

Communications of the Association for Information Systems

Volume 42

Article 27

5-2018

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Recommended Citation

Sipior, Janice C. (2018) "Peer Reviewer Non-performance: The Need to Replenish the “Commons”," *Communications of the Association for Information Systems*: Vol. 42 , Article 27.

DOI: 10.17705/1CAIS.04227

Available at: <http://aisel.aisnet.org/cais/vol42/iss1/27>

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Peer Reviewer Non-performance: The Need to Replenish the “Commons”

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Abstract:

Journal editors have observed a greater occurrence of reviewers agreeing to peer review but never completing reviews. It seems that the information systems (IS) field increasingly needs more reviewers. In this paper, I consider the reasons why researchers agree to peer review and the professional and ethical conduct of reviewers who agree to review but never do so. Finally, I make suggestions to motivate reviewers to replenish the “commons”.

Keywords: Peer Review, Non-performing Reviewers, Professional and Ethical Conduct of Reviewers, Scholarly Publishing

This manuscript was solicited by the Department Editor for Debates, Karlheinz Kautz.

1 Introduction

Stafford (2018) presents an application of Hardin’s (1968) economic theory, the tragedy of the commons, to reviewing scientific research. I wholeheartedly agree. Like the “commons”, journal reviewing is a shared-resource system. As an editor, I share his experiences, frustrations, and point of view that too many are willing to use the “commons” for their own benefit but not serve as reviewers and, thus, not replenish the “commons”.

Hardin (1968) speaks of herdsmen grazing animals at the “commons”. Stafford (2018) analogizes academic authors to the grazing animals, but, instead of a common pasture, journal reviewers constitute the shared common resource. As academic institutions continue to increase the emphasis on research, more academic “herdsmen” need to have their submissions reviewed by peers who usually do not receive compensation for doing so. Unfortunately, as Stafford points out, some researchers care only to freely consume the resource without reviewing and, thus, do not replenish the “commons”. In their experimental study of incentive provision in peer-review behavior, Squazzoni, Bravo, and Tákacs (2013), economic sociology researchers, assert that “reciprocity motives that typically drive human behavior in many social interactions” (p. 293). Conversely, Petchey, Fox, and Haddon (2014) compared the number of reviews that individual researchers provided to the number their submissions required for four ecology journals and found that over two thirds of researchers (64%) consumed but did not replenish the “commons”, which confirms Stafford’s assertions.

In my response, I discuss the increasing need for more quality information systems (IS) reviewers, explore the reasons why researchers agree to peer review, consider the professional and ethical conduct of reviewers who agree to review but never do so, and conclude with my own suggestions.

2 Is IS Peer Review in Crisis: The Increasing Need for Quality Reviewers

Iivari (2016) observes that the number of IS journal submissions has increased over the years, which, in turn, has resulted in a shortage of “(good) reviewers” (p. 264). Has the IS field reached a crisis in the supply of quality peer reviewers? Other fields have noted reaching this imbalance. For example, in the medicine field, Stahel and Moore (2014) observe that the number of manuscripts submitted for publication worldwide has increased exponentially, which has overburdened the capability of qualified referees to keep up with requests to review and to complete quality reviews in a timely manner. Masic (2016), also in the medicine field, echoes the same concern: Masic observes an “overproduction” (p. 169) of manuscripts and a growing number of periodicals, which has resulted in an insufficient number of available reviewers to provide quality and quick reviews. In conducting a study in the nursing field, Toroser et al. (2016) found that, as the number of submissions to journals increases, time from first submission to acceptance and publication increases at a similar rate.

2.1 Increases in Scholarly Journals, Papers, and Researchers

Interestingly, a report on scientific and scholarly journal publishing prepared by the International Association of Scientific, Technical, and Medical Publishers (STM), “the leading global trade association for academic and professional publishers” (Ware & Mabe, 2015, p. 3), indicates that scholarly peer-reviewed English-language and non-English-language journals numbered about 28,100 and 6,450 in late 2014, respectively, and that 2.5 million papers are published per year (Ware & Mabe, 2015). For over two centuries, the number of academic papers and journals has consistently risen by three and 3.5 percent per year, respectively, due to the continuing growth in the number of researchers (Ware & Mabe, 2015). Palese (2017) points out that journals’ publication efficiency may have suffered if their resources have not similarly increased.

As for peer reviewers, Ware and Mabe (2015) report that reviewers generally review eight papers per year and spend three to six hours per review on average. Pressure to secure peer reviewers has resulted from growth in both the number of papers and journals (Ware & Mabe, 2015). The high rate of growth in papers from emerging economies has exacerbated this pressure and resulted in a temporary imbalance in the sources of submissions and reviewers, which has placed increased pressure on reviewers from the developed world (Ware & Mabe, 2015). Globally, the number of researchers is steadily growing at four to five percent per year with short-term declines during economic recessions, most recently in 2009 (Ware & Mabe, 2015). Emerging countries contribute the majority of this growth. The leading Asian countries have

an annual growth of eight to 12 percent, while the G8 has 2.9 percent, and the United States (US) and European Union (EU) have one percent (Ware & Mabe, 2015). China has the most rapid growth (which tripled between 2005 and 2008 followed by South Korea (which doubled between 1995 and 2006) (Ware & Mabe, 2015).

2.2 Is IS Peer Review in Crisis?

Kovanis, Porcher, Ravaud, and Trinquart (2016) quantitatively assess the sustainability of peer-reviewing in the biomedics field and conclude that the current peer-review process is sustainable in terms of the volume of submitted manuscripts and the supply of reviewers. According to Kovanis et al.'s (2016) analysis, an even higher number of manuscripts could be peer reviewed, which indicates that the biomedics field does not suffer from a peer review crisis. Research in other fields such as ecology (Petchey et al., 2014), meteorology (Golden, & Schultz, 2012), science (Vines, Rieseberg, & Smith, 2010), and science and technology (House of Commons Science and Technology Committee, 2011) supports this result. However, we do not know if we can generalize these results to the IS field and conclude that there IS peer review does not suffer from a crisis. I have recently experienced that it is becoming more difficult to secure quality reviewers who actually complete the review in a timely manner.

Indeed, in the biomedics community, Kovanis et al. (2016) report that about 20 percent of academics complete a disproportionately high percentage of peer reviews (estimated to range from 69 to 94 percent of the total number). These so-called “peer review heroes” seem to exemplify the Pareto principle (i.e., the 80/20 rule) which states that 80 percent of the effects come from 20 percent of the causes (Kovanis et al., 2016). Ware and Monkman's (2008) findings in the STM fields confirm the existence of peer review heroes who exemplify the Pareto principle. The most productive reviewers—defined as those who review more than six manuscripts in a year—completed 79 percent of all reviews and averaged almost twice as many reviews per year (i.e., 14.3) compared with eight manuscripts per year for less active reviewers (Ware & Monkman, 2008). Similarly, researchers have report referee overloading to exist in other fields (Golden & Schultz, 2012; House of Commons Science and Technology Committee, 2011; Petchey et al., 2014). Golden and Schultz (2012) report that the number of reviews completed per year, in the meteorology field, averages eight per year. However, “some hearty reviewers” (p. 339) averaged more than 20 reviews a year, with one reviewer reporting to have completed 30 to 35 reviews a year. The House of Commons Science and Technology Committee (2011) conclude there is “a current imbalance between publication output and participation in peer review” (p. 44) in science and technology fields, with greater numbers of publications than reviews completed. Petchey et al. (2014) compare the number of completed reviews by individual researchers, referred to as their contribution, to the number of reviews required by the number of their submissions, referred to as their withdrawals. Their findings reveal that the majority of researchers in the ecology field (64%) have an imbalance between contributions and withdrawals. Under the assumption that required reviews are distributed evenly among coauthors, 44 percent of researchers contribute more than twice as many reviews that their submissions require, while 20 percent of researchers provide less than half as many reviews that their submissions require. The proportions change considerably, to 12 percent providing twice as many reviews as required and 52 percent providing half as many as required, under the assumption that the submitting author is responsible for all required reviews.

Thus, given that quality reviewers may be in short supply or overburdened, we need to understand why our colleagues agree to complete peer reviewers but never actually do so or even routinely decline doing so to begin with.

3 Reasons Why Researchers Review

Ling (2011) views the reviewer role in the STM journal community as vital to peer review because the recommendations reviewers provide have a great influence on editors' decisions. As a result of this influence, researchers have referred to journal reviewers in the health sciences as “gatekeepers of science” (Hojat, Gonnella, & Caellegh, 2003). Thus, quality reviewers are key to improving the review process. However, we might ask, in a busy professional world, why do individuals serve as an uncompensated reviewer?

3.1 Mutuality of Obligation, Altruism, and Self-interest

Individuals may agree to review because they recognize this professional service’s mutual nature and, thus, replenish “the commons”. In addition to the ethical concept of mutual service in a field, sometimes referred to as mutuality of obligation, some reviewers may receive internal recognition from their institutions with regard to their performance evaluation, tenure, and promotion. Further, reviewers may receive external recognition from journals that annually recognize the “best reviewer”, hold a reception for reviewers at professional organizations’ conferences, publish the list of reviewers’ names, or send “thank you” emails to reviewers. For example, the Academy of Legal Studies in Business hosts a reviewers’ reception and presents an outstanding reviewer award at its annual conference.

Some reviewers may receive neither recognition nor reward. Ware and Monkman (2008) provide some insight why reviewers review. In surveying 3,040 academics in a variety of fields (with a 7.4% response rate), they found that 91 percent agreed or strongly agreed with the reason “playing your part as a member of the academic community”. More than half of respondents also agreed or strongly agreed with the following three reasons: “enjoy being able to improve the paper” (78%), “enjoy seeing new work ahead of publication,” (69%), and, perhaps surprisingly, “reciprocating the benefit gained when others review your papers” (67% agreed or strongly agreed) (Ware & Monkman, 2008, p. 44). One can see that three of the four reasons are rather altruistic: only one (about seeing work ahead of publication) is more self-interested. However, the authors conducted their study a decade ago, so the results may no longer reflect current reasons for why people review.

3.2 Recent Forms of External Recognition

Publons, launched in 2012 by a New Zealand start-up company, represents a recent form of external recognition. Publons focuses on “speed[ing] up research by harnessing the power of peer review” (Publons, 2017). To be recognized, reviewers voluntarily register and post their journal and conference peer-review history online. A user’s display preferences determine the information that the user’s profile displays; by default, the profile shows the year of the review and the journal’s name and hides the content of the review itself. Publons or its partnering publishers verify reviews to confirm that users actually performed them, and the website displays a green tick next to all verified reviews. Publons recognizes reviewers via peer-review rewards in seven categories. Reviewers may include their record on their curricula vitae or apply for editorial board positions (Van Noorden, 2014). Such recognition makes the role of reviewer more visible to the academic community and to administrators and “turn[s] peer review into a measurable research output” (Van Noorden, 2014, p. 1).

Similarly, Elsevier, a publisher of science journals, launched its “My Elsevier Reviews Profile” online system in 2014 to recognize participating reviewers and award top reviewers with “outstanding reviewer” status (Elsevier, 2017). Other publishers such as Wiley and journals such as *Nature* reward their reviewers with a free subscription and provide a work statement to reviewers.

Open Researcher and Contributor ID (ORCID), a not-for-profit organization, maintains persistent unique digital identifiers for researchers to link them with their professional activities to ensure that they receive recognition for their work (ORCID, 2017). In 2015, ORCID launched the capability for researchers to also record their peer-review service in their profile to provide authors with recognition and to help them exchange data about this activity with organizations interested in using ORCID.

4 Non-performing Reviewers

In the last year, I have noticed a greater occurrence of reviewers who agree to review but never do so. Once a reviewer agrees to an emailed invitation to review, the online submission system follows up by sending repeated reminders to submit the review. These reminders appear to have no effect. Rarely has a non-performing reviewer subsequently contacted me to indicate an inability to complete the task. They largely remain silent—perhaps due to embarrassment for not following through on a promise to review. In their research to calculate the contribution of reviews in the atmospheric science field, Golden and Schultz (2012) found that “[n]ot many reviewers will admit to procrastination” (p. 341). When faced with this behavior, I have continued to wait in hope that the reviewer will complete and return the review or invite another reviewer. In the former case, I have manually sent email reminders and then wondered to myself how long I should wait beyond the deadline communicated to the reviewer. In the latter case, I hesitate to invite an additional reviewer needlessly because I feel some members of our community may get the

impression that they are overwhelmed with invitations to review even if editors can subsequently withdraw the invitation should the non-responsive reviewer eventually perform.

The silence of a non-responsive reviewer is not simply rude, careless, or unprofessional but also, I believe, unethical. I expand on professionalism and ethics in Sections 4.1 and 4.2.

4.1 Professional Conduct of a Reviewer

With regard to reviewing and professional conduct, the Association for Computing Machinery's (ACM) Code of Ethics and Professional Conduct states:

Accept and provide appropriate professional review.

Quality professional work, especially in the computing profession, depends on professional reviewing and critiquing. Whenever appropriate, individual members should seek and utilize peer review as well as provide critical review of the work of others. (ACM, 1992)

Thus, our professional responsibilities in the computing profession involve an obligation to receive and provide peer reviews. Indeed, researchers have traditionally viewed peer review as part of our professional obligations (Ware & Mabe, 2015). Stafford (2018) points out that peer reviewing needs this "give and get" (p. 625) to provide its benefits to everyone. Thus, we should all strive to be professional and accept the responsibilities of our profession. In this regard, ACM's Code of Ethics and Professional Conduct further states:

Honor contracts, agreements, and assigned responsibilities.

Honoring one's commitments is a matter of integrity and honesty. For the computer professional this includes ensuring that system elements perform as intended. Also, when one contracts for work with another party, one has an obligation to keep that party properly informed about progress toward completing that work.

A computing professional has a responsibility to request a change in any assignment that he or she feels cannot be completed as defined. Only after serious consideration and with full disclosure of risks and concerns to the employer or client, should one accept the assignment. The major underlying principle here is the obligation to accept personal accountability for professional work. On some occasions other ethical principles may take greater priority.

A judgment that a specific assignment should not be performed may not be accepted. Having clearly identified one's concerns and reasons for that judgment, but failing to procure a change in that assignment, one may yet be obligated, by contract or by law, to proceed as directed. The computing professional's ethical judgment should be the final guide in deciding whether or not to proceed. Regardless of the decision, one must accept the responsibility for the consequences. (ACM, 1992)

Thus, reviewers should only accept an invitation to review after serious consideration and with full disclosure of risks and concerns to the employer or client as the code states. I believe reviewers are generally thoughtful and honest in accepting an invitation. I have received warnings from some potential reviewers that they cannot attend to the review right away or keep me informed about any delays. Other reviewers invoke honesty and inform me that they have moved on from a stream of research, have a conflict of interest, or for whatever reason feel they cannot provide a proper review. For those reviewers who have agreed to review, not doing so clearly constitutes unprofessional behavior as a matter of integrity and honesty. Such behavior is even more reprehensible when the non-performing reviewer does not contact the editor to indicate that they cannot perform the review. Thus, a non-performing and non-responsive reviewer is clearly unprofessional, but is such behavior unethical?

4.2 Ethical Conduct of a Reviewer

Editors and authors rely to their detriment on non-performing reviewers to accept an assignment. Editors assume in good faith that they have retained a reviewer for the manuscript submission. The author reasonably expects a timely review. Increasing the time of a review process could harm the author's career. For instance, I have had many authors email to inquire about the status of their submission, and many have noted situations (e.g., they have an upcoming tenure or promotion application) that review times can critically affect. Non-performing reviewers add considerable additional time to the review

process. Further, an extended delay could occur due to the unfortunate instance of a chain of non-performing reviewers.

From surveying authors of papers in conservation biology journals, Nguyen et al. (2015) found that they perceived long review durations to negatively affect a journal's reputation, society at large (due to delays in publishing significant scientific or policy implications), professional careers, graduation or acceptance (for graduate students), rankings (for researchers, institutions, and universities), applications for grants or funding, author morale, and researchers' agenda.

Given the multitude of potential negative consequences, we might consider the following extract from ACM's Code of Ethics and Professional Conduct that states:

Avoid harm to others.

Well-intended actions, including those that accomplish assigned duties, may lead to harm unexpectedly. In such an event the responsible person or persons are obligated to undo or mitigate the negative consequences as much as possible. (ACM, 1992)

Non-performing reviewers certainly do not intend negative outcomes to occur for authors for whom they do not return a review. They may think that other reviewers have been invited and will complete the task. Nonetheless, negative outcomes can occur. In double-blind review, neither the reviewer nor the author knows each other. Does the non-performing reviewer nonetheless have an obligation? What would be the obligated action? Does an obligation extend to the editor who knows the identities of both parties to facilitate the non-performing reviewer's obligation to reduce a negative outcome? I believe that, absent exigent circumstances, the consenting reviewer has a professional and ethical obligation to the author, editor, and profession to complete the review in a timely and quality manner. The consenting reviewer would expect nothing less for their own work. Thus, the non-performing reviewer does even greater damage to the “commons” than the invited reviewer who declines.

5 Conclusion

In commenting about poor-quality reviews, Recker (2016) states that it “unequivocally” does *not* result from “individuals' poor understanding, poor knowledge, poor craftsmanship, or *even poor commitment*” (p. 315, emphasis added). On the contrary, I believe that poor commitment causes non-performing reviewers who have committed to review but do not do so. However, Recker's (2016) comments apply to the quality of process performance in completed reviews, while I focus on reviewers who do not return reviews. In response, I suggest that journals should require reviewers to sign a “reviewer integrity statement” when accepting an invitation to review and that authors sign an “author reviewer integrity statement” when submitting to a journal. In the former instance, the reviewer commits to adhere to the highest standards of professional and ethical conduct during the review process, which includes returning a quality review in a timely manner. In the latter, the author commits to the highest standards of professional and ethical conduct pertaining to author responsibility and accountability for submitted manuscripts and commits to review according to Stafford's (2018) observations about “give and get” (p. 625) to benefit us all. Should reviewers and authors break the commitment to professional and ethical conduct, the next step might be to develop an online system to track such conduct. However, I prefer personal integrity to such oversight.

As the number of submissions and demand for reviewers continues to increase, academic and scientific institutions should consider elevating the status of manuscript review in their performance-appraisal paradigm. We get what we reward. If the appraisal process rewards reviewing, it should increase scholars' willingness to both accept a review and complete it in a timely manner.

Finally, I agree with Recker's (2016) call for “collecting and evaluating evidence” (p. 318) but with regard to understanding why a reviewer agrees to review but does not return the review. Along with Recker, I “would likewise appreciate more empirical research on the scholarly publication system in IS research” (p. 318), specifically as it relates to non-performing reviewers. Further, I agree with Palese's (2017) recommendation, based on a study in the nursing field (Toroser et al., 2016), that we should continuously evaluate the duration from submission to acceptance of peer-reviewed papers across fields and journals to reveal similarities and heterogeneities. In doing so, the IS community may be able to evaluate, by comparison, the duration of our peer-review process. Additionally, we should ascertain whether non-performing reviewers adversely impact the duration of the review process. Recognizing the imbalance in productive reviewers to reviewers in general, the potential overburdening of the productive reviewers, and the pressure to secure peer reviewers, additional research insights may provide helpful guidance in

devising plans to improve the shared-resource system of the journal review process. We need to ensure we replenish the “commons” or it will surely wither.

References

- ACM. (1992). *ACM code of ethics and professional conduct*. Retrieved from <http://www.acm.org/about-acm/acm-code-of-ethics-and-professional-conduct>
- Elsevier. (2017). *My Elsevier reviews profile*. Retrieved from <https://www.reviewerrecognition.elsevier.com/>
- Golden, M., & Schultz, D. M. (2012). Quantifying the volunteer effort of scientific peer reviewing. *Bulletin of the American Meteorological Society*, 93(3), 337-345.
- Hardin, G. (1968). Tragedy of the commons. *Science*, 162(3859), 1243-1248.
- Hojat, M., Gonnella, J. S., & Caelleigh, A. S. (2003). Impartial judgment by the “gatekeepers” of science: Fallibility and accountability in the peer review process. *Advances in Health Sciences Education*, 8(1), 75-96.
- House of Commons Science and Technology Committee. (2011). *Peer review in scientific publications*. London: The Stationery Office Limited. Retrieved from <https://publications.parliament.uk/pa/cm201012/cmselect/cmsstech/856/856.pdf>
- Iivari, J. (2016). How to improve the quality of peer reviews? Three suggestions for system-level changes. *Communications of the Association for Information Systems*, 38, 263-273.
- Kovanis, M., Porcher, R., Ravaud, P., & Trinquart, L. (2016). The global burden of journal peer review in the biomedical literature: Strong imbalance in the collective enterprise. *PloS One*, 11(11), e0166387.
- Ling, F. (2011). Improving peer review: Increasing reviewer participation. *Learned Publishing*, 24(3), 231-233.
- Masic, I. (2016). Peer review—essential for article and journal scientific assessment and validity. *Medical Archives*, 70(3), 168-171.
- Nguyen, V. M., Haddaway, N. R., Gutowsky, L. F. G., Wilson, A. D. M., Gallagher, A. J., Donaldson, M. R., Hammerschlag, N., & Cooke, S. J. (2015). How long is too long in contemporary peer review? Perspectives from authors publishing in conservation biology journals. *PLoS One*, 10(8), e0132557.
- ORCID. (2017). *Our mission*. Retrieved from <https://orcid.org/about/what-is-orcid/mission>
- Palese, A. (2017). Researchers’ time should be protected as much as possible—commentary on: Toroser D, Carlson J, Robinson M, et al. Factors impacting time to acceptance and publication for peer-reviewed publications. *Current Medical Research Opinion*, 33(5), 927-929.
- Petchey, O. L., Fox, J. W., & Haddon, L. (2014). Imbalance in individual researcher's peer review activities quantified for four British Ecological Society journals. *PLoS ONE*, 9(3), e92896.
- Publons. (2017). *About Publons*. Retrieved from <https://publons.com/about/mission>
- Recker, J. C. (2016). Author responsibilities in improving the quality of peer reviews: A rejoinder to Iivari (2016). *Communications of the Association for Information Systems*, 38, 314-320.
- Squazzoni, F., Bravo, G., & Takács, K. (2013). Does incentive provision increase the quality of peer review? An experimental study. *Research Policy*, 42(1), 287-294.
- Stahel, P. F., & Moore, E. E. (2014). Peer review for biomedical publications: We can improve the system. *BMC Medicine*, 12(1), 1-4.
- Stafford, T. F. (2018). Reviews, reviewers and reviewing: The “tragedy of the commons” in the scientific publication process. *Communications of the Association for Information Systems*, 42, 624-629.
- Toroser, D., Carlson, J., Robinson, M., Gegner, J., Gerard, V., Smette, L., Nilson, J., & O’Kelly, J. (2017). Factors impacting time to acceptance and publication for peer-reviewed publications. *Current Medical Research Opinion*, 33(7), 1183-1189.
- Van Noorden, R. (2014). The scientists who get credit for peer review. *Nature*. Retrieved from <http://www.nature.com/news/the-scientists-who-getcredit-for-peer-review-1.16102>

- Vines, T., Rieseberg, L., & Smith, H. (2010). No crisis in supply of peer reviewers. *Nature*, 468(7327), 1041.
- Ware, M., & Mabe, M. (2015). *The STM report: An overview of scientific and scholarly journal publishing*. The Hague: International Association of Scientific, Technical and Medical Publishers. Retrieved from http://www.stm-assoc.org/2015_02_20_STM_Report_2015.pdf
- Ware, M., & Monkman, M. (2008). *Peer review in scholarly journals: An international study into the perspective of the scholarly community*. Hyland Grove: Mark Ware Consulting. Retrieved from <http://publishingresearchconsortium.com/index.php/112-prc-projects/research-reports/peer-review-in-scholarly-journals-research-report/142-peer-review-in-scholarly-journals-perspective-of-the-scholarly-community-an-international-study>

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