ACADEMIA
ISSN, 2241-1402
http://hepnet.upatras.gr

Number 44-45, 2026

Academia A publication of the Higher Education Policy Network

Bibliometrics & university rankings: Their Impact on Scientific Research Evaluation Process and the disadvantages for Scientific Researchers in Social Sciences & Humanities disciplines

Orfeas Alexios Xanthoulis[1]
Panteion University of Social and Political Sciences

Abstract

In recent years, increasing concerns have been raised regarding the impact of university rankings and bibliometrics indicators in the scientific disciplines of Social Sciences & Humanities (SSH), particularly in relation to their suitability as measures of research assessment. Building on these concerns, this paper, through an extensive literature review and critical analysis, examines how the contemporary institutional framework of higher education—shaped by university rankings and bibliometric measures—affects the so-called 'research culture' within SSH. The study also explores the consequences of these practices on the publication process itself, with particular emphasis on the pressures and challenges faced by scientific researchers. Furthermore, it offers an international perspective on current approaches to the evaluation of scientific research.

Keywords
Research assessment, scientific publications, university rankings, bibliometrics, social sciences & humanities (SSH).

[1] orfxan@gmail.com.

Introduction

In 2023, Christina Koulouri, the Dean of Panteion University, made a public statement regarding the utilization of university rankings as a metric for the quality assessment of scientific research, and the adverse consequences they have on on the disciplines of Social Sciences and Humanities. In her statement, she asserted that:

There is a constant flow of reports in the press and on various websites concerning the position of Greek universities in international rankings. While it is true that Greek scientists enjoy international prestige and recognition, and that the country has achieved a significantly high number of research results in relation to its population, the numbers mask certain unspoken truths that are not only relevant to Greece, but to the majority of European countries. The first truth is that, due to the dominance of English, scientific work produced in 'minoritized' languages such as Norwegian, Danish, Greek and even French and German is no longer evaluated as equivalent to scientific work in English. Behind this reality lies the economic power of international publishing houses, which determine international rankings through their journals. The EU has already reacted to this practice and these elements such as the impact factor of each journal and the h-index factor are being taken less and less into account when evaluating research proposals for funding. The second truth is that the system of international rankings is based on the model of the Scientific disciplines such as the Positive Sciences, where publications are small articles signed by many authors. The result is that the robust multi-page monographs by one author, which are the tradition of the Humanities and Social Sciences, are devalued. A 400-page book corresponds to 40 articles but is not evaluated as the equivalent of even one article! This is an unacceptable bias that degrades the scholarly work of lawyers, historians, philosophers, sociologists, etc. [...]

Although the Dean's public statement does not explicitly clarify this point, the foundations of international university rankings appear to be based on a predominantly quantitative methodology, which is widely utilized within the scientific community. Bibliometric analysis. Bibliometric analysis (or bibliometrics) is introduced as an index for the purpose of comparing national and global scientific knowledge, thereby facilitating the establishment of national and international rankings of higher education institutions (Abramo et al 2011; Walters 2017; Wilbers et Brankovic 2021). In order to provide a preliminary conceptual description of bibliometrics, it would be essential to

argue that it constitutes the application of quantitative methods to the examination of scientific research. Using statistical and mathematical techniques, bibliometrics (a) delves into the data related to the production, dissemination and use of scientific research (Price 1976) and facilitates (b) its evaluation (Glänzel 2003). Also, it facilitates (c) the monitoring of emerging trends and (d) the broader mapping of the research landscape (E.J. Newman 2001). Concurrently, bibliometric analysis enables the comprehensive representation of the research landscape to the greatest extent feasible (Eva et Wiebe 2019; Leydesdorff et Milojević 2013; Sīle et al 2017). In recent years, bibliometric analysis has attracted the interest of many scientific fields. This is primarily due to the substantial increase in research output, which has led to a growing need for more objective evaluation methods (Baldwin 2018; Fleck 2013; Vessuri et al 2014). In this context, 'objective' is understood to signify a quantifiable and standardized approach to the evaluation of scientific work (Bornmann et Leydesdorff 2014). The increased utilization of bibliometric analysis within the scientific community has been further bolstered by the technological transformations of recent decades, which facilitate the collection and analysis of substantial data (Colquhoun, 2014; Martín-Martín et al 2016; Priem et Hemminger 2010). Consequently, bibliometric analysis is emerging as a potent instrument in the deciphering of the intricate realm of academic research. However, as is the case with any methodology, a thorough approach is necessary to the utilization of university rankings and thus bibliometrics, which allows us to navigate the weaknesses of their application. The present study aims to contribute to the existing national[2] and international (eg. Bensman 2008; Blockmans 2007; Gläser et Oltersdorf 2019; Hicks 2005; Scott 2015) scientific literature by providing new research insights of the research subject.

More specifically, The present paper will direct its focus towards the public statement made by the Dean, with particular emphasis on the following three issues: (a) *the system of international rankings is based on the model of the Scientific disciplines such as the Positive Sciences*, (b) *the tradition of the Humanities and Social Sciences, are devalued*, and (c) *The EU has already reacted to this practice and these elements such as the impact factor of each journal and the h-index factor are being taken less and less into account when evaluating research proposals for funding*. The research

[2] There is a paucity of references in the Greek literature, the most notable of which are Stamelos and Kyprianos (2008) and a report published in Greek by the Quality Assurance Unit of Panteion (in Greek): https://drive.google.com/file/d/1lO-E7MkBPWZ2kH7xl94Pj6oBA5rirv0N/view

study extends theoretically the arguments put forward by the Dean of Panteion University through in-depth analysis. The analysis is achieved through a thorough literature review (Baumeister et Leary 1997; Snyder 2024), encompassing a systematic synthesis of previous research findings directed to analyze multiple research subjects and indicating areas where further research is required. Thus, focusing to the arguments stated by the Dean of Panteion and following the method of literature review, the study, on a first level, underscores the discrepancy between scientific research orientations and the quantitative assessment (biblometrics and ranking systems) of research outputs in higher education (chapter 2). On a second level the study explores how SSH researchers, operating in a competitive and precarious academic environment, face challenges such as the diminishing value of their research work (regarding publication venues and language) and the necessity of strategic publishing—prioritizing high-impact journals or fragmenting research—to maximize visibility and impact (chapter 3). In addition, and in line with the aforementioned critique, the study illustrates international perspectives and actions of the scientific community and political actors, towards reviewing and adjusting scientific research assessment methods (chapter 4).

1. The ambiguous meaning of *impact* & *outcome*: the utilization and misuse of bibliometrics & university rankings

In line with the concerns articulated in the aforementioned statement by the Dean of Panteion University according to the fact that *the system of international rankings is based on the model of the Scientific disciplines such as the Positive Sciences* (referring to issue (a) -see introduction) , it has been indicated (Olmos-Penuela et al 2014; Sabharwal 2013; Sivertsen 2009) that any comparisons of the processes and impact of scientific research between different research domains and different-similar types of publication (cf. the Dean's text on the comparison of scientific article and monograph) give rise to concerns, particularly with regard to the manner in which the scientific value of the research output in each scientific discipline is accentuated. Upon these arguments, there are critics emphasizing the necessity for research to be evaluated according to the specificities of the publication culture that is established by each research discipline.

As posited by Benoît Godin and Christian Doré (2005: 8), evaluation should be based on a combination of the concepts of *outcome* and *impact* of scientific research.

The result of the research process (outcome) is the generation of knowledge, with the impact of this result being the advantages that accrue from it (impact). To illustrate this, consider the result of a Social Anthropology research study on the causes of poverty in a local community (outcome). In this case, the relevant administration or authority could then utilize this outcome to address the issues faced by that community (impact). In a similar manner, a research study in the field of technological sciences that focuses on the development of a software programme (outcome) can subsequently be applied by a technology company to optimize its own system (impact) (op cit: 8). Although, as outlined by Belcher and Halliwell (2021), despite the differential research scope in between scientific disciplines, the concepts of outcome and impact of scientific research are frequently merged, thus giving rise to an ambiguous meaning.

This ambiguity can be recognized in the quantifiable and standardized approach of the evaluation of scientific work, namely, in the use of bibliometrics and the formulation of university rankings (B. M. Belcher et al 2021 Wanzer 2021). In general, the international ranking of universities is determined by a combination of research output and the number of citations received for that work, with the H-index being the index that determines the result (Meho et Rogers 2008). If the entire research staff of an institution does not have a high H-Index, it means that the university will also have low impact rates (Raan 2005). Consequently, the H-index, which is the combination of the percentage of publications that are included in the bibliometric databases and the total citations these publications have received, determines the international ranking of a university (Lazaridis 2010). This ranking has been used up to the present period both by national and transnational bodies (Wilbers et Brankovic 2021). The use of the ranking system by each national educational agency for the evaluation/funding of scientific research has an essential purpose, namely the pursuit of international recognition of domestic university institutions (Harvey et Green 1993).

This recognition is essentially defined as the presence of domestic university institutions within the global ranking of universities that demonstrate the greatest international production and impact in scientific research (Wilbers et Brankovic 2021). Each country, by highlighting the high performance of the research output of its university institutions in its territory, highlights its research and scientific excellence compared to other countries (Hammarfelt et Hallonsten 2023). For this reason, according to Hammarfelt et Hallonsten (2023) the selection criteria for public funding of scientific research by university institutions depend on both the research output rates

and the international recognition of the results of scientific research. In order to enhance or preserve its elevated standing within prominent ranking lists (e.g., Times Higher Education, Scimago-Journal & Country Rank), a university institution must demonstrate consistent or sustained high performance in research output. The performance of a university institution is determined by the research output rates of its research staff. In a similar vein to the university rankings, international ranking lists have been developed to highlight the performance and, by extension, the value of the scientific research of individual researchers (Shahbazi-Moghadam et al 2015).

The critique of the universities ranking systems (as it may concern the ambiguous meaning of impact & outcome) as posited by Watermeyer and Derrick (2022), centers on the promotion of the concept and content of the value or excellence of scientific research (Research Performance). This critique underscores the notion that valuable research is understood as productive and efficient research. According to Ball (2012), the valuation of research is predicated on the equation of value with output, signifying that an increase in research output is associated with greater acclaim, elevated international rankings, and, consequently, augmented funding. This relationship serves to orient research activity towards a model of research behavior governed by the laws of the market (Vogopoulou et al 2023).

In essence, the manner in which the assessment of research quality and value is demonstrated in ranking systems appears to be contributing to the proliferation of industrialized knowledge production (Mechoulan et Citton, 2013). Therefore, the operational dynamics and utilization of ranking systems are indicative of a scientific industry model that prioritizes *impact* rather than the *outcome* of the research process (Ellis et al 2014; Franck 2019). Thus, while adopting a market-oriented attitude aims to increase efficiency and subsequent impact, it poses serious challenges and dilemmas related to what we might call the 'nuclear characteristics' of academic research. Especially, the research personnel in scientific disciplines of SSH seem to be more vulnerable in the institutionalized contemporary methods of research evaluation.

2. Disadvantages for the scientific researchers in the Social Sciences & Humanities fields due to the misuse of bibliometrics as a method of evaluation

2.1 Degradation of the SSH publication culture through the use of bibliometrics

According to Beigel (2014), in recent decades and increasingly since the beginning of the 21st century, the English-language scientific articles published in high-impact scientific journals have largely replaced in many scientific fields the research and scientific value of other forms of publication, such as books, edited volumes and monographs. However, as the Dean of Panteion university points out in her statement (referring to the issue (b); "*the tradition of the Humanities and Social Sciences, are devalued*-see introduction), certain scientific disciplines, mainly oriented towards the SSH, are considered particularly vulnerable in this environment, as they follow a different research culture and therefore different patterns and rhythms of publication. In general, the genuine significance of research is frequently acknowledged when its outcomes are disseminated within the global scientific community and beyond (Abramo et al 2019). The practice of scientific publication is central to the creation and dissemination of scientific output. Consequently, the knowledge dissemination through publication creates a continuous feedback loop that leads to the advancement of scientific understanding of the respective research topic (Taubert et Weingart 2017). This scientific interaction contributes to the development and refinement of knowledge, as well as the evolution of scientific paradigms over time (Simon 2022). Furthermore, publications serve primarily as a means of recognition and reward for the research activity and work of the researcher, and secondarily is counted as a contribution of the researcher to the conduct of future research (Banks 2021).

Scientific publishing encompasses a variety of forms of research expression, including scientific articles (González-Albo et Bordons 2011), conference proceedings (Lee et Brusilovsky 2019), monographs (Warner 1996), and scientific volumes/books (Jin et Choi 2014). It should be noted that with the continuous evolution and development of digital media, other types of publication have emerged over the years. Key examples of this include the posting of research results on personal blogs and social media pages (Goyanes et al 2022). Each type of publication is tailored to the particular research needs of the author(s) (Morillo 2020). For example, conference proceedings capture the results of the discussions of a conference in a direct and concise

manner, whereas scientific articles follow a more elaborate form of analysis that requires more time to process (González-Albo et Bordons 2011).

In the same frame of comparison, scientific articles are texts of careful and thorough analysis, but are limited to just a certain aspect of a research problem. In contrast, monographs and scholarly edited volumes are studies that contain a wide range of different interpretations of a research problem (Warner 1996). Alongside this, the communication and hence the dissemination of scientific research is shaped by a complex of research traditions, which is defined by the specificities of each scientific discipline. These research traditions lead to the development of diverse publication practices, which in turn serve to communicate the respective concerns and research findings of each discipline (Becher 1994; Fyfe 2015). Put differently, different patterns of communication between scientific areas give birth to different patterns of publication.

For instance, within the majority of research disciplines in the Natural or Medical Sciences, it is a prevailing practice to disseminate research findings through the medium of scientific journals (Glänzel 2002; Mendoza 2021; Sivertsen 2009). Meanwhile, within the research disciplines of the Technological Sciences, it is more customary to employ conference proceedings as a means of publication (Vardi 2009; Vrettas et Sanderson, 2015). On the other hand, in disciplines of SSH the use of monographs and books prevail as a means of publication and appears to be more widespread than in other scientific disciplines (Hicks 2005). The publication of scientific articles and conference proceedings is more frequent in the above-mentioned scientific fields, as these publications are well suited to the rapid production rates that characterize these disciplines, given the constant emergence of new knowledge that serves to reinforce or develop a new scientific paradigm (González-Albo et Bordons 2011; Sivertsen 2019).

On the contrary, for research areas within the SSH that are more oriented towards 'theory' than 'application', it is common to use monographs and scholarly volumes as publication media because, unlike scholarly articles (which limit the scope of analysis), they allow for in-depth analysis of complex social, political and economic issues (Bonaccorsi et al 2017; Dorta-González et Dorta-González 2013; Sivertsen 2019). In this way, as Stichweh (1992) notes, publication patterns are part of each discipline's research tradition, as they reflect the priorities, values and practices that shape scholarly activity in each discipline.

The primary issue under scrutiny in this discourse pertains to inclusivity and the repercussions of publication patterns. According to Hicks (2005: 480), as scientific domains evolve and proliferate alternative avenues for publication beyond scientific journals, they concomitantly experience a diminution in coverage by bibliometric databases. Consequently, bibliometric databases, which predominantly derive from data from scientific journals, are not particularly effective in accurately reflecting research activity (Engels et al 2018). The issue of non-multicoverage has been identified since the theoretical design of the bibliometric method. This is because since the introduction of the primary model, the impact factor (in 1963) was derived solely from data from peer-reviewed journals. Within this model, which was essentially a list of citation data, titles of journals that had the greatest research impact were collected (Garfield 2006). In practice, this list included journals whose published articles had received the most citations compared to the total number of scientific articles published in other journals with fewer citations (Garfield et Sher 1963). More than half a century after and despite the integration of alternative publication media into the two most prominent bibliometric databases (WoS, Scopus), the issue remains unresolved, as an overwhelming preponderance of scientific journals is identified in comparison to alternative publication types, such as books, edited volumes, monographs and conference proceedings (Kulczycki et al 2018).

Thus, according to Schott (1998)-because of the non-multi- publication - coverage, the adoption of bibliometrics as an institutionally accepted international scientific system for the evaluation of scientific knowledge results in the unequal distribution of scientific recognition and the subsequent unequal distribution of the benefits of recognition for both the higher education institution and the research personnel that are part of it. Closing, it is a matter of concern that Eugene Garfield, as the originator of the bibliometric system for evaluating the impact of scientific research, has asserted that the utilization of impact factor and related bibliometric indicators for purposes beyond the mapping of research impact (see introduction) is likely to result in the generation of biased outcomes (Baykoucheva 2015).

2.2 Concerns upon the hegemony of English as a writing language of scientific publications

Beyond the challenge of the limited coverage in bibliometric databases and the degradation of publication patterns, researchers also face a significant obstacle in the

publishing process related to the choice of writing language. Historically, the predominance of English as the preferred language for scientific publication since the mid-20th century can be attributed to a shift in publication strategies adopted by researchers worldwide. For instance, as Garfield (1988) documented, during the 1960s in France, the number of French-language journals was higher, yet those written in English had a higher impact. Recognizing this shift, beginning in the mid-1970s, an increasing number of French scientists began publishing their work in English. This transition was driven by the recognition that English had emerged as the international language of science (Garfield 1988).

In a similar vein, research conducted in 1987 (John 1987) revealed that for scientific journals in the fields of economics and health sciences, less than a quarter of all authors were found not to write in English. Despite the fact that these studies were conducted decades ago and involved only one database, that of the ISI (based on Impact Factor data), the problem remains to this day. In the present day, a large volume of scientific publications, which do not have English as a writing language, is outside the scope of both Scopus and WoS databases. In particular, despite the expansion of bibliometric data over time, a significant proportion of publications in WoS (95.37%) and Scopus (92.64%) are in English (Vera-Baceta et al 2019).

The consequence of this phenomenon, as also highlighted by the Dean of Panteion in her text (see introduction), is that languages other than English, such as German, Chinese, French, Russian, Japanese, Spanish, etc., are seldom used as languages for international communication within the scientific community (Gordin 2017). From the 1970s onwards (Zitt et al 1998), and more intensively from the 1990s onwards (Marginson 2022), the scientific community as a whole moved further and further away from the idea of publishing research in the domestic writing language (other than English writing) as well as from publishing research through domestically-based publishers of scientific publications. In addition, non-English-speaking writers must allocate more time (e.g. learning scientific terminology and language expression) and financial resources than English-speaking writers to prepare research outcomes (Faraldo Cabana 2018).

Thus, non-English-speaking authors are disadvantaged by limited resources and time, variables that often exclude them from opportunities to publish their research. In contrast, native English-speaking researchers typically do not write in languages other than English. Instead, they publish their work in English-language journals and with

English-speaking publishers. Consequently, English-speaking authors can be considered part of an "elite" that exploits the ability to think and write in their native language (Gordin 2017). Therefore, given that scientific publication in English as the writing language has become the central unit of evaluation of scientific research, the reputation of native English-speaking scientists has increased disproportionately (Gordin 2017).

For example, Mason and Margaret's (2021) study found that most journals from English-speaking regions that rank highly in the international list of Scopus and WoS databases, include a greater number of scientific articles by researchers from within the core English-speaking countries. Conversely, there is a paucity of scientific researchers from outside English-speaking countries. Furthermore, in high impact journals, as opposed to lower impact journals, there are statistically far fewer scientific articles in non-English language journals (Huttner-Koros 2015; Vera-Baceta et al 2019).

The issue of writing language, as outlined above, is most strongly identified as a concern for researchers in the SSH. This is due to the fact that their research interests are focused on issues of local interest, such as the analysis of local community structures. Consequently, these researchers are required to publish their results in another writing language (Zitt et al 1998). In particular, a substantial proportion of research conducted within the SSH focuses on the analysis of political, cultural, economic and social phenomena on a local to national scale (Kulczycki et al 2020).

It is therefore imperative that the language employed in such writing is commensurate with the intended readership. For instance, a research study that concerns the opinion of the inhabitants of a local community in northern Greece on an issue of environmental interest, with the research objective of informing the rest of the population of the country, will utilize Greek as the language of address. Hence, there are scientific articles published in Greek SSH journals which, by virtue of the fact that they deal with issues of the local community, use Greek as the language of address. These journals, due to their limited scientific scope, possess a low impact factor and, consequently, are not included in the Web of Science and Scopus databases. Thus, the significance and the quality of the research work in this case are distorted, being perceived as lower quality due to its non-compliance with the criteria of the research assessment systems.

2.3 Concerns upon Publication strategy

Another issue that scientific researchers encounter arises from the institutional demand to demonstrate the value of their research outcomes not only through the medium of scientific publications, but also through the impact of those publications in the scientific community (Reed et Fazey 2021; Sutton 2020). A case in point is the pressure to publish in a high-impact journal as a condition of attaining a teaching position, a grant, or to undergo the general evaluation of an institution (Aksnes et al 2019; Xanthoulis 2025). As scientific researchers are essentially pressured by the evaluation endeavors, whether for a teaching position, a grant, or the general evaluation of an institution to demonstrate the value of their research activity through the quality of scientific publication, they choose to publish in a high-impact journal. Equally, researchers may avoid publishing in low-impact journals due to concerns that their research may be undervalued by the assessment systems, which consider research of lower impact to be of inferior quality. The emphasis on selecting a high-impact journal gives rise to concerns regarding marginalization and the challenges associated with operating small-impact journals (Mason et al 2021). This is due to the fact that small-scale scientific publications suffer from a lack of visibility and therefore a lack of 'scientific prestige'. This means that they are left out of the relatively small core of publications with the highest impact, which are selected from the WoS and Scopus databases (Pranckutė 2021). Being in an already precarious position, small-format journals cannot cope with the competition, resulting in both their degradation and their rejection as a means of publication by scientific researchers (Bredan et al 2014; Mason et al 2021).

Alongside this, the exclusive focus on high-impact publications gives rise to significant concerns. The primary consideration pertains to the policies and roles that have been initiated by numerous publishing houses. More specifically, due to the desired high popularity for their growth and stabilization in international lists (Scopus, WOS), many scientific publishing houses choose unjust measures to select or reject an article. In particular:

1. It has been observed in many cases (Wouters et al 2019) that publishers incite authors to cite published articles from the scientific journal in which they intend to publish their research, irrespective of the relevance of these references to the subject of the research analysis.

2. Furthermore, it has been observed (Falagas et Alexiou 2008) that high visibility publishers seek the publication of scientific articles mainly from researchers with a high H-index, irrespective of whether the results contribute to novel insights. Consequently, many researchers are rejected due to a low impact index, despite the potential for their contributions to offer novel insights.
3. In addition, in order to enhance the H-Index of their respective journals, many publishers select to publish articles that respond to current research issues of the contemporary period, resulting in the downgrading of research from many areas of research analysis that do not have high visibility. (Lariviere et Sugimoto 2018). An illustrative example of this situation is the scandal involving complaints by the scientific community against the international publishing house Elsevier, which, in order to increase the impact of scientific journals under its auspices, exerted excessive influence on what scientific researchers choose to conduct research for (by accepting or rejecting a scientific article via the process of peer review) (Buranyi 2017; Fazackerley 2023).

Another concomitant issue that has come to the fore in recent years, with regard to the strategy of publication, pertains to the practices of segmenting research output (salami slicing) (Urbanowicz et Reinke's 2018). For the case of the SSH, in line with Adam's (2022) analysis, this strategy encompasses two distinct facets. From a positive perspective, publishing fragmentary research material can be beneficial for the analysis of a large amount of qualitative data. Bearing in mind that a researcher may have accumulated a large base of qualitative data relevant to the analysis of a comparable social, political or economic issue, he or she can divide this information into different other complex research pursuits that are directly or indirectly related to the existing object of analysis. Thus, instead of publishing a scholarly volume or monograph, a researcher chooses to publish a series of scholarly articles, each of which focuses on a particular research perspective of the research topic under consideration. However, Adams (2022) also highlights a potential drawback: an emphasis is placed on enhancing research productivity, where the quantity of research material produced rather than its quality is prioritized, in order to achieve heightened researcher visibility, (see also Franck 2019).

Given the necessity for SSH researchers to produce a sufficient number of scientific articles, it is conceivable that, due to academic competition, some researchers may opt to publish more articles, regardless of whether this is in fact necessary. To

illustrate this point, consider a survey based on quantitative data (e.g., a questionnaire) that addresses specific questions and objectives. While the research outcomes could be published as a single scientific article, it is chosen to be disseminated in multiple pieces. This phenomenon is often referred to as the 'salami slicing' of research publication. The purpose of this practice is to increase the number of publications on a researcher's record and to maximize their impact (H-Index). However, according to Urbanowicz and Reinke's (2018) the practice of dividing research findings across multiple publications has led to a diminution in the value of these results. This phenomenon presents challenges not only for the authors of research but also for the reading public, who, due to the fragmentation of findings across numerous publications, are unable to perceive the broader context of the research and consequently fail to comprehend the significance and meaning of the findings.

3. Perspectives for reviewing evaluation methods: an international debate

As mentioned by the Dean of Panteion University, *The EU* (and the international Scientific community-author's note) *has already reacted to this practice and these elements such as the impact factor of each journal and the h-index factor, with these factors being taken less and less into account when evaluating research proposals for funding* (referring to issue (c)-see introduction). In recent years, there has been considerable controversy and mobilization within and beyond the scientific community, with the main demand being that the methodology of bibliometric analysis, as it has been developed to date, both in theory and in its practical application at the level of educational policy, should not be the main factor in the evaluation of research. The impetus for this shift in perspective was initiated by a coalition of editors and publishers of scientific periodicals at the annual convocation of the American Society for Cell Biology (ASCB) in San Francisco in 2012[3]. This coalition subsequently formulated a series of proposals, designated the 'San Francisco Declaration on Research Assessment' (DORA). The fundamental principle proclaimed by DORA emphasized the necessity for an alternative measurement plan that would diverge from the prevailing bibliometric method (see also Wilsdon et Rafols 2013).

[3] For further information see: San Francisco Declaration on Research Assessment, https://sfdora.org/read/

In 2014, two years after the establishment of DORA, a conference was held in Leiden (Netherlands) with a focus on the problematic use of bibliometric indicators and the limited availability of databases used as a measure for the purpose of evaluating research quality[4]. The conference resulted in the presentation of the so-called "Leiden Manifesto", a document which was drafted by experts in the field of bibliometrics and scientific research evaluation (Hicks et al 2015). The most recent and prominent initiative by the international scientific community in opposition to the prevailing system of evaluating research quality was the conference of scientists held in Hong Kong in 2020, titled 'Hong Kong Principles for Assessing Researchers'. This conference advocated, firstly, the need for a more inclusive model of assessment that takes into account the diversity of research outputs (i.e. diversity in the publication patterns of research work) and, secondly, the identification and assessment of all possible research data that are derivatives of a research activity (Moher et al 2020).

In view of the mounting critical voices within the academic community, European Union institutions have emphasized on the necessity for a more effective approach to the evaluation of scientific research. This has ultimately been formalized through an agreement signed in July 2022 by prominent EU institutions, such as the EUA (European University Association), Science Europe and the European Commission, amongst others. This agreement acknowledges the necessity to curtail the utilization of bibliometric metrics in the assessment of scientific research[5]. The key commitment of this agreement, as posited by Rafols and Gallart (2022), emphasizes the necessity for the evaluation of scientific research to reflect the diversity of contemporary research and the varied contexts in which it is conducted. To this end, the Coalition for Advancing Research Assessment (CoARA) was established. The processes of CoARA's project are currently underway. The overarching objective, which is estimated to be finalized by the end of 2027, entails the comprehensive review, enhancement and development of the criteria, methodological instruments and evaluation procedures, all of which are to be aligned with the specifications that have been mutually agreed upon in the framework of the project. The CoARA project has

[4] For further information see: STI 2014 Leiden - 19th International Conference on Science and Technology Indicators'. *STI 2014*, http://sti2014.cwts.nl/Home/.

[5] The agreement: *Reforming research assessment: The Agreement is now final*: https://research-and-innovation.ec.europa.eu/news/all-research-and-innovation-news/reforming-research-assessment-agreement-now-final-2022-07-20_en

garnered the participation of over 350 organizations across more than 40 countries. These encompass public and private funding bodies, academic institutions, research centers, institutes, and other organizations or associations engaged in scientific research[6].

Conclusion

To summarize, the present paper extends the public arguments put forward by the Dean of Panteion University, regarding the negative impact of utilization of biblometric method for the quality assessment of scientific research, through in-depth analysis by means of literature review. In particular, analyzing the first two arguments of Dean (argument (a) & (b) − see introduction) it can be observed that different universities, departments, disciplines and groups of scientific researchers give rise to different types of research 'cultures', meaning that they support different methodologies, research approaches, follow different pathways for the production and dissemination of research results and thus different ways of publishing research output (see also chapter 2. & 3.1). However, bibliometrics, as an assessment tool, does not account those differences, focusing solely on the *impact* rather than the *outcome* of scientific research (chapter 2.). As a result, the framework behind the process of a quantified and standardized evaluation and funding procedure that is used to create university rankings based on bibliometric indicators, primarily aligns with the prevailing codes of values that characterize scientific fields of Applied Sciences (e.g., STEM) and does not take into account the specificities found in research areas of different orientations such as the scientific disciplines of SSH (chapter 2& 3.1.).

In addition, the present paper argued that the researchers who follow a combination of: using a specific publication tradition (writing in high impact scientific journals), using a specific writing language (English), and operating in a particular region of publishers and scholars (Anglo-Saxon regions), constitute part of a ‘research elite’ that has the largest slice of the visibility pie, meaning higher position to any international university ranking (chapter 3.2). Furthermore, in the present condition of the need for continuous production of research output (chapter 2 & 3.3) and in a competitive environment for pursuing a university position or/and research project

[6] Further information about the participant institutions/organizations/groups: https://coara.eu/about/

funding, where the winner is the one with the highest number of publications and, even better, publications in high-impact journals, it seems a logical choice for a researcher to use unfair/unethical tactics to publish his/her research results (Chapter 3.3). In this context of intense competition for research funding, it is not surprising that some scientific researchers resort to unethical practices, such as the publication of research results in high-impact journals (Chapter 3.2) or/and the fragmentation of research material ('salami slicing') (Chapter 3.3), with the intention of maximizing their impact (H-index), thereby increasing the likelihood of success in comparison to their peers.

Given the escalating intensity of the issues mentioned above over recent decades, a debate is ongoing concerning the reform of the assessment of scientific research. In particular as articulated by the Dean of Panteion (see argument (c) in the introduction), and as analyzed in the present paper, the issue of evaluating research outcomes has been addressed by the academic community (eg, DORA, the Leiden Manifesto, and the Hong Kong Principles for Assessing Researchers), as well as intergovernmental institutions (see the agreement of European Institutions and the establishment of CoARA) (see chapter 4). As the international debate for research assessment continues to evolve, critical examination and action of institutional reform becomes essential to ensure that the core values and goals of scientific research are maintained in a changing academic/political context.

References

Σταμέλος, Γ., & Κυπριανός, Π. (2008). Σκέψεις για τη δημιουργία ευρωπαϊκής λίστας ταξινόμησης επιστημονικών περιοδικών στις Κοινωνικές και Ανθρωπιστικές Επιστήμες. *Σύγχρονη Εκπαίδευση: Τρίμηνη Επιθεώρηση Εκπαιδευτικών Θεμάτων*, *0*(155), Article 155.

Abramo, G., D'Angelo, C. A., & Di Costa, F. (2011). National research assessment exercises: A comparison of peer review and bibliometrics rankings. *Scientometrics*, *89*(3), 929–941. https://doi.org/10.1007/s11192-011-0459-x

Abramo, G., D'Angelo, C. A., & Reale, E. (2019). Peer review versus bibliometrics: Which method better predicts the scholarly impact of publications? *Scientometrics*, *121*(1), 537–554. https://doi.org/10.1007/s11192-019-03184-y

Adams, N. N. (2022). Salami Slicing: Clarifying common misconceptions for social science early-career researchers. *SN Social Sciences*, *2*(7), 88. https://doi.org/10.1007/s43545-022-00389-6

Aksnes, D. W., Langfeldt, L., & Wouters, P. (2019). Citations, Citation Indicators, and Research Quality: An Overview of Basic Concepts and Theories. *SAGE Open*, *9*(1), 2158244019829575. https://doi.org/10.1177/2158244019829575

Baldwin, M. (2018). Scientific Autonomy, Public Accountability, and the Rise of "Peer Review" in the Cold War United States. *Isis*, *109*(3), 538–558. https://doi.org/10.1086/700070

Ball, S. J. (2012). Performativity, Commodification and Commitment: An I-Spy Guide to the Neoliberal University. *British Journal of Educational Studies*, *60*(1), 17–28. https://doi.org/10.1080/00071005.2011.650940

Banks, D. (2021). Turbulent periods and the development of the scientific research article, 1735–1835. *Journal of Historical Pragmatics*, *22*(1), 96–120. https://doi.org/10.1075/jhp.18010.ban

Baumeister, R. F., & Leary, M. R. (1997). Writing Narrative Literature Reviews. *Review of General Psychology*, *1*(3), 311–320. https://doi.org/10.1037/1089-2680.1.3.311

Baykoucheva, S. (2015). *From the Science Citation Index to the Journal Impact Factor and Web of Science: Interview with Eugene Garfield* (pp. 115–121). https://doi.org/10.1016/B978-0-08-100195-0.00012-3

Becher, T. (1994). The significance of disciplinary differences. *Studies in Higher Education*, *19*(2), 151–161. https://doi.org/10.1080/03075079412331382007

Beigel, F. (2014). Introduction: Current tensions and trends in the World Scientific System. *Current Sociology*, *62*(5), 617–625. https://doi.org/10.1177/0011392114548640

Belcher, B., & Halliwell, J. (2021). Conceptualizing the elements of research impact: Towards semantic standards. *Humanities and Social Sciences Communications*, *8*(1), Article 1. https://doi.org/10.1057/s41599-021-00854-2

Belcher, B. M., Claus, R., Davel, R., & Jones, S. M. (2021). Evaluating and improving the contributions of university research to social innovation. *Social Enterprise Journal*, *ahead-of-print*(ahead-of-print). https://doi.org/10.1108/SEJ-10-2020-0099

Bensman, S. J. (2008). Distributional differences of the impact factor in the sciences versus the social sciences: An analysis of the probabilistic structure of the 2005 journal citation reports. *Journal of the American Society for Information Science and Technology*, *59*(9), 1366–1382. https://doi.org/10.1002/asi.20810

Blockmans, W. (2007). *The underestimated humanities and social sciences*. 6.

Bonaccorsi, A., Daraio, C., Fantoni, S., Folli, V., Leonetti, M., & Ruocco, G. (2017). Do social sciences and humanities behave like life and hard sciences? *Scientometrics*, *112*(1), 607–653. https://doi.org/10.1007/s11192-017-2384-0

Bornmann, L., & Leydesdorff, L. (2014). Scientometrics in a changing research landscape: Bibliometrics has become an integral part of research quality evaluation and has been changing the practice of research. *EMBO Reports*, *15*(12), 1228–1232. https://doi.org/10.15252/embr.201439608

Bredan, A., Benamer, H., & Bakoush, O. (2014). Why are journals from less-developed countries constrained to low impact factors? *The Libyan Journal of Medicine*, *9*, 25774. https://doi.org/10.3402/ljm.v9.25774

Buranyi, S. (2017, June 27). Is the staggeringly profitable business of scientific

publishing bad for science? *The Guardian*. https://www.theguardian.com/science/2017/jun/27/profitable-business-scientific-publishing-bad-for-science

Collins, R. (1994). Why the Social Sciences Won't Become High-Consensus, Rapid-Discovery Science. *Sociological Forum*, *9*(2), 155–177.

Colquhoun. (2014, January 16). *Why you should ignore altmetrics and other bibliometric nightmares*. DC's Improbable Science. http://www.dcscience.net/2014/01/16/why-you-should-ignore-altmetrics-and-other-bibliometric-nightmares/

Dorta-González, P., & Dorta-González, M. I. (2013). Comparing journals from different fields of science and social science through a JCR subject category normalized impact factor. *Scientometrics*, *95*(2), 645–672. https://doi.org/10.1007/s11192-012-0929-9

E.J. Newman, M. (2001). The structure of scientific collaboration networks. *Proceedings of the National Academy of Sciences of the United States of America*, *98*, 404–409. https://doi.org/10.1073/pnas.021544898

Ellis, V., McNicholl, J., Blake, A., & McNally, J. (2014). Academic work and proletarianisation: A study of higher education-based teacher educators. *Teaching and Teacher Education*, *40*, 33–43. https://doi.org/10.1016/j.tate.2014.01.008

Engels, T. C. E., Istenič Starčič, A., Kulczycki, E., Pölönen, J., & Sivertsen, G. (2018). Are book publications disappearing from scholarly communication in the social sciences and humanities? *Aslib Journal of Information Management*, *70*(6), 592–607. https://doi.org/10.1108/AJIM-05-2018-0127

Eva, N. C., & Wiebe, T. A. (2019). Whose Research is it Anyway? Academic Social Networks Versus Institutional Repositories. *Journal of Librarianship and Scholarly Communication*, *7*(1), Article 1. https://doi.org/10.7710/2162-3309.2243

Falagas, M. E., & Alexiou, V. G. (2008). The top-ten in journal impact factor manipulation. *Archivum Immunologiae et Therapiae Experimentalis*, *56*(4), 223–226. https://doi.org/10.1007/s00005-008-0024-5

Faraldo Cabana, P. (2018). Research Excellence and Anglophone Dominance: The Case of Law, Criminology and Social Science. In *The Palgrave Handbook of Criminology and the Global South* (pp. 163–181). https://doi.org/10.1007/978-3-319-65021-0_9

Fazackerley, A. (2023, May 7). 'Too greedy': Mass walkout at global science journal over 'unethical' fees. *The Observer*. https://www.theguardian.com/science/2023/may/07/too-greedy-mass-walkout-at-global-science-journal-over-unethical-fees

Fleck, C. (2013). The Impact Factor Fetishism. *European Journal of Sociology / Archives Européennes de Sociologie / Europäisches Archiv Für Soziologie*, *54*(2), 327–356.

Franck, G. (2019). The economy of attention. *Journal of Sociology*, *55*(1), 8–19. https://doi.org/10.1177/1440783318811778

Fyfe, A. (2015). Uncomfortable departments: British historians of science and the importance of disciplinary communities. *Arts and Humanities in Higher Education*,

14(2), 194–205. https://doi.org/10.1177/1474022214549438

Garfield, E. (1988). *French Research: Citation Analysis Indicates Trends Are More Than Just a Slip of the Tongue.*, https://garfield.library.upenn.edu/essays/v11p171y1988.pdf

Garfield, E. (2006). The History and Meaning of the Journal Impact Factor. *JAMA*, *295*(1), 90. https://doi.org/10.1001/jama.295.1.90

Garfield, E., & Sher, I. H. (1963). New factors in the evaluation of scientific literature through citation indexing. *American Documentation*, *14*(3), 195–201. https://doi.org/10.1002/asi.5090140304

Gingras, Y. (2016). *Bibliometrics and Research Evaluation: Uses and Abuses*. The MIT Press. https://doi.org/10.7551/mitpress/10719.001.0001

Glänzel, W. (2002). Coauthorship Patterns and Trends in the Sciences (1980-1998): A Bibliometric Study with Implications for Database Indexing and Search Strategies. *Library Trends - LIBT*, *50*.

Glänzel, W. (2003). Bibliometrics as a research field: A course on theory and application of bibliometric indicators. *Course Handouts*.

Gläser, J., & Oltersdorf, J. (2019). Persistent Problems for a Bibliometrics of Social Sciences and Humanities and How to Overcome Them. *International Conference on Scientometrics and Informetrics*, 1056–1067.

Godin, B., & Christian, D. (2005). *Measuring the Impacts of Science: Beyond the Economic Dimension*. PDF4PRO. https://pdf4pro.com/view/measuring-the-impacts-of-science-beyond-the-economic-3f7e45.html

González-Albo, B., & Bordons, M. (2011). Articles vs. proceedings papers: Do they differ in research relevance and impact? A case study in the Library and Information Science field. *Journal of Informetrics*, *5*(3), 369–381. https://doi.org/10.1016/j.joi.2011.01.011

Gordin, M. D. (2017). Introduction: Hegemonic Languages and Science. *Isis*, *108*(3), 606–611.

Goyanes, M., Demeter, M., Cheng, Z., & de Zúñiga, H. G. (2022). Measuring publication diversity among the most productive scholars: How research trajectories differ in communication, psychology, and political science. *Scientometrics*, *127*(6), 3661–3682. https://doi.org/10.1007/s11192-022-04386-7

Hammarfelt, B., & Hallonsten, O. (2023). Are evaluative bibliometrics neoliberal? A historical and theoretical problematization. *Social Science Information*, *61*. https://doi.org/10.1177/05390184231158195

Harvey, L., & Green, D. (1993). Defining Quality. *Assessment & Evaluation in Higher Education*, *18*(1), 9–34. https://doi.org/10.1080/0260293930180102

Hicks, D. (2005). The Four Literatures of Social Science. In H. F. Moed, W. Glänzel, & U. Schmoch (Eds.), *Handbook of Quantitative Science and Technology Research: The Use of Publication and Patent Statistics in Studies of S&T Systems* (pp. 473–496). Springer Netherlands. https://doi.org/10.1007/1-4020-2755-9_22

Hicks, D., Wouters, P., Waltman, L., Rijcke, S. de, & Rafols, I. (2015). Bibliometrics: The Leiden Manifesto for research metrics. *Nature*, *520*(7548), 429–431. https://doi.org/10.1038/520429a

Huttner-Koros, A. (2015, August 21). *Why Science's Universal Language Is a Problem for Research*. The Atlantic. https://www.theatlantic.com/science/archive/2015/08/english-universal-language-science-research/400919/

Jin, J. C., & Choi, E. K. (2014). Citations of Most Often Cited Economists: Do Scholarly Books Matter More than Quality Journals?: Determinants of Citations. *Pacific Economic Review*, *19*(1), 8–24. https://doi.org/10.1111/1468-0106.12049

John, M. J. St. (1987). Writing processes of Spanish scientists publishing in English. *English for Specific Purposes*, *6*(2), 113–120. https://doi.org/10.1016/0889-4906(87)90016-0

Kulczycki, E., Engels, T. C. E., & Nowotniak, R. (2017). *Publication Patterns in the Social Sciences and Humanities in Flanders and Poland*. International Conference on Scientometrics and Informetrics. https://www.semanticscholar.org/paper/Publication-Patterns-in-the-Social-Sciences-and-in-Kulczycki-Engels/ee260bc2395d14a29fa690663f690d0821e76005

Kulczycki, E., Engels, T. C. E., Pölönen, J., Bruun, K., Dušková, M., Guns, R., Nowotniak, R., Petr, M., Sivertsen, G., Istenič Starčič, A., & Zuccala, A. (2018). Publication patterns in the social sciences and humanities: Evidence from eight European countries. *Scientometrics*, *116*(1), 463–486. https://doi.org/10.1007/s11192-018-2711-0

Kulczycki, E., Guns, R., Pölönen, J., Engels, T. C. E., Rozkosz, E. A., Zuccala, A. A., Bruun, K., Eskola, O., Starčič, A. I., Petr, M., & Sivertsen, G. (2020). Multilingual publishing in the social sciences and humanities: A seven-country European study. *Journal of the Association for Information Science and Technology*, *71*(11), 1371–1385. https://doi.org/10.1002/asi.24336

Lariviere, V., & Sugimoto, C. R. (2018). The Journal Impact Factor: A brief history, critique, and discussion of adverse effects. *arXiv:1801.08992 [Physics]*. http://arxiv.org/abs/1801.08992

Lazaridis, T. (2010). Ranking university departments using the mean h-index. *Scientometrics*, *82*(2), 211–216. https://doi.org/10.1007/s11192-009-0048-4

Lee, D. H., & Brusilovsky, P. (2019). The first impression of conference papers: Does it matter in predicting future citations? *Journal of the Association for Information Science and Technology*, *70*(1), 83–95. https://doi.org/10.1002/asi.24100

Leydesdorff, L., & Milojević, S. (2013). *Scientometrics* (arXiv:1208.4566). arXiv. https://doi.org/10.48550/arXiv.1208.4566

Marginson, S. (2022). What drives global science? The four competing narratives. *Studies in Higher Education*, *47*(8), 1566–1584. https://doi.org/10.1080/03075079.2021.1942822

Martín-Martín, A., Orduna-Malea, E., Ayllón, J., & Delgado López-Cózar, E. (2016). *The counting house, measuring those who count: Presence of Bibliometrics,*

Scientometrics, Informetrics, Webometrics and Altmetrics in Google Scholar Citations, ResearcherID, ResearchGate, Mendeley, & Twitter. https://doi.org/10.13140/RG.2.1.4814.4402/1

Mason, S., & Margaret, M. (2021, October 11). Less 'prestigious' journals can contain more diverse research, by citing them we can shape a more just politics of citation. *Impact of Social Sciences*. https://blogs.lse.ac.uk/impactofsocialsciences/2021/10/11/less-prestigious-journals-can-contain-more-diverse-research-by-citing-them-we-can-shape-a-more-just-politics-of-citation/

Mason, S., Merga, M. K., González Canché, M. S., & Mat Roni, S. (2021). The internationality of published higher education scholarship: How do the 'top' journals compare? *Journal of Informetrics*, *15*(2), 101155. https://doi.org/10.1016/j.joi.2021.101155

Meho, L. I., & Rogers, Y. (2008). Citation counting, citation ranking, and h-index of human-computer interaction researchers: A comparison of Scopus and Web of Science. *Journal of the American Society for Information Science and Technology*, *59*(11), 1711–1726. https://doi.org/10.1002/asi.20874

Mendoza, M. (2021). Differences in Citation Patterns across Areas, Article Types and Age Groups of Researchers. *Publications*, *9*(4), Article 4. https://doi.org/10.3390/publications9040047

Moher, D., Bouter, L., Kleinert, S., Glasziou, P., Sham, M. H., Barbour, V., Coriat, A.-M., Foeger, N., & Dirnagl, U. (2020). The Hong Kong Principles for assessing researchers: Fostering research integrity. *PLOS Biology*, *18*(7), e3000737. https://doi.org/10.1371/journal.pbio.3000737

Morillo, F. (2020). Is open access publication useful for all research fields? Presence of funding, collaboration and impact. *Scientometrics*, *125*(1), 689–716. https://doi.org/10.1007/s11192-020-03652-w

Olmos-Penuela, J., Benneworth, P., & Castro-Martinez, E. (2014). Are "STEM from Mars and SSH from Venus"?: Challenging disciplinary stereotypes of research's social value. *Science and Public Policy*, *41*(3), 384–400. https://doi.org/10.1093/scipol/sct071

Pranckutė, R. (2021). Web of Science (WoS) and Scopus: The Titans of Bibliographic Information in Today's Academic World. *Publications*, *9*(1), Article 1. https://doi.org/10.3390/publications9010012

Price, D. D. S. (1976). A general theory of bibliometric and other cumulative advantage processes. *Journal of the American Society for Information Science*, *27*(5), 292–306. https://doi.org/10.1002/asi.4630270505

Priem, J., & Hemminger, B. H. (2010). Scientometrics 2.0: New metrics of scholarly impact on the social Web. *First Monday*. https://doi.org/10.5210/fm.v15i7.2874

Raan, T. (2005). Challenges in Ranking of Universities. *Proceedings of the First International Conference on World Class Universities*.

Rafols, I., & Gallart, J. M. (2022, November 2). Reforming research assessment in Spain requires greater university autonomy. *Impact of Social Sciences*.

https://blogs.lse.ac.uk/impactofsocialsciences/2022/11/02/reforming-research-assessment-in-spain-requires-greater-university-autonomy/

Reed, M. S., & Fazey, I. (2021). Impact Culture: Transforming How Universities Tackle Twenty First Century Challenges. *Frontiers in Sustainability*, *2*. https://www.frontiersin.org/articles/10.3389/frsus.2021.662296

Sabharwal, M. (2013). Comparing Research Productivity Across Disciplines and Career Stages. *Journal of Comparative Policy Analysis: Research and Practice*, *15*(2), 141–163. https://doi.org/10.1080/13876988.2013.785149

Schott, T. (1998). Ties between Center and Periphery in the Scientific World-System: Accumulation of Rewards, Dominance and Self-Reliance in the Center. *Journal of World-Systems Research*, *4*(2), 112–144. https://doi.org/10.5195/jwsr.1998.148

Scott, P. (2015). Clashing Concepts and Methods: Assessing Excellence in the Humanities and Social Sciences. *Humanities*, *4*, 118–130. https://doi.org/10.3390/h4010118

Shahbazi-Moghadam, M., Salehi, H., Amin Embi, M., Zavvari, A., Shakiba, M., Mohammadjafari, M., Ale Ebrahim, N., & Bakhtiyari, K. (2015). Effective Factors for Increasing Rate of University Publication and Citation. *Asian Social Science*, *11*(16), p338. https://doi.org/10.5539/ass.v11n16p338

Sīle, L., Guns, R., Sivertsen, G., & Engels, T. (2017). *European Databases and Repositories for Social Sciences and Humanities Research Output*. https://doi.org/10.6084/m9.figshare.5172322.v2

Simon, J. (2022). Scientific Publishing: Agents, Genres, Technique and the Making of Knowledge. *Histories*, *2*(4), Article 4. https://doi.org/10.3390/histories2040035

Sivertsen, G. (2009). Publication patterns in all fields. *Celebrating Scholarly Communication Studies: A Festschrift for Olle Persson at His 60th Birthday*, 55–60.

Sivertsen, G. (2019). Understanding and Evaluating Research and Scholarly Publishing in the Social Sciences and Humanities (SSH). *Data and Information Management*. https://doi.org/10.2478/dim-2019-0008

Snyder, H. (2024). Designing the literature review for a strong contribution. *Journal of Decision Systems*, *33*(4), 551–558. https://doi.org/10.1080/12460125.2023.2197704

Stichweh, R. (1992). The Sociology of Scientific Disciplines: On the Genesis and Stability of the Disciplinary Structure of Modern Science. *Science in Context*, *5*, 3–15. https://doi.org/10.1017/S0269889700001071

Sutton, E. (2020). The increasing significance of impact within the Research Excellence Framework (REF). *Radiography (London, England: 1995)*, *26 Suppl 2*, S17–S19. https://doi.org/10.1016/j.radi.2020.02.004

Taubert, N., & Weingart, P. (2017). Changes in scientific publishing: A heuristic for analysis. In *The Future of Scholarly Publishing: Open Access and the Economics of Digitisation* (pp. 1–34).

Urbanowicz, C., & Reinke, B. A. (2018). Publication Overlap: Building an Academic House with Salami Shingles. *Bulletin of the Ecological Society of America*, *99*(4), 1–6.

Vardi, M. (2009). Conferences vs. Journals in Computing Research. *Commun. ACM*, *52*, 5. https://doi.org/10.1145/1506409.1506410

Vera-Baceta, M.-A., Thelwall, M., & Kousha, K. (2019). Web of Science and Scopus language coverage. *Scientometrics*, *121*(3), 1803–1813. https://doi.org/10.1007/s11192-019-03264-z

Vessuri, H., Guédon, J.-C., & Cetto, A. M. (2014). Excellence or quality? Impact of the current competition regime on science and scientific publishing in Latin America and its implications for development. *Current Sociology*, *62*(5), 647–665. https://doi.org/10.1177/0011392113512839

Vogopoulou, A., Sarakinioti, A., & Tsatsaroni, A. (2023). Quality assurance in Greek Higher Education and the imperative to use English. *Globalisation, Societies and Education*, *21*(3), 307–321. https://doi.org/10.1080/14767724.2022.2048797

Vrettas, G., & Sanderson, M. (2015). Conferences versus journals in computer science. *Journal of the Association for Information Science and Technology*, *66*(12), 2674–2684. https://doi.org/10.1002/asi.23349

Walters, W. H. (2017). Citation-Based Journal Rankings: Key Questions, Metrics, and Data Sources. *IEEE Access*, *5*, 22036–22053. https://doi.org/10.1109/ACCESS.2017.2761400

Wanzer, D. L. (2021). What Is Evaluation?: Perspectives of How Evaluation Differs (or Not) From Research. *American Journal of Evaluation*, *42*(1), 28–46. https://doi.org/10.1177/1098214020920710

Warner, J. (1996). The role of monographs in scholarly communication: An empirical study of philosophy, sociology and economics. *Journal of Documentation*, *52*, 389–404. https://doi.org/10.1108/eb026972

Watermeyer, R., & Derrick, G. (2022). Why the party is over for Britain's Research Excellence Framework. *Nature*. https://doi.org/10.1038/d41586-022-01881-y

Wilbers, S., & Brankovic, J. (2021). The emergence of university rankings: A historical-sociological account. *Higher Education*. https://doi.org/10.1007/s10734-021-00776-7

Wilsdon, J., & Rafols, I. (2013, May 17). Just say no to impact factors. *The Guardian*. https://www.theguardian.com/science/political-science/2013/may/17/science-policy

Wouters, P., Sugimoto, C. R., Larivière, V., McVeigh, M. E., Pulverer, B., Rijcke, S. de, & Waltman, L. (2019). Rethinking impact factors: Better ways to judge a journal. *Nature*, *569*(7758), Article 7758. https://doi.org/10.1038/d41586-019-01643-3

Xanthoulis, O. A. (2025). The emerging challenges faced by early career researchers: The case of Social Sciences in Greece. *Academia*, *39–40*, Article 39–40. https://doi.org/10.26220/aca.5255

Zitt, M., Perrot, F., & Barre, R. (1998). *The transition from "national" to "transnational" model and related measures of countries' performance*. 13.