republic

Like in many other European countries the issue of research assessment gained traction in the 1990s in the Czech Republic. Interestingly, it was not first developed within the frame of New Public Management but as part of professional accountability. It was seen by part of the research community as a way to de-politicise Czech science (which was governed before 1989 by various Communist Party mechanisms) and direct it towards western standards. The first attempts at research assessment were initiated by academic researchers, particularly in the natural sciences, and took place in the Czech Academy of Sciences (Linková and Stöckelová, 2012). It was only much later, in 2004, that research assessment was elevated to the national level and implemented across research institutions in the country.

Although the national methodology for the evaluation of scholarly publications has partly changed over the years, its main features remained the same between 2004 and 2016. Evaluation was mostly based on indirect indicators of quality, especially impact factors of publication channels that were treated as proxies for the quality of the publications. In other words, the strategy basically consisted of “counting and weighing publication according to type and channel” (Hammarfelt, 2016, p. 123). The citations of a publication were not taken into account. Peer review is just a supplementary evaluation tool that was only introduced in recent years. The basic and applied research performance in pre-defined categories of outputs was annually calculated for each research institution with the help of the “Information Register of Research and Development Results” (referred to as RIV in Czech and in this paper). Each item in the register was allocated certain amount of so-called “RIV points” standardised for each category of output, which then translated into research funding for the next year. What is particularly important with regard to book production is that neither book reviews nor book editing “count”
as a valuable research output rewarded with RIV points. The evaluation criteria are, if at all, then only superficially adjusted to different disciplines and they are mostly driven by publishing patterns and the rhythms of laboratory-based natural science research. The types of recognised outputs and the number of RIV points assigned to them were the same across all disciplines with the exception of most of the SSH disciplines. Most of them – namely, philosophy and religion; history; archaeology, anthropology and ethnology; political science; management and administration; legal science; linguistics; literature and media studies; art, architecture and cultural heritage; pedagogy and schooling – have since 2008 been included in the “National Framework of Excellence”, within which more RIV points were awarded for some outputs (in particular, books in written in the Czech language, and articles in peer-reviewed journals without an impact factor). Excluded from the framework were economics, sociology and social geography, which were considered more like (natural) science in their knowledge-production and publication patterns. The evaluation was purely retrospective. The formulas for awarding RIV points to specific outputs as well as the rule for translating them into funding for the institutions have been growing more and more complicated and thereby lacking transparency. In 2016 even the officials working for the Governmental Council for Research, Development and Innovation, who are responsible for the national research system, admitted that nobody can have a grasp of and control over the system any more (Miholová and Majer, 2016).

While the national evaluation methodology was supported by part of the research community, it was also repeatedly criticised by other parts, particularly by the Czech Academy of Science (who developed its own evaluation scheme based on peer review for its internal purposes) as well as by some SSH scholars (Linková and Stockelová, 2012). Given the mechanical nature of the evaluation exercise, it soon started to be called the “coffee grinder” (kafemljenek) in the Czech research community. It was also repeatedly criticised by Technolopolis, which had been contracted by the Czech national authorities to carry out in 2010–2011 the “international audit of research, development and innovation in the Czech Republic”, including an audit of the research evaluation methodology. The final report recommended substantial changes to the evaluation schema (Arnold and Mahieu, 2011). Authors of the report argued that “[w]hile aiming to depersonalise and depoliticise the allocation of institutional funding in the research system, improve research productivity, and safeguard accountability, […] the Evaluation Methodology has in fact become a negative example of a performance-based research funding system” and “has introduced considerable instability and unpredictability […], making strategic planning for research organisations difficult” (Good et al., 2015, p. 91).

In 2014–2015 Technolopolis was contracted again to develop a brand new evaluation methodology (Arnold and Mahieu, 2015). However, changes were rather slow in coming and partial in practice. It was only in 2016 that a new research assessment methodology, drawing on the Technopolis report, was approved by the Government. It would be based on different principles than the current one – it would rely more on peer review, evaluate also the development plans of institutions, and loosen the linkage between performance and funding. However, it has been only partly implemented so far and it is possible that the change in national government in the autumn 2017 may add new dynamics to the process.

Even if the new methodology is implemented rather soon, the evaluation system in place has brought about long-lasting effects in the publishing patterns and strategies of institutions and individual researchers and in the wider research culture. Specifically, a focus on the quantity of research outputs in many contexts effectively displaced the focus on quality (cf. Gläser and Laudel, 2016). Application of the evaluation methodology has effectively shaped academic subjectivities in the Czech environment (see Vostal, 2017), with effects that we discuss in section 4. On the one hand, researchers adopted the evaluation criteria into their academic habitus, sometimes even without noticing it. On the other hand, the evaluation system stimulated reflection in some parts of the academic community.
As Stöckelová and Vostal (2017) show, some of the problematic strategies that the system gave rise to involving “predatory” publishing triggered significant protests, which then partly influenced future publication and evaluation practices.

4. What is a book (worth)?

For scholars a “book” is mostly an intuitive category that denotes an objectified achievement of intellectual labour. In the SSH, monographs have been the staple fruit of scholarly effort since their inception (Hicks, 2004, pp. 6-8). While in some disciplines, most notably economics, this type of publication gradually lost prominence, giving way to articles as the number one medium of scientific communication, in others, such as social anthropology or history, the monograph still is an important genre of communication and an obligatory landmark of a successful career (van den Akker, 2016, p. 25). The criteria for what constitutes a quality monograph seem also rather specific to each discipline. For the accounting objectives of the above-described evaluation methodology it was nevertheless necessary to define what a scientific book is, regardless of any disciplinary differences.

The first version of the executive manual published by the Research and Development Council in 2005 defined what a book is in a footnote in rather simple and circular way:

By “specialist book” we mean a scientific book publication. In the humanities, publication of a specialist book may also mean a critical edition of a source. In Czech Studies, specificities will be taken into account subject to the opinion of the provider (of institutional funding) in the 2nd stage (of evaluation). (The Office of the Government of the Czech Republic, 2005, p. 4)

The definition then grew over years, so that by 2015 it consisted of 330 words. For the purpose of this paper we will describe some of the key defining parameters of a “specialist book” as they evolved in the evaluation methodology over those ten years. It will be apparent that the evaluation methodology elevated the significance of the information infrastructure of Czech science policy, namely, RIV. As soon as categories of scientific outcome were assigned with specific values, the normative powers of classification started to strongly shape the character of Czech academia. The classing of outcome that emerged from this system led to well-described effects of rendering certain things (in)visible (Bowker and Star, 2000). Academics and administrators striving to succeed in the system focused on making sure, firstly that, their scientific output fit smoothly into the RIV categories and, secondly, that it would be classed to their best advantage in terms of RIV points. The creators and wardens of the system then had to respond to the continuous testing of categories’ limits by members of the academic community. Their solution was to increase taxonomic work. Types of outputs were further divided into categories that themselves depended on (other) classifications. For example, journal articles were sorted according to classes of journals defined by their relation to the Web of Science, SCOPUS or ERIH. Languages were divided into classes, disciplines were clustered. Adding layers on top of layers, the system led to a classification “explosion”.

4.1 Publisher and peer review

In 2007 the manual stated that a “specialist book” is a peer reviewed publication (The Office of the Government of the Czech Republic, 2007, p. 21). In 2008 the criteria were expanded with the stipulation that a book should be published by a publishing house that has a scientific editorial board and that prior to its publication it should be “reviewed by at least two generally recognised experts from the given field (but not from the author)’s workplace in the form of a reader’s review’ (The Office of the Government of the Czech Republic, 2008, p. 17). In accordance with commonly held practice in Czech academia, such experts would then be explicitly named in the book, i.e. the pre-publication peer-review process is not anonymous. In 2009, contrary to the rising expectations about quality (see Section 4.4), the
methodology revised the pre-publication peer-review criterion so that the publication had to be reviewed by one expert as opposed to the two in the previous year (The Office of the Government of the Czech Republic, 2009, p. 20). In 2010 the description of the type of publisher that was accepted and the requirement that it has a scientific editorial board were removed. To our knowledge ranking of publishers for the purpose of the evaluation was never even considered in the Czech system (for discussion of such efforts or their lack in Belgium, Spain or Italy see Faggiolani and Solimine, 2018, pp. 48-49).

4.2 Language and discipline

While books written in Czech or Slovak were assigned five RIV points according to the 2005 manual, books written in any other language were assigned ten points (The Office of the Government of the Czech Republic, 2005, p. 4). In 2006 this gap even widened, granting twenty points to books written in languages other than Czech or Slovak (The Office of the Government of the Czech Republic, 2006, p. 34). The methodology apparently assumed that publications in “other” languages would automatically be of better quality and have a bigger impact and therefore would be of greater value, which should be rewarded with more points. In terms of language politics, it is also worth noting that Slovak, probably given our Czechoslovak history, is treated in the document as equally local as Czech is (and consequently also less valued than “other” languages). It can also be assumed that the somewhat unexplained exception given to Czech Studies, that should be accorded special treatment, is based on the belief that, unlike other disciplines, the language of quality for Czech Studies is Czech.

In 2007 the manual divided scientific fields into SSH on one side and other sciences on the other. A book written in Czech and Slovak would be accorded 12.5 points regardless of what discipline it is in, but for books written in “other languages” the ones in SSH would be awarded 50 points while those in any other discipline would be given 25 points (The Office of the Government of the Czech Republic, 2007, p. 20).

The 2008 manual removed the division of languages into Czech and Slovak on the one hand and all the others on the other hand in favour of a category of “world languages” that comprised English, Chinese, French, German, Russian and Spanish. While publications in any of the latter languages would be awarded 40 points, books not published in a world language would get 20 points. This distinction, however, was not applicable in every field. A second innovation was that the number of points awarded would also be determined by criteria in the National Reference Frame of Excellence, described in the previous section. Accordingly, books in “nationally significant” branches of the SSH would be rewarded with 40 points, regardless of the language in which they were written (The Office of the Government of the Czech Republic, 2008, p. 16). Thus, while the 2007 methodology positively discriminated foreign language publications in SSH, the 2008 methodology positively discriminated all publications in the nationally significant SSH. In other words, it abandoned any ambition of trying to distinguish between publications in the “nationally significant” SSH according to the language in which they were written.

4.3 Size and circulation

The 2008 manual introduced the requirement that a publication have a minimum length of 100 standard pages and a print run of at least 200 copies; it also stipulated that it must include a bibliography, in-text references, an index, and a summary in at least one world language (see Section 4.2) (The Office of the Government of the Czech Republic, 2008, pp. 17-18).

In 2009, the manual specified that 100 standard pages may equal 50 printed pages and, importantly, that only the actual text should be counted among these pages, while “photographs, pictures, maps and similar annexes” must be excluded (The Office of the Government of the Czech Republic, 2009, p. 20).
4.4 Character
Since 2007 the manual started to list what cannot count as a specialist book. The list is approx. 60 words long and features items such as “year-book”, unpublished dissertation or university textbook. The logic behind exclusion became clearer in the following year when the manual became for the first time concerned with the actual content of books and the publication’s contribution to the state of knowledge in a given discipline. It stated that for a book to be recognised and rewarded with RIV points it had to deal with a “precisely defined issue in a certain field, and include an identifiable and scientifically recognised methodology (explicitly formulated methodological foundations in monographs leading to the application and/or formulation of a new methodology based on current theoretical research in the given field)” (The Office of the Government of the Czech Republic, 2008, p. 17). The 2009 manual added the rather ambitious criterion that “a specialist book presents original results of research that was conducted by the author of the book or by a team of which the author was a member” (The Office of the Government of the Czech Republic, 2009, p. 20). Although the complete exclusion from the evaluation of some formats, in particular textbooks, was by some SSH scholars seen as unsubstantiated omission of meaningful and necessary academic activities (Dvořáčková et al., 2014, p. 119), there was no systematic opposition – unlike in Italy, where exclusion of similar formats was protested and partly undone (Bonaccorsi, 2018b, p. 80).

4.5 Panel peer review
The assessment methodology proposed in the draft of a manual that was meant to be valid for 2010–2012 and that circulated in Czech academic circles in early 2010 proposed a major leap in the logic of point rewards. According to it, from 2010 on, all books were to be submitted to the Office of the Research and Development Council where they would be classed into groups by discipline (life sciences, technical sciences and engineering, SSH) and appropriate specialists and advisory bodies of the council would then evaluate/rank them in one of five categories of quality (with a book in category 5 deemed to have not met the criteria for a specialist book at all). After this evaluation, the books would be awarded points.

The final, official version of the methodology nevertheless dropped the idea (The Office of the Government of the Czech Republic, 2010). The situation changed only with the new methodology introduced in 2013 that codified the establishment of field-specific verifying and evaluating panels (OVHP) (The Office of the Government of the Czech Republic, 2013b). Each book submitted to the system would then be assessed by two members of an appropriate panel. In 2013 they would only check whether the book meets the criteria of a “specialist book”. If that is so, it would be awarded 40 or 20 points respectively, according to the key set in 2008 (see Section 4.2). However, from 2014 on, the manual lists the point value of a book as 4–120 points, regardless of the language and discipline, specifying that “the value will be set during expert evaluation” (The Office of the Government of the Czech Republic, 2013a, pp. 34-35). We will discuss the actual execution of the panel peer review in Section 5.5.

5. You reap what you sow
Following this detailed description of how scholarly books have been defined and awarded points in the Czech evaluation system since its inception up to recent times, we will now proceed to analyse what consequences the evaluation system had for the way in which scholarly books were produced in the Czech Republic in that period. After that, we will turn our attention to the actual conduct of the panel peer review and specific reasons why it proved largely inefficient in tackling even the most vivid negative consequences of the evaluation methodology.

5.1 Exploding numbers
Even though the raison d’être of the evaluation methodology was the assessment of whole institutions and sectors of science, the use of indicators soon trickled down to the level of
individual researchers who, with strong pressure from academic administrators, turned them into targets (Dvořáčková et al., 2014), a process that has also been documented in other research systems (e.g. Butler, 2003; Colwell et al., 2012). Nuances aside, since the evaluation methodology equated publications with RIV points and points with money, it was obvious that the more points the better. It did not take long and the majority of Czech academia found itself intensively competing for points.

In these circumstances it is only logical that the number of publication outputs would grow, except perhaps in one area – books. It could be reasonably expected that this labour-intensive and time-consuming genre would not be an easy way of obtaining RIV points. And yet, as we pointed out in the introduction to this paper, the annual production of books in the SSH effectively doubled between 2005 and 2010, with some scholars writing as many as seventeen in a period of three years (Stöckelová and Vostal, 2017). There is a rather simple explanation for this. What the system accepted as a scholarly book did not necessarily seem time-consuming and labour-intensive. Quite the contrary, for many researchers' books became very worthy of the 20 or 40 RIV points.

In fact, the seemingly sophisticated system created room for some simple arithmetic tactics. For example, while in 2009 publication of an article in a Czech peer-reviewed journal earned the author (or more precisely her institution) eight or four points (for a world language or other language, respectively), publication of a book would earn 40 or 20 points, respectively. Even if the minimum criteria were honestly fulfilled (which was not always the case, see below), a book of 100 standard pages would be the size of three average articles, but would be more rewarding than publishing three articles separately.

What is more, the changing rules and definitions of the evaluation methodology were clearly a response to scholars' and institutions' attempts to creatively test the boundaries of what the methodology stipulated. It is no coincidence that from year to year the definition of what is a book grew longer and addressed seemingly marginal details, such as the minimum number of pages or the requirement that pages filled with illustrative materials, e.g. tables and figures, would not be counted. We found a book registered in the Information Register of R&D results that consisted of 56 pages, which was the minimum requirement, but when the actual text was extracted from the richly illustrated volume it amounted to no more than 7,000 words. While such books, shorter than a standard article, could be thrown out of the register once specific criteria were introduced, this seldom happened prior to the introduction of the panel peer review, as it was not in the capacity of the R&D department of the Office of the Czech Government to check even the basic technical parameters of publications submitted to the RIV database each year.

Another strategy used to increase scientific output in the book category was similar to the “salami slicing” practice used in the natural sciences (Siegel and Baveye, 2010), which involves breaking the research results artificially into the smallest publishable units. One of our informants, who in 2010 published a book with 350 pages, told us that many of his colleagues thought him foolish to publish a book this long, and that instead he should have “sliced” it up into three books and earned three times the points.

Moreover, the evaluation methodology also helped to create or at least establish a distinct type of scholarly book, which then partly embraced some previously non-book forms of publications such as thematic issues of journals and conference proceedings not registered in the WoS. The trend arose from the fact that the evaluation methodology gave no recognition to the work of an editor (of a book or a journal special issue). While for example in Italy the exclusion of edited books from the list of legitimate scientific output led to the rise of critical voices in scientific community, namely, of archaeologists and architects, and their return to the list of “admissible products” (Bonaccorsi, 2018b, p. 81), in the Czech context the issue unfolded very differently. SSH researchers started to register collective works of various kinds as “monographs” in the system, describing them as
This book genre was then recognised by the Czech national library, which defined collective monograph as a publication that “systematically, multilaterally and in detail addresses one, usually narrowly defined topic”, consists of closely connected parts written by different authors while noting that it is not used in English-speaking countries and seems to be of “eastern European origin” (Havlová, n.d.).

While the RIV lists all books under one category (B), it is safe to claim that there are thousands of works in SSH that have been presented by their authors as “collective monographs”. A number of them may have been created as an alternative to special issues of journals, an alternative that would bring due credit to the editors by turning them into authors and potentially generating more points for all those involved. In terms of their actual character some collective monographs are coherent works of one team that are nevertheless composed of individually authored chapters, others are typical edited volumes, and yet others seem like random collections of texts, publication of which seems mainly driven by the motive of harvesting RIV points. What most of them have in common is the tension between presenting all the authors involved as equal in order to meet the criteria of the evaluation methodology and the tendency to single out those who had a special role, most often that of editor. The significant authors are often listed on the book cover with their name(s) followed by “ed./eds” or “et al.”, while the title page inside the book regularly lists all the “other authors” – in contrast to the typical layout of edited books outside the CR, where the authors of individual chapters tend to be listed only in the table of contents.

What we have described so far explains not only why but partly also how the Czech SSH community managed to double its scholarly output in the form of books in approximately five years. What we have not addressed yet is the seemingly simple technical question of who would be able and willing to be the publisher of all these books.

5.2 In-house publishing

It comes as no surprise that university presses elevated themselves in this context to the status of major publishing houses in the country in terms of the number of titles published. The increase was especially noticeable for some regional universities. For example, in 2013, Palacký University in Olomouc became the second-largest publishing house nation-wide, having published 492 titles (Turečková, 2015, p. 11) while it published only 174 in 2004 (Czech statistical office, n.d.). Moreover, there is a noticeable pattern of scholars publishing their work as books or in journals that are published by academic institution for which they work. Often the publisher is not a university press (even if one exists) but the faculty the scholar belongs to or even the department, where in some extreme but not uncommon cases the author manages the entire publication process him/herself. From our informants we heard repeatedly about these and other questionable “in-house” publishing practices. While rarely exposed, there have also been instances of the “in-house” publishing task being assigned to small ad-hoc created, low-quality or vanity presses owned by scholars themselves or their family members. Regardless, the practice of “in-house” publishing seems widely considered a legitimate publication strategy in the Czech SSH research community. There has been little debate on how appropriate this practice is and to the best of our knowledge no study exists that would quantify the scale of this practice. We tried to obtain an approximate idea by manually comparing authors’ affiliations and the publishers of all SSH books listed in the RIV and published in the sample years of 1995, 2000, 2005, 2009, 2013 and 2016. Depending on the definition of in-house publishing (there apparently is a difference between a major university press publishing books by authors working for the given university and a small department acting as the publisher for its members), in-house publishing accounted for between 31 and 34 per cent of all SSH book production in 1995 and between 42 and 47 per cent in 2016 (see Table I).
These data suggest that while in-house publishing emerged well before the national research evaluation methodology was introduced, it was reinforced by this methodology, and this contributed to the rise in book production in Czech SSH. This is hardly surprising. The evaluation methodology does not address the practice of in-house publishing in its rules, and since institutions were rewarded with RIV points for their book forms of scientific output (and these often translate into direct financial bonuses for individual scholars), institutions and researchers were de facto encouraged to in-house publish (potentially) low-quality work (on a similar situation in journals, see Macháček and Srholec 2017, p. 31). Moreover, it is a common practice that book publication is co-funded by grant projects (awarded, for example, by the Czech Science Foundation), which only makes the whole enterprise even more profitable for research institutions. Even if “in-house” publishing does of course not necessarily produce low-quality publications it is evidence that the Czech system of research evaluation has created a structural conflict in which the institution’s funding strategy is potentially pitted against the interests of high-quality science.

We believe that the generally expected role of a good publisher of academic books is manifold. Rigorous pre-publication peer review should act as sieve to eliminate poor manuscripts and guarantee the quality of the ones that are published. It should also actively co-contribute to the value of published works by helping to develop not only their content but also the form via language editing and design. In other words, good-quality scientific books are the product of dialogues within academia and the publisher often has a crucial role to play in those dialogues. “Vanity presses”, as we use the term here, are author-focused (rather than reader-focused) publishers who for a variety of reasons fail to perform the role outlined above. It is apparent that the research evaluation rules have allowed for and effectively encouraged, or at least have not prevented, the practice of turning to low-quality in-house publishing. In effect, many in-house publishing practices match this definition of vanity publishing, a concept we also use in the following section.

5.3 Fake internationalisation
One of the declared aims of the (Czech national) research policy since the 2000s has been to increasingly internationalise Czech science. International publications therefore became one of the few and in some contexts only indicators of how work on this objective is progressing. As we have seen, except for the disciplines that are included in the National Framework of Excellence, books in “world languages” (English, German, Russian, Spanish, Italian and Chinese) were in some years automatically rewarded with as much as twice as many RIV points than books in Czech and other (non-world) languages. Until the panel peer review evaluation was introduced, the actual publisher was of no importance. A book could be published even by an (entirely) unknown Czech publisher – what mattered was the language it was written in. This rule led to what we shall call here “fake internationalisation”.

While many scholars have published books in English domestically, authors have also often used foreign vanity presses, which could offer a better-looking cover-up.

<table>
<thead>
<tr>
<th>Year</th>
<th>In-house book publishing (%)</th>
</tr>
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<tbody>
<tr>
<td>1995</td>
<td>31–34</td>
</tr>
<tr>
<td>2000</td>
<td>33–38</td>
</tr>
<tr>
<td>2005</td>
<td>28–33</td>
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<tr>
<td>2009</td>
<td>29–35</td>
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<tr>
<td>2013</td>
<td>39–44</td>
</tr>
<tr>
<td>2016</td>
<td>43–47</td>
</tr>
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Note: Data retrieved from the RIV database (August 2018)
This paralleled the use of predatory journals for article publications (Stöckelová and Vostal, 2017). German-based Lambert Academic Publishing or LAP is a good example. Between 2010 and 2014, the Faculty of Social Science of Charles University (the oldest and presumably most prestigious university in the country) recorded 56 foreign-language books in the National Information System, of which 28 were published by LAP, while seven were published by VDM Verlag, which is also based in Saarbrücken and seems to be a twin of LAP. An interactive database designed by Czech activist NGO “Věda žije!” (Science Is Alive!) estimated that the faculty received roughly 12 mil. CZK (about 470,000 EUR) in public-budget funding that went to the publication of books by LAP (http://antipredator.vedazije.cz). What is more, master’s and doctoral students in the faculty’s Economics Department were actively encouraged to publish their theses (and dedicate them to the Faculty of Social Sciences) with the fast-moving vanity publishers GRIN or Light Switch Press. The latter, for example, offers to publish a book within 7 business days in a process of what they call “Expedited Publishing”: For serious authors who can’t wait to have their e-book published. Expedited Publishing pushes your book to the front of the line, get published fast! Your e-book will be designed, published, live on sites and on your way to earning royalties in seven business days’ (www.lightswitchpress.com/pricing.php, emphasis original). The following is a telling quote from a letter addressed to graduates, which was published on the website of the department and free to download in 2015:

Dear graduates, we would like to inform you about the system of support for publishing graduate theses in international publishing houses. IES (the Institute for Economic Studies) supports graduates who succeed in publishing their thesis in selected foreign publishing houses with a sum of 5,000 CZK (about 200 EUR).

Apart from that publication will bring you value in the form of a better position on the labour market and will make your family happy (which is as you know invaluable). This goal is not out of (your) reach […].

The necessary precondition for your work to be recognised as an expert book is that it has 50 print pages without annexes, and that it has references, citations, a list of references and that the author is affiliated with IES FSV UK. Attached are short instructions for students on how exactly to proceed.

The letter was signed by the vice-director and the director of the institute. The instructions that followed specified that the formatted thesis would be internally reviewed by the institute, and then directed the student to submit the thesis to www.grin.com/en or www.lightswitchpress.com. Apart from the socialisation of junior researchers into this kind of questionable publishing logic, it is also worth noting how the practice effectively utilised the evaluation system. In the Czech Republic theses (MA or PhD) are not obligatorily published in order for the degree to be conferred. Public universities are paid by the state for each student, and to publish a thesis as a research monograph in a world language would earn a faculty an addition sum, typically around 500,000 CZK (about 20,000 EUR) from the state budget. This is a remarkable reward, especially if we consider that, in the case of the institution that issued the above letter, the faculty’s only expense was the 5,000 CZK (about 200 EUR) offered to the student-author (who would probably know nothing about how research funding for universities works and how much the faculty would effectively collect for publishing the student’s thesis in the form of a book).

It took some years for the academic community at large and the research evaluation system more specifically to start at least to attempt to distinguish between prestigious, good-quality, and vanity publishers. Nevertheless, a more formal attempt to do so proved fruitless, as we will demonstrate below.
5.4 Texts without readers

So far in this paper we have tackled the questions of why book production in the SSH increased so remarkably, how authors achieved that enhanced productivity, and who published all those books. The obvious next question is who reads them, and the answer is perhaps not surprising: not many people do. The reasons are twofold. First, the evaluation methodology (and this is surely not unique to the Czech case) explicitly values scientists as authors, i.e. the producers of a text. “Consumption” of those texts is not rewarded, even in the form of a standard book review, which is not recognised as scientific outcome. In the long term, such a system fosters academia as a set of monologues or partial debates at best (Stöckelová and Vostal, 2015). Second, as we suggested above, a significant number of books published in recent years have been produced for the sake of administrative records and statistics, rather than for potential readers. Sometimes we witnessed situations suggesting that some authors were not just failing to promote their books but were rather failing on purpose. We suspect that books recycling previously published texts and books not sound in terms of their methodology, structure, style, coherence and execution were often abandoned by their authors right after their publication. These two factors have created what we shall coin as “a culture of orphaned books”. Apart from featuring in registers and annual reports, these books are hardly ever read, reviewed, discussed, purchased or quoted, and no one, even the authors, seems to care.

No one, that is, apart from otherwise marginalised stakeholders in the publication process: the accountants of research institutions and their technical administrators. While the early version of the evaluation methodology recognised e-books, since 2008 it has required a minimum print run of 200 copies for a book. The materiality of those books has accumulated over the years and at least some of the institutions that acted as publishing houses have ended up as expanding warehouses of orphaned books, or, depending on preferred vocabulary, landfills of academic trash. What is more, Czech laws do not allow a straightforward revaluation of stock held by publicly funded institutions. It can be either destroyed or kept in the records as having the value it was originally assigned. Orphaned books therefore not only occupy actual physical space in an institution but pose yet another challenge as fictitious assets in the realm of accountancy figures. Ironically, some institutions have come to understand that such challenges are best solved by adherence to open access. Books that are for free do not feature as (fake) assets in accountancy books and their materiality becomes more fluid as it is not fixed by accountancy. Such books can be easily destroyed without any bad press regarding them being recorded in the institution’s records or can even be printed in smaller numbers without any chance of this being disclosed. Thus, while one of the founding motivations of the open-access movement is the better use of public funds, open access in the culture of orphaned books can paradoxically be used as part of the “perpetual motion machine” for the misuse of public money: getting research funding for books that are not (published to be) read.

While effectively discouraging most reading, the evaluation methodology also designated two kinds of obligatory readers. First, it conditioned the status of a scholarly book on pre-publication peer review organised by the publisher. As we have already remarked above, in the context of in-house publishing even that reading exercise by at least one peer-reviewer does not always meet the standard of a competent critical evaluation. Second, from 2013 onwards the methodology required every book entered into the register to be assessed by two evaluators in the panel peer review. This prescribed reading is potentially crucial as it could, at least in theory, remedy many of the unwanted consequences produced or exacerbated by the evaluation methodology discussed above. We will now have a closer look at the way the system, in recent years of its existence, incorporated panel peer review into the evaluation of books, how this procedure was actually implemented, and with what consequences.
5.5 Skimmed peer review

The 2013 manual that established the panel peer-review mechanism in the evaluation methodology was explicit about the procedure. From 2014 on each book registered for evaluation would have to be assessed by two members of the appropriate panel. It would then be given a grade on a scale of 0 to 3. A grade of 3 would mean the highest quality, whereas a grade of 0 would mean the work had not met the criteria of a scholarly book. A sum of the grades given by the two evaluators would then be translated into point rewards as follows: “a total of 6 equals 116 points, 5 equals 86 points, 3 equals 26 points and 2 equals 0 points” (The Office of the Government of the Czech Republic, 2013a, p. 16).

However, the actual execution of that superficially transparent ranking was far from straightforward, as our interviews with three panel members and some informal chats with other participants in the process revealed.

Evaluations took place in the National Library where all the volumes to be evaluated were to be available. Timewise the process, according to our informants, took four to eight weeks (depending on the given year). During that time a panel member had to evaluate between 40 and 70 volumes assigned to her according to disciplinary competences. Conflicts of interest were strictly avoided, which sometimes resulted in panel members having to evaluate works that were out of their field of competence. This paradoxically did not matter much. Given the sheer numbers of books to be evaluated, all our interviewees confirmed that reading them was an impossible mission. Rather, following the guidelines they focused first on formal criteria such as length, presence of an index, references or world language summaries. Most of them then skimmed parts of a book, especially when in doubt about its quality. Under such circumstances, it would be logical to place some weight on the quality of the publisher. Panel members were, according to our informants, instructed to give greater value to quality international publishers. Yet, when one asked the chair of the panel about low-quality and predatory publishers, he was told that the point of the exercise is to evaluate (individual) books, not publishers. This statement of course is at odds not only with the actual practice of not reading (i.e. systemically having no chance to read) work submitted for evaluation, but also with the rules of the evaluation methodology. Our informant then ranked books published by obvious vanity presses as not satisfying the criteria of a scholarly book at all because they had obviously not been through pre-publishing peer review. But because there are no formal rules covering this issue, how it was dealt with by different vice-chairs and individual evaluators varied significantly.

A crucial question in such a situation is who were the panel members. According to the guidelines members were supposed to be nominated by research institutions. Candidates then would be discussed and approved by the Governmental Council for Research, Development and Innovation. In reality, the process was much more improvised. Of the panel members we interviewed, two became members in an irregular way. One was contacted by a vice-chair of a panel in order to fill a disciplinary gap at a time when the evaluation process was already in progress. When he accepted he was asked to suggest yet another name, as there are meant to be two people for each discipline. The second panel member we talked to was asked by a former panel member to take her place because she had to leave. More importantly, all those we interviewed expressed doubts about the abilities of the (vice-)chairs of their panels and/or the abilities of some fellow panel members.

One of our informants was contacted by phone by his panel vice-chair who tried, in a rather pushy way, to persuade him to alter some of his evaluations. This intervention apparently was not motivated by an effort to help or harm a particular book, author or institution. Rather, our informant believes, it was an effort to achieve the prescribed Gaussian distribution of the evaluation results. The intervention was unsuccessful, yet
when our informant checked the results of the evaluation, he deduced that his evaluation must have been changed, without his knowledge, in later stages of the process. Even though the system has since switched to a software interface, which would make such intervention much more difficult, the case reveals an important systemic problem, namely the lack of transparency and accountability within panels and in relation to those whose work is being evaluated (cf. Hicks et al., 2015).

The fact that the panel-based evaluation process was conducted by academics made it look, somewhat misleadingly, like a peer-review element, while it was more an administrative procedure checking that formal criteria had been fulfilled. Even in that capacity, however, the system seemed to fail. It is telling that in the first year of its existence the panel-based evaluation not only accepted 28 publications by Lambert Academic Publishing that should have been rejected due to the absence of any pre-publication peer review, it even awarded them with up to 86 RIV points (i.e. in effect with up to 40,000 EUR per publication). Even though, as revealed by the above-mentioned database “Věda žije!” (http://antipredator.vedazije.cz), the number of LAP publications in the register dropped to a single case in 2015, there is no evidence that this trend was an effect of the particular way in which the criteria of the panel-based evaluation were defined, and which were never published, and according to some of our informants actually do not exist in writing. Rather, it seems to have been the result of intervention from the Governmental Council for R&D&I in reaction to the public and media attention to “predatory publishing” (as discussed in Stöckelová and Vostal, 2017). Other vanity publishers and the dubious practice of in-house publishing were never tackled systematically by the panel-based evaluation system or from “above”. We suspect that policymakers in charge found any effort to revise the evaluation methodology hopeless and concentrated their attention on developing the new system that is currently being implemented (see Section 3).

6. Conclusion
In this paper, we traced the development of the Czech research evaluation system, which was introduced in 2004, and the consequences it has had for book publication strategies and patterns in Czech SSH. The “evaluation” of books has in fact taken the form of an administrative assessment that cheques that defined formal criteria have been met – at first basic and later more elaborate (though not necessarily more reasonable) criteria, in response to publication practices that emerged in the academic community for the purpose of harvesting “cheap” RIV points. Although this process produced “numbers” and was thus ostensibly objective, this administrative assessment process was a somewhat arbitrary exercise – both in terms of how the RIV points for different outputs and different disciplines were assigned and calculated in the methodology and how the exercise was carried out in practice. As such, the process in many respects violated the basic tenets of accountability of an evaluation procedure (cf. Hicks et al., 2015). Since 2013, the component of peer review was added, which, however, was not a proper peer-review process but rather an administrative exercise carried out by selected members of the academic community.

This arrangement had many significant effects on the work of researchers and researcher organisations and ramifications for the publishing market at large. Many of these effects were unintended by the designers of the methodology and the policy-makers who implemented it. Most importantly, the evaluation system led to an explosive growth of book publications, the rise of in-house publishing by a researcher’s own research institution, the “fake internationalisation” using foreign vanity presses as a publication venue, and the development of a culture of orphaned books with no readers.
We believe that a reasonable book evaluation (in a research culture such as the Czech one) has to aim for a combination of bibliometric analysis and proper peer review of selected outputs. Given the increasing complexity and tumult of book publication markets (including the global rise in for-profit open-access publishing), there is a need for internationally benchmarked and perhaps harmonised bibliometric analysis that takes into account the discipline-specific reputation of publishers.

At the same time, a peer review must be supported as part of the evaluation schema in a country such as the Czech Republic, if we want SSH to continue to contribute to the cultivation of the public space and the shared political imaginaries of Czech society and the Czech language. It is only peer review that can ensure and support the production of all of the “four literatures” of the SSH, which includes journal articles, books, “national”, locally relevant literature, and non-scholarly literature (Hicks, 2004). Any reasonable research evaluation must then give the reviewers enough time to actually read (their colleagues’) scholarly production – both in the frame of the evaluation (i.e. a proper peer review) and in everyday research practice (i.e. quality post-publication book reviews should be recognised as a legitimate form of scholarly production). Also, the research evaluation should not actively discourage the participation of SSH scholars in public debates – including in the form of good-quality specialist or more popularising books in Czech. Otherwise, unread books will face nothing more than the sharp-toothed criticism of mice in university cellars, with their authors locked in sad academic monologues.

Note
1. It could be assumed, as one of the anonymous reviewers of this paper noted, that panellists ignored the formal criteria because they read and thoroughly evaluated those LAP publications and found them of high academic value. Given our informants’ insights into the procedure and its timeframes and organisation, however, this seems rather unlikely.

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**Policy documents**


Appendix. Basic information and methodological design of research projects informing the present study


- a comparative European project that involved five countries (Austria, the Czech Republic, Finland, Slovakia and the UK) which studied two epistemic cultures: one from the social sciences and the other from the biosciences in each country; the issue of publishing practices and strategies emerged as one of the key concerns; and
- in the field of social sciences in the Czech Republic, it involved a several months long participant observation in a social science university department, 20 interviews with its members and two focus groups, which were recorded and transcribed, and a textual analysis of a variety of relevant national and institutional policy documents.

(2) Articulations of science policies in research practice and academic path (2009–2010):

- a project concerned with the ways in which policy rules are performative for everyday research (and educational) realities, and the ways in which institutions and researchers negotiate their social and epistemic space vis-à-vis those rules – thus translating, using and subverting them, in particular as for research assessment and accountability and growing into science by junior researchers; and
- while using the data from the KNOWING project we conducted additional seven focused groups, including researchers from social sciences and humanities, which were recorded and transcribed.


- research project contemporary transformations of higher education from below, as for practices of teaching, learning, research and knowledge transfer, through ethnographic studies of five university departments: three of them in the field of social sciences and humanities (academic or professional oriented); and
- in the social science departments, the research involved a several months long participant observation in each department, more than 50 interviews with the department members and PhD students, which were recorded and transcribed, and a textual analysis of a variety of relevant national and institutional policy documents.

Analyses of all data (including interview transcript, ethnographic fieldnotes and relevant policy and other documents) across the research projects have been carried out with the help of Atlas.ti software.

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Abstract

Purpose – The purpose of this paper is twofold: first, to compare the lists of publishers in SPI (Spain) and the lists of VIRTA (Finland), in order to determine some of the potential uses of a merged list, such as complementing each other; and, second, to assess the effects of cross-field variability in the SPI rankings on the potential uses identified in the previous objective.

Design/methodology/approach – VIRTA and SPI lists were matched and compared in terms of level and number of submissions (VIRTA) and prestige (SPI).

Findings – There is a set of international publishers common to both information systems, but most publishers are nationally oriented. This type of publisher is still highly relevant for scholars. Consequently, a merge of national lists would provide useful information for all stakeholders involved in terms of grounding information for the rating of foreign, non-international publishers. Nevertheless, several issues should be considered in an eventual merging process, such as the decisions related to the use of field-specific rankings or general rankings.

Practical implications – If merged, ratings ought to be kept separately. Ratings of national publishers can be imputed in other systems' evaluation process, thus making the merging process potentially useful.

Originality/value – This research explores obstacles and opportunities for merging scholarly publishers' lists from an empirical perspective. It provides groundwork for future efforts toward supra-national combinations of publishers' lists.

Keywords Books, Research evaluation, SPI, Lists merge, Scholarly publishers, VIRTA

Paper type Research paper

Introduction

Scholarly books tend to be an important product of research that is carried out in the humanities, but also often in the social sciences (Giménez-Toledo et al., 2016). This implies that it is necessary to take scholarly books into account in the evaluation process. This is done in different forms in several European countries, considering that the evaluation of scholarly books is ingrained in a wider evaluation system with specific objectives, usually set at the national level, the models vary considerably among countries in consonance with those objectives and other factors (Kulczycki et al., 2018). The evaluation of individual books through extensive, detailed reading of the contents of each title under evaluation by a panel of experts is costly and time consuming (e.g. in the case of the UK's REF 2014, Rosenberg, 2015). Therefore, in several evaluation systems and funding schemes, whether based on quantitative or qualitative methods, the publisher is used as a proxy for the quality of the book.

The procedures for the evaluation of a publishing house differ considerably. While citation analysis has limited application in case of book publishers (Zuccala et al., 2015), their evaluation in national level systems is usually based on survey or expert opinion. In Spain, the product Scholarly Publishers Indicators (SPI) (SPI, 2018) contains, among other developments, rankings of publishers according to their prestige as perceived by scholars
in sixteen social sciences and humanities (SSH) fields. These rankings summarize the results of a survey in which around 2,700 scholars provided, as a response, a list of (up to) the ten most prestigious publishers in their respective fields. In the countries (Norway, Finland, Denmark and Flanders) following the so-called Norwegian model (Sivertsen, 2016; Sivertsen and Larsen, 2012), publication channels are classified in a number of levels, reflecting the distinction between peer-reviewed and not peer-reviewed outlets, as well as different degrees of quality (both in the case of journals and scholarly book publishers) by expert panels, specialized in different fields. In Finland, the JUFO classification of publication channels (Auranen and Pölönen, 2012) is produced by 23 evaluation panels whose main task is the evaluation of the publication channels in order to provide them with a level rating.

A relevant difference between the two systems is the fact that in Spain, the information concerning scholarly publishers is used for evaluations at the level of individual researchers, while in the case of Finland and, in general, in the countries following the Norwegian model, it is used in a performance-based funding scheme (PRFS) of Higher Education Institutions (Hicks, 2012). In Spain (ANECA, 2008), the information on publishers is supplemented with further review of the individual titles by expert panels in the context of the applicant’s CV, while in the Norwegian model the funding scheme is based solely on bibliometric indicator supported by the publication channel rating.

The existence of national level information system in Finland, and other countries using the Norwegian model, is another important difference, implying that there is comprehensive publication data in their case but not in the case of Spain. This also leads to different designs for the composition of the book publisher lists in the two national systems. SPI covers only such Spanish and international publishers that researchers participating in the survey have indicated among the top 10 list. Publication Forum covers all national and international publishers actually used as outlets by Finnish researchers, as well as other international publishers considered relevant from the Finnish research perspective.

Another relevant difference between the two databases is the use of field-specific rankings in the case of SPI. In case of Finland, the rating is understood to reflect the average quality and prestige of publishers from the perspective of all fields, while in Spain the publisher prestige is field specific. Since the evaluation in the countries following the Norwegian model is carried out for PRFS at the institutional level, there is no differentiation of the quality of publication channels in different fields: each publication channel is taken into account with a single quality level, from which a fixed number of points is derived in the evaluation process (combining quality level and publication type) regardless of the field of the publication. In the case of SPI, however, where the evaluation takes place at the individual level, there are field-specific classifications for the same publishers and a publisher can have different values of perceived prestige in the different fields. The differences in the prestige of a publisher across the different fields come from the variability of the responses from specialists in different fields so that, for example, the same publisher can be considered highly prestigious by specialists in history but not prestigious by specialists in philosophy.

State of the art in merged lists and rationale for the study
In recent years, several initiatives have started to be developed in the direction of a future integration of European research databases. As pointed out in Puuska et al. (2018, p. 1):

An Expert Group on Assessment of University-Based Research recommended in a report to the European Commission that it should “Invest in developing a shared information infrastructure for relevant data to be collected, maintained, analyzed, and disseminated across the European Union” (European Commission, 2010). A report to the European Parliamentary Research Service (2014), Comparing Research in So, recommends development of a European integrated research information system inter-connecting the existing national research information systems.
As reported in the same publication, the Strategic Membership Meeting of EuroCRIS in 2016 had as its central theme “The road to a European Research Information Infrastructure.”

Most of the identified national databases in Europe contain information on several types of publications, among which there are conference proceedings, journal articles and book publications (Sirle et al., 2017, 2018). Especially in countries where publication data are linked to performance-based research funding (PRFS), book publications (including book chapters, authored books, monographs and others) are differentiated at the level of the publisher. There are now several projects aiming to integrate national publication data with national authority lists of publication channels (including book publishers).

In 2016, SPI Expanded (Scholarly Publishers Indicators Expanded, 2016) was developed. This database, produced by the ILIA (Grupo de Investigación sobre el Libro Académico) Research Group, provides information on the presence or absence of 3,948 scholarly publishers in different databases (Book Citation Index, Scopus, the Norwegian and Finnish lists of publishers and SPI in Spain).

Also, the Nordic countries have been collaborating since 2015 to produce an integrated list of publication channels, containing information on all journals, conferences and book publishers listed in Denmark, Finland and Norway. This initiative has been funded since 2016 by NORDFORSK and the resulting product (The Nordic List) is intended to be released in 2018 (https://dbh.nsd.uib.no/publiseringskanaler/Forside.action?request_locale=en).

VIRTA was launched in Finland as a solution for integrating institutional publication data at the national level. In line with the aforementioned recommendation of the European Commission, the European Network for Research Evaluation in the Social Sciences and Humanities (ENRESSH) launched a pilot project in 2017 with the objective of using the VIRTA model to integrate publication data from institutional current research information systems (CRIS) systems from different countries (six universities from Norway, Belgium, Spain and Finland participated in the pilot project). There are plans for integrating publication data from all Nordic countries (Puuska et al., 2017, 2018). All of the previous recommendations, ongoing projects and initiatives imply a clear interest in the convergence of European publication databases and publication channel registers.

The proposed integration of European research databases would require, apart from the necessary technical developments, specific comparisons of different national publication channels’ lists. In previous studies, the journal lists from Denmark, Finland and Norway have been compared, pointing out relatively large discrepancies between level ratings of expert-panel evaluations (Pölönen, 2012; Pölönen and Sivertsen, 2017). In terms of book publishers, at least one study focuses on their selection to authority lists in Flanders, Denmark, Finland and Norway (Verleysen et al., 2014). Three studies have used the SPI data to analyze the information available for book publisher evaluation, especially in the case of university presses (Mañana Rodriguez and Giménez Toledo, 2016; Giménez-Toledo et al., 2017; Mañana Rodriguez and Giménez Toledo, 2016). In this sense, the comparison of the Spanish SPI lists of publishers with the Finnish JUFO publication channel lists regarding the scholarly publishers represents an interesting opportunity given the different methodological approaches used in the two products (survey and expert-evaluation), thus making the conclusions useful for testing the extent of a potential merge of heterogeneous information systems.

A comparison between the ratings and the properties of different national ratings is needed because of the potential and actual use of publication channel authority lists across national borders. In the ENRESSH-VIRTA pilot project, it was possible to tentatively try the application of JUFO-ratings developed in Finland on publications from other participant countries. But we also know that national publication channel ratings developed in one country are already borrowed and used in other countries for evaluation and funding purposes. Several universities in Sweden use the Norwegian authority list in their local
research funding and management models (Hammarfelt et al. 2016), and the Norwegian model based solution is being developed also in the University College Dublin (Cleere and Ma, 2017). This raises a question concerning the adaptability of national book publishers ratings in different national and institutional contexts.

The thematic classification of journals and the consequences for the evaluation databases and the inter- and multi-disciplinarity have been extensively studied (e.g. bottom-up, citation procedures, Leydesdorff, 2007; Leydesdorff and Rafols, 2011; Pudovkin and Garfield, 2002, among many others) but the corresponding studies concerning the thematic classification and/or specialization of scholarly books are more limited in number (i.e. Sivertsen and Larsen, 2012; Zuccala et al., 2015; Verleysen and Engels, 2013; Mannana-Rodríguez and Giménez Toledo, 2018; Chi, 2016, in that last case in terms of citation patterns). Our analysis is also relevant for considering the potential advantages and disadvantages in using a field-specific or not-field-specific classification of scholarly book publishers in different research evaluation contexts.

**Objectives**

The first objective of this work is to compare the lists of publishers in SPI (Spain) and the lists of VIRTA (Finland) in order to determine the potential uses of a merged list. SPI list of book publishers is compared with the Publication Forum list of book publishers, in terms of common publishers, prestige levels (in the case of SPI) and quality levels (in the case of VIRTA), in order to identify sets of publishers that can be identified in the two information systems and to establish the extent to which those sets could be used in a hypothetical merged list.

The second objective is to assess the effects of cross-field variability in the SPI rankings with respect to the potential uses identified in the previous objective. SPI rankings have a twofold development: a general ranking and 16 field-specific rankings. The variability of the prestige of a specific publisher between fields would be informative in terms of its effects in a hypothetical merge of lists. With a common set of publishers, it is possible to compare field-specific SPI ratings with field-specific output data from VIRTA.

From the analysis of the publisher sets common to both lists or present in only one of them, and from the comparison of the ratings given by expert scholars (in the case of SPI) and expert panels (in the case of the Finnish lists), some findings concerning the side of applied research can be reached concerning which publishers are “core” to both lists, what characterizes the publishers that are only in one of the two products and what could contribute to explain the differences in rating of specific sets of publishers. These findings could also serve the purpose of facilitating empirical evidence on some of the questions that might arise in the process of integrating European research databases, such as which sets of publishers might be considered “local” or “international” and which potential uses could the merged lists have for all parts involved.

Our study is based on three data sets from three sources: a list of publishers from Spanish SPI; the Finnish Publication Forum authority list of publication channels; and publication data from Finnish universities stored in the VIRTA publication information service:

1. The full list of publishers in the 2014 edition of SPI, containing the following fields: the ICEE (Prestige indicator, calculated according to the formula described in: [http://ilia.cchs.csic.es/SPI/metodologia_2014.html](http://ilia.cchs.csic.es/SPI/metodologia_2014.html) as well as in Giménez-Toledo et al., 2012; is the result of adding the frequency with which a publisher has been voted in the underlying survey multiplied by a weight for each position) in each field’s ranking; the position of each publisher in each field’s ranking (16 SSH fields); the corresponding data for the general ranking (a non-field-specific ranking). The previous data are available for two distinct sets of publishers: Spanish and non-Spanish publishers.
SPI (SPI, 2018) is a publicly available information system developed by ILIA Research Group (Spanish National Research Council). It contains a ranking of scholarly publishers’ prestige based on a large survey (over 3,000 responses: despite counting with a response rate of 23.05 percent, the representativeness of the results cannot be accurately assessed since the data on the population numbers of subjects by field is not available in an updated version) to Spanish scholars. In the survey, launched in 2014 (following a previous edition, in 2012; Giménez-Toledo et al., 2012), the respondents (Spanish university lecturers and researchers) were asked to name and rate the ten most prestigious publishers in their respective fields (separately, Spanish and non-Spanish publishers). The survey was not guided in the sense that the respondents were only asked to provide the top 10 most prestigious publishers in their respective fields, without being given any additional information.

The results were summarized into an indicator (ICEE, detailed in the previous reference) that quantifies the perceived prestige of each publisher by all respondents. There are 16 field-specific rankings for each set of publishers (Spanish and non-Spanish) and a general ranking for each of them. The fields covered, only within the SSH, include: fine arts, anthropology, archeology and prehistory, library and information science, communication, economy, education, Arab and Hebraic studies, law, philosophy, geography, history, (linguistics, literature and philology) (as a single field), political science, psychology and sociology. Field-Specific rankings were developed from the responses of specialists in each of the fields, i.e. the ranking of publishers in geography is based only on responses from geographers. The general ranking was calculated by taking into consideration all responses to the questionnaire, regardless of the respondent’s field of specialization.

The publishers in the JUFO (Finnish Publication Forum) list, which includes the publishers’ name and level (2017) is available at: www.tsv.fi/julkaisufoorumi/kirjakustantajat.php. For the Publication Forum (in Finnish Julkaisufoorumi or JUFO) organized by the Federation of Finnish Learned Societies, 23 field-specific expert panels (composed of over 200 researchers from Finnish universities and public research) produced a rating of peer-reviewed publication channels (journals/series and book publishers), which was based on impact and prestige and comprised of four levels (1 = basic, 2 = leading, 3 = top, 0 = other) according to their impact and prestige. The rating of book publishers is the responsibility of all panels, and the selection of level 2 and 3 publishers is a result of consensus decision by the panel-chairs following a preliminary proposal by the SSH panel chairs. All ratings are openly available for browsing and downloading at the Publication Forum website (www.julkaisufoorumi.fi). In VIRTA, the publication channel has been identified for the peer-reviewed publications for the purpose of counting them in the PRFS with the Publication Forum level. In the PRFS, Publication Forum ratings apply equally to publications regardless of the field assigned to them in the data collection.

The publisher-specific list from the VIRTA information system contains (2011–2016) the following fields: number of articles in books and monographs published by each publisher by field (14 SSH fields based on the primary field assigned to publications in the data collection and classified according to the OECD FOS categories); total number of book items published with each publisher; level of the publisher in the categorization system. The VIRTA publication information service stores data on publications the 14 Finnish universities report under the Universities’ act annually to the Ministry of Education and Culture (Sile et al., 2018). These data, which provide complete coverage of academic/scholarly outputs in all fields have been used since 2012 in the performance-based research funding system to allocate part of the
block-funding to universities. Currently, VIRTA covers publication years 2011–2016, however a small portion of the 2016 data remains to be reported in 2018 data collection. The publication data contain duplicates at the national level, as publications co-authored by researchers from more than one Finnish university are reported by each university as their own publication. VIRTA data are openly accessible for browsing at JUULI-portal (www.juuli.fi) and for statistics at VIPUNEN-portal (www.vipunen.fi). An Excel-file containing the publication data is also available for download at CSC (CSC – IT Center for Science Ltd).

Publications from VIRTA are weighted in the PRFS funding formula according to the publication type and Publication Forum level. All publications are assigned a publication type and field of science at the time of their registration in the universities’ CRIS, following the data collection guide provided by the ministry. The registration of field or publications is done mainly by the researchers themselves but it can be facilitated with importation of publication data from the international databases (such as Web of Science and Scopus), and it may be assisted and/or checked by data collection personnel at the universities. In any case, universities take responsibility for the contents and quality of the data they report.

Methodology

Data processing

The lists of publishers in the Finnish lists and SPI use, in many cases, different names for the same publishers (in the cases where there is a coincidence). In the case of the Finish lists, most publishers have attached to the name the ISBN prefix(es) used by the publisher. Such information would allow the identification of the standard denomination of the publisher through a simple search in the Global Register of Publishers (the database, publicly available at https://grp.isbn-international.org/ provides information on publishers with ISBN registered in International ISBN agency, including the ISBN prefix(es) used by each publisher or, at least, the full ISBNs for the publishers). That name, in combination with the ISBN prefix(es) could be checked against a list containing corresponding information. That possible scheme of matching (despite counting with sources of error, which will be developed in further lines) could have been used in this work had the SPI lists also included the ISBNs of the publishers.

Due to the fact that the SPI results from a survey, where the names of publishers were given by respondents, the ISBN prefixes are not present in the list. Therefore, an alternative procedure has been put in practice (similar to the procedure used in Mañana Rodríguez and Giménez Toledo, 2016): first, an exact coincidence search between the lists using the “VLOOKUP” formula in MS Excel, with the list with the highest number of elements as search element against the shortest list. Once the matched publishers were identified, a single name was adopted for each publisher (in general, the longest name was kept in order to preserve the maximum differentiation capacity with regards to the shorter alternative, but in some cases the acronyms such as LTD and others have been removed and in others the final names were retrieved from the Global Register of Publishers). That name replaced those that were different in all of the lists involved using the “VLOOKUP” formula again.

After the first automatic processing, a manual deduplication and normalization process was carried out. This involved the placement of all the names of the publishers from all lists in a single column in MS Excel and alphabetically ordering the column (after removing extra spaces, setting the names in capital letters and removing the remaining common acronyms related to the company type). A visual inspection of the resulting list allows the identification of several variants starting with the same letter, followed by the corresponding identification of a single name, placed in the adjacent cells. The next step involved checking the name of each publisher, excluding all word types other than names,
against the rest of the list in order to find all cases containing the name and visually inspecting the variants in order to identify those that vary in terms of articles, punctuation marks, acronyms and other differences that would not have been detected in the previous steps. Special attention was paid to cases generating numerous variants such as university presses (e.g. The University of Wisconsin Press/Wisconsin University Press/University of Wisconsin Press, etc.), acronyms (CSIC, Spanish National Resarch Council) and names of publishers that start with frequent words such as articles. The Global Registry of publishers was used in order to disambiguate some cases, to find a unique name of the publishers and, particularly, in order to find the developed acronyms and establish a unique name (often keeping the acronym in brackets after the developed form was identified). The resulting list contains the original name and a second adjacent column with the unique name for each variant. Replacing the empty cells in the second column with the adjacent value of the first column results in a list that contains the unique names and the correct, duplicated names. A final deduplication produces a list that includes the results from all the previous steps.

The previous process has some limitations; in some cases, it relies on a visual inspection of the list, which is a source of human error. Also, the problems related to the relation between the imprints and the publishing house are not resolved in this case: if an imprint of a publishing house is present in one of the lists and the publishing house is present in another list, the results of the matching process would not recognize the presence of the publishing house in both lists or vice versa. This problem can be particularly difficult to resolve, even counting with the ISBN prefixes, since not in all cases the prefixes of the imprints are included among those of the publisher (e.g. in the case of books published prior to the acquisition of the publisher, as an imprint, by a publishing house). The procedure has been understood, nevertheless, the optimal solution given the limitations in the initial information.

With the new set or list of unique denominations, we produced the data required for the preparation of a new set containing the presence or absence of each publisher in the respective initial list. Since the original names were kept, the rest of the fields in each original data set (prestige indicators, number of submissions and others) can be retrieved with “VLOOK” formulas between the final list and the original ones. Further steps required the ordering of the resulting set with filters and conditional formulas.

Finally, for the sets of publishers common to both lists, a simulation of cross-field variability in prestige rankings was prepared. In the JUFO and VIRTA lists, a publisher can have four levels: 0, if it has not been evaluated yet and 1, 2 or 3 according to its quality. Taking into account only 1, 2 and 3 values, the number of publishers in each level was calculated (from the full list available at the JUFO website), finding that publishers with level 3 were less than 1 percent of the total set. For this reason, levels 3 and 2 were aggregated into one single name: 2. For publishers with levels 1 or 2, 91.7 percent of the publishers have level 1 and 8.3 percent are in level 2. In order to make SPI ranking comparable with that distribution of publishers among levels, each ranking was re-codified: the top 8.3 percent (the closest whole number to that percentage, in practice) of the total number of publishers in each ranking, decreasingly ordered by ICEE was assigned level 2 and the rest of the publisher's level 1. Then, the levels in the JUFO lists and SPI were compared so that the variability could be observed in two tables, one for each set of publishers common to both lists.

**Results**

*Comparisons of publishers common to both information systems*

Table I presents the results from the 20 publishers with the highest number of titles published in the VIRTA data set, 11 of which were found in the SPI rankings of non-Spanish publishers. It can be observed that Cambridge University Press (CUP) and Oxford
University Press (OUP) holds prestigious positions across all SSH fields. The most important exceptions are library and information science and geography, where most research tends to be published in journals. Also, Routledge and Springer hold the top position in some SSH fields. In case of other publishers, there is a considerable variation in the degree of specialization and prestige between SSH fields.

Analysis of categories corresponding to JUFO categories in SPI field-specific rankings of publishers common to SPI and VIRTA lists. After transforming the disciplinary ranks in SPI to a two level configuration (levels and 2) so that it corresponds to the JUFO list, the Tables II and III reflect the frequency of coincidence/discrepancy between the JUFO level and the SPI disciplinary ranks of Spanish and foreign publishers by field.

Overall coincidence and differences in rating between SPI and JUFO lists. Using the general ranking of publishers in SPI and the full list of publishers in the JUFO lists, the names of the publishers were matched.

For the sets of publishers common to the two lists a simulation of cross-field variability in prestige rankings was prepared. In the JUFO and VIRTA lists, a publisher can have four levels: 0, if it has not been evaluated yet and 1, 2 or 3 according to its quality. Taking into account only 1, 2 and 3 values, the number of publishers in each level was calculated (from the full list available at the JUFO website), finding that publishers with level 3 are under 1 percent or the total set. For this reason, levels 3 and 2 were aggregated into one single name: 2. For publishers with levels 1 or 2, 91.7 percent of the publishers have level 1 and 8.3 percent are in level 2. In order to make the disciplinary ranks of SPI comparable with that distribution of publishers among levels, each ranking was re-codified: the top 8.3 percent (the closest whole number to that percentage, in practice) of the total number of publishers in each ranking, decreasingly ordered by ICEE was assigned level 2 and the rest of the publisher’s level 1. Then, the levels in the JUFO lists and SPI were compared and the variability reflected in two tables, one for each set of publishers common to both lists.

In total, 46 percent (284) of the publishers in SPI general ranking of non-Spanish publishers are found also in the JUFO lists. From these 284 publishers, 25 percent would have the same level 2 in both information systems and 75 percent a different level, counting...
publishers with level 0 in the JUFO lists. If these level 0 publishers are not counted, the proportion of publishers with the same level increases slightly, as would be expectable, yielding a 28.8 percent of common publishers with the same level. Overall, 8 percent (23) of the common publishers have level 2 in the two systems and 58 percent (156) are in level 1 in the two lists, while there is a 11.9 percent (34) publishers that have level 1 in SPI but level 0 in the JUFO lists (the remaining 21.8 percent corresponds to publisher that have either levels 1 or 2 but it is different between the two lists). Table IV shows a selection of publishers in the different situations described above.

<table>
<thead>
<tr>
<th>Name of the publisher</th>
<th>Level in the JUFO lists (&quot;3&quot; assimilated to &quot;2&quot;)</th>
<th>Frequency of a level 2 in an SPI disciplinary ranking</th>
<th>Frequency of a level 1 in an SPI disciplinary ranking</th>
<th>Frequency of non-presence in an SPI disciplinary ranking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consejo Superior de Investigaciones Científicas</td>
<td>1</td>
<td>5</td>
<td>8</td>
<td>3</td>
</tr>
<tr>
<td>Publicacions de la Universitat de València</td>
<td>1</td>
<td>0</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Plaza y Valdés</td>
<td>1</td>
<td>0</td>
<td>6</td>
<td>10</td>
</tr>
<tr>
<td>EUNSA. Ediciones de la Universidad de Navarra</td>
<td>1</td>
<td>0</td>
<td>6</td>
<td>10</td>
</tr>
<tr>
<td>Arcibel</td>
<td>1</td>
<td>0</td>
<td>4</td>
<td>12</td>
</tr>
<tr>
<td>Centro De Estudios Andaluces</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>15</td>
</tr>
<tr>
<td>Ediciones El Almendro De Córdoba</td>
<td>1</td>
<td>0</td>
<td>2</td>
<td>14</td>
</tr>
<tr>
<td>Doble J</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>15</td>
</tr>
<tr>
<td>Iberoamericana/Vervuert</td>
<td>1</td>
<td>1</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td>Fundación Infancia y Aprendizaje</td>
<td>1</td>
<td>0</td>
<td>2</td>
<td>14</td>
</tr>
<tr>
<td>Axac</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>15</td>
</tr>
<tr>
<td>Verbum</td>
<td>1</td>
<td>0</td>
<td>2</td>
<td>14</td>
</tr>
</tbody>
</table>

Note: Set of common Spanish publishers (with level 1 or higher in JUFO lists)

Table II. Comparison of disciplinary ranking evaluation with assimilated JUFO levels to SPI lists-Spanish publishers

<table>
<thead>
<tr>
<th>Name of the publisher</th>
<th>Level in the JUFO lists (&quot;3&quot; assimilated to &quot;2&quot;)</th>
<th>Frequency of a level 2 in an SPI disciplinary ranking</th>
<th>Frequency of a level 1 in an SPI disciplinary ranking</th>
<th>Frequency of non-presence in an SPI disciplinary ranking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Routledge (Francis &amp; Taylor Group)</td>
<td>2</td>
<td>13</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Springer</td>
<td>2</td>
<td>10</td>
<td>6</td>
<td>0</td>
</tr>
<tr>
<td>Oxford University Press</td>
<td>2</td>
<td>14</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Cambridge University Press</td>
<td>2</td>
<td>14</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Ashgate Publishing (Ashgate Publishing Group)</td>
<td>2</td>
<td>1</td>
<td>13</td>
<td>2</td>
</tr>
<tr>
<td>Palgrave MacMillan</td>
<td>2</td>
<td>2</td>
<td>11</td>
<td>3</td>
</tr>
<tr>
<td>Brill</td>
<td>2</td>
<td>3</td>
<td>7</td>
<td>6</td>
</tr>
<tr>
<td>De Gruyter</td>
<td>2</td>
<td>2</td>
<td>8</td>
<td>6</td>
</tr>
<tr>
<td>Edward Elgar</td>
<td>2</td>
<td>0</td>
<td>7</td>
<td>9</td>
</tr>
<tr>
<td>Peter Lang</td>
<td>1</td>
<td>1</td>
<td>12</td>
<td>3</td>
</tr>
<tr>
<td>Sense publishers</td>
<td>1</td>
<td>0</td>
<td>3</td>
<td>13</td>
</tr>
</tbody>
</table>

Note: Set of common non-Spanish publishers

Table III. Comparison of disciplinary ranking evaluation with assimilated JUFO levels to SPI lists-non-Spanish publishers
A closer look at the publishers that have level 2 in the two lists show that these are mostly UK or USA based (with some exceptions) publishing companies that tend to be active in a wide set of scholarly fields.

The set of publishers with level 2 in SPI and level 1 in JUFO lists seems to consist of publishers that are particularly active in the Spanish scholarly publishing market, which might have a particularly relevant influence on Spanish scholars. Other publishers are particularly closer in terms of language, such as the Universidad Nacional Autónoma de México and, up to a certain extent, the French CNRS. In most other cases, the publishers are highly regarded in fields that usually present a strong national orientation, for example, Giuffre, which is highly prestigious in the field of Law, and Peter Lang, in Linguistic, Literature and Philology.

There are no foreign publishers that operate in the Finnish language market of academic/scholarly books in Finland. The set of publishers that have a high rating (levels 2 or 3) in Publication Forum, but have a lower prestige position in SPI, includes a group of German publishers that may be closer to academic research community in Finland than Spain. Another group is composed of the UK- or USA-based university presses. In the latter case the discrepancy between the Finnish and Spanish ratings is difficult to explain.

**Degree of coincidence between output distribution in the VIRTA lists by field and the Spanish prestige rankings.** In this section, there is a comparison of the number of common publishers between two sets of publishers: on the one hand, the top 10 more prestigious publishers by field in SPI, and on the other hand, the top 10 publishers with the highest number of titles submitted to VIRTA (Table V). The list indicates the number of fields in

<table>
<thead>
<tr>
<th>Publishers with level 2 in both lists</th>
<th>Publishers with level 2 in SPI and level 1 in JUFO lists</th>
<th>Publishers with level 2 in JUFO lists and level 1 in SPI lists</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cambridge University Press</td>
<td>Peter Lang</td>
<td>Columbia University Press</td>
</tr>
<tr>
<td>Oxford University Press</td>
<td>McGraw Hill</td>
<td>Oxbow Books</td>
</tr>
<tr>
<td>Routledge (Francis &amp; Taylor Group)</td>
<td>Wolters Kluwer</td>
<td>University Of California Press</td>
</tr>
<tr>
<td>Springer</td>
<td>Pearson</td>
<td>Honore Champion Editeur</td>
</tr>
<tr>
<td>Elsevier</td>
<td>Macmillan</td>
<td>Max Niemeyer</td>
</tr>
<tr>
<td>Blackwell</td>
<td>Giuffre</td>
<td>Multilingual Matters</td>
</tr>
<tr>
<td>De Gruyter</td>
<td>CNRS</td>
<td>Suhrkamp</td>
</tr>
<tr>
<td>Sage</td>
<td>Armand Colin (Hachette Livre)</td>
<td>Peeters</td>
</tr>
<tr>
<td>Harvard University Press</td>
<td>L’Harmattan (Grupo L’Harmattan)</td>
<td>Mohr Siebeck</td>
</tr>
<tr>
<td>John Benjamins</td>
<td>Universidad Nacional de Mexico</td>
<td>Hart</td>
</tr>
<tr>
<td>Brill</td>
<td>Les Belles Lettres</td>
<td>Droz Champion</td>
</tr>
<tr>
<td>Mit Press</td>
<td>Archaeopress</td>
<td>Cornell University Press</td>
</tr>
<tr>
<td>Presses Universitaires De France (Puf)</td>
<td>Cedam (Wolters Kluwer)</td>
<td>Universitätsverlag Winter</td>
</tr>
<tr>
<td>Brepols</td>
<td>Emerald</td>
<td>Lawrence Erlbaum Associates</td>
</tr>
<tr>
<td>Academic Press (Elsevier)</td>
<td></td>
<td>Franz Steiner Verlag</td>
</tr>
<tr>
<td>Taylor &amp; Francis</td>
<td></td>
<td>Duke University Press</td>
</tr>
<tr>
<td>Chicago University Press</td>
<td></td>
<td>Polity</td>
</tr>
<tr>
<td>Ashgate Publishing (Ashgate Publishing Group)</td>
<td></td>
<td>Johns Hopkins University Press</td>
</tr>
<tr>
<td>Princeton University Press</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Edward Elgar</td>
<td></td>
<td>Berghahn Books</td>
</tr>
<tr>
<td>Gallimard</td>
<td></td>
<td>Plenum</td>
</tr>
<tr>
<td>Palgrave</td>
<td></td>
<td>Harrassowitz</td>
</tr>
<tr>
<td>Yale University Press</td>
<td></td>
<td>Manchester University Press</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Nomos Verlag (C.H. Beck)</td>
</tr>
</tbody>
</table>

Table IV. Selection of publishers with the same and different levels in JUFO and SPI lists
which the publisher is among the ten most used publishers from Finland and in which the
publisher is also among the ten most prestigious publishers in SPI.

Clustering of publishers by number of fields in which they are recognized and comparison
with the VIRTA lists in terms of publication output. From the publishers in each general
ranking in SPI (Spanish publishers and foreign publishers), those voted by specialists in
10 or more of the 16 fields covered in the product have been selected. Then, the publishers
were ranked by decreasing order of standard deviation in the values of the prestige
indicator (ICEE) and the top 10 publishers were selected. The result is, in both cases, the
set of publishers that are recognized as highly prestigious in a large set of disciplines and,
considering the minimization of their standard deviations in the perceived prestige, those
for which there is more consensus on their prestige across fields. The two lists of
publishers were contrasted with the VIRTA lists in order to identify how many of them
are in also in that set of publishers. The following two Tables VI and VII reflect the results.
The sets of publishers on which there is less consensus and have less prestige have not
been included here since the frequency of commonality between the two lists is very low.

All the publishers identified in the “core” of cross-field prestige are common to both lists.
The situation is quite different in the case of the corresponding list for Spanish publishers
(Table VII).

In the case of the Spanish publishers, only one is present in both lists.

In the VIRTA lists, the publishers for which there is output in more fields (15) have
been selected and their presence in either the Spanish publishers’ general ranking or the
non-Spanish publishers’ general ranking was identified (Table VIII).

<table>
<thead>
<tr>
<th>Publisher</th>
<th>Frequency of coincident fields (of publications in VIRTA and prestige in SPI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Routledge (Francis &amp; Taylor Group)</td>
<td>11</td>
</tr>
<tr>
<td>Oxford University Press</td>
<td>7</td>
</tr>
<tr>
<td>Springer</td>
<td>6</td>
</tr>
<tr>
<td>Cambridge University Press</td>
<td>4</td>
</tr>
<tr>
<td>De Gruyter</td>
<td>2</td>
</tr>
<tr>
<td>Ashgate Publishing (Ashgate Publishing Group)</td>
<td>1</td>
</tr>
<tr>
<td>Blackwell</td>
<td>1</td>
</tr>
<tr>
<td>John Benjamins</td>
<td>1</td>
</tr>
</tbody>
</table>

Table V. Common publishers for the top 10 more prestigious publishers in SPI and top 10 publishers with more submissions to VIRTA system

<table>
<thead>
<tr>
<th>Publisher</th>
<th>SD</th>
<th>Number of fields in which it has been voted in SPI</th>
<th>Presence in VIRTA lists</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oxford University Press</td>
<td>1.8</td>
<td>16</td>
<td>Yes</td>
</tr>
<tr>
<td>Cambridge University Press</td>
<td>1.85</td>
<td>16</td>
<td>Yes</td>
</tr>
<tr>
<td>Routledge (Francis &amp; Taylor Group)</td>
<td>2.3</td>
<td>16</td>
<td>Yes</td>
</tr>
<tr>
<td>Springer</td>
<td>4.2</td>
<td>16</td>
<td>Yes</td>
</tr>
<tr>
<td>Harvard University Press</td>
<td>5.14</td>
<td>14</td>
<td>Yes</td>
</tr>
<tr>
<td>Blackwell</td>
<td>5.51</td>
<td>16</td>
<td>Yes</td>
</tr>
<tr>
<td>Peter Lang</td>
<td>5.57</td>
<td>13</td>
<td>Yes</td>
</tr>
<tr>
<td>Presses Universitaires De France (Puf)</td>
<td>5.72</td>
<td>14</td>
<td>Yes</td>
</tr>
<tr>
<td>Mit Press</td>
<td>5.74</td>
<td>12</td>
<td>Yes</td>
</tr>
<tr>
<td>Elsevier</td>
<td>6.07</td>
<td>14</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Table VI. Cluster of more agreed-upon prestigious publishers in all fields and presence in VIRTA lists-non-Spanish publishers

Note: Foreign publishers in SPI lists
Discussion and conclusions

As Table I shows, publishers common to both lists show a large diversity in terms of number of fields in which they are recognized as prestigious in SPI as well as in the standard deviation of the positions they occupy in the different fields. The main problem with focusing on the publisher (as proxy for prestige) is that due to the often broad range of titles addressed to academic and/or general audiences, there can be a potentially large deviation from the perceived average quality of outputs. In the Norwegian model, universities identify peer-reviewed titles so that these can be separated from books for the general audience in the PRFS. In Finland, for example, this practice limits the range of books to which the book publisher ratings applies. The field specificity of prestige and quality is another source of this problem.

There are at least two possible solutions to increase the accuracy of book items evaluation: the one adopted in SPI to produce field-specific rating of book publishers, and the other one would be to rate, as far as possible, book series instead of publishers. Both solutions present problems in context of the Norwegian model. The use of field-specific ratings would require a reliable way of establishing the field of book publications. The problem with the second solution is that not all publishers use book series, and even if they do, they may not use ISSN-identifiers that are needed in the processing of publication information. Nevertheless, the desirability of disaggregating publishers’ lists in countries

<table>
<thead>
<tr>
<th>Publisher</th>
<th>SD</th>
<th>Number of fields in which it has been voted in SPI</th>
<th>Presence in VIRTA lists</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ariel (Grupo Planeta)</td>
<td>3.42</td>
<td>14</td>
<td>No</td>
</tr>
<tr>
<td>Síntesis</td>
<td>4.99</td>
<td>12</td>
<td>No</td>
</tr>
<tr>
<td>Biblioteca Nueva</td>
<td>5.41</td>
<td>13</td>
<td>No</td>
</tr>
<tr>
<td>Alianza (Grupo Anaya, Hachette Livre)</td>
<td>6.32</td>
<td>15</td>
<td>No</td>
</tr>
<tr>
<td>Tirant Lo Blanch</td>
<td>6.38</td>
<td>12</td>
<td>Yes</td>
</tr>
<tr>
<td>Marcial Pons</td>
<td>6.8</td>
<td>13</td>
<td>No</td>
</tr>
<tr>
<td>Siglo XXI De España (Akal)</td>
<td>7.62</td>
<td>15</td>
<td>No</td>
</tr>
<tr>
<td>Cátedra (Grupo Anaya, Hachette Livre)</td>
<td>7.94</td>
<td>14</td>
<td>No</td>
</tr>
<tr>
<td>Trotta</td>
<td>8.26</td>
<td>14</td>
<td>No</td>
</tr>
<tr>
<td>Akal (Akal)</td>
<td>9.1</td>
<td>15</td>
<td>No</td>
</tr>
</tbody>
</table>

**Note:** Spanish publishers in SPI lists

---

<table>
<thead>
<tr>
<th>Publisher</th>
<th>Number of fields with output</th>
<th>Level</th>
<th>Presence in SPI lists</th>
</tr>
</thead>
<tbody>
<tr>
<td>Routledge</td>
<td>14</td>
<td>3</td>
<td>Yes</td>
</tr>
<tr>
<td>Gaudeamus</td>
<td>14</td>
<td>2</td>
<td>No</td>
</tr>
<tr>
<td>Springer</td>
<td>14</td>
<td>2</td>
<td>Yes</td>
</tr>
<tr>
<td>Palgrave Macmillan</td>
<td>14</td>
<td>3</td>
<td>Yes</td>
</tr>
<tr>
<td>Vastapaino</td>
<td>14</td>
<td>2</td>
<td>No</td>
</tr>
<tr>
<td>Tampere University Press</td>
<td>14</td>
<td>1</td>
<td>No</td>
</tr>
<tr>
<td>Peter Lang</td>
<td>14</td>
<td>1</td>
<td>Yes</td>
</tr>
<tr>
<td>Helsingin yliopisto</td>
<td>14</td>
<td>0</td>
<td>No</td>
</tr>
<tr>
<td>Ashgate</td>
<td>14</td>
<td>2</td>
<td>Yes</td>
</tr>
<tr>
<td>Lapland University Press</td>
<td>14</td>
<td>1</td>
<td>No</td>
</tr>
<tr>
<td>Cambridge University Press</td>
<td>14</td>
<td>3</td>
<td>Yes</td>
</tr>
<tr>
<td>Wiley-Blackwell</td>
<td>14</td>
<td>2</td>
<td>Yes</td>
</tr>
<tr>
<td>Sage publications</td>
<td>14</td>
<td>3</td>
<td>Yes</td>
</tr>
</tbody>
</table>

---

**Table VII.** Cluster of more agreed-upon prestigious publishers in all fields and presence in VIRTA lists-Spanish publishers

<table>
<thead>
<tr>
<th>Publisher</th>
<th>Number of fields with output</th>
<th>Level</th>
<th>Presence in SPI lists</th>
</tr>
</thead>
<tbody>
<tr>
<td>Routledge</td>
<td>14</td>
<td>3</td>
<td>Yes</td>
</tr>
<tr>
<td>Gaudeamus</td>
<td>14</td>
<td>2</td>
<td>No</td>
</tr>
<tr>
<td>Springer</td>
<td>14</td>
<td>2</td>
<td>Yes</td>
</tr>
<tr>
<td>Palgrave Macmillan</td>
<td>14</td>
<td>3</td>
<td>Yes</td>
</tr>
<tr>
<td>Vastapaino</td>
<td>14</td>
<td>2</td>
<td>No</td>
</tr>
<tr>
<td>Tampere University Press</td>
<td>14</td>
<td>1</td>
<td>No</td>
</tr>
<tr>
<td>Peter Lang</td>
<td>14</td>
<td>1</td>
<td>Yes</td>
</tr>
<tr>
<td>Helsingin yliopisto</td>
<td>14</td>
<td>0</td>
<td>No</td>
</tr>
<tr>
<td>Ashgate</td>
<td>14</td>
<td>2</td>
<td>Yes</td>
</tr>
<tr>
<td>Lapland University Press</td>
<td>14</td>
<td>1</td>
<td>No</td>
</tr>
<tr>
<td>Cambridge University Press</td>
<td>14</td>
<td>3</td>
<td>Yes</td>
</tr>
<tr>
<td>Wiley-Blackwell</td>
<td>14</td>
<td>2</td>
<td>Yes</td>
</tr>
<tr>
<td>Sage publications</td>
<td>14</td>
<td>3</td>
<td>Yes</td>
</tr>
</tbody>
</table>

---

**Table VIII.** Publishers with activity in all fields in VIRTA and presence in SPI lists
following the Norwegian model might be less important than in the case of Spain where the SPI data are used for individual-level evaluations, while in Finland, evaluations are carried out at the institutional level.

One of the potential issues concerning a single level, non-field-specific rating, of scholarly publishers in the countries following the Norwegian model is the possible misuse of the ratings for the assessment or evaluation of individual researchers. The local use national level publication indicator is attested, for example, in Denmark, Norway and Finland (Sivertsen and Schneider, 2012; Aagaard et al., 2014; Wahlfors and Polonen, 2018). Despite the fact that it is set (in the Finnish case, but similar provisions are present also in other Norwegian model publication channels lists) that “The Steering Group’s view is that the classification should not be used in place of peer review as a criterion or basis for decisions concerning an individual researcher’s pay, funding or awards” (Pölönen and Ruth, 2014, p. 18), there remains the possibility of a non-recommended use of the publication lists, for example, in the case of hiring or promotion decisions. Field differences in the appreciation of book publishers (or journals) make the use of Nordic publication channel ratings of quality even less recommended at the individual level of evaluation.

Even considering the differences between SPI and JUFO rankings there is a consistent pattern of coincidence in the set of non-Spanish publishers common to both lists in terms of level (level in the JUFO lists and assimilated level in the prestige rankings) but considerable discrepancy in the case of the same values for the Spanish publishers. In the case of the Spanish publishers included in the Publication Forum (Table II), there is a possible discrepancy regarding the rating of Consejo Superior de Investigaciones Científicas, which is included in the level 1 in JUFO but holds a high position in five SSH fields. As for the foreign publishers, the high rating of CUP, OUP, Routledge and Springer is consonant with the high SPI ranking in many SSH fields. The prestige of the other level 2 or 3 publishers in this sample seems to have a narrower basis. The same holds true for the level 1 JUFO-rated Peter Lang, which according to SPI is prestigious in linguistics but not in other fields.

The previous conclusion is also supported by the results of Tables IV (partially), V and VIII. Publishers with level 2 in both lists are, in general, international publishers belonging to large publishing groups, in most cases based in the UK or the USA. Nevertheless, discrepancies observed in Table IV show that the consensus in the case of international, prestigious publishers is not complete. It is possible to identify several cases, in which generally speaking highly prestigious, international publishers (such as Pearson, Peter Lang or Wolters Kluwer) show significant discrepancies in the levels associated with both lists. Publishers with level 2 in SPI and level 1 in the Finnish lists are particularly active in the Spanish market (in specific fields) and that could be a possible explanation for their high esteem in the Spanish SSH research community. Likewise, a group of German publishers might be more highly regarded in JUFO because of the closer affinity to the Finnish research community. It can be concluded, therefore, that despite the existence of a set of internationally recognized publishers, such set is very limited in extent and, taking into account the results from Table VI, shows variability if the disciplinary disaggregation of the levels is taken into account.

As can be seen in Table III, a clear pattern of scholarly book publishers that are recognized internationally would probably emerge and that information could be used for evaluation purposes with similar results regardless of the country. Nevertheless, that set of international publishers is a very small fraction of the total number of publishers in which scholars publish or are considered prestigious by them. That disproportion in number of publishers points out toward the relevance that non-internationally oriented publishers might have in the publication of scholarly books. Also, the specific marketing practices of certain international publishers might make it difficult to compare their prestige, output and other quality-related variables across different countries.
Tables VII and VIII point to the strong discrepancies between the ratings and presence of nationally oriented publishers in the different lists. A potential use of the information on what could be called “nationally oriented” publishers for the increase of the precision of the different lists could be the delimitation of such publishers. These lists, with the ratings developed in the country of origin of the publisher, could be provided to the evaluators in charge of developing the lists in other countries as contextual information for decision making. If a Spanish scholar publishes a book with a Finnish publisher, the likelihood of a well-informed expert-based rating based on the opinion of Spanish scholars would be low if the frequency of such publication pattern is low (as it is the case). The same would apply in the opposite sense and between other publication lists. A national list of publishers may suffer from both inadequate coverage and classification of foreign publishers operating in less frequently used languages (e.g. Spanish publishers in the Finnish list). Our analysis underscores the difficulty the research community in one country may face in evaluating national language channels across linguistic and cultural borders.

As a result of our hypothetical merge of publisher lists, we suggest that publisher ratings should be provided in each system (the Spanish and Finnish systems) separately, particularly if used for SSH evaluations. The delimitation of “national” and “international” publishers and the separation of these categories in compared systems of publication channels could serve the purpose of using the information differently (i.e. scores to international publishers could, in some cases, be merged or synthesized into a single measure but that would not be recommendable in the case of “national” publishers). A publicly available shared database containing information on the ratings of the publishers in the different information systems and their national or international character would, potentially, serve as a source of information for improving the ratings of scholarly publishers in each involved country.

The potential merge of the lists of publishers, despite different methodologies, resides precisely in the information that is unknown to the committees (in the case of the countries following the Norwegian model) or to the scholars (in the case of SPI). Given the relevance of local topics for the SSH, the merge of lists with attached rankings and the provision of the resulting database to evaluators and experts would result in an enrichment of the knowledge basis for evaluation. Finally, a database containing the merged lists would provide authors with a tool for the search of prestigious publishers in publication circuits other than the national ones, thus facilitating the identification of suitable publication channels.

Concerning the potential risks of the merged lists, it is worth mentioning that clear explanations need to be given regarding their intended use, in addition to the methods used in the original lists for ranking the publishers. This would reduce the risk of problematic uses of the merged lists for evaluation purposes. It must also be said that a ranking of publishers based on “quality” does not mean that there is always a direct relationship between a high quality book and a high quality publisher. Expert panels therefore need to have access to each individual publication in order to observe this limitation. The caution in the use of merged lists would have to be, therefore, explicitly underlined.

Further studies could deepen into the question of the comparability of the different evaluation systems for the use of a hypothetical merged list as input in other countries’ ranking processes as well as the potential differences in the activity of the publishers across countries resulting in divergent assessments of their value as publication channels. Also, a line of research could address the potential discrepancies in the status of imprints as independent, semi-dependent or fully integrated entities within publishers and the consequences for their inclusion in publishers’ lists.
References


Further reading


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How arbitrary are the weights assigned to books in performance-based research funding? An empirical assessment of the weight and size of monographs in Flanders

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Abstract

Purpose – The purpose of this paper is to present an empirical assessment of the weight assigned to monographs in the publication indicator of the performance-based research funding system (PRFS) in Flanders, Belgium. By relating publication weight to publication size the authors offer an alternative perspective on the production of scholars who publish monographs. This perspective on weights is linked to the aggregation level at which PRFS indicators are used: the national/regional one as opposed to the local one. In Flanders as elsewhere the publication indicator designed for funding distribution between universities has sometimes trickled down to institutions, their faculties and departments.

Design/methodology/approach – As an alternative indicator of scholarly production the authors propose the median number of pages of a publication type. Measuring the size of publications allows to compare the weight ratio between monographs and journal articles in the publication indicator to their size ratio in the VABB-SHW database. The authors compare two levels, one of four universities and one of 16 disciplines.

Findings – Median publication size differences between disciplines are much larger than those between universities. This indicates that an increase of monographs’ weight in the publication indicator would hardly affect funding distribution at the regional level. Disciplines with a relatively large share of monographs, however, would contribute more to the publication indicator. Hence an increase of monographs’ weight might provide a better balance between fields and between publication types.

Originality/value – This paper presents a thought experiment regarding the weight assigned to different publication types in the publication indicator of the Flemish PRFS: what would happen if this weight were replaced by the median number of pages of a publication type? In doing so, we highlight that such weighting schemes play an important role in finding a balance between fields of research. The sizeable differences between weight and size ratios offer a new and critical perspective on the weighting schemes currently used in PRFS, also in other countries.

Keywords Social sciences and humanities, Monograph, Performance-based research funding model, Publication size, Publication type weights, VABB-SHW

Paper type Research paper

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Introduction
With the design and implementation of performance-based research funding systems (PRFS) a growing number of countries are acknowledging the role of the monograph in scholarly communication. Monographs are not simply a random means of communication for their authors: in many fields of research, especially in the humanities, there exists a rich tradition of writing and reading scholarly books. Monographs, it has been argued, can offer scholars an epistemic tool better adapted to their specific research environments, requiring a more elaborate form to inform peers of the context, the nuanced interpretation and complex significance of their findings (Kyvik, 1991; Whitley, 2000). As such, it is not surprising that at least in several humanities disciplines, having a monograph published by a reputable academic publisher seems to carry a greater prestige than does publishing a single journal article, and is sometimes even seen as a crucial proof of scholarly competence (Cronin and La Barre, 2004; Hammarfelt, 2017). Moreover, bibliometric analysis of data collected in the frame of PRFS illustrates the persistent importance of scholarly monographs, especially in the humanities (Engels et al., 2012; Engels et al., 2018; Kulczycki et al., 2018; Puuska, 2014).

Across Europe, book publications of various types are increasingly included in national and regional bibliographic databases coupled to PRFS (Giménez-Toledo et al., 2016; Sile et al., 2018). This may indeed be perceived as an acknowledgment of the importance of monographs and other types of book publications in scholarly communication, in particular in the social sciences and humanities (SSH). However, in the implementation of PRFS a central question remains ‘how and to what extent are the system-level incentives translated into local management practices affecting working conditions and processes of recruitment and promotion’ (Aagaard, 2015). Therefore, this paper analyses some of the consequences of PRFS implementation at the local level, specifically for scholarly monographs, in case the national publication indicator would be adopted unaltered by universities and their faculties or departments. As an example, we use comprehensive bibliographic data for the SSH registered in the Flemish VABB-SHW database, a component of the current Flemish PRFS for the five universities (Engels et al., 2012; Verleysen et al., 2014). However, the method can be applied to other countries where similar PRFS are used.

Along the lines of what has been shown for Norway (Aagaard, 2015), there are indications that the bibliometric indicators of the Flemish PRFS have at times been used in various ways at lower aggregation levels. Although institutional autonomy in Flanders is considerable, all five Flemish universities have in some way, at least temporarily, introduced a variation of the publication indicators of the regional PRFS in their intra-institutional allocation models; moreover, university faculties and departments have sometimes adopted variants of the publication indicators as a decision-aid for funding, recruitment and promotion. Often however, at disaggregate levels some alterations of the national publication indicators have been made. For instance, the authors have knowledge of at least some humanities departments at Flemish universities that have increased the weight of monographs when making use of bibliometric data in support of recruitment or promotion decisions. This is indicative, it seems, of the greater prestige attached to the monograph in some humanities disciplines and – related – its more considerable size as a publication (Hammarfelt, 2017). Increasing the weight of monographs is also an illustration of the tension that can arise between national and local models: on the one hand local models may seek to adapt indicators to their own research and institutional contexts, on the other hand, out of self-interest they cannot deviate too much from the incentives provided through funding by the national model (Aagaard, 2015).

In what follows, we will specifically focus on the publication type weights assigned to monographs in PRFS, and on the possible effects a tight coupling of local models to the national publication indicator could have for strongly monograph-oriented fields of research in the SSH.
Quality and quantity in bibliometric indicators for PRFS
Apart from objectifying the distribution of research funding over institutions, PRFS relying on bibliometric indicators also seek to incentivize publication behavior regarded by policy makers as desirable. In a number of current PRFS this is done by rewarding high productivity and/or a high degree of “quality publishing” with an increased share of government funding for the best performing research institutions (Giménez-Toledo et al., 2016). Moreover, a well-designed and transparent PRFS should at the same time avoid other steering of research and publication behavior in an undesirable direction or in one which has not been made explicit by science policy (Hicks, 2013).

In the publication-based part of the BOF key, the Flemish PRFS, which counts the share per institution of both Web of Science WoS-indexed and all other peer reviewed publications, the principal measure of quality for academic publications is stringently defined peer review (Engels et al., 2012; Verleysen et al., 2014). This implies that, for the distribution of funding between universities, all publications that are not indexed in WoS and that meet this requirement are considered by the system to be of equal, high academic quality. For the WoS-indexed publications further distinction is made through the use of impact factors binned by field of research into twentieths (Verleysen and Rousseau, 2017). Although the impact (through citations or otherwise) of scholarly book publications is not taken into account in the Flemish PRFS, by its incorporation of a comprehensive custom-made bibliographic database for the SSH, the system unequivocally recognizes the scholarly relevance and value of peer reviewed monographs. Hence the VABB-SHW has contributed to a more balanced distribution of research funding over the five Flemish universities (Verleysen et al., 2014; Verleysen and Rousseau, 2017).

In the PRFS of Denmark, Finland and Norway, two or four publication outlet quality levels for the various publication types are used: articles and books published by more prestigious and international outlets (journals, book publishers) receive more points in the publication indicator than do publications in outlets of lower scholarly esteem and lesser international standing (Giménez-Toledo et al., 2016; Debackere et al., 2018). As shown in Table I, in the Flemish BOF key the weight ratio between peer reviewed monographs and articles is one of 4 to 1. In Finland, the same ratio between monographs and articles is used throughout its four quality levels. Norway attributes a weight of 5 to 1 for quality level 1 and one of 8 to 3 for quality level 2. Denmark uses the same weights as does Norway, with the exception of a third top-quality level reserved exclusively for journal articles, which receives a weight of 5. We note that the use of quality levels for academic publications in the Nordic countries does not seem intended to reflect quality differences between publication types (e.g. peer reviewed monographs compared to peer reviewed journal articles), but rather between publication outlets (journals or book publishers) classified under a single publication type.

By contrast, publication type weights used in PRFS do in fact seek to differentiate between publication types for calculation of the publication indicator. In both the Flemish as well as the Nordic PRFS such weights are used, though it is quite difficult to find a concrete legitimation of their use in policy documents, academic papers or on the publicly accessible websites of dedicated governmental organizations (e.g. Flanders: www.ecoom.be/en/services/vabb/faq#weights; Denmark: https://ufm.dk/en/research-and-innovation/statistics-and-analyses/)

<table>
<thead>
<tr>
<th>Peer reviewed publications</th>
<th>Flanders (no QL)</th>
<th>Denmark (3 QL)</th>
<th>Finland (4 QL)</th>
<th>Norway (2 QL)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Article PTW</td>
<td>1</td>
<td>1/3/5</td>
<td>0.1/1/3/4</td>
<td>1/3</td>
</tr>
<tr>
<td>Monograph PTW</td>
<td>4</td>
<td>5/8/–</td>
<td>0.4/4/12/16</td>
<td>5/8</td>
</tr>
</tbody>
</table>

Notes: Quality levels (QL) and publication type weights (PTW) in the PRFS of Flanders, Denmark, Finland and Norway
This lack of motivation for applying specific weights to publication types in these four systems is striking, and may point to a shared perception of the common-sense character of using such weights. Though left implicit in the above-mentioned documentation on PRFS, it is reasonable to assume that publication type weights were in fact introduced to reflect a quantitative aspect of publication patterns: in the SSH a monograph seems to be, on average, a more sizeable publication (or even: contribution to knowledge) than an article, therefore also requiring a more substantial input from its author and her/his institution as regards research, writing and editing. What this extra “input” consists of is difficult to say at an aggregate level, as this may vary considerably from one publication to another and between fields and authors. From this it follows that the higher weight for monographs in the Flemish and Nordic PRFS was most likely a way of recognizing – at an aggregate level – that the publication of a monograph on average requires more input from authors and the university they are affiliated with.

If varying publication type weights in PRFS are indeed a way of balancing between publication types, then the publication type weights in PRFS also serve to not de-incentivize the writing of lengthy monographs, or alternatively, to not over-incentivize the publication of shorter, “easier” journal articles, which would in fact happen if both publication types were assigned an equal weight in the funding model. Otherwise put, from the perspective of academic publication productivity (the ratio between output and input), publication type weights in PRFS are intended to balance between publication types. This balance is important as some disciplines and specialisms, even within the SSH, have a much stronger tradition of publishing in monographs than do others (Verleysen and Weeren, 2016a, b). Moreover, individual authors may have epistemic, personal or otherwise motivated preferences for certain publication types. Aagaard et al. (2015) discuss this need for a balanced weighting scheme of publication types in the context of an ideal called field neutrality of the bibliometric indicator of a PRFS. Indeed, in Flanders as elsewhere, there are some differences in the disciplinary portfolio of universities, making a balanced weighting of publication types a prerequisite for the distribution of funding across universities.

Looking at publication type weights from this perspective brings up the question of the process by which the weights were determined in countries making use of a publication indicator for their PRFS. In Flanders, the authoritative panel (GP), the board of university professors responsible for maintaining the academic standards of the VABB-SHW database, decided on the weight differentiation between publication types. The weight of 4 for monographs vs 1 for journal articles seems to have been pragmatically decided upon first by the government and then reaffirmed by the GP after consultation of bibliometric experts (Verleysen et al., 2014; Verleysen and Rousseau, 2017). By contrast, the weight of edited volumes was originally set at 2 but changed to a weight of 1 upon request of the GP. For the design of the Norwegian national publication indicator the current ratios between monographs and articles were determined after a more broad consultation of scholarly communities, and were in part inspired by the average ratio of the number of journal articles included in an article-based PhD vs a dissertation (book)-based PhD (Gunnar Sivertsen, oral communication, RESSH conference, July 6–7, 2017, Antwerp). The Danish and Finnish weighting schemes were inspired by the Norwegian one, although in the case of Finland more substantial alterations were introduced. At any rate, the publication type weights included in Table I show that the weight ratio between monographs and articles can differ quite considerably between countries making use of a bibliometric indicator for their funding model. This suggests that either research and publication cultures in the SSH between these four Western/Northern European countries substantially differ, reflected by
varying weighting schemes, or, which seems more likely, that at least some degree of arbitrariness was involved in the decision making on the weight of publication types in the respective PRFS.

Publication type weight vs publication size
In this paper we present a thought experiment with regard to the weight ratio between monographs and journal articles used for the SSH in the current Flemish (and other) PRFS.

A first question we will address is whether the current weighting scheme in the PRFS provides a balanced approach to publication types. A second, well-known question in research evaluation studies (Aagaard, 2015; Hammarfelt and De Rijcke, 2015) which we will revisit, is whether it is wise to adopt publication type weights designed for the bibliometric indicator at the level of the national PRFS in calculations of funding distribution at the local, intra-institutional level of faculties, departments and/or research groups.

Our main analysis is performed by means of a pragmatic and rudimentary bibliographic indicator of the extra input required (on average) by authors and their institutions to publish one monograph as opposed to one journal article. The indicator we propose is publication size as expressed by the median number of pages. By pragmatically assuming that the writing of any one page of peer reviewed and published scholarly text requires (again: on average) more or less the same input, irrespective of publication type, institution or field of research, it becomes possible to compare the weight ratio between publication types to their size (and input) ratio. If size ratios between monographs and articles more or less comply with the 4:1 weight ratio, the weighting scheme appears balanced in terms of scholarly production. Otherwise it is unbalanced. Whether such a balance or unbalance might also influence the distribution of funding at different aggregation levels, sheds light on the (in)appropriateness of adopting publication type weights at the intra-institutional level.

We are well aware that a number of caveats apply to our method. Our assumption that the same input by an author, more or less, is required for the writing of any one page of peer reviewed scholarly text, regardless of publication type or field of research, is uncertain: for instance, it may or may not be true that, on average, articles present research findings in a more condensed and codified form than do monographs (Whitley, 2000); it may or may not be true that in some disciplines more input is required for the writing of one page than it is in another discipline or specialism. Another problem relates to the precision of the amount of written pages in measuring publication size, let alone scholarly input for publishing. In all likelihood, it is not a particularly precise indicator, as the number of pages is not only determined by a number of poorly understood group or individual characteristics and preferences of authors, but also by, e.g., the publication layout (font size, margins, white space, etc.) chosen by the journal or book publisher. There are probably also differences in the page density of monographs and journal articles, as only few publishers nowadays still adhere to the golden canon or other standards for book or journal design (Hendel, 1998). For these reasons we consider the median number of pages as a valid indicator of scholarly production, yet only a rudimentary indicator of productivity. In fact, similar reservations apply to the number of publications as an indicator of production or productivity. The lack of precision of our indicator also has consequences for the analysis, as only sizeable differences between weight and size ratios can be meaningful from a publication productivity and funding perspective.

The entire analysis presented in this paper is a thought experiment: we do not suggest to introduce the number of published pages as a bibliometric indicator in PRFS. We do believe, however, that a measurement of publication size sheds a new light on the need for balanced weighting schemes of publication types in PRFS.
Data and method
We first analyze the output ratio between all peer reviewed monographs and articles registered in the VABB-SHW for the years 2000–2014, at the level of the four largest (anonymized) Flemish universities (Antwerp, Brussels, Ghent and Leuven), as well as at the level of 16 SSH disciplines. The fifth university, that of Hasselt, has not been included in our study due to, until recently, its fairly limited research activity in the SSH. We then make a weighted calculation of funding points in the Flemish PRFS per university and discipline based solely on articles and monographs. In a final step of the first part we simulate a doubling of the weight of monographs (from 4 to 8) and its effect on the shift of publication points between entities at the level of universities and at that of disciplines. SSH disciplines in our data reflect the organizational structure of Flemish universities quite well, as the VABB-SHW uses an author affiliation-based classification of publications (Guns et al., 2018).

For our main analysis we then look at the median number of pages of 557 peer reviewed monographs and 41,166 peer reviewed journal articles published by SSH scholars affiliated with one of the four universities. This is a large subset of the VABB-SHW database for which the number of pages is readily available in the system or could be additionally retrieved by the authors from online sources such as book publishers’ websites and WorldCat.org. In order to be eligible for inclusion in the VABB-SHW, publications must be at least four pages long, as was determined by the GP at the inception of the database and its integration into the Flemish PRFS (Verleysen et al., 2014).

To investigate whether the 4:1 weight ratio between monographs and articles in the Flemish PRFS can be considered balanced, as well as to examine the possible ill effects of adopting the publication type weights of the national bibliometric indicator at the local level of intra-institutional funding models, we assess publication size ratios for the 4 universities and the 16 SSH disciplines. After presenting descriptive statistics for our whole data set on publication size, we use boxplots for 4 universities and 16 disciplines. For this visualization, extreme outliers for articles (> 50 pages, \(n = 50\)) and monographs (< 50 pages, \(n = 13\); > 1,000 pages, \(n = 13\)) were excluded. Publication data of outliers were visually inspected by the authors, but no meaningful patterns (e.g. in terms of disciplines or institutions) could be discerned. In a final step, the standard 4:1 weight ratio between monographs and articles in the regional publication indicator is compared to the size ratios between these publication types for the 4 universities and 16 disciplines.

Results
In their publication output the four largest universities in Flanders show relatively modest variations in the output ratio between monographs and journal articles. As Table II shows, ratios for universities vary from 1.63 to 1.78, where for the whole VABB-SHW the ratio is 1.70. This also shows that publishing a peer reviewed monograph in Flemish SSH as a whole is a relatively rare phenomenon, at least when compared to the much more frequent publication of journal articles.

Ratios between SSH disciplines, however, do show vast differences. Theology, the most prolific discipline when it comes to writing books, has published one monograph for every 18 articles; Social Health Sciences, the discipline most inclined toward journals, has published only one monograph for every 606 articles. All other disciplines fall somewhere in between these extremes, with the lowest ratios for humanities such as Linguistics (1:23), Literature (1:25), History (1:32), Archeology (1:35) and Philosophy (1:36). We note that in the social sciences the difference between disciplines is much more substantial (e.g. Social Health Sciences vs Political Science) than in the humanities (e.g. Art History vs Literature).

From the relatively small differences between universities and the much larger ones between disciplines it follows that an increase of the weight for monographs would have the
most profound effect when these publication weights are used at the intra-institutional level. This is illustrated by the last column of Table I, which shows the percentual increase in publication points for the four universities and the 16 disciplines if the weight of monographs were to be doubled to eight points. Between universities, the largest difference due to this shift of publication points is one of 1.14 percent (between university 1 and university 3); between disciplines the largest difference is one of 17.59 percent (between Social Health Sciences and Theology). This shows that a weight increase for monographs, even a more restrained one than a doubling, would mostly benefit monograph-reliant SSH disciplines and groups when VABB-SHW data is used at the level of faculties and departments; at the same time such a weight increase would not significantly alter the distribution of research funding between the four universities.

Moving on to publication size in our VABB-SHW subset, the descriptives in Table III show that the median number of pages for monographs in Flanders is 284, whereas for articles it is 12. The size ratio between the two publication types in the VABB-SHW is therefore almost 24 to 1.

The boxplots for publication size distribution for monographs and articles at the level of the universities (Figures 1 and 2), show that there is some spread around the medians for the whole data set of 284 and 12. Universities 3 and 4 have a median number of pages both for

<table>
<thead>
<tr>
<th>University/discipline</th>
<th>No. of monographs</th>
<th>No. of articles</th>
<th>Ratio</th>
<th>Weighted count (monograph = 4)</th>
<th>Weighted count (monograph = 8)</th>
<th>Weighted count change</th>
</tr>
</thead>
<tbody>
<tr>
<td>University 1</td>
<td>155</td>
<td>9,713</td>
<td>1.63</td>
<td>10,333</td>
<td>10,953</td>
<td>+6.00</td>
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<td>114</td>
<td>8,419</td>
<td>1.74</td>
<td>8,875</td>
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<tr>
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<td>260</td>
<td>20,368</td>
<td>1.78</td>
<td>21,408</td>
<td>22,448</td>
<td>+4.86</td>
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<tr>
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<td>405</td>
<td>27,660</td>
<td>1.68</td>
<td>29,280</td>
<td>30,900</td>
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<tr>
<td>Archeology</td>
<td>21</td>
<td>737</td>
<td>1.35</td>
<td>821</td>
<td>905</td>
<td>+10.23</td>
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<td>1,485</td>
<td>1.45</td>
<td>1,617</td>
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<td>1,920</td>
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<td>1,996</td>
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<td>8,981</td>
<td>1.75</td>
<td>9,457</td>
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<td>+5.03</td>
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<tr>
<td>Educational Sciences</td>
<td>21</td>
<td>3,201</td>
<td>1.52</td>
<td>3,285</td>
<td>3,369</td>
<td>+2.56</td>
</tr>
<tr>
<td>History</td>
<td>69</td>
<td>2,238</td>
<td>1.32</td>
<td>2,514</td>
<td>2,790</td>
<td>+10.98</td>
</tr>
<tr>
<td>Law</td>
<td>133</td>
<td>11,222</td>
<td>1.94</td>
<td>11,754</td>
<td>12,286</td>
<td>+4.53</td>
</tr>
<tr>
<td>Linguistics</td>
<td>157</td>
<td>3,974</td>
<td>1.25</td>
<td>4,602</td>
<td>5,230</td>
<td>+13.65</td>
</tr>
<tr>
<td>Literature</td>
<td>80</td>
<td>1,822</td>
<td>1.23</td>
<td>2,142</td>
<td>2,462</td>
<td>+14.94</td>
</tr>
<tr>
<td>Philosophy</td>
<td>101</td>
<td>3,633</td>
<td>1.36</td>
<td>4,037</td>
<td>4,441</td>
<td>+10.01</td>
</tr>
<tr>
<td>Political Science</td>
<td>53</td>
<td>2,394</td>
<td>1.45</td>
<td>2,606</td>
<td>2,818</td>
<td>+8.14</td>
</tr>
<tr>
<td>Psychology</td>
<td>25</td>
<td>7,153</td>
<td>1.286</td>
<td>7,253</td>
<td>7,353</td>
<td>+1.38</td>
</tr>
<tr>
<td>Social Health Sciences</td>
<td>18</td>
<td>10,910</td>
<td>1.606</td>
<td>11,082</td>
<td>11,054</td>
<td>+0.66</td>
</tr>
<tr>
<td>Sociology</td>
<td>15</td>
<td>3,097</td>
<td>1.206</td>
<td>3,157</td>
<td>3,217</td>
<td>+1.90</td>
</tr>
<tr>
<td>Theology</td>
<td>91</td>
<td>1,631</td>
<td>1.18</td>
<td>1,995</td>
<td>2,359</td>
<td>+18.25</td>
</tr>
</tbody>
</table>

Table III. Distribution of number of pages for articles and monographs

<table>
<thead>
<tr>
<th>Articles</th>
<th>Monographs</th>
</tr>
</thead>
<tbody>
<tr>
<td>No.</td>
<td>41,166.00</td>
</tr>
<tr>
<td>Mean</td>
<td>14.45</td>
</tr>
<tr>
<td>Median</td>
<td>12.00</td>
</tr>
<tr>
<td>SD</td>
<td>8.18</td>
</tr>
<tr>
<td>Coefficient of variation</td>
<td>0.68</td>
</tr>
</tbody>
</table>
Figure 1. Boxplot of monograph size for four universities

Figure 2. Boxplot of article size for four universities

Performance-based research funding
monographs and articles that is very near or the same (286 and 299 for monographs; both 12 for articles) as the medians for the whole data set. Universities 1 and 2 have medians that are slightly higher or lower than those for the whole data set (323 and 276 for monographs; 13 and 14 for articles).

By contrast, in Figures 3 and 4 and Table IV there is far more variation between SSH disciplines as regards publication size of monographs and articles.

Table IV illustrates the substantial differences between disciplines of the size ratio between the medians for monographs and those for articles. For Social Health Sciences, the ratio is 42:1, for Law it is 31:1 and for Psychology it is 26:1. At the other end of the spectrum we find Philosophy (14:1), Linguistics (15:1), History (16:1) and Sociology (16:1). Such large differences do not exist between universities, where the highest size ratio (universities 1 and 4) is 25:1 and the lowest (university 2) is 20:1.

Discussion
The higher weights for monographs compared to those for journal articles in PRFS making use of a bibliometric indicator are not often legitimized explicitly by the governments that have adopted them. However, depending on the way they are used, their impact on funding distribution and incentivizing academic publishing may be considerable. As pointed out in the introduction, the weighting schemes used in many current PRFS seem to have mostly been adopted from a common-sense estimate of and political compromise on reasonable ratios between publication types at an aggregate level. Such a pragmatic approach probably needed to be used at the time of introduction of these bibliometric indicators, as reliable and comprehensive bibliographic data for the SSH was mostly not yet available.

The rationale behind the adoption of publication type weights in PRFS does not seem to have been quality differentiation or a wish for changes in publication patterns, but
rather the need to find a balanced approach to publication types in terms of the input required to achieve a unit of output (i.e. a publication of a certain type). In other words, rather than merely counting production in terms of number of outputs, an attempt at taking into account productivity is made by using publication type weights. In the

![Boxplot of article size for 16 disciplines](image)

**Figure 4.**

### Table IV.

<table>
<thead>
<tr>
<th>University/discipline</th>
<th>Monographs median (no of pages)</th>
<th>Articles median (no of pages)</th>
<th>Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>University 1</td>
<td>323.00</td>
<td>13.00</td>
<td>25:1</td>
</tr>
<tr>
<td>University 2</td>
<td>276.00</td>
<td>14.00</td>
<td>20:1</td>
</tr>
<tr>
<td>University 3</td>
<td>286.00</td>
<td>12.00</td>
<td>24:1</td>
</tr>
<tr>
<td>University 4</td>
<td>299.00</td>
<td>12.00</td>
<td>25:1</td>
</tr>
<tr>
<td>Archeology</td>
<td>226.00</td>
<td>11.00</td>
<td>20:1</td>
</tr>
<tr>
<td>Art History</td>
<td>297.00</td>
<td>15.00</td>
<td>20:1</td>
</tr>
<tr>
<td>Communication Studies</td>
<td>278.00</td>
<td>15.00</td>
<td>18:1</td>
</tr>
<tr>
<td>Criminology</td>
<td>258.50</td>
<td>11.00</td>
<td>23:1</td>
</tr>
<tr>
<td>Economics &amp; Business</td>
<td>291.00</td>
<td>14.00</td>
<td>21:1</td>
</tr>
<tr>
<td>Educational Sciences</td>
<td>260.00</td>
<td>14.00</td>
<td>18:1</td>
</tr>
<tr>
<td>History</td>
<td>306.00</td>
<td>19.00</td>
<td>16:1</td>
</tr>
<tr>
<td>Law</td>
<td>346.00</td>
<td>11.00</td>
<td>31:1</td>
</tr>
<tr>
<td>Linguistics</td>
<td>279.50</td>
<td>18.00</td>
<td>15:1</td>
</tr>
<tr>
<td>Literature</td>
<td>252.00</td>
<td>15.00</td>
<td>17:1</td>
</tr>
<tr>
<td>Philosophy</td>
<td>282.00</td>
<td>14.00</td>
<td>20:1</td>
</tr>
<tr>
<td>Political Science</td>
<td>250.00</td>
<td>18.00</td>
<td>14:1</td>
</tr>
<tr>
<td>Psychology</td>
<td>288.00</td>
<td>11.00</td>
<td>26:1</td>
</tr>
<tr>
<td>Social Health Sciences</td>
<td>336.50</td>
<td>8.00</td>
<td>42:1</td>
</tr>
<tr>
<td>Sociology</td>
<td>244.00</td>
<td>13.00</td>
<td>16:1</td>
</tr>
<tr>
<td>Theology</td>
<td>326.00</td>
<td>16.00</td>
<td>20:1</td>
</tr>
</tbody>
</table>

**Performance-based research funding**
Flemish VABB-SHW database, part of the regional PRFS, the weight ratio between monographs and journal articles is one of 4 to 1. However, the median size ratio between both publication types is one of almost 24 to 1. The implication of this comparison is simple: were we to contend that the Flemish weighting scheme is in fact adequate in its current form, it would imply that, on average, the input required for writing and publishing six pages of text for a peer reviewed monograph represents the same input as does the writing and publishing of one page for a journal article. Even if we allow for the possibility of a greater density of words on a journal article page, say for instance two times as dense, then a monograph page in the SSH would still only count as one third of a journal article page. Although this ratio of between 6 and 3 pages to 1 may be surprising, the fact that the Flemish GP decided to keep the 4 to 1 weight ratio of monographs to journal articles seems in line with this finding.

A central issue is to what extent discrepancies between weight ratios and size ratios are really relevant in the context of funding allocation based on a publication indicator. Our analysis for Flanders shows that at the regional level, that of funding universities based on their share in the total publication output, the current weight ratio between monographs and journal articles is balanced. Universities in Flanders are all research intensive, and therefore do not show a meaningful difference either in the share of monographs in their output or in the size ratio between monographs and articles. Therefore, from the point of view of the government and the universities, the current weight ratio between these publication types seems to allow for a balanced publication indicator in the PRFS. However, at the level of local, intra-university funding allocation models, where the weights of the publication indicator might also be used, the impact on funding distribution, recruitment and promotion decisions at faculties and departments may be much more substantial. In Flanders, as in other countries, disciplines in the SSH show a significant variation in publication patterns (Engels et al., 2012; Puuska, 2014), with some disciplines being far more oriented toward book publications than others. At the level of research groups and individual authors, the problem becomes greater still, as even within single disciplines in the SSH authors can show widely varying publication patterns, including their preference for specific publication types (Verleysen and Weeren, 2016a, b).

The guideline formulated by the Flemish GP in 2010 and updated thereafter to accompany the introduction of the VABB-SHW into the Flemish funding model explicitly states that the use of the database’s counting scheme is “solely intended for the distribution of funding between the universities and is not suitable for the assessment of individual researchers, research groups, and certainly not for cross-disciplinary comparisons” (www.ecoom.be/sites/ecoom.be/files/Begeleidende%20nota%20VABB-SHW%20VII%202017.pdf) (in Dutch). Clearly, this warning still holds true today, as using the counting scheme, including its publication type weights, in a simplistic way to make funding or promotion decisions at intermediate and lower aggregation levels is questionable to say the least. At intermediate levels, e.g., those of university faculties, the sizeable numbers and diversity of units, researchers and publications may appear to warrant or even require the use of publication output metrics for simplifying “objective” comparisons of SSH department or unit performance. Relying on a counting scheme in line with the existing national funding model can therefore become a seductive decision-making aid for university administrators (Aagaard, 2015; Aagaard et al., 2015; Sauder and Espeland, 2009).

Conclusion
In conclusion, and as a possible or temporary alternative to the complications and expense of developing fine-grained local PRFS models (Aagaard, 2015), a case can be made for discussing and re-evaluating the current weight ratios between book and non-book publication types in PRFS at the national or regional level. The available
comprehensive bibliographic data for a growing number of countries allows for empirical analysis to substantiate political decisions on national publication indicators, including the weight ratios between publication types. At least in Flanders, an increase of the weight of monographs in the regional PRFS would not result in a dramatic shift of funding between the universities. However, a change of the weight ratio between monographs and journal articles would, however, impact the balance between fields. At the level of institutional allocation and decision models supported by publication data gathered in the context of PRFS, great care in the use of publication weights will always be needed.

References


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Do prestigious Spanish scholarly book publishers have more teaching impact?
Amalia Mas-Bleda and Mike Thelwall
University of Wolverhampton, Wolverhampton, UK

Abstract
Purpose – The purpose of this paper is to assess the educational value of prestigious and productive Spanish scholarly publishers based on mentions of their books in online scholarly syllabi.
Design/methodology/approach – Syllabus mentions of 15,117 books from 27 publishers were searched for, manually checked and compared with Microsoft Academic (MA) citations.
Findings – Most books published by Ariel, Síntesis, Tecnos and Cátedra have been mentioned in at least one online syllabus, indicating that their books have consistently high educational value. In contrast, few books published by the most productive publishers were mentioned in online syllabi. Prestigious publishers have both the highest educational impact based on syllabus mentions and the highest research impact based on MA citations.
Research limitations/implications – The results might be different for other publishers. The online syllabus mentions found may be a small fraction of the syllabus mentions of the sampled books.
Practical implications – Authors of Spanish-language social sciences and humanities books should consider general prestige when selecting a publisher if they want educational uptake for their work.
Originality/value – This is the first study assessing book publishers based on syllabus mentions.

Keywords Research evaluation, Books assessment, Educational impact, Monographs assessment, Scholarly book publishers, Syllabus mentions

1. Introduction
A book is a good vehicle to spread knowledge, culture and languages (Kurschus, 2015). Scholarly books are important communication channels in the humanities and many social sciences fields, especially in terms of monographs and edited books (Engels et al., 2012; Huang and Chang, 2008; Kulczycki et al., 2018; Sivertsen, 2016). More important books may be published by more prestigious publishers, so some studies have ranked scholarly book publishers based on citations from Clarivate Analytics’ Book Citation Index (Torres-Salinas et al., 2012) or from Scopus journals (Zuccala, Guns, Cornacchia and Bod). International commercial citation indexes principally cover prestigious international publishers from the USA and the UK (Giménez-Toledo et al., 2017; Gorraiz et al., 2013; Torres-Salinas et al., 2014) and are not suitable for assessing publishers in non-English speaking countries. Some national book assessment initiatives (Giménez-Toledo et al., 2016) and a diverse range of indicators have been developed to assess the impact of scholarly books. These include citations, book reviews, library holdings, editorial prestige and mentions in course syllabi.

Edited books, monographs and textbooks do not have to follow the dense style of typical journal articles and can be more accessible to students (Hyland, 1999). They also contain more information about their topic than a journal article and can therefore make a more substantial contribution to a course. A logical way to assess the educational value of books is therefore to count how often they are mentioned in course syllabi. Only one large-scale study has investigated mentions in course syllabi to assess the educational impact of academic books. It sampled English-language monographs indexed in Scopus but did not use the results to compare publishers (Kousha and Thelwall, 2016).

The current study explores whether course syllabi can reflect the educational impact of Spanish scholarly book publishers. It follows a previous study that examined whether
syllabus mentions could be automatically and accurately identified for a set of Spanish-language books published by scholarly publishers that were prestigious or productive in Spain (Mas-Bleda and Thelwall, 2018).

Despite the importance of books in academic teaching and the possibility that teachers consider publisher prestige when selecting books to recommend, this is the first study using empirical data to investigate publishers for the educational value of their works. Spain is a suitable test case because of the ability to get reasonably comprehensive information about published Spanish books from a central source.

2. Background

2.1 The book publishing industry

The global book industry has become concentrated due to acquisitions and mergers, but also more polarized between large and small publishers (Steiner, 2018). Book publishing is the largest cultural industry in Europe, with Germany, the UK, France, Spain and Italy being the largest markets (Federation of European Publishers, 2017). In addition to businesses, universities are also important publishers of academic books.

Books vary by type, format, edition and language. The Spanish ISBN Agency registered 86,000 ISBNs in 2016, mainly first edition books (98 percent) published by private publishers (90 percent) in Spanish official languages (91.4 percent; 73 percent in Spanish) and in paper format (70 percent) (MECD, 2017). Most books were from the social sciences and humanities (31 percent) and literary works (21 percent), such as literature, novels and poetry (MECD, 2017). In contrast, the ISBN Agencies in Latin America registered 189,857 books in 2016. These were mainly from Brazil (43 percent) and published in paper format (77 percent) by commercial publishers (55 percent) (CERLALC, 2017).

2.2 Scholarly book publishing

Scholarly monographs and edited books play an important role in the arts and humanities and many social science fields (Sivertsen and Larsen, 2012; Thompson, 2002), where they are frequently used and cited (Huang and Chang, 2008; Sivertsen, 2016). For instance, 67 percent of the documents cited in five representative Spanish humanities journals in 2006–2007 were books (Osca-Lluch et al., 2013).

In Spain, there are 673 scholarly book publishers that produce books of interest to the scientific, scholarly or university community. They have all issued at least 50 ISBNs and are among either the 50 percent most prestigious or the 50 percent most productive publishers (Giménez-Toledo, 2017). Scholarly publishing in Spain accounts for 20 percent of all Spanish book titles, with law, history, education, economics and linguistics, literature and philology registering the most ISBNs (Giménez-Toledo, 2017).

University presses tend to focus on scholarly books and have a more multidisciplinary orientation than commercial publishers (Mañana-Rodríguez and Giménez-Toledo, 2018). In 2015, Spanish university presses produced 4,681 books, mostly published for the first time (87 percent), in Spanish (81 percent), in print format (61 percent) and in the humanities (46.6 percent) and social sciences (29 percent) (UNE, 2016).

2.3 Evaluation-oriented studies of books

Scholars in the humanities and social sciences have stronger national and regional interests (Hicks, 1999) and usually publish in the language of the nation or culture that is studied (Engels et al., 2012; López-Navarro et al., 2015; Moed et al., 2002). They also tend to publish in national journals rather than international journals (Larivière and Macaluso, 2011), although there are country differences (Kulczycki et al., 2018).
Scholarly books are important for tenure and promotion in the humanities and many social sciences fields (Bargheer and Walker, 2017; Cronin and La Barre, 2004). A monograph is typically a solo-authored narrowly-focused work, whereas an edited volume usually gathers together chapters from experts contributing perspectives on a common issue or topic. From a research assessment perspective, monographs, individual chapters and editing a collection may all be counted, as in the UK Research Excellence Framework. Nevertheless, monographs are often regarded as the most important research output in the humanities (Williams et al., 2009).

The Web of Science (WoS) and Scopus citation-based databases have been traditionally used to assess the impact of academic publications. Their coverage bias toward English-language journals led to the creation of the WoS Book Citation Index (BKCI) and the Scopus Books Expansion Project, but these are also biased toward English and publishers from English-speaking countries (Gorraiz et al., 2013; Torres-Salinas et al., 2014). For instance, most Spanish scholarly book publishers perceived as prestigious by Spanish scholars are not included in BKCI or Scopus (Giménez-Toledo et al., 2017).

The coverage of Google Books (GBs) is much larger than WoS or Scopus, with over 13m digitized books (Barron, 2011). Whilst it does not include a citation index, citations can be extracted by combining text search and filtering procedures (see Kousha and Thelwall, 2015). Presumably because of the large coverage of books, GB citations are more numerous than BKCI citations, at least for some book-based disciplines (Kousha and Thelwall, 2015).

Microsoft Academic (MA) is a free academic search engine that supports automatic queries through its Applications Programming Interface (API) based on scholarly publications found by Bing or harvested directly from publisher websites. Its old version stopped being updated in 2013, although its coverage had plunged in 2011 (Orduña-Malea et al., 2014). A new version was launched in 2016 (Harzing and Alakangas, 2017) receiving a significant update in July 2017. MA claimed (by March 30, 2018) on its official website to index over 170m publications. MA has larger coverage of book-related documents than WoS and Scopus (based on a small sample: Hug and Brändle, 2017) and finds more citations than Scopus for published journal articles (Thelwall, 2017).

Besides citation counts, a diverse range of indicators have been examined to assess the quality and impact of books. These include the number of libraries holding a book (Torres-Salinas and Moed, 2009; White et al., 2009), book reviews from scholars (Gorraiz et al., 2014; Sorlí Rojo et al., 2011; Zuccala and van Leeuwen, 2011) and from readers that are not necessarily scholars (Kousha et al., 2017; Zuccala, Verleysen, Cornacchia and Engels), publisher prestige (Giménez-Toledo et al., 2013) and mentions from online course syllabi (Kousha and Thelwall, 2016; Mas-Bleda and Thelwall, 2018). A study of multiple indicators (Scopus citations, Mendeley captures, Goodreads captures, tweets, Wikipedia mentions, reviews in Goodreads and Amazon, EBSCO PDF views and saves and WorldCat library holdings) for a sample of 70,000 ebooks concluded that books should be evaluated using a range of indicators (Halevi et al., 2016).

Some European countries (Denmark, Flanders, Finland, Norway and Spain) have developed non-commercial national databases for the evaluation of scholarly books (Giménez-Toledo et al., 2016). A recent study comparing three of these national systems with BKCI and Scopus showed that many book publishers are only indexed in one, usually non-commercial database. This emphasizes the importance of national databases for research evaluation in non-English countries (Giménez-Toledo et al., 2017).

Scholarly book publishers have been ranked in different ways. For instance, book publishers in humanities and social sciences disciplines have been ranked according to their perceived editorial prestige (Giménez-Toledo et al., 2013) or citations from Clarivate Analytics' Book Citation Index (Torres-Salinas et al., 2012). History publishers have been ranked based on citations to their books from Scopus journal articles (Zuccala, Guns, Cornacchia and Bod)
and journalism publishers have been ranked according to the number of WorldCat holdings and Google Scholar (GS) citations (Neville and Henry, 2014). Political science publishers have been assessed based on the publication and reading preferences of American political scientists (Garand and Giles, 2011) and according to subject specialist librarians’ perceptions (Lewis, 2000). No publishers have been ranked for the educational value of their books, however, despite the importance of books for teaching.

In Spain, publisher prestige is one of the elements considered by ANECA (National Agency for Quality Assessment and Accreditation), the national research evaluation system, for the assessment of scholarly books (ANECA, 2017). Evidence of publisher prestige is based on the Scholarly Publishers Indicators (SPIs) portal (http://ilia.cchs.csic.es/SPI/rankings.html), which ranks Spanish and non-Spanish scholarly book publishers in the humanities and social sciences according to their prestige based on a survey of Spanish lecturers and researchers (Giménez-Toledo et al., 2013).

2.4 Teaching value assessment based on syllabus mentions

A scholarly syllabus describes an educational course, is created by its instructor and usually includes key course information (e.g. course title, academic year, course length, study mode), instructor details, background, objectives, course contents, teaching methods, assessment systems and recommended readings. Because instructors recommend scholarly publications that they consider to be helpful for students taking their course, often as either required or supplementary readings, a citation from a syllabus is an indicator of teaching value.

Previous research has shown that the most often recommended resources in Spanish scholarly syllabi are in Spanish and are books. A study examining syllabi related to media literacy in communication and education degrees in Spain found that 90 percent of the references recommended were in Spanish (Marta-Lazo et al., 2014). Another study focused on syllabi related to pedagogy and didactics in sciences of physical activity and sport degrees in Spain reported that 89.5 percent of the recommended publications were in Spanish and 73.5 percent were monographs (Gutiérrez García et al., 2016).

Monographs seem to prevail in the humanities whereas other types of books are more frequent in other fields. A dissertation examining syllabi from a Spanish university found that the monograph was the most recommended source type in history (69 percent) and sociology (51 percent) whereas reference manuals (including textbooks, treatises and language grammars) were more recommended in physics (72 percent) and biotechnology (55 percent) (Prieto-Paíno, 2013).

The use of course syllabi to help assess the teaching utility of scholarly publications has rarely been attempted. One exception is a study analyzing syllabus mentions of over 70,000 journal articles published in 2003 showing that they might be useful for some social sciences research (Kousha and Thelwall, 2008). Another study focused on syllabus mentions of 14,000 English-language monographs published from 2005 to 2010 indexed in Scopus. It reported that 56 percent of arts and humanities monographs had at least one syllabus mention, and about a third of them had no citations (Kousha and Thelwall, 2016). This underlines the importance of using different indicators to get evidence of the wider impacts of scholarly monographs.

The teaching value of Spanish-language books published by academic publishers that are prestigious or productive in Spain has previously been examined (Mas-Bleda and Thelwall, 2018). This study explored whether mentions of 15,117 books in online scholarly syllabi could be automatically identified accurately and whether enough books had at least one online syllabus mention to make it a useful teaching impact indicator. The method developed had an accuracy of 99.5 percent for filtering out false mentions (i.e. only 0.5 percent of excluded document were valid syllabus mentions) and 74.7 percent for identifying
correct matches (i.e. 25.3 percent of the retained syllabus mentions were not valid). A fifth (19 percent) of the books were recommended at least once in online course syllabi (Mas-Bleda and Thelwall, 2018). The current follow-up study focuses on book publishers rather than individual books. Whilst the previous study was based on syllabus mentions alone, the present study uses both mentions from online course syllabi and citations from MA.

The objective of this study is to examine whether online course syllabi are useful to assess the teaching impact of Spanish scholarly book publishers. This study is driven by the following research questions. The final question is for background information because it is not directly about book publishers:

**RQ1.** Are there substantial differences between publishers in the proportions of books that have at least one syllabus mention?

**RQ2.** Are there substantial differences between publishers in the proportions of books that have at least one MA citation?

**RQ3.** Which type of book publisher, prestigious or productive, is the most useful for teaching?

**RQ4.** Do syllabus mentions and MA citations reflect different types of impact for Spanish books?

### 3. Methods

#### 3.1 Data collection

Datos.bne.es (http://datos.bne.es), the bibliographic data portal of the National Library of Spain, was used to download bibliographic records for books published in Spain, on November 17, 2016. Each record contained the book title, author names, publisher, publication year, publication place, document type, language and ISBN. This source contained records for books published in Spain by the end of 2011. Records were restricted to the “texto impreso” (printed text) document type. Whilst most seemed to be monographs, there was no filter to distinguish between monographs, edited books and book serials. Other types of document (such as electronic resources, maps, periodical publications or printed music), records in other official languages in Spain (Catalan, Basque and Galician) and records that did not include basic information (author, publisher or publication year) were excluded.

Because this source did not have a classification scheme for academic subject areas or distinguish between academic and non-academic publishers, the SPIs website (http://ilia.cchs.csic.es/SPI) was used to identify Spanish scholarly book publishers.

The SPI website ranks scholarly book publishers relevant to the humanities and social sciences by editorial prestige (both Spanish and non-Spanish publishers) and thematic specialization (Spanish publishers only). The publisher prestige ranking is based on Spanish scholars’ opinions (Giménez-Toledo et al., 2013). The thematic specialization ranking classifies the most productive publishers in each discipline (Anthropology, Archeology & Prehistory, Fine arts, Library & Information Sciences, Political Sciences, Communication, Law, Economy, Education, Arab and Hebrew Studies, Philosophy, Geography, History, Linguistics, Literature & Philology, Psychology and Sociology), based on the number of books published.

The main steps for the selection of the sample were the following:

1. Download the bibliographic records from Datos.bne.es database and select books in Spanish language with “texto impreso” (printed text) as the document type.

2. Select both the most prestigious and the most productive Spanish academic publishers according to the SPI portal. The ten most prestigious publishers were not the same in every discipline and, in some disciplines, some productive publishers were not
perceived as prestigious. Because this study aimed at covering publishers from every
discipline, both the most prestigious and the most productive ones were selected:

- Prestigious publishers were selected based on the editorial prestige ranking by
discipline. Publishers that appeared among the top ten in at least 6 out of 16
disciplines were selected.

- Productive publishers were selected based on the thematic specialization
ranking. The three most productive publishers in each discipline were chosen.

(3) Match the “Datos.bne.es” books (step a) with the chosen list of publishers (step b).

(4) Restrict the set of publishers to those that had at least 200 Spanish-language books
in the period 2002–2011 (to focus on major publishers), after removing duplicates
and books with single and two-word titles (which are difficult to search for).

This generated 15,117 books from 27 Spanish publishers (Table I). All publishers meeting
the criteria were commercial, except for one university press (Universitat Oberta de
Catalunya – UOC) and one publisher belonging to a research institution (Consejo Superior
de Investigaciones Científicas – CSIC). This is not surprising since 90 percent of publishers
in Spain in 2016 were private (MECD, 2017).

3.2 Gathering and filtering syllabus mentions
Mentions of the 15,117 books from 27 Spanish scholarly book publishers were searched for
in online academic syllabi, exploiting the coverage of the Bing general web search engine.
Queries were submitted to the Bing Search API, via the free Webometric Analyst program
(http://lexiurl.wlv.ac.uk) on Friday December 13, 2016, as explained below.

Webometric Analyst was used to generate automatic searches using the first author
surname, the first (up to) seven terms of the book title as a phrase search and the terms “guía
docente” and “guía académica” to limit the results to Spanish-language course syllabi. These
seemed to be the most widely used terms, according to previous manual checks made by
authors of this study through university websites. The vertical bar “|” (an OR operator
internal to Webometric Analyst) was used to run both queries separately in Bing and

<table>
<thead>
<tr>
<th>Publisher</th>
<th>Books in Datos. bne.es</th>
<th>Prestigious</th>
<th>Productive</th>
<th>Publisher</th>
<th>Books in Datos. bne.es</th>
<th>Prestigious</th>
<th>Productive</th>
</tr>
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<td>Yes</td>
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<td>364</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
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<td>Yes</td>
<td>No</td>
<td>Trotta</td>
<td>347</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Aranzadi</td>
<td>781</td>
<td>No</td>
<td>Yes</td>
<td>Herder</td>
<td>341</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Dykinson</td>
<td>708</td>
<td>No</td>
<td>Yes</td>
<td>Trea</td>
<td>304</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Obelisco</td>
<td>626</td>
<td>No</td>
<td>Yes</td>
<td>CSIC</td>
<td>269</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Síntesis</td>
<td>575</td>
<td>Yes</td>
<td>No</td>
<td>Nowtilus</td>
<td>250</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Akal</td>
<td>573</td>
<td>Yes</td>
<td>Yes</td>
<td>Vicens Vives</td>
<td>235</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Civitas</td>
<td>561</td>
<td>No</td>
<td>Yes</td>
<td>ESIC</td>
<td>234</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Marcial Pons</td>
<td>504</td>
<td>Yes</td>
<td>No</td>
<td>Díaz de Santos</td>
<td>220</td>
<td>No</td>
<td>Yes</td>
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<tr>
<td>Ariel</td>
<td>485</td>
<td>Yes</td>
<td>No</td>
<td>Lunwerg</td>
<td>213</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Crítica</td>
<td>462</td>
<td>Yes</td>
<td>No</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table I.
Prestigious or productive Spanish academic book publishers with at least 200 Spanish-language books in the Datos.
bne.es database for the period 2002–2011

Note: n = 15,117
Source: Authors (in press)
combine the results after removing duplicates. The publisher name was added to the queries for books with three words in their titles to reduce the number of false matches. The following are examples of the queries used:

Antón “Manual de técnica policial” “guía docente”
Bellori “Vidas de pintores” “Akal” “guía docente”

Some publishers appeared in Datos.bne.es with variants of their names (e.g. “Alianza” and “Alianza Editorial”; “Civitas” and “Thomson Civitas”) so publishers’ names were standardised, and automatic queries contained the terms most likely to give the maximum recall.

The automatic queries retrieved 52,716 syllabus mention matches for the 15,117 sampled books but not all were correct. They were filtered via Webometric Analyst to remove false matches based on a set of rules defined for the titles, descriptions and URLs of the syllabus search results from scholarly websites. This adapted a method previously used for English-language books (Kousha and Thelwall, 2016) by translating the syllabus terms to Spanish, adding new terms related to the Spanish educational system and adding new rules to exclude non-academic sites. Different sets of rules were tested and the most accurate set was selected:

- Search results title matches: the title field in the Bing API results was used to limit the results to pages containing terms with a high likelihood of being in a syllabus. Wildcard matching (*) was used to cover multiple term endings. Some of the terms included were: asignatura, guía docente, guía académica, guía didáctica, bibliografía, referencias.

- Search results description matches: some syllabus webpages did not include syllabus-related terms in their titles, such as asignatura or guía docente. Instead, they used a course name, the repository where the syllabus was contained or the faculty name, which made it difficult to automatically detect if the webpage was a syllabus from its title. Therefore, additional rules were added to search syllabus-related terms in the description field. Rules for the description field can be case sensitive so terms were included in different case formats (e.g. “Guía docente,” “GUÍA DOCENTE”).

- Search results URL matches: a list of syllabus terms that should be found in URLs was specified, mainly taken from the title field. Some relevant instances of syllabus terms in URLs include the following:
  - www.uca.es/wuca_fichasig_todasasig_xdpto?dpto=C118

Mentions from non-scholarly sites were all judged to be false. These included document-sharing websites (e.g. docplayer.com), book download websites, platforms hosting blogs, wiki hosts, publishers, online bookshops, scientific databases, scientific journals, academic social networks and a wide range of other sites.

Many false matches also came from scholarly teaching center reports, journal articles, conference papers and PhD dissertations containing the term “syllabus” as part of their topic. Most were hosted in institutional repositories, university journals and scientific databases. False matches from non-syllabus publications were removed by ignoring any results with a range of related terms in their title (e.g. Memoria de investigación*) or URL (e.g. *journal_content*, *congreso*). Repositories and databases were excluded when their contents were solely scientific (journal articles, conference articles, books, dissertations, etc.). To remove false matches from other digital libraries, book databases or book lists, results with a range of related terms in their title (e.g. Buscador*, Catalogo de libros)
and URL (e.g. *buscador*, *catalogo-libros*) were ignored. Blogs, forums and CVs were also removed from results.

Academic syllabi were assumed to be in Word (.doc and .docx), PDF (.pdf) or HTML (.htm and .html) format, although an analysis of the file extensions of the documents mentioning the sampled books showed that files with these extensions were not exclusively course syllabi (Mas-Bleda and Thelwall, 2018). Files with other extensions (e.g. .ppt, .txt., .xls, .xml) were excluded as they tended to be other types of document, such as conference or course presentations, reports or library catalogs (Mas-Bleda and Thelwall, 2018).

Out of 52,716 syllabus mentions reported by the Bing API, 26,195 (49.7 percent) were automatically classified as initially correct matches and 26,521 (50.3 percent) as initially false matches by Webometric Analyst, based on the rules defined above. All the syllabus mentions were checked to verify whether the sampled books were mentioned in the context of academic course reading lists (during the period June–November 2017). The rules to filter our incorrect matches rejected very few correct matches since 99.5 percent of the rejected Bing results were false mentions. Nevertheless, ignoring matches that could not be assessed, 74.7 percent of the matches judged by the filtering rules to be correct syllabus mentions were genuinely correct matches.

The full set of rules can be accessed in the Webometric Analyst software by specifying Spanish as the syllabus filtering language. Both a detailed description of the defined rules and the main characteristics found from manual checks are reported on the study that precedes to this research (Mas-Bleda and Thelwall, 2018).

Only the 17,104 individual webpages (individual online course syllabi) correctly mentioning the sampled books were considered. However, course syllabi were sometimes replicated within a website if copies were posted for different academic years (e.g.: 2015-2016, 2016-2017) formats (e.g. .html and .pdf) or languages (e.g. Spanish-Galician, Spanish-Basque, Spanish-Catalan). For instance, the book “Stewart, P., Strathern, A. Brujería, hechicería, rumores y habladurías. Madrid: Akal, 2008” was recommended in two online course syllabi (http://eguia.ull.es/fcps/imprimir.php?codigo=119493201&curso=1415 and http://eguia.ull.es/fcps/imprimir.php?codigo=119493201&curso=1617), but they were identical copies for different academic years. To prevent duplication, the syllabus mention count was based on the number of web domains, rather than webpages, citing the sampled books. A web domain is the part of an URL after “//” (e.g. “eguia.ull.es” in the previous URLs). Using web domain counts, the sampled books received 12,025 verified syllabus mentions.

3.3 Counting MA citations
Citation counts from MA were collected to examine the relationship between syllabus mentions and citations. Citation counts for books were gathered from MA because previous research had reported coverage biases in WoS and Scopus toward literature in English and scientific journals (Albarillo, 2014; Archambault et al., 2006; Van Leeuwen et al., 2001). In addition, the ability of MA to find more citations than Scopus for recently published journal articles (Thelwall, 2017), its higher coverage of book-related document types than WoS and Scopus (Hug and Brändle, 2017) and the difficulty to collect large-scale data from GS (Halevi et al., 2017) all make MA a useful source of citations to Spanish books.

Whilst syllabus mention counts were collected in December 2016, citation counts from MA were collected in December 2017. This time difference should not bias the main correlation tests performed.

4. Results
4.1 Total syllabus mentions vs total citation counts
The number of MA citations (29,005) to the sampled books is higher (241 percent) than the number of syllabus mentions (12,025) to them, but recall that the MA citations were
gathered a year later than the syllabus mentions. Nevertheless, there are more books with at least one syllabus mention (2,849, 18.85 percent) than books with at least one MA citation (1,930, 12.77 percent).

A manual check of one random MA citation for a random sample of 100 books showed that 88 percent of citations referred to the sampled books. The remaining 12 percent were false for two reasons: they cited other academic publications (journal articles and a dissertation) with the same title and author as the sampled books, and the cited book was the same as the sampled book but had been published by another publisher. MA does not report a book’s publisher but usually provides a link to information about each book, which usually reports its publisher. Almost half of the citations checked (47 percent) referred to the correct book published in a different year.

### 4.2 Educational and research impact of Spanish book publishers

There is huge difference between the Spanish publishers in terms of apparent teaching value (Table II). Very few publishers have over 50 percent of their books recommended in online academic course syllabi (Ariel, Síntesis, Tecnos, Catedra), a few publishers have 25–50 percent of their books recommended (Paidós, Critica, Akal, Alianza, Marcial Pons, Tirant lo Blanch), one publisher (CSIC) has 14 percent, and the remainder have less than 4 percent of their books recommended.

MA found records for 2,305 (15 percent) books, but it reported at least one citation for 1,930 (12.8 percent) books. There also is difference between publishers in terms of citations, with the proportions of books being cited ranging from 44 to 0.25 percent.

<table>
<thead>
<tr>
<th>Publisher</th>
<th>Sampled books</th>
<th>Books with ≥ 1 syllabus mention (%)</th>
<th>Books with ≥ 1 MA citation (%)</th>
<th>Prestigious</th>
<th>Productive</th>
</tr>
</thead>
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<tr>
<td>Ariel</td>
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<td>58.1</td>
<td>32.8</td>
<td>Yes</td>
<td>No</td>
</tr>
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<td>Síntesis</td>
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<td>55.1</td>
<td>30.8</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Tecnos</td>
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<td>44.0</td>
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<td>No</td>
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<tr>
<td>Catedra</td>
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<td>Yes</td>
</tr>
<tr>
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<td>19.1</td>
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<td>No</td>
</tr>
<tr>
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<td>No</td>
</tr>
<tr>
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<td>Yes</td>
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<td>Yes</td>
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<td>22.0</td>
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<td>No</td>
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<td>16.0</td>
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<td>Yes</td>
</tr>
<tr>
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<td>Yes</td>
</tr>
<tr>
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<td>1.8</td>
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<td>1.3</td>
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<td>12.8</td>
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</table>

Table II.
The proportion of books published by Spanish publishers (2002–2011) with at least one syllabus mention or MA citation.
The most prestigious publishers have both the highest proportion of books recommended in online syllabi and the highest proportion of books cited in MA (Table II). Most publishers have a higher proportion of books being recommended in course syllabi than cited.

4.3 Books recommended and cited most often

An analysis of the twenty-three books recommended most often in online course syllabi and the twenty-three books cited most often according to MA showed that both sets were from publishers that are perceived as prestigious. The initial number of books to consider in the analysis was twenty, but some books had the same number of syllabus mentions (see Appendix). Frequently recommended books were not necessarily often cited and vice versa. About 60 percent of the books with at least one syllabus mention had no MA citations and about 41 percent of books with at least one MA citation had no syllabus mentions.

The books recommended most often in online course syllabi were mainly single-authored humanities monographs, particularly in the field of law, written originally in Spanish (Table III). The six (26 percent) translated books were from English except one from Italian. The books cited most often in MA were mainly single-authored translated humanities monographs, from English (39 percent), French (33 percent) or German (28 percent) and they were mostly about philosophy (Table III). According to a database of books published in Spain (www.mecd.gob.es/cultura-mecd/areas-cultura/libro/bases-de-datos-del-isbn/base-de-datos-de-libros.html), all these books are monographs. Three books were both highly recommended and highly cited (Table IV).

4.4 Correlation between syllabus mentions and MA citations

Separate Spearman correlations for each year and publisher was calculated (Table V). The correlations are between 0.38 and 0.46 overall for all years considering all books and are positive. The moderate correlations indicate a considerable overlap between educational impact (syllabus mentions) and scholarly impact (MA citations). Thus, books that are useful in education also tend to be useful for research.

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>The most recommended books in online syllabi (n = 23)</th>
<th>The most cited books in Microsoft Academic (n = 23)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single-author books</td>
<td>19 (83%)</td>
<td>20 (87%)</td>
</tr>
<tr>
<td>Translated books</td>
<td>6 (26%)</td>
<td>18 (78%)</td>
</tr>
<tr>
<td>Original language of translated books</td>
<td>English (83%) and Italian (17%)</td>
<td>English (39%), French (33%) and German (28%)</td>
</tr>
<tr>
<td>Predominant subject field</td>
<td>Law (39%)</td>
<td>Philosophy (48%)</td>
</tr>
<tr>
<td>Type of book</td>
<td>Monograph (100%)</td>
<td>Monograph (100%)</td>
</tr>
<tr>
<td>Publisher</td>
<td>Alianza (26%), Tecnos (22%) and Ariel (17%)</td>
<td>Alianza (26%), Tecnos (22%) and Ariel (17%), Paidós (17%)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Book</th>
<th>Syllabus mentions</th>
<th>MA citations</th>
<th>Original language</th>
<th>Topics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Escandell Vidal, M.V. <em>Introducción a la pragmática</em>. Ariel, 2006</td>
<td>35</td>
<td>332</td>
<td>Spanish</td>
<td>Linguistics</td>
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<tr>
<td>Savater, F. <em>El valor de educar</em>. Ariel, 2008</td>
<td>28</td>
<td>286</td>
<td>Spanish</td>
<td>Society, Philosophy</td>
</tr>
<tr>
<td>Castells, M. <em>Comunicación y poder</em>. Alianza, 2009</td>
<td>27</td>
<td>275</td>
<td>English</td>
<td>Sociology</td>
</tr>
</tbody>
</table>
5. Discussion
This study examined the educational value of the most prestigious and productive Spanish scholarly book publishers in the humanities and social sciences, based on mentions of their books in online scholarly syllabi. Whilst there is an increasing trend to make available course syllabi on the web, the proportion of Spanish syllabi available online is unknown and, therefore, it is not clear how far the online syllabus mentions gathered underestimate the total educational impact of the books assessed. Moreover, there may be disciplinary differences in the proportion of syllabi online that may affect some publishers more than others.

Some books appear as part of a series following a theme that may be managed by a team of senior academics. The prestige of individual series may be more important than the prestige of the publisher, although this was not assessed here.

The results in this study might be influenced by the selection of publishers and the collection of syllabus mentions is limited to the Bing API search results. Whilst the method developed filters out almost exclusively false matches (99.5 percent), only 74.7 percent of the remaining matches were correct. Consequently, manual checking is needed to filter out the remaining 25.3 percent incorrect matches. The previous study explains the method developed in more detail and discusses problems related to the gathering of syllabus mentions and conceptual issues, such as a lack of university policies for sharing course syllabi online, duplication of syllabi, book translations and books with multiple editions (Mas-Bleda and Thelwall, 2018).

Some syllabi probably have restricted access and cannot be found by search engines. Course syllabi usually differentiate between basic and supplementary readings. Whilst the basic material has a higher educational utility for a given course, this study did not treat the

<table>
<thead>
<tr>
<th>Publisher</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
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<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Akal</td>
<td>0.34</td>
<td>0.29</td>
<td>0.49</td>
<td>0.23</td>
<td>0.37</td>
<td>0.35</td>
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<td>0.24</td>
<td>0.33</td>
<td>0.31</td>
<td>0.31</td>
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<td>0.37</td>
<td>0.35</td>
<td>0.46</td>
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<td>0.17</td>
<td>0.34</td>
<td>0.45</td>
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Table V. Spearman correlation between syllabus mentions and MA citations to Spanish books indexed in Bne.datos.es (n = 15,117) by publisher and year

Spanish scholarly book publishers
two types differently. Moreover, the reasons why instructors select reading materials are not well understood and may produce selection biases.

Citation counts from MA were collected to calculate the relationship between educational and research impact. However, only few studies have investigated this tool since its re-launch. More books had syllabus mentions (19 percent) than MA citations (13 percent), revealing the importance of books in education. Despite the overall moderate correlation between syllabus mentions and citations, 60 percent of the books with at least one syllabus mention had no MA citations, showing that a large proportion of Spanish-language books have measurable educational despite not having a measurable research impact. This figure is much higher than corresponding data about English-language monographs, in which 18 percent of art and humanities monographs had at least one syllabus mention but no Scopus citations. It seems likely more Spanish-language books written for educational rather than research uses.

The first research question addressed the proportion of books published by each publisher with at least one syllabus mention and the second research question examined the proportion of books with at least one citation. Some book publishers, such as Ariel, Sintesis, Tecnos and Cátedra seem to have a strong educational impact, since over 50 percent of their books have been recommended at least once in online course syllabi. Other publishers, such as Paidós, Critica, Akal, Alianza, Marcial Pons, Tirant lo Blanch also influence teaching, since about 25–50 percent of their books have at least one syllabus mention. These ten publishers have published the 95 percent of the books that were recommended at least once and 93 percent of the books that were cited at least once. Thus, there are substantial differences between publishers in the educational value of their books. There are similar substantial differences between publishers in the citation impact of their books.

In response to the third research question, whilst the Spanish scholarly book publishers that were productive in some humanities or social science fields received few syllabus mentions or MA citations, the publishers perceived as prestigious by Spanish scholars had high proportions of books recommended in online syllabi and high proportions of books cited, suggesting that the perceived prestige is relevant for recommending books in course syllabi and for citing them, or that these publishers successfully identify useful educational or scholarly books.

A survey-based study has argued that monographs add to the prestige of a publisher, making their portfolio of books more likely to be used and cited (Williams et al., 2009). Other survey-based studies suggest that Spanish scholars from different social sciences and humanities disciplines consider both editorial prestige and thematic specialization when assessing the quality of a book publisher and when selecting a publisher for their work (Giménez-Toledo and Tejada-Artigas, 2012, 2015). If the thematic specialization of a publisher is relevant for academics, why are books published by specialist publishers rarely recommended in course syllabi? As mentioned above, the sample selection might influence the results of this study. Other books published by specialist publishers, such as those belonging to collections, might receive more syllabus mentions. Further research could shed light on this issue. Large-scale multi-disciplinary surveys investigating instructors’ reasons for recommending material in their course syllabi would also be useful.

Previous studies have highlighted the concentration of the global book industry due to acquisitions and mergers (Steiner, 2018), which might affect their impact. Six out of ten Spanish prestigious book publishers with high impact in teaching belong to two publishing groups, Planeta (Ariel, Paidós and Alianza publishers) and Anaya (Tecnos, Cátedra and Alianza publishers), suggesting that publisher mergers might contribute to the credit that scholars give to them.

The 23 books that had been recommended and cited most often tended to be single-authored. However, there are differences in language and subject: whilst the most recommended books were written originally in Spanish, most of the highly cited books were translations.
The subject predominant among the most recommended books was law whereas the predominant subject among the most cited books was philosophy, but some also covered the topic society. Previous research has shown the prevalence of single-authored books in the humanities and social sciences (Leydesdorff and Felt, 2012). Although Dikinson, Aranzadi and Civitas are the three most productive publishers in the field of law, none have published any of the most recommended law books.

For the fourth research question, moderate correlations (0.38 to 0.46) between MA citations and syllabus mentions reflect the academic value of syllabus mentions for Spanish-language books in humanities and social sciences. The results are broadly in line with a previous study that reported a correlation between syllabus mentions and Scopus citations of 0.52 for English-language books in social sciences and 0.30 for books in art and humanities (Kousha and Thelwall, 2016). The slightly lower result for Spain might reflect a more teaching orientation for Spanish books.

6. Conclusions

Not all books published by a publisher have the same quality but there is a positive relationship between the perceived prestige of a Spanish book publisher and the average educational impact of their books (as estimated by the proportion of their books being recommended in at least one online course syllabus). This study therefore ratifies the concept of publisher prestige and demonstrates that it applies not only to scholarly impact but also to educational value. Thus, publisher prestige seems to be more useful than previously claimed, and this indicator can be applied to educational contexts. Nevertheless, since the correlation between citations and syllabus mentions for Spanish books is moderate, if finer grained impact evidence is needed then online syllabus mentions could be gathered for this to supplement publisher prestige. As always with bibliometric indicators, publisher syllabus mentions should be used to guide or supplement expert evaluations but are not accurate enough to replace peer judgements for individual outputs.

The thematic specialization of a book publisher and its editorial prestige are the two most valued characteristics for Spanish scholars publishing a book (Giménez-Toledo and Tejada-Artigas, 2012, 2015). Nevertheless, this study suggests that Spanish scholars give more importance to editorial prestige when recommending a book in a course syllabus. The educational value of a book publisher (as reflected by the proportion of their books being recommended in at least one online course syllabus) might be seen as an indirect indicator of publisher prestige as well as a direct indicator of publisher educational value. The results suggest that authors hoping for educational uptake should not ignore the prestige of potential publishers, since this may affect the likelihood of their work being listed in Spanish syllabi. Of course, there are likely to be exceptions and disciplinary differences in the applicability of this advice and scholars should use their expert judgement to decide whether it is applicable to their case. Although the results apply only to Spain, it seems likely that the same is true for most other countries, unless they have important publishers that are reputable for academic textbooks but not academic monographs, or vice versa. This might occur, for example, if a publisher specialises in textbooks and has a reputation for them and then starts to publish monographs as a side-line or purchases a minor academic publishing house for future expansion.

References


Appendix

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<td>Beauvoir, S.</td>
<td>Cien años de soledad</td>
<td>2005</td>
<td>Catedra</td>
<td>172</td>
<td>11</td>
<td>Fiction</td>
<td></td>
</tr>
<tr>
<td>García, M.</td>
<td>Los orígenes del totalitarismo</td>
<td>2006</td>
<td>Alianza</td>
<td>160</td>
<td>8</td>
<td>English</td>
<td>Totalitarianism</td>
</tr>
<tr>
<td>Marquez, G.</td>
<td>Principios de sociolingüística y sociología del lenguaje</td>
<td>2009</td>
<td>Ariel</td>
<td>160</td>
<td>21</td>
<td>Sociolinguistics</td>
<td></td>
</tr>
</tbody>
</table>

Table AII. The 23 sampled books cited most often in Microsoft Academic

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The insoluble problems of books: what does Altmetric.com have to offer?

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Abstract

Purpose – The purpose of this paper is to analyze the capabilities, functionalities and appropriateness of Altmetric.com as a data source for the bibliometric analysis of books in comparison to PlumX.

Design/methodology/approach – The authors perform an exploratory analysis on the metrics the Altmetric Explorer for Institutions, platform offers for books. The authors use two distinct data sets of books. On the one hand, the authors analyze the Book Collection included in Altmetric.com. On the other hand, the authors use Clarivate’s Master Book List, to analyze Altmetric.com’s capabilities to download and merge data with external databases. Finally, the authors compare the findings with those obtained in a previous study performed in PlumX.

Findings – Altmetric.com combines and orderly tracks a set of data sources combined by DOI identifiers to retrieve metadata from books, being Google Books its main provider. It also retrieves information from commercial publishers and from some Open Access initiatives, including those led by university libraries, such as Harvard Library. We find issues with linkages between records and mentions or ISBN discrepancies. Furthermore, the authors find that automatic bots affect greatly Wikipedia mentions to books. The comparison with PlumX suggests that none of these tools provide a complete picture of the social attention generated by books and are rather complementary than comparable tools.

Practical implications – This study targets different audience which can benefit from the findings. First, bibliometricians and researchers who seek for alternative sources to develop bibliometric analyses of books, with a special focus on the Social Sciences and Humanities fields. Second, librarians and research managers who are the main clients to which these tools are directed. Third, Altmetric.com itself as well as other altmetric providers who might get a better understanding of the limitations users encounter and improve this promising tool.

Originality/value – This is the first study to analyze Altmetric.com’s functionalities and capabilities for providing metric data for books and to compare results from this platform, with those obtained via PlumX.

Keywords Books, Altmetrics, Research evaluation, Databases, Library tools, Social sciences and humanities

Paper type Research paper

1. Introduction

Many types of indicators have been suggested for the evaluation of books (Zuccala and Robinson-Garcia, 2018). Still, this publication type represents a weak spot when applying bibliometric techniques to assess the scientific impact of research. Most of the attention given to monographs is coming from bibliometricians specialized in the assessment of research in the Social Sciences and Humanities (SSH). This is partly due to the many changes taking place in the publishing market, in addition to the emergence of new databases, analytical tools and information providers. Moreover, there is an increasing demand from policy makers to develop metrics and indicators that can better assess the performance of SSH. In the last decade, all of this has led to a renaissance of studies devoted to this particular issue. An example of such interest is the launch of the “European network for research evaluation in the social sciences” (http://enressh.eu). This initiative includes several working groups with one of them,
“Databases and uses of data for understanding SSH research,” which, among other goals, aims at developing alternative metrics for the SSH.

Among the strands of SSH research devoted to the problem of books, there are two closely related to the present study. The first includes all studies devoted to the analysis and description of new databases and sources, and the second, though not mutually exclusive from the first, includes the construction and development of new indicators. This study explores and describes opportunities and limitations related to the use of Altmetric.com as a novel data provider for book metrics. The term “Altmetrics” was originally used to refer to metrics derived from social media activity and other alternative sources of information which go beyond the scientific realm (Priem et al., 2010). But lately, the term seems to have become a “basket” concept, with very different metrics and sources included in the same mix (Wouters et al., 2018; Glänzel and Gorraiz, 2015). Their relevance is derived from the increasing interest they have raised as a potential means of capturing broader forms of impact (Bornmann, 2014). This is especially important in SSH research evaluation, where some scholars have attributed the limitations of bibliometrics to the fact that these fields target a broad array of audiences (Nederhof, 2006; Hammarfelt, 2014).

The enthusiasm surrounding altmetrics has created a window of opportunity for publishing firms, who have oversold the benefits of these new metrics, with the assistance of librarians, who “have become an important ally in the promotion of altmetrics, and a gap has opened between what librarians recommend researchers use and what researchers actually use” (Robinson-Garcia et al., 2017, p. 3). The present paper aims at bridging the gap between bibliometricians and academics, and information professionals and practitioners. We target especially university librarians and subject specialists who are in direct contact with the academic community and are direct consumers of tools for developing metrics. Our goal is to offer an overview and assessment of the new features offered by Altmetric.com directed at providing altmetric indicators for books. Our findings could be of interest for Altmetric.com or other altmetric aggregators, as many of the issues explored could help indicate how more reliable and robust data might be provided to various users and consumers.

The remainder of this paper is structured as follows. First, we will briefly review previous studies analyzing data sources for bibliometric purposes with a special focus on books, as well as different indicators proposed to assess their scholarly impact. The next section will describe the information provided by Altmetric.com and the set of indicators and platforms it covers. Here, we will focus on the Book Collection available through the Altmetric Explorer for Institutions, including a general overview of the information offered and sources from which the books are indexed. Section 4 presents a different approach with regard to the use of altmetric data. Given a set of books, altmetric indicators are retrieved and analyzed. Here, we explore data retrieval and processing issues, coverage by fields and potential limitations. The following section discusses the pertinence, usability and reliability of Altmetric.com when referring to the analysis of monographs. While some of the issues discussed are common to other sources and tend to be related to the nature of books and certain conceptual problems (Torres-Salinas et al., 2014a, b), others are specific to Altmetric.com and should be taken into account if considering its use for the analysis of the impact of books. Section 6 compares the results provided and data retrieval issues with those found when using PlumX (Torres-Salinas, Gumpenberger and Gorraiz, 2017). We then conclude with some final remarks.

2. Antecedents

An avalanche of studies exploring new data sources took place at the beginning of the decade, with the launch of Web of Science’s Book Citation Index (Leydesdorff and Felt, 2012; Gorraiz et al., 2013; Torres-Salinas et al., 2014a, b), the inclusion of books in Scopus
(Kousha et al., 2011) and the increase in research focused on Google Scholar (Kousha et al., 2011) and Google Books (Abdullah and Thelwall, 2014; Kousha and Thelwall, 2015a). They have also brought to light some of the characteristics and peculiarities (Torres-Salinas et al., 2012, 2013; Torres-Salinas et al., 2014a, b; Chi, 2016; Glänzel et al., 2016), which cannot be discerned on the basis of micro-analytic case studies or small samples of data.

More importantly, they show what difficulties need to be overcome with the indexing books and data that can be used for bibliometric purposes. These difficulties have to do with conceptual issues related to the nature of books, which are different from journal articles. Dealing with different editions of the same oeuvre, translations, etc., increases the difficulty of applying bibliometric solutions to measure the citation impact of these outputs. This is due to the intellectual and physical properties of books, which do not adhere to the same metadata structure used in journal article databases, leading some authors to suggest the treatment of books as “families of works” when applying bibliometric techniques (Zuccala et al., 2018).

These analyses have also confirm the limited capacity for citation analyses to address the impact that books can have on different types of audiences (Nederhof, 2006; Hammarfelt, 2014). To address this limitation, many have devoted their efforts to explore alternative indicators, such as library holdings or “libcitations” (Torres-Salinas and Moed, 2009; White et al., 2009; White and Zuccala, 2018), book reviews (Zuccala and van Leeuwen, 2011; Gorraiz et al., 2014) or publishers’ rankings based on survey data (Giménez-Toledo and Román-Román, 2009; Giménez-Toledo et al., 2013). Most of these alternative indicators have not yet reached maturity. Yet, the interest in altmetrics has also caught up within the SSH research evaluation community (Giménez-Toledo, 2018). The growth of initiatives encouraging Open Access for monographs, such as the project OPERAS (Open access Publication in the European Research Area for Social Science and Humanities), increases the capability of altmetrics to track and capture the social attention of books. While the meaning of altmetrics may be well off from any notion of “quality” or “impact,” it has been recently suggested that altmetrics can serve as “both drivers and outcomes of open science practices” (Wilsdon et al., 2017, p. 11). This opens the possibility of exploring these metrics as a means for tracking the transition toward open science of monographs.

2.1 Studies on altmetrics for books

Recently, there have been some studies designed to explore the potential of altmetrics to capture the impact of books. Hammarfelt (2014) was the first, but at the time of the study, no altmetric provider covered monographs. This led him to search manually in different social media platforms for mentions to books by querying completely or partially book titles. What he found was that alternative metrics shared the same limitation as traditional bibliometrics which is the bias toward English language outputs. With the usage of books still shifting to electronic format, there can be yet another limitation to the application of altmetric indicators. Still, he noted a high frequency of tweets to books and concluded that altmetrics do hold promise for research assessments within the humanities.

Other platforms, beyond those generally offered by altmetric providers, have also been explored (Kousha and Thelwall, 2015b; Zuccala et al., 2015). Zuccala et al. (2015) compared review ratings from the Goodreads platform with citations to history books (as cited in the Scopus journal literature). What they found was that books included in international libraries (defined as those included in the WorldCat union catalog) had a greater chance of being reviewed. Similar correlations were found with Amazon reviews (Kousha and Thelwall, 2016), leading the authors to conclude that online reviews tend to be related to a wider understanding of popularity, instead of academic impact.
Altmetric providers are now beginning to show up as a new data source for books. But the inclusion of offline indicators (e.g. policy briefs, library holdings) has led some to suggest that they are moving away from their original conception (Wouters et al., 2018). Originally, the term altmetrics emerged due to “the growth of new, online scholarly tools” which reflected “the broad, rapid impact of scholarship” (Priem et al., 2010). In terms of books, Torres-Salinas, Gumpenberger and Gorraiz (2017) recently found that social media platforms are not the most promising for developing indicators; rather, it is usage counts, library holdings and reviews, with the library holding count proving to be the most prominent (Torres-Salinas, Robinson-Garcia and Gorraiz, 2017). Nevertheless, the book’s transition to digital form would again limit the extent to which these underdeveloped indicators might be used.

2.2 Altmetric providers: differences and discrepancies
Aside from indicators, there is also a critical need to understand how data providers harvest, aggregate and present data to their users. Indeed, some studies have been devoted to the analysis of specific altmetric providers (Robinson-García et al., 2014; Zahedi, Costas and Wouters, 2014), as well as to comparisons between different providers (Zahedi, Fenner and Costas, 2014; Ortega, 2018; Peters et al., 2017; Zahedi and Costas, 2018). Not only do we see differences concerning the set of metrics proposed by each provider, but more strikingly, differences in the information also provided for the same indicators across different platforms.

These discrepancies have been reported in all comparative studies, but it is in the work of Zahedi and Costas (2018) where some explanations as to why this happens are made. Here, we note three of the factors behind: time of retrieval, aggregation of data and data retrieval process. While the first factor seems reasonable, it does not explain why low correlations have been reported in a study between different providers offering the same metric (Zahedi and Costas, 2018). The most reasonable explanation seems to be that different decisions have been made in terms of the data presented, and how they have been collected. However, these studies have focused on journal articles, which have for many years now completed their shift toward electronic format and make use of identifiers (e.g. DOI, PMID), which certainly eases the retrieval process. Books present a more specific challenge, given that aside from ISBNs, there is no other useful identifier. Even in the case of ISBNs, a book may have different ISBNs by edition, format, translation and so on.

3. Altmetric.com book collection
In this section, we will describe what can be found when consulting data directly from the Altmetric Explorer for Institutions web platform. We will start by giving an overview of raw numbers by type of output, and year. Then we will analyze data sources tracked by Altmetric.com to identify books and track mentions in social media.

3.1 General overview: research outputs, mentions and evolution
We consulted the Altmetric Explorer in May 2018 using the advanced search option in its main menu and analyzed total figures retrieved by type of output. With few exceptions (e.g. Peters et al., 2016, 2017), most of the studies related to the use of altmetrics are based on the analysis of journal articles. However, Altmetric.com retrieves mentions also to data sets, books, book chapters, clinical trials and news stories. This latter output type refers to publications in popular science magazines (e.g. The Conversation), science dissemination web portals (e.g. ecancer.org) or more commonly, comments, perspective articles, policy forums, etc. published in Nature and Science.
Table I includes a general view of the contents indexed in Altmetric.com at the time of the query. Altmetric.com contains almost 21m records indexed in its database, around half of them including at least a mention in any of the metrics it covers. Almost 70 percent of the outputs are journal articles, with books representing around 5 percent and book chapters 2.3 percent. Still, together, they do not even represent 1 percent of the outputs with mentions and even more negligible is the proportion of mentions directed at these outputs. Books have an average of more than two mentions by book, which increases up to more than 3 when removing those with no mentions at all. In the case of book chapters, it seems that altmetric data are of no relevance to assess their potential impact, as their average is near to zero mentions by book chapter.

Although the inclusion of books was announced in 2016 (Liu, 2017), Altmetric.com includes books dated from far before. This is not due to a conscious effort on tracing books back in time, but, as will be discussed later, due to the data retrieval process employed. This explains the lack of pattern when analyzing the number of books indexed by publication year (see Table II). While articles show an increasing and stable pattern, books do so to a lesser extent, and book chapters do not show any kind of pattern. Interestingly, this is less evident when focusing on books and chapters with mentions. Here we do find a positive growth, if an important increase in the last two years is analyzed, on the number of mentions directed at books and book chapters, which could be signaling a transition toward the electronic format, which facilitates sharing and capturing mentions to books. This is explained by an increase of Wikipedia mentions in the two last years.

Finally, Table III shows coverage by social platform to books included in the Book Collection mentioned between 2000 and 2018. Similarly to journal literature, Twitter is the platform with the largest coverage, followed by Mendeley. Here, we must note that Altmetric.com only retrieves data from Mendeley when a record is mentioned in any of the other platforms included.

Table I.

<table>
<thead>
<tr>
<th>Type of research output</th>
<th>Research outputs</th>
<th>Outputs with mentions</th>
<th>Total mentions</th>
<th>Average mentions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Article</td>
<td>14,494,667</td>
<td>10,248,575</td>
<td>67,789,339</td>
<td>4.68</td>
</tr>
<tr>
<td>Data set</td>
<td>26,888</td>
<td>21,206</td>
<td>112,959</td>
<td>4.20</td>
</tr>
<tr>
<td>Books</td>
<td>1,189,253</td>
<td>818,135</td>
<td>2,675,537</td>
<td>2.25</td>
</tr>
<tr>
<td>Books Chapters</td>
<td>5,044,984</td>
<td>78,959</td>
<td>2,228</td>
<td>0.00</td>
</tr>
<tr>
<td>Clinical Trials</td>
<td>36,882</td>
<td>35,646</td>
<td>17,298</td>
<td>0.47</td>
</tr>
<tr>
<td>News Stories</td>
<td>96,609</td>
<td>95,251</td>
<td>8,893,913</td>
<td>92.06</td>
</tr>
<tr>
<td>All outputs</td>
<td>20,889,929</td>
<td>11,298,415</td>
<td>79,890,012</td>
<td>3.82</td>
</tr>
</tbody>
</table>

Table II.

<table>
<thead>
<tr>
<th>Research outputs</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Articles</td>
<td>935,802</td>
<td>972,635</td>
<td>1,103,626</td>
<td>1,259,912</td>
<td>1,227,340</td>
</tr>
<tr>
<td>Books</td>
<td>110,410</td>
<td>43,059</td>
<td>32,889</td>
<td>57,073</td>
<td>51,125</td>
</tr>
<tr>
<td>Book chapters</td>
<td>300,970</td>
<td>299,669</td>
<td>240,548</td>
<td>270,995</td>
<td>254,509</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Outputs with mentions</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Articles</td>
<td>694,263</td>
<td>750,063</td>
<td>896,855</td>
<td>1,056,389</td>
<td>1,042,993</td>
</tr>
<tr>
<td>Books</td>
<td>30,588</td>
<td>28,038</td>
<td>46,763</td>
<td>40,422</td>
<td>37,867</td>
</tr>
<tr>
<td>Book chapters</td>
<td>4,237</td>
<td>5,069</td>
<td>9,639</td>
<td>16,644</td>
<td>11,150</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Total mentions</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Articles</td>
<td>4,496,193</td>
<td>5,455,146</td>
<td>7,578,038</td>
<td>10,140,826</td>
<td>12,703,226</td>
</tr>
<tr>
<td>Books</td>
<td>156,282</td>
<td>159,551</td>
<td>257,024</td>
<td>368,919</td>
<td>467,534</td>
</tr>
<tr>
<td>Book chapters</td>
<td>22,623</td>
<td>14,017</td>
<td>26,347</td>
<td>47,550</td>
<td>38,223</td>
</tr>
</tbody>
</table>

Table III.

The insoluble problems of books
The most interesting finding is the importance of Wikipedia mentions which covers more than 10 percent of the Book Collection. This finding contrasts with the low coverage of Wikipedia found on journal literature (Zahedi, Costas and Wouters, 2014).

### 3.2 Information sources for tracking books

Altmetric providers make an extensive use of unique identifiers and URL linkages to track mentions in social media platforms. Indeed, their reliance on DOI numbers is widely known and has become a topic of concern when discussing their limitations (Robinson-García et al., 2014; Zahedi and Costas, 2018). In the case of books, ISBNs do not provide traceable links as DOIs do. To overcome this issue, Altmetric.com seems to track a series of data sources from which they extract all book records whenever DOIs are not available. Table IV shows the

<table>
<thead>
<tr>
<th>Platform</th>
<th>Total records</th>
<th>Share (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Twitter</td>
<td>209,682</td>
<td>26.2</td>
</tr>
<tr>
<td>Mendeley</td>
<td>162,896</td>
<td>20.4</td>
</tr>
<tr>
<td>Syllabi</td>
<td>14,226</td>
<td>17.8</td>
</tr>
<tr>
<td>Wikipedia</td>
<td>93,376</td>
<td>11.7</td>
</tr>
<tr>
<td>Facebook</td>
<td>40,845</td>
<td>5.1</td>
</tr>
<tr>
<td>Blogs</td>
<td>40,429</td>
<td>5.1</td>
</tr>
<tr>
<td>News media</td>
<td>36,657</td>
<td>4.6</td>
</tr>
<tr>
<td>Policy</td>
<td>22,556</td>
<td>2.8</td>
</tr>
<tr>
<td>Google Plus</td>
<td>10,510</td>
<td>1.3</td>
</tr>
<tr>
<td>Q&amp;A</td>
<td>3,237</td>
<td>0.4</td>
</tr>
<tr>
<td>Patents</td>
<td>3,185</td>
<td>0.4</td>
</tr>
<tr>
<td>Weibo</td>
<td>90</td>
<td>0.0</td>
</tr>
<tr>
<td>Peer review</td>
<td>84</td>
<td>0.0</td>
</tr>
<tr>
<td>F100</td>
<td>61</td>
<td>0.0</td>
</tr>
<tr>
<td>LinkedIn</td>
<td>53</td>
<td>0.0</td>
</tr>
<tr>
<td>Total</td>
<td>799,098</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Table III. Coverage of Altmetric.com by platform for Book Collection mentioned in the 2000–2018 period

<table>
<thead>
<tr>
<th>Without DOI (315 total sources)</th>
<th>471,347</th>
<th>With DOI (129 total sources)</th>
<th>327,751</th>
</tr>
</thead>
<tbody>
<tr>
<td>books.google.com</td>
<td>272,555</td>
<td>No URL link</td>
<td>244,797</td>
</tr>
<tr>
<td>No URL link</td>
<td>176,508</td>
<td>books.google.com</td>
<td>40,660</td>
</tr>
<tr>
<td>market.android.com</td>
<td>9,443</td>
<td>link.springer.com</td>
<td>17,347</td>
</tr>
<tr>
<td>store.elsevier.com</td>
<td>2,715</td>
<td>documents.worldbank.org</td>
<td>7,273</td>
</tr>
<tr>
<td>rand.org</td>
<td>1,989</td>
<td>nap.edu</td>
<td>6,154</td>
</tr>
<tr>
<td>uk.sagepub.com</td>
<td>1,385</td>
<td>onlinelibrary.wiley.com</td>
<td>1,803</td>
</tr>
<tr>
<td>us.sagepub.com</td>
<td>1,157</td>
<td>oecd-ilibrary.org</td>
<td>1,801</td>
</tr>
<tr>
<td>berghahnbooks.com</td>
<td>1,129</td>
<td>rand.org</td>
<td>1,398</td>
</tr>
<tr>
<td>elsevier.com</td>
<td>907</td>
<td>tandfebooks.com</td>
<td>1,336</td>
</tr>
<tr>
<td>market.android.com</td>
<td>907</td>
<td>market.android.com</td>
<td>867</td>
</tr>
<tr>
<td>publications.jrc.ec.europa.eu</td>
<td>504</td>
<td>oapen.org</td>
<td>864</td>
</tr>
<tr>
<td>oapen.org</td>
<td>392</td>
<td>un-library.org</td>
<td>714</td>
</tr>
<tr>
<td>nap.edu</td>
<td>324</td>
<td>elgaronline.com</td>
<td>390</td>
</tr>
<tr>
<td>thieme.de</td>
<td>278</td>
<td>booksandjournals.brillonline.com</td>
<td>223</td>
</tr>
<tr>
<td>iwmicgiar.org</td>
<td>267</td>
<td>oapen.org</td>
<td>194</td>
</tr>
</tbody>
</table>

**Notes:** In bold URLs to nonprofit and governmental organizations providing reports. In italics those linking to library catalogs and open portals of books.
top web domains reported by Altmetric.com as points of access to book data. It refers to 799,098 books published between 2000 and 2018 included in the Book Collection. As observed, the reliance on DOIs is still quite high (41 percent of books) considering that its use is not as extended in monographs as it is with journal literature. Its tracking system is similar to that employed with journal literature (Zahedi and Costas, 2018, Table 11), systematically tracking different sources in an orderly manner. It first tracks the DOI number – explaining why 75 percent of books with DOI do not show information related to their point of access, followed by Google Books and a set of publishers, along with other institutions. In this “other,” we must highlight the inclusion of international and governmental organizations like the World Bank, the publications portal from the European Commission, OECD or the US National Academies of Sciences, Engineering and Medicine. Even corporations like RAND are included. These organizations author reports or policy documents which are, in many cases, presented in a monograph format and with an ISBN. This means that an important number of records indexed as books in Altmetric.com are actually reports and policy briefings which do not adhere to the traditional notion of an academic book.

In the case of books without a DOI number, Google Books is the main source used. In total, 37 percent of books do not include an access point in their records. But still, it is possible to link to their description from the Altmetric Explorer platform. After randomly searching for sources for books without access point, we find that they come to a great extent from Harvard Library (http://library.harvard.edu), which has an Open Metadata policy, allowing third parties to track their entire catalog. This is observed with many other libraries as well as with Open Access initiatives for books like OAPEN (http://oapen.org) or the Swedish National Library (http://urn.kb.se).

4. Data retrieval and processing of altmetrics for a collection of SSH books
In this section, we test the capacity of Altmetric.com to retrieve data given a predefined set of books. This is a basic feature needed by any institution considering a subscription to this tool, where the aim is to monitor the altmetric impact of the book collection of their institution. To perform this test, we downloaded all books included in the Master Book List from Clarivate’s Book Citation Index (http://wokinfo.com/mbl/). A total of 60,239 books were retrieved from this list, including book title, ISBN, publisher, subject category and series title. We used the ISBN data to query the Altmetric Explorer. It is noteworthy that the Master Book List provides a single ISBN by book, which means that there may already be a loss of information if a book has more than one ISBN identifier.

A total of 33,014 books were retrieved from Altmetric.com and downloaded in order to match altmetric mentions with our original table. Only 15,545 records were successfully matched back to our original data set (47 percent of the retrieved set and 26 percent of the original set). After carefully looking for potential discrepancies on format, etc., we find out that this is due to ISBN mismatches. Although we queried for a single ISBN code by record, Altmetric.com retrieves mentions to all ISBN codes identified that belong to the same book. The list of ISBN codes for each book is actually displayed in the web platform. Still, when downloading the data from Altmetric.com, only one ISBN by record is offered. This is what makes it almost impossible to automatically match these retrieved records with our original data set.

Even though we were only able to process and link back almost half of the retrieved books with mentions from Altmetric.com, we performed a descriptive analysis by subject category to offer an overview on potential differences by fields. We must stress that this is done only with those which we could match back to data downloaded from Clarivate’s Master Book List, as any kind of systematic bias on this loss of information cannot be
assessed in this analysis. Figure 1 and Table V display raw numbers and proportions of mentions and records analyzed based on our original data set. History is the subject category which comprises the largest number of mentions and outputs with mentions, followed by Education and Economics. In terms of coverage, Political Science and Economics are the categories with a largest share of books retrieved from Altmetric.com. History and Political Science are, out of the total of books indexed in Altmetric.com, the ones with the highest share of books with at least one mention in at least one of the platforms covered by Altmetric.com.

5. Main characteristics, strengths and limitations
This paper aims at exploring Altmetric.com as a source for retrieving altmetric indicators for books. The two previous sections were devoted to describing the tool and its usability. Throughout the text, we have briefly mentioned issues that limit to a great extent the utility of this data source. In this section, we will expand on significant issues observed when testing this tool that should be considered. To do so, we have structured this section into three parts, containing crucial aspects to consider when assessing a new data source: pertinence, usability and reliability.

Figure 1.
Number of books with mentions in Altmetric.com and matched and number of mentions received by subject category

<table>
<thead>
<tr>
<th>Discipline</th>
<th>Books in web of science</th>
<th>Total mentions</th>
<th>Research outputs</th>
<th>% Research outputs</th>
<th>Outputs with mentions</th>
<th>% Outputs with mentions</th>
</tr>
</thead>
<tbody>
<tr>
<td>History</td>
<td>4,018</td>
<td>4,355</td>
<td>2,140</td>
<td>53</td>
<td>1,434</td>
<td>36</td>
</tr>
<tr>
<td>Literary theory and criticism</td>
<td>2,840</td>
<td>1,010</td>
<td>1,635</td>
<td>58</td>
<td>669</td>
<td>24</td>
</tr>
<tr>
<td>Economics</td>
<td>2,810</td>
<td>4,502</td>
<td>1,775</td>
<td>63</td>
<td>719</td>
<td>26</td>
</tr>
<tr>
<td>Education and educational research</td>
<td>2,723</td>
<td>2,679</td>
<td>1,401</td>
<td>51</td>
<td>541</td>
<td>20</td>
</tr>
<tr>
<td>Political science</td>
<td>1,865</td>
<td>2,039</td>
<td>1,213</td>
<td>65</td>
<td>649</td>
<td>35</td>
</tr>
<tr>
<td>International relations</td>
<td>1,723</td>
<td>1,127</td>
<td>1,003</td>
<td>58</td>
<td>508</td>
<td>29</td>
</tr>
<tr>
<td>Business</td>
<td>1,665</td>
<td>1,050</td>
<td>981</td>
<td>59</td>
<td>325</td>
<td>20</td>
</tr>
<tr>
<td>law</td>
<td>1,446</td>
<td>1,480</td>
<td>728</td>
<td>50</td>
<td>438</td>
<td>30</td>
</tr>
<tr>
<td>Philosophy</td>
<td>1,369</td>
<td>1,259</td>
<td>739</td>
<td>54</td>
<td>371</td>
<td>27</td>
</tr>
<tr>
<td>Religion</td>
<td>1,239</td>
<td>718</td>
<td>465</td>
<td>38</td>
<td>309</td>
<td>25</td>
</tr>
</tbody>
</table>

Table V.
General overview of books by SSH subject category in Clarivate’s Master Book List and records and mentions retrieved and matched from Altmetric.com
5.1 Pertinence

The first issue to consider is the pertinence of Altmetric.com in particular and altmetrics generally, as indicators aligned with the phenomenon we intend to measure. This question is more of a conceptual rather than technical or methodological nature. Although such assessment falls out of the scope of this paper, this is an unavoidable question. The capability of altmetric indicators to measure broad forms of impact has long been contested (Sugimoto et al., 2017). But still, altmetric indicators have the potential to provide unique data on other aspects of the scholarly communication system. Books and book chapters are a format which have not entirely transitioned to the digital format. While this may entail a shortcoming when aiming at monitoring their reception, altmetric indicators can be used to study the advancement of Open Access in monographs (Wilsdon et al., 2017, p. 10). Since there is evidence that books are tweeted (Hammarfelt, 2014), institutions and publishers can use this information to identify topics which are best received by the audience or analyze the reception or attention their monographs receive.

We do find that book chapters tend not to be mentioned in social media and therefore the pertinence of Altmetric.com as a source to monitor social media attention of book chapters should be dismissed.

5.2 Usability

Due to the high reliance altmetric providers have on DOI codes, one of the key questions when analyzing Altmetric.com for books was to see how it deals with publication forms which cannot be unequivocally identified. Altmetric.com relies to a large extent on the use of DOI and ISBN identifiers, but not all records indexed in the book collection have identifiers. Regarding books with a DOI identifier vs those without one, we find an unexpected pattern in the number of books indexed by publication year in the 2000–2018 period. There is a converging trend with a sustained increase of books with a DOI until 2012. Between 2012 and 2013 there is an abrupt increase of books with a DOI, followed by a lower increase on books without a DOI between 2014 and 2017 (see Figure 2). We were not able to trace the reasons behind these patterns, probably due to the addition of new sources of information from which to index books.

ISBNs are the other main identifiers used to link monographs. In this sense, Altmetric.com tracks book’s description from Google Books as a first choice, and second, on data from libraries with an Open Metadata policy (e.g. Harvard University Library) or Open Access initiatives for books (e.g. OAPEN). All ISBN codes identified and belonging to a single book are merged. Still, some errors were identified in this merging process. For instance, we identified several cases where metrics attributed to one book pointed to another one. In other cases, there were empty records where the metadata information was not properly linked but actually had mentions pointing to “real” books.

The main shortcoming attached to usability was related to the incompleteness of data when downloading records from the Altmetric Explorer. As a data source used at the

![Figure 2. Evolution of (a) proportion and (b) average of the Altmetric Attention Score of books indexed with and without DOI](image)
institutional level, it is expected to link the data provided with additional data sets and internal databases. For this, it is essential to have a field that can be matched univocally with the different data sets. The first choice when referring to monographs is to use the ISBN code of books which is also used to query Altmetric.com. However, Altmetric.com does not allow downloading the complete list of ISBN codes from each record but a single one. This means that the retrieved ISBN is not always the one that is used when querying Altmetric.com, which makes it impossible to link the data retrieved from external databases. By including all ISBN codes associated to each record in the data available to download, this would be easily overcome.

5.3 Reliability

The last essential aspect to consider is the reliability of the information provided. In this sense, and despite the work on merging ISBN codes pointing to a single book, we find for some books that many editions and re-editions are missing. Also duplicates can be found with different editions of a same book split into two different records. This is a common shortcoming when processing book data for bibliometric purposes.

Additional issues were identified, which led us to question to some extent the information provided by Altmetric.com. The first relates to the inflation of monographs caused by the inclusion of publication types that cannot be considered to be academic books. The second has to do with anomalies on the reported number of mentions received, where one case related to unreported changes in Altmetric.com and another related to the exogenous patterns of the platforms included. With regard to the inflation of publications, and as pointed out before, not all books included in the Altmetric.com Book Collection have an ISBN code assigned to them. From the total of books mentioned in the 2000–2018 period, 11,243 did not include an ISBN code in their record. This is not a significant number and only accounts to 1.4 percent of books. Still, we note that out of this share, half of them were retrieved from the World Bank (5,564 records) and almost 7 percent from RAND Corporation (770 records).

Regarding anomalies found on the reported number of mentions received by platform, we focus on two specific altmetric sources: Wikipedia and Syllabi. In the case of Wikipedia, we noted that almost 12 percent of monographs indexed in Altmetric.com had been cited in this platform (see Table III). This coverage is outstanding when considering that for journal articles it is of roughly 1.5 percent (Zahedi, Costas and Wouters, 2014, p. 1495). Indeed, 47 percent of all mentions made from Wikipedia in 2017 to all outputs in Altmetric.com are directed to books (see Figure 3).

To analyze if this is due to a greater capability of Wikipedia to track books’ influence or to another exogenous factor, we tracked which books had been cited in 2017. We observed that they all belonged to a series of books from the nineteenth century which have been recently digitalized. These books were published between 1862 and 1873 to be precise and are books from the field of biology, which serve as catalogues of species. Indeed in May 2018 (date of the data retrieval), a total of 13,645 mentions from Wikipedia to four of these books were identified. These books are:

1. Classification of the Coleoptera of North America prepared for the Smithsonian Institution by John L. LeConte. (4,276 mentions)
2. American Insects. (4,033 mentions)
3. Heteroptera, or True Bugs of Eastern North America, with special reference to the faunas of Indiana and Florida, by W.S. Blatchley. (851 mentions)
This figure reveals to some extent, the capacity of altmetrics to reflect the transition to electronic format of monographs, which can be of special interest to university libraries. But, in the case presented here, we identified that a single Wikipedia user was behind this massive number of mentions to nineteenth century books: an automatic bot named Qbugbot, with even its own Wikipedia entry (see Figure 4). Indeed, a superficial search tells us that it is not the only bot populating Wikipedia, which means that Wikipedia citations are greatly compromised if we do not know what they are really reflecting.
An anomaly of a different nature is the one related to syllabi mentions. Syllabi mentions are the only metric covered by Altmetric.com which specifically targets books. Its inclusion was announced in September 2016, with information pointing to a new partnership, where syllabi were extracted from the Open Syllabus Project (Konkiel, 2016). This project seems to have been discontinued, although we cannot confirm this. As shown in Figure 5, we can only present an observed drop since 2003 onwards with almost no mentions to books from 2015 onwards.

In this case, the anomaly relates to unreported changes in the sources tracked by Altmetric.com rather than with anomalous patterns of such sources. The fact that Altmetric.com is tracking a traditionally problematic publication output (in bibliometric terms) with metrics which are still underdeveloped does not rule out entirely their potential use to track and monitor books’ reception or impact. But the number of considerations and limitations attached to these types of assessments clearly increase, if not multiply.

6. Differences between Altmetric.com and PlumX

This paper aims at providing a full scope of the usability and potential of Altmetric.com as a source from which to extract metrics for books. We do not address directly the potential of altmetrics for books but rather describe and analyze this tool. It is also not part of the scope of this paper to make comparisons with other altmetric providers which also offer metrics for books. Nevertheless, we can use findings from our previous research and experience with the provider PlumX. First of all, we must emphasize that none of the tools provide clear documentation on how the input data are exactly processed and how books are identified and tracked. It is almost a trial and error process to fully understand how they work and what it is exactly to fully understand how they work and what exactly they are providing to the user.

Both PlumX and Altmetric.com differ in terms of their philosophy and conceptual approaches to indicators. While Altmetric.com focuses on a single multi-indicator (the Altmetric attention score[1]), PlumX has adopted a multi-approach based on five categories or dimensions (usage, citations, captures, mentions and social media), and presents itself as the tool to trace not only “altmetric” data but also “all metrics.”

In terms of data retrieval, in a previous study (Torres-Salinas, Gumpenberger and Gorraiz, 2017), we suggested that PlumX creates its own index of books. Once introduced it may enhance and aggregate automatically all bibliographic records with different variations of ISBN codes assigned and matched to external databases. Thus, different variations of ISBN codes are assigned and data matching with external databases seems to be much more smooth. However, neither provider can guarantee a complete data retrieval process. Arduous manual work will be required in order to exclude duplicates and
correct mismatches. On the other hand, both tools support a minimum of transparency, with the retrieval of mentions, and the possibility of tracing back to an original source.

The data types included by each altmetric provider vary extensively, but for the most part, they tend to be rather complementary than comparable (Peters et al., 2017). Also, PlumX covers a range of indicators from sources that seem to be much more relevant to books (i.e. online book reviews and library holdings) than those covered by Altmetric.com. In this way, and especially in terms of library holdings, the PlumX platform has potential to overcome problems related to a lack of books in electronic format (Torres-Salinas, Robinson-Garcia and Gorraiz, 2017).

With regard to monographs, the difference approaches taken by each provider – i.e., the composite indicator vs multidimensional approach – mean that PlumX includes variables that are not altmetrics (e.g. citations, usage). It also means that there are some social media platforms which are missing in this tool (see Table VI); however, the coverage of these platforms in Altmetric.com (e.g. F1000, LinkedIn, Weibo) is near to zero. PlumX encompasses a total of 39 indicators vs the 18 indicators offered by Altmetric.com. But 21 of these are related to the usage dimension (e.g. Repec, SSRN, E-print) which might be more pertinent for journal articles than books.

However, there are noteworthy inclusions in PlumX, which are of great interest when analyzing the academic impact or reception of books, such as library holdings or reviews and scores in Amazon or Goodreads. In the case of library holdings, the coverage rate is extremely high up to 97 percent (Torres-Salinas, Gumpenberger and Gorraiz, 2017).

### 7. Concluding remarks

This paper tests the reliability and usability of metric indicators for books offered by Altmetric.com. In 2017, Altmetric.com announced that their Altmetric Explorer for Institutions now included metrics for monographs (Altmetric Engineering, 2017). As noted elsewhere (Hammarfelt, 2014), books are still far from finalizing a shift from print to electronic format, which journal articles have. Altmetrics have the potential to trace the

<table>
<thead>
<tr>
<th>Platform</th>
<th>Altmetric.com Coverage (%)</th>
<th>Mean</th>
<th>Mean Available</th>
<th>PlumX</th>
<th>PlumX Coverage (%)</th>
<th>Mean</th>
<th>Mean Available</th>
</tr>
</thead>
<tbody>
<tr>
<td>Twitter mentions</td>
<td>26.2</td>
<td>2.28</td>
<td>8.70</td>
<td>Tweets:Twitter</td>
<td>0.43</td>
<td>0.04</td>
<td>10.27</td>
</tr>
<tr>
<td>Wikipedia</td>
<td>11.7</td>
<td>0.22</td>
<td>1.95</td>
<td>Links:Wikipedia</td>
<td>16.57</td>
<td>0.46</td>
<td>2.77</td>
</tr>
<tr>
<td>News media</td>
<td>4.6</td>
<td>0.15</td>
<td>3.45</td>
<td>NewsMentions:News</td>
<td>0.02</td>
<td>0.00</td>
<td>2.12</td>
</tr>
<tr>
<td>Syllabi mentions</td>
<td>17</td>
<td>1.14</td>
<td>6.41</td>
<td>Not included</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Blogs</td>
<td>5.1</td>
<td>0.10</td>
<td>2.10</td>
<td>BlogMentions:Blog</td>
<td>0.06</td>
<td>0.00</td>
<td>2.38</td>
</tr>
<tr>
<td>Facebook</td>
<td>5.1</td>
<td>0.10</td>
<td>2.04</td>
<td>Facebook</td>
<td>0.54</td>
<td>0.17</td>
<td>31.36</td>
</tr>
<tr>
<td>Mendeley readers</td>
<td>20.4</td>
<td>4.2</td>
<td>20.05</td>
<td>Readers:Mendeley</td>
<td>25.9</td>
<td>1.60</td>
<td>6.65</td>
</tr>
<tr>
<td>Policy</td>
<td>2.8</td>
<td>0.05</td>
<td>2.01</td>
<td>Not included</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Google Plus</td>
<td>1.3</td>
<td>0.02</td>
<td>1.82</td>
<td>+1s:Google+</td>
<td>0.12</td>
<td>0.01</td>
<td>5.06</td>
</tr>
<tr>
<td>F1000</td>
<td>0.0</td>
<td>0.00</td>
<td>1.08</td>
<td>Not included</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>LinkedIn mentions</td>
<td>0.0</td>
<td>0.00</td>
<td>1.09</td>
<td>Not included</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Patents</td>
<td>0.4</td>
<td>0.00</td>
<td>2.03</td>
<td>Not included</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Peer review</td>
<td>0.0</td>
<td>0.00</td>
<td>1.83</td>
<td>Not included</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Pinterest mentions</td>
<td>0.0</td>
<td>0.00</td>
<td>1.08</td>
<td>Not included</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Q&amp;A</td>
<td>0.4</td>
<td>0.00</td>
<td>1.15</td>
<td>Not included</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Reddit mentions</td>
<td>0.0</td>
<td>0.00</td>
<td>1.16</td>
<td>Scores:Reddit</td>
<td>0.01</td>
<td>-</td>
<td>56.10</td>
</tr>
<tr>
<td>Video mentions</td>
<td>0.0</td>
<td>0.00</td>
<td>1.61</td>
<td>Likes:YouTube</td>
<td>0.00</td>
<td>-</td>
<td>2.00</td>
</tr>
<tr>
<td>Weibo</td>
<td>0.0</td>
<td>0.00</td>
<td>2.86</td>
<td>Not included</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
</tbody>
</table>

**Sources:** Data from PlumX are retrieved from Table I of the supplementary material from Torres-Salinas, Gumpenberger and Gorraiz (2017). Note that book data sets differ from those available in Altmetric.com.
social uptake of research (Robinson-Garcia et al., 2018) and can help to monitor the transition of scholarly outputs to Open Access (Wilsdon et al., 2017). Furthermore, their speed and immediacy present them as “catchy” indicators in the eyes of research managers, publishers and authors. This is especially relevant in the evaluation of SSH research where citation windows are longer and analyses based on citations are limited.

This has not gone unnoticed by altmetric providers, and now PlumX and Altmetric.com offer such metrics and sell them to institutions and publishers. Although it was not part of the scope of this research to confirm the validity of using altmetrics in an evaluation context, it is still useful to determine exactly what types of information the altmetric providers are offering and how reliable it is. Previous studies have already highlighted and explained important differences concerning metrics reported for journal articles (Zahedi and Costas, 2018). Expanding these platforms in order to include monographs can only raise more questions about the selection of indicators provided, or features available to and essential for institutions subscribing to them. Issues such as the selection of indicators provided or the features available to users are essential for institutions considering subscribing to such products.

As a result of this study, which provides an overview of the Book Collection of Altmetric.com and its capabilities in terms of connecting with external databases, we can confirm that the product is still at an early stage. Moreover, many of the obstacles related to the indexing of monographs and problems encountered with other book databases only become more complex when intertwined with the volatile nature of altmetrics. For example, the deduplication of different monograph editions or translations can easily lead to incorrect altmetric assignments. Nevertheless, some issues are more easily addressed than others; thus platforms designed to make it possible to download a book’s complete list of ISBN codes might eventually make it easier to link to external databases, like Current Research Information Systems.

By exploring the main sources (e.g. Google Books; Open Access platforms and library catalogs) that Altmetric.com uses to retrieve information from books, we demonstrate the vital work that librarians do in order to support the development of these products, and make them more feasible.

Also, by comparing Altmetric.com to PlumX, and previous studies based on PlumX (Torres-Salinas, Gumpenberger and Gorraiz, 2017; Torres-Salinas, Robinson-Garcia and Gorraiz, 2017), we were able to conclude that, similar to the work of Peters et al. (2017), the two platforms are complementary rather than similar. With each platform, we have observed different sets of indicators, which require different types of data retrieval and processing strategies. But, more importantly, we have found that there is a higher number of book-specific indicators (i.e. library holdings and Amazon/Goodreads review scores) in PlumX than in Altmetric.com.

And finally, we wish to emphasize that more documentation is needed at Altmetric.com, so that users might better understand certain patterns behind the metrics they offer. We have identified two anomalies with regard to Wikipedia and syllabi mentions. In the first case, it is related to the existence of bots which automatically generate Wikipedia content and include references to scholarly work. The activity of one single bot in 2017 generated 47 percent of all Wikipedia mentions and that these were all directed to recently digitalized books from the nineteenth century. In the second case, the anomaly resulted from what seems to be a discontinued project, as syllabi mentions seemed present in the database until 2014 when they ceased. Learning about these issues is crucial for any user who might use the information reported by Altmetric.com for any type of decision, as it will lead them to misinterpretations.

Note
1. According to the Altmetric.com website, this score is a composite quantitative measure of the attention that a scholarly article has received, and it is based on three main factors: volume, sources and authors. Combined, the score intends to be a weighted approximation of all the attention gathered by Altmetric.com.
References


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