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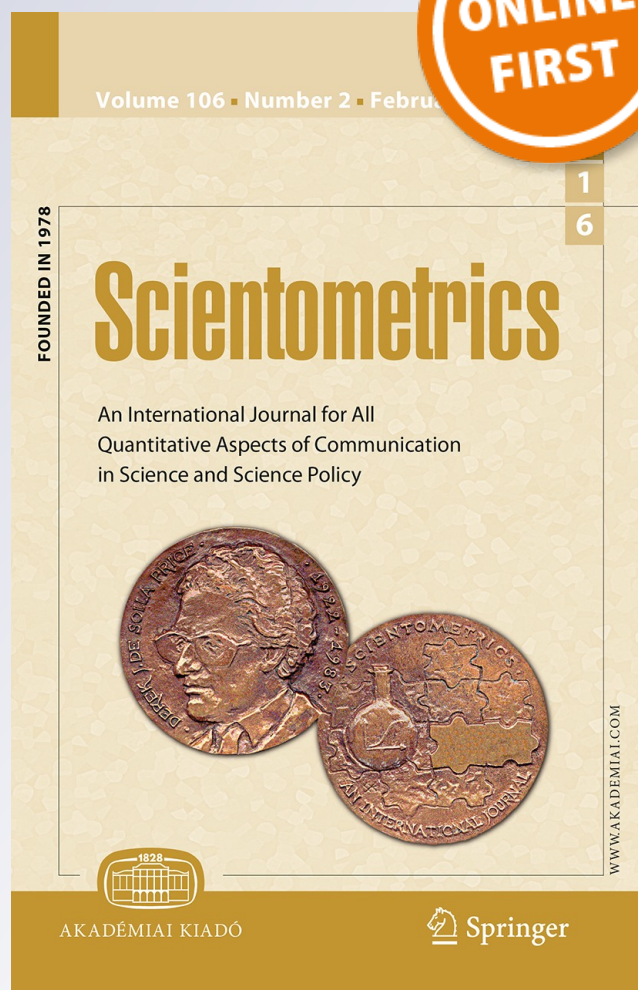
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Taking scholarly books into account: current developments in five European countries

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Abstract For academic book authors and the institutions assessing their research performance, the relevance of books is undisputed. In spite of this, the absence of comprehensive international databases covering the items and information needed for the assessment of this type of publication has urged several European countries to develop custom-built information systems for the registration of scholarly books, as well as weighting and funding allocation procedures. For the first time, these systems make the assessment of books as a research output feasible. The present paper summarizes the main features of the registration and/or assessment systems developed in five European countries/regions (Spain, Denmark, Flanders, Finland and Norway), focusing on the processes involved in the collection and processing of data on book publications, their weighting, as well as the application in the context of research assessment and funding.

This paper is a substantially extended version of the research-in-progress paper (Giménez-Toledo et al. 2015a, b) presented at the 15th International Conference on Scientometrics & Informetrics, 29 June–4 July, 2015 (Bogazici University, Istanbul, Turkey).

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Introduction

Researchers and evaluators consistently highlight the role of books in scholarly communication, and the importance of including them in assessment systems for the Arts and Humanities and for some Social Science disciplines (Glänzel and Schoepflin 1999; Hicks 2004; Thompson 2002; Huang and Chang 2008; Engels et al. 2012). In 1996, Eugene Garfield first urged for the development of bibliometric tools (i.e. a citation index) for measuring the impact of books (Garfield 1996). Several studies based on national data illustrate the importance of books in scholarly communication in the social sciences and humanities (SSH). In Norway (Sivertsen and Larsen 2012) during 2005–2009, for instance, monographs and book chapters together comprised 53 % of total output in the SSH. In Finland in 2011–2012, 39 % of the university publications in the social sciences, and 47 % in the humanities, consist of monographs and book chapters (Puuska 2014). In the case of the Flemish VABB-SHW, which uses a substantially different selection process for peer reviewed books and their publishers, during 2000–2009, 23.2 % of publications in the humanities and 7.2 % in the social sciences are monographs, edited books or book chapters (Engels et al. 2012). Kousha et al. (2011) mention that one third of the documents assessed in the UK's Research Assessment Exercise in the SSH are books, while 62 % of Spanish universities' output in Arts and Humanities are books or book chapters (Michavila 2012). In the case of the UK's Research Assessment Exercise, the choice of books by researchers as an important output to be submitted for assessment can be understood as an indication of the prestige of these outputs among the SSH researchers (which seems congruent with the findings of Cronin and La Barre 2004, regarding the prestige of scholarly monographs for tenure and promotion among literature and language departments in US universities). In Denmark 2015, 13 % of all peer reviewed publications are books or articles in books, whilst 38 % constitutes these document types in the humanities and social sciences (Bibliographic Indicator).

In terms of citation, the weight of books is also evident. In Arts and Philosophy, between 60 and 85 % of the documents cited were books (Cullars 1992, 1998). In Literature Studies, these amounts varied between 75 and 82 % (Stern 1983; Heinzkill 1980). There are some preliminary indications that book publications in the SSH are relatively highly cited (Gorraiz et al. 2013; Leydesdorff and Felt 2012; Torres-Salinas et al. 2014). Despite the creation of the Book Citation Index (Adams and Testa 2011), and the Scopus Book Titles Expansion Program, however, citation analysis of impact of individual chapters/articles in books and monographs is disadvantaged by the lack of coverage of non-english publications by the two main databases (Moed 2005; Oppenheim and Summers 2008; Taylor 2011; Hicks et al. 2015). This has prompted the five countries/regions discussed in the present article to produce rankings/ratings of the outlets—book publishers and book series—based on their perceived prestige and quality, which determine the score of the publications in the assessment/funding scheme. Measuring the citation impact of

book publishers is only in its beginnings (Zuccala et al. 2014). All five countries indeed rely on the research community in ranking the outlets, either by means of survey or expert panel classification.

At the same time, performance-based assessment and funding allocation systems, as well as evaluation exercises at an individual level are widespread throughout Europe, affecting most universities and research institutions (Hicks 2012a; Frølich 2011). There exists a clear need for comprehensive databases collecting 'quality'-indicators for books and book publishers. Quality in books is a multi-faceted concept and translating it into indicators is a difficult task, in many occasions closely oriented to the specific research and assessment policies of each country. This diversity at the policy level is matched by an intrinsic heterogeneity of scholarly books themselves (e.g. disciplines, languages, formats, peer review and other editorial standards, etc.). In the past, the vast variety of books has made their reliable and comprehensive registration notoriously difficult and, consequently, their inclusion in research assessments unrewarding (Hicks 2012b). By introducing the information and book publisher ranking systems presented in this paper, five European countries/regions have sought to redress the balance.

Objectives

The aim of this paper is to compare different approaches for assessing books across Europe. Current use in evaluation processes has been one of the main reasons to cast models but their consolidated path has been also considered. To do so, the context of each performance-based funding system in which book evaluation occurs is presented. The existence of peer review processes, the prestige of book publishers and the specific features of each discipline are some of the elements on which Spain, Denmark, Flanders, Finland and Norway have developed assessment systems for books. This paper summarizes the main features of the current registration and assessment systems developed in the five countries/regions. After a discussion of each system, preliminary conclusions are presented, as well as a perspective on possible future developments.

Results

Scholarly Book's evaluation practices at the micro level

Spain

Scholarly books are taken into account in various performance-based funding systems. As an example, both ANECA and CNEAI (National Agency for Quality Assessment and Accreditation and the National Commission for the Evaluation of Research Activity, respectively) include various aspects of books and book publishers among their assessment criteria at the individual level. One of them is the prestige of the publisher (being the latest CNEAI Resolution of November 26, 2014, but included as quality criteria since at least 2007). Given the lack of specific data on the prestige of book publishers, the Research Group on Scholarly Books (ÍLIA) at CSIC (Spanish National Research Council) developed Scholarly Publishers Indicators (SPI) on the grounds of the research conducted in previous years (Giménez-Toledo and Román-Román 2009). SPI ranks the perceived prestige of book publishers in the social sciences and humanities (SSH), both Spanish and

non-Spanish, according to the scores resulting from an extensive survey to Spanish lecturers, researchers and scholars specializing in all fields of SSH. The system is based on more than 3000 usable responses in 2012 and more than 2700 in 2013. The responses are given to the question of which are the most prestigious book publishers in the responder's field; only specialists with positive assessment of their research are susceptible of being included among the respondents. Once collected, the responses are summarized using a simple weighting algorithm based on the share of scores in each position (1st, 2nd, etc.). The results are summarized in an indicator: ICEE (quality indicator for publishers according to experts opinion). This indicator serves as a ranking item, both at the general level and specifically for each discipline, since the assigned weights are related to each discipline's distribution of scores (Giménez-Toledo et al. 2013). The weighting procedure involves no arbitrary intervention from its designers and permits certain normalization per discipline. The ranking is publicly available at (<http://ilia.cchs.csic.es/SPI/>) and the users can access both discipline-level and general rankings for Spanish and non-Spanish publishers.

The main advantage of this system is the wide population on which it is based (more than 11,000 experts), while the main disadvantage lies in the difficulty to control for possible bias in the surveying process. The ranking was first used for performance-based funding system and assessment purposes in 2013 and is increasingly being included in the current evaluation framework as a reference for the assessment of SSH books and book chapters, together with other criteria. It is important to note that SPI is a reference tool for assessment exercises. It is meant to inform, not to perform, the research evaluation.

SPI also includes interactive charts as well as a 'specialization profile' of publishers obtained from the DILVE database (collecting the editorial production of Spanish publishers). Specialization is a point where evaluation agencies may focus their attention. In progress is the research into the use of different peer review systems with the use of surveys to book publishers as well as information about the transparency of their websites (see more about SPI in Giménez-Toledo et al. 2015a, b). These are qualitative indicators aimed at supporting the assessment processes.

Regarding the use of the indicators by Spanish assessment agencies, it is worth mentioning that it is used only as a reference and their function is to support the expert panels' decisions.

Book's evaluation practices at meso or macro-level

Denmark

The performance indicator model (BFI/BRI, the Bibliometric Research Indicator) commenced in Denmark in 2009. Since this date and for each following year the Danish Research Agency has recruited academics from universities across the country to form committees representing 68 fields of research. Each committee is asked to compile an "authoritative" list of knowledge resources and publication outlets relevant to their respective fields and specialties. Points are then assigned to peer-reviewed journals, publishers and conferences that publish scientific material authored by Danish academics in previous years. The bibliometric research indicator takes into account published research and review articles from peer reviewed journals, monographs, anthology and proceedings papers and articles in books published by Danish research institutions. For the period of 2008 to 2012 proceedings (and anthology) papers were assigned 0.75 points. Research and review articles appearing in a Level 1 journal (normal) received 1.0 point, while those

published in a Level 2 journal (prestigious)—i.e., classified as a leading outlet, and covering a maximum of 20 % of the field journal output globally—received 3.0 points. From 2013 proceedings papers and articles receive received similar points as journal articles, depending on the level of the conference or publisher, as assessed by the relevant academic group. Monographs are also assessed according to two publisher levels, with Level 1 receiving 5 points and Level 2, 8 points. Anthology papers and chapters (articles in books) receive 0.5 and 2 points depending on publisher level. For each document the points are fractionalized (min 0.1) according to number of collaborating universities, including non-Danish universities. The model encourages collaboration by multiplying the institutional fraction by 1.25. The previous year's cumulated point per university is used to redistribute 25 % of the annual increase in of public basic research funding among the universities the following year. Only the cumulated results are publicly available per university and major academic area, such as the Humanities, Social Sciences, Natural Sciences or Medicine/Health sciences via the Danish Research Agency's web page (<https://bfi.fi.dk/>). The intermediate or more detailed publication point distributions and document lists per unit and department will be made accessible to the public from 2016. The Danish BFI/BRI system was meant primarily to be used by heads of department to inspire academics at local levels and serve as an incentive for higher production. It was never the intent of the research agency to use this system to assess departments or individuals, yet evaluations of this nature might still be carried out (by spin-off companies) and used for performance-based funding purposes. Publication points can be used as to supplement citation-based evaluations of applications for higher academic positions or for determining if an academic should receive an increase in salary. In some departments a certain number of points result in a supplementary bonus; transferred as cash or in the form of more travel resources. The BFI system tends to influence publication productivity positively, and thus far has not resulted in 'salami' publishing patterns in Denmark. Since 2008, the relative Danish citation impact has been increasing (Ingwersen and Larsen 2014); however, it would be important further to analyze and discuss new publication patterns in light of the incentives mentioned above.

Flanders (Belgium)

The Flemish Academic Bibliographic Database for the Social Sciences and Humanities ('Vlaams Academisch Bestand voor de Sociale en Humane Wetenschappen', or VABB-SHW) has been developed in order to allow the inclusion of the peer reviewed academic publication output in the Social Sciences and Humanities (SSH) in the regional performance-based research funding model. As such, in 2015 the VABB-SHW accounts for 6.62 % of the University Research Fund (or BOF), which distributes over 150 million euro per year over the five universities. As the BOF-key (Debackere and Glänzel 2004) is also re-used for the distribution of other research funding, the actual impact of the VABB-SHW is even greater. In a secondary role, the VABB-SHW supports research assessments at various levels. Since information in the VABB-SHW is available to both the universities and the Research Foundation Flanders (FWO), data is regularly harvested and integrated into each institution's repository. In a third role, the VABB-SHW's comprehensive publication coverage (peer reviewed or otherwise) allows for in-depth research on publication practices in the SSH (Engels et al. 2012; Verleysen et al. 2014).

The VABB-SHW covers the comprehensive publication output of academic research in 16 SSH disciplines and 3 general categories. Three types of book publications are included: 1° monographs, 2° edited books, 3° book chapters, weighted 4, 1 and 1 for the funding

model, respectively. Journal articles also receive a weight of 1 and proceedings papers a weight of 0.5. No prestige levels are distinguished. For funding calculation, a 10-year time frame is used. For research purposes, coverage extends back to the year 2000. With regard to books, four aggregation levels are in use: 1° publisher names (as collections of ISBN-roots), 2° book series, 3° books published in Flanders and labelled as Guaranteed Peer Reviewed Content (GPRC-label (Verleysen and Engels 2013)), and 4° individual books identified as peer reviewed by the Authoritative Panel ('Gezaghebbend Panel' or GP, a committee of full professors installed by the government and responsible for decisions regarding the content of the VABB-SHW). The information system is fed through a yearly upload (May 1st) of all SSH publications from the two preceding years newly registered in the five universities' academic bibliographies. Data is managed at the Flemish Centre for R&D monitoring (ECOOM), University of Antwerp, through its custom-built Brocade library services (http://en.wikipedia.org/wiki/Brocade_Library_Services). Each individual publication receives a unique identifier, contributing to maximum granularity and reliability of the data both for funding calculation as well as for retrieval and research. Consolidation processes making use of algorithmic identification allow a systematic deduplication of records that are submitted more than once. Publications are identified algorithmically at the publisher, series or journal level by their ISBN-prefix or ISSN. Each year, all new publishers, series, books and journals are classified by the Authoritative Panel as whether peer reviewed and presenting new content or not. At the public interface www.ecoom.be/en/vabb, online access is provided to the database itself, to lists of publishers, journals and series, the explanation of procedures, FAQ's, and background information.

Finland

In Finland, the use of publications in the performance based funding model is based on two components: the publication metadata consisting of the entire output of universities, and a quality index of outlets. Universities have their own registries of publications, including peer-reviewed and non-peer-reviewed articles in journals, conferences and anthologies, as well as monographs. Universities report their publication data, with full bibliographic details, each year to the ministry of education and culture (Puuska 2014). The publication data is processed (including deduplication) at CSC-IT Centre for Science, which is a company owned by the ministry. The bibliographic details of publications are matched against the list of serials, conferences and book publishers classified in three quality levels by 23 expert panels coordinated by the Federation of Finnish Learned Societies (FFLS). To assist the evaluation of channels, classifications from Norway and Denmark, and in case of journals also impact factors (JIF, SJR and SNIP), are made available to the panels. The quality index of outlets is called *Julkaisufoorumi (JUFO) -luokitus* (Publication Forum Classification). The universities' publication metadata collected by the ministry is known as *OKM-julkaisuaineisto* (MinEdu publication data).

In the Publication Forum classification, published for the first time in 2012, most peer-reviewed outlets belong to the basic level 1. The level 2 comprises 20 % of the leading serials and 10 % of the leading book publishers. For serials there is also a level 3, in which are classified 25 % of the top level 2 titles (Auranen and Pölonen 2012). New additions to the level 1 are evaluated annually, and all ratings are updated every 4 years. Channels that fail to meet the criteria of scientific publication channel are listed as the level 0. This category also includes some peer-reviewed channels (doctoral dissertation series, local channels with authors mainly from one organization, and those of questionable quality). Updated classifications have been published in the beginning of 2015 (Pölonen and Ruth

2015). In the new classification, as in Denmark, the level 2 serials and conferences comprise at most 20 % share of the world production of articles in each panel's field. The level 3 was added also for book publishers. The updated classification is applied to articles and books as of publication year 2015. The classification of book publishers is used specifically to determine the level of monographs and articles in anthologies when the publication does not come out in a book series or the series has not been classified. The main rule is that the Finnish book series are classified, while those of foreign book publishers are not classified separately.

In the current funding model for 2015 and 2016, which still uses the 2012 Publication Forum classifications, 13 % of all budget-funding to universities is allocated on basis of the three previous years' publications (Ministry of Education and Culture 2014). The peer-reviewed articles in journals, conferences and anthologies published in the level 0 channels will have the weighting coefficient 1, those of the level 1 have the coefficient 1.5, and for the level 2 and 3 channels the coefficient is 3. The weighting coefficient of non-peer-reviewed articles (e.g. professional and general public) is 0.1 regardless of outlet. Weighting coefficient of peer-reviewed monographs is four times higher than that of articles: 4 in the level 0, 6 in the level 1, and 12 in the level 2. For non-peer-reviewed monographs, as well as for articles by book or special issue editors, the weight is 0.4. There is no fractionalization of co-publications at the institutional or author level. The Ministry working group for revising the funding model of universities has proposed weighting coefficients more strongly emphasising the quality of publications according to Publication Forum levels from 2017 onwards (Ministry of Education and Culture 2015). The proposed weights for peer-reviewed articles are 0.1, 1, 3 and 4 for the levels 0, 1, 2 and 3 respectively, and monographs are given four times higher weight. Also an addition of edited works (books and special issues) is proposed, to be weighted the same way as articles in the model.

In 2014, FFLS introduced a label for peer-reviewed publications, by which scientific/scholarly publishers in Finland can mark peer-reviewed articles and books that fulfill certain criteria concerning the procedure and its documentation (www.tsv.fi/tunnus). The label can be used to qualify peer-reviewed publications in the MinEdu data. The introduction of the label in Finland was inspired by the example of the GPRC-label in Flanders (Verleysen and Engels 2013).

The MinEdu publication data, which covers Finnish universities output since 2010, is openly available through Vipunen-portal (www.vipunen.fi) for statistics, as well as Juuli-portal (www.juuli.fi) for browsing the publication information. The quality index of outlets is openly available on the Publication Forum website (www.julkaisufoorumi.fi).

Norway

The Norwegian model (Sivertsen 2010; Sivertsen and Larsen 2012) consists of three main elements: (1) A national database containing comprehensive and unified bibliographic metadata for the peer reviewed literature in all areas of research; (2) a publication indicator making field-specific publishing traditions comparable in the same measurement; and (3) a performance based funding model.

The national database is called CRISTIN (Current Research Information System in Norway). It is shared by all research organizations in the public sector: universities, university colleges, university hospitals, and independent research institutes. The institutions provide quality-assured and complete bibliographic information about articles in journals

and series (ISSN), articles in books (ISBN), and books (ISBN) that can be included according to a definition of peer-reviewed scholarly literature.

The indicator is based on a division of publication channels (journals, series, book publishers) in two levels: level 1 and level 2. Level 2 contains the most selective international journals, series and book publishers and may not contain more than 20 per cent of the publications worldwide in each field of research. Articles in journals and series are given 1 point on level 1 and 3 points on level 2. Articles in books (with ISBN only) are given 0.7, 1 points on level 1 and 1 point on level 2. Monographs are given 5 points in level 1 and 8 points on level 2. The points are fractionalized at the level of institutions according to the institution's share of contributing authors.

Although less than two per cent of the total expenses reallocated by the use of the indicator in Norway, it has attracted a lot of attention among researchers and resulted in increased productivity (Aagaard et al. 2015).

Discussion

Most of the countries/regions discussed in this article have developed Current Research Information Systems (CRIS) or comprehensive databases collecting the variety of outputs from universities and other research institutions. In these cases, it is possible to make a comparative analysis of publication output research performance in different disciplines. Such systems also allow establishing journals and book publishers' classifications for evaluation purposes, taking into account the publication patterns observed in each field. An evaluation in context is possible due to the comprehensiveness of these information systems. That is not the case for Spain, where such a database does not exist. Journals and book publishers' classifications are created independently from each other and then applied to scholarly outputs at individual or institutional level.

For the cases in which research institutions receive funding according to their productivity, thus applying scientific policy measures (Norway, Denmark, Finland and Flanders), differences exist with respect to how contributions are counted. While in Denmark the model encourages collaboration by multiplying the institutional fraction by 1.25, in Norway no multiplication of fractions takes place and all the documents and their point assignments are transparent as well as publicly accessible through an open access database. In the Finnish system, as well as in Flanders whole counting is applied at the institutional level (Debackere and Glänzel 2004; Engels et al. 2012).

Possible adverse effects of the absence of books in some performance-based funding allocation systems on the funding models and communication patterns of the SSH

With regard to the effects on publication patterns of the funding models, this question has been discussed in evaluations and studies of the Flemish model (Technopolis Group 2013; Ossenblok et al. 2012) and the Danish model (Sivertsen and Schneider 2012; Ingwersen and Larsen 2014). It has been documented more thoroughly in an evaluation of the Norwegian model (Dansk Center for Forskningsanalyse 2014) which also resulted in three scientific studies (Aagaard et al. 2015; Aagaard 2015; Bloch and Schneider 2016). In general, increased productivity has been observed, but not adverse effects such as a turning away from scholarly book publishing. The technique of splitting publications into the 'least

publishable unit' (Siegel and Baveye 2010), also known as 'salami slicing' is often used by evaluators in some disciplines to increase publication counts and/or to attain a higher impact. This has been extensively studied in biomedical sciences and other disciplines, even leading to the creation of databases of highly similar citation (Déjà vu database, Errami et al. 2009). In the Humanities, the pressure for publication set on Humanities scholars, at least in the framework of the UK Research Assessment Exercises (Sharp 2004; Sharp and Coleman 2005) has led to some evidence of "salami slicing". Since scholarly books are central to the humanities, they might be particularly sensitive to this type of conduct. Criteria used for the assessment of journal articles are clearly stated and seemingly objective while in the case of books assessment criteria are fuzzy and unclear. Humanities scholars may react strongly to this by shifting towards the publication of more journal articles instead of books if the scores given to books are substantially lower than those given to journal articles. As a result, the death of the scholarly monograph has been often announced; however, the study conducted for Flanders by Engels et al. 2012 reports that while book publications were not taken into account in the PRFS, there was no decline in book publishing across the Humanities.

Book publisher choice

Scholars' underlying reasons for and decisions about choosing a particular book publisher are still unclear. Research has shown; however, that there can be negative effects or consequences attached to ranking or classifying channels of communication, especially with respect to journals (Bonitz et al. 1997; Larivière and Gingras 2010; Biglu 2008). One problem is the so-called Matthew Effect, which occurs when scholars decide to publish in highly ranked journals, simply because of their rank and not for any other reason related to their subject area or targeted audience. As European countries begin to develop performance-based funding systems, and produce publicly available lists of ranked book publishers, humanists are likely to make similar choices about where to publish their latest book (and this might further create problems for academic publishers).

Some publishers will respond to the problem by altering the degree to which they specialize in certain types of publications. Many publishers, especially smaller ones, try to maintain a certain degree of specialization, both thematic and geographic. Over time, they might experience a decrease in the number of texts that they receive, if more than one European-based funding system demonstrates that they occupy a low position in a ranked list. This is particularly harmful to the book publisher that is specialized in topics which are of interest to a geographically restricted scholarly community, for example, scholars of Nordic languages and philology. Also, the existence of book publishers' rankings or classifications might influence how book publishers try to improve their position.

Effect on scholarly behavior

In particular in Denmark one may observe that the indicator system is used as an incentive to produce a certain volume of 'publication points' annually or in connection with salary rise, selection of academic positions, travel budget, etc. This was not the original intention with the system. One may also observe changes in publication patterns over a 5 year time window (Ingwersen and Larsen 2014).

Conclusions

Quality is a complex concept; plausibly for this reason, bibliometric indicators (and citation metrics in particular) have been subject to an intense 'conceptualization' of what they are intended to measure: impact (Garfield 2006), popularity (Deepika and Mahalakshmi 2011), prestige (Falagas et al. 2008), etc.

Basic and applied research are currently being conducted regarding the behavior of scholarly books as a communication channel and the potential of different methodologies for assessment and funding allocation practices with regards to scholarly books.

Common traits of a first branch of methodologies are the consultation of ample sectors of the scholarly community in each country, the minor role of citations as a source of information for the classification of book publishers, a high degree of transparency and the public availability of the listings of book publishers. These features might strongly contribute to registration systems' acceptance among scholarly communities.

The second branch of methodologies are analyses and explorations of the relationship between different variables related to books and book publishers, such as reviews (Hartley 2006; Zuccala and Van Leeuwen 2011), altmetric approaches (Zuccala et al. 2015), Library Catalog Analysis (White et al. 2009; Torres-Salinas and Moed 2009) or derivations of Book Citation Index (Torres-Salinas et al. 2014).

One of the first conclusions of the present overview is the lack of use of citation metrics in all of the five systems (Table 1). None of the international citation databases nor Google Scholar are being used in the analyzed systems, except as guide to classify journals into different levels by means of Journal Impact Factors. That may be related to the meaning of citations in the SSH, to the lack of acceptance of citation metrics for books and to the poor coverage of non Anglo-Saxon publishers.

There seems to be a degree of convergence with regards criteria and procedures among the Nordic countries and Flanders, not only in the registration of books, but also in the funding and/or assessment policies making use of book data. For funding allocation at institutional level, in Northern Europe data is used mainly at the institutional level, despite its collection and registration being nationally coordinated in the context of a performance-based research funding system. This is clearly not the case for Spain, where data is used for assessments at the individual level, while university budgets are not calculated in a performance-based, centralized system. Also, the different policies show great divergences regarding the much higher weight given to scholarly books in the Nordic systems, while in Spain, in SSH fields, the weight assigned to a book is more or less the same as that of two papers (as it can be deduced from the norm). It is also remarkable that the most frequently used aggregation level is that of book publishers, although in the case of Flanders the Guaranteed Peer Reviewed Content-label allows for the inclusion of individual books in the regional system as well; while Finland currently counts with a Peer Review Mark similar to the one already mentioned. Nevertheless, future developments may well see a stronger interest in the registration of book data at lower aggregation levels as well (e.g. that of the book series, although the decision is conditioned by technical issues and their usage level) as this evidently implies a more fine-grained approach to the comprehensive registration and the validation in assessments of books. In Spain, that specific level of aggregation (book series) is the object of a current initiative by UNE (2014, Association of University Presses), in collaboration with three research teams.

Finally, it will be interesting to see whether the on-going internationalization of research and the growing collaboration between scholars worldwide will contribute to a greater

Table 1 Comparison of the main features of the information systems for the assessment of books

Item	SPI	BFI/BRI	VABB-SHW	MinEdu Data/IUFO	CRISTIN
<i>Country/Region</i>	Spain	Denmark	Flanders	Finland	Norway
<i>Reasons for its development</i>	Assessment at the individual level and research evaluation	Research funds allocation among universities and activities at institutional levels	Inclusion of the peer reviewed scholarly publication output in the regional performance-based research funding model	Funding allocation, research information and quality promotion	Research information and fund allocation in the public sector. National statistics
<i>Object of study/ aggregation level</i>	Book publishers/ specialization from book-level information	Peer reviewed book publishers, books and book parts (anthologies/articles in books); Peer reviewed journal articles and proceeding items	Book publishers, book series, GPRC-labeled books published in Flanders and individual books assessed by the Authoritative Panel	Book publishers and monographic series/peer reviewed monographs and articles in books at university level	Bibliographic references to all scholarly publications in books, book articles and journal papers
<i>Stage</i>	Already published and applied in assessment	Already published and applied in assessment and funding since 2009	Applied for funding allocation and institution-level assessment since 2010	Published in 2012 and applied in funding since 2015	Applied in assessment and funding since 2005
<i>Coverage</i>	All Spanish and non-Spanish book publishers mentioned by experts in each field	All scholarly publishers worldwide with publications from Danish scholars since 2009	The comprehensive peer reviewed publication output of academic research in the Social Sciences and Humanities since 2000	National and international scholarly book publishers and Finnish book series	All scholarly publishers worldwide with publications from Norwegian scholars since 2004
<i>Information feeding the system</i>	Survey to experts and book publishers/database analysis	Metadata for scholarly publications from all Danish universities	Yearly upload from the academic bibliographies of the five Flemish universities, of all newly registered publications of the previous two years	Metadata for universities' scholarly publications and new additions suggested by researchers	Metadata for scholarly publications from all Norwegian institutions in (CRISTIN)

Table 1 continued

Item	SPI	BFI/BRJ	VABB-SHW	MimEdu Data/JUFO	CRISTIN
<i>Information processing</i>	Votes from respondents are summarized in the ICEE indicator. DILVE database is statistically analyzed. Surveys to book publishers are summarized. Done by ILIA research group (CSIC)	Quality level assessments of publishers and journals by 68 topical peer groups plus a central coordination council, providing authoritative lists from which each publication is assigned a score by the system	Data input from the universities processed by ECOOM/University of Antwerp Scientific steering and assessment of publication channels by a central Authoritative Panel	In order to assign weight to universities' publications in the funding model, the metadata of publications is collected and matched against the list of serials, conferences and book publishers classified in quality levels by 23 panels	Input from the institutions of metadata for individual publications is connected to a centrally monitored dynamic register of approved scholarly publication channels (journals, series, and book publishers)
<i>Operative results</i>	Ranking of book publisher's prestige/specialization charts/peer review info	Annual number of publications and number of publication points per university and per larger academic topic	A growing database of 125,000 scholarly peer reviewed and other publications. Publicly available lists of assessed book publishers, book series, journals and conference proceedings	List of quality-classified outlets and database of universities' all publications from 2011 that can be analyzed by type, field and outlet	A database of so far 70,000 scholarly publications that can be analyzed by type, field, language, institution, and publication channel
<i>Use for research assessment and aggregation level</i>	Used at the individual level by ANECA and CNEAI, two Spanish assessment agencies	Funding allocation in the following year; Institutional level; also used as promotion or 'extras' factor (local incentive). Individual level in the future	Funding allocation to five universities; supporting information for funding allocation and assessments at universities, and assessments by the FWO	Funding allocation to universities; internal assessment and planning at universities (also funding allocation); use for assessment at individual level is discouraged	Funding allocation, stats for field and/or institution research evaluation, administrative information at institutions and annual reports
<i>Public availability</i>	Yes (from 2012)	Yes (from 2015)	Yes	Yes	Yes (from 2004)
<i>Book/paper weighting</i>	Approx 1 to 3 (as defined by assessment agencies, but not by SPI)	From 5 to 8 and from 0.5 to 2 (anthology items) and from 1 to 3	From 4 to 1 and from 1 to 0.5	From 0.4 to 12 and from 0.1 to 3	From 8 to 3 and from 3 to 1

harmonization at the European level of the assessment systems for books and book publishers. Such developments could indeed provide scholars with new opportunities to assert the (often under-rated) value of their books.

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