

Governance Challenges of Open Access Publishing

High quality information is essential to advancing society and has not always been equally provided to all members of society. There are several governance challenges to the equitable provision of high quality information. In this case, high quality information refers to information that has been peer-reviewed by people with expertise on the respective subject matter. Peer reviewing is the only quality control process for scholarly journals (Groves, 2006). Governance challenges include: increasing equitable access to high quality information resources, controlling the emergence of predatory journals, addressing the scarcity of the capability of the peer-review process, and creating incentives to publish in the open access arena.

Publishing in scholarly, peer-reviewed journals has been the gold standard of high-quality information. The peer-review process has been quintessential in the maintenance of this high quality standard, as this process regulates and ensures that information added to the scholarly journal repository meets a certain standard. Beall states that “society relies on high quality, peer reviewed articles for public policy, legal cases, and improving public health,” (2013). Because the scientific process is built upon the work of previous scholars, it is of paramount importance that information published in scholarly journals is credible (Beall, 2013). Without this assurance, the scientific process and future information generation is impeded.

“Peer review is an established component of professional practice, the academic reward system, and the scholarly publication process. The fundamental principle is straightforward: experts in a given domain appraise the professional performance, creativity, or quality of scientific work produced by others in their field or area of competence” (Lee et al., 2013). The review process is meant to screen out poorly designed research methodologies and unsubstantiated claims (Morse, 2014). Often the review is done anonymously (Lee et al. 2013). Multiple voluntary reviewers critique the submitted article and either: 1. Reject it, 2. Offer minor revisions, 3. Offer major revisions, or 4. Accept the work as is (Flanagan, 2014). The review process is meant to improve the quality of the final product (Flanagan, 2014). Additionally, the reviewers evaluate qualitative aspects of the submission, such as: “is this article appropriate for this journal?” or “does this article provide a meaningful contribution?” (Pearson, 2014). The peer review process self-regulates the provision of high quality information that is published in scholarly journals (Lee et al., 2013).

With the advent of the internet, information is increasingly becoming more accessible and widespread. Furthermore, the advent of the internet has also allowed for the development of the knowledge commons. The internet, and publishing openly on the internet, has the potential to decrease the divide between those who have access to high quality information and those who do not. However, because the internet makes online publishing easy and cheap, this system has been manipulated for personal gain. Therefore, there is an ongoing struggle to maintain the credibility of published scholarly information in open access journals which could threaten the overall success of the knowledge commons.

Information can be published in a variety of different ways. Furthermore, how information is published can affect the perceived credibility of the information. Currently, the most popular forms of publishing in scholarly journals include: 1. The “traditional” or “reader-pays” model; 2. The “open-

access” or “publisher-pays” model; and 3. The “hybrid” model which incorporates aspects of both 1 and 2 (Poltronieri et al., 2013). Additional routes of publishing may include: books, websites, newspapers, etc. The credibility of these different sources often depends on who is judging the material, where the material is published, and the presence of a review process. Because of the well-established peer-review process that exists in many traditional scholarly journals, articles published in this domain have often been held in high esteem, as opposed to other alternative sources of information.

In what can be called the “traditional” or “reader-pays” model of published journal articles, potential journal articles are submitted to a journal and then the article undergoes a review process and a decision is made on whether or not to publish the submission. Because the reader is paying for what they read, there is a high demand for quality (in this case, an extensive peer-review process) from the reader (Hansson, 2014). Journals are ranked against each other. Authors typically prefer to publish in higher ranked journals (Hansson, 2014). This competition drives high quality information.

Open-access journal articles are another potential source of highly credible information. However, legitimacy of the information published is dependent on the existence of a robust peer-review process, similar to the process employed in the traditional model. Without assurance that the peer review process is adequate in the open access domain, potential publishers may be discouraged from publishing in that domain. This creates a governance challenge: how do we ensure a robust peer-review process so that publishing in open access journals does not lose credibility and continues to attract authors, hence creating more equitable access to high-quality information?

Open access publishing has gained in popularity because of the additional benefits that it can provide, so long as the peer-review process continues to maintain the production of high quality information. Because open-access journals are accessible from anyplace with a computer and internet connection, there is essentially unrestricted access to the article and increased speed and breadth of information dissemination (Swartz, 2015). For example, the publishing time (i.e., time it takes to go from submission to print) of an article in open access is quicker than in the traditional model. Furthermore, articles published in open access have a wider potential readership than in traditional journals (Gould, 2015). Work published in open access journals also tend to have a higher impact factor than work published in traditional journals, this is called the open-access citation effort (Doty, 2013). In the open access model, authors also get the right to retain the copyright of their work, which is often traded in order to be published under the traditional model (Gould, 2015; Poltronieri et al., 2013). Open access articles are also available for the reader to “download, reuse, reprint, modify, distribute and/or copy... so long as the original author and sources are cited” which further increases publicity of the article. Because of these positive feedbacks, publishing in the open access domain has been rapidly increasing over the last decade (Ennas and Guardo, 2014).

So long as the peer-review process in open access journal articles is maintained, so also is the credibility of the journal maintained and authors will continue to publish in those journals, increasing the knowledge commons. However, not all scholarly journals can pass the peer-review process, this in turn, creates a market for papers to be published that are not peer-reviewed (Hansson, 2014). Subsequently, open access publishing has seen the emergence of predatory rent-seeking behavior to address this market. Jeffrey Beall first coined the term “predatory publishers” in 2010 and defined them as “those that unprofessionally abuse the author-pays publishing model for their own profit,” (2013). Beall first noticed this phenomena in 2009, when he was being solicited by multiple open access journals

via email; the offers were often full of grammar and spelling errors and promised publishing after a quick review process¹ and payment from the author (Beall, 2013). Beall soon started collecting information on journals he suspected of being predatory and published them on his blog, entitled, Scholarly Open Access (2013).

Many researchers have documented instances of an inadequate peer review process of articles published in the open access realm. Fake or minimal peer reviews have been found in many published articles in the open access domain; authors have submitted articles that are replicates of already published articles or contain bogus information or nonsensical language, and have been published by these predatory journals (Beall, 2013; Basken, 2009; Gilbert, 2009; Bohannon, 2013). This creates another governance challenge: how do we differentiate between those open access journals that are legitimate and those that are not (i.e., those with an adequate peer review process and those without)?

Furthermore, because open access publishing can offer many benefits, it seems important to be able to incentive people to publish in this realm. However, the presence of unregulated predatory publishing can be a deterrent to publishing in particular journals or even the knowledge commons as a whole. Therefore this creates another governance challenge: how can we regulate the provision of high quality information from low quality information in the knowledge commons, so as not to disincentive participation in open access publishing due to illegitimate open access journals?

Beall's Scholarly Open Access blog, which can be found at www.scholaryoa.com, has emerged as a response to this challenge. On his blog, Beall tracks both questionable publishers and questionable standalone journals (Beall, 2013). Beall, among other authors, have published checklists of what to look for in an open access journal before paying to publish in one, to ensure that you do not fall victim to this predatory behavior (Beall, 2013; Yucha, 2015). This is an instance of bottom-up regulation of the digital knowledge commons.

The capacity of the peer review process is underprovided. Part of the attraction to publish with a predatory publisher, whether you know of their predatory status or not, is the rapid review process and often lack of required revisions. There is intense pressure in academic to publish academic papers; this is represented by the colloquial phrase, "publish or perish." A slow peer review process, followed by necessary edits before the paper is satisfactory to publish can be a deterrent to publishing in a top-tier journal when a lower-tier journal with a suspicious review process is willing to publish your paper as is. This fosters another problem: how can we increase the provision of the peer reviewing capacity in order to quicken the publication process?

All of these identified governance challenges are essential to the success of open access publishing, which in turn affects the knowledge commons. Currently, there seems to be an adequate process regulating illegitimate open access journals, by shaming them through an online database of predatory publishers. This process is maintained by academics that publish in open access and want the journals they publish in to stand out as being respectable (i.e., not being blacklisted on Beall's list). Continued success of this emergent regulation should continue to incentivize participation in open access publishing. More research is needed on how we might go about increasing the capacity of the peer review process to further incentive the provision of legitimate open access journals, by speeding up

¹ The articles submitted were not actually being subject to a peer review.

the review process while still maintaining quality. Altogether, this should work to lessen the divide between those who have access to high quality information and those that do not.

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