

Gatherings of an Infovore*: Reviewing Peer Review

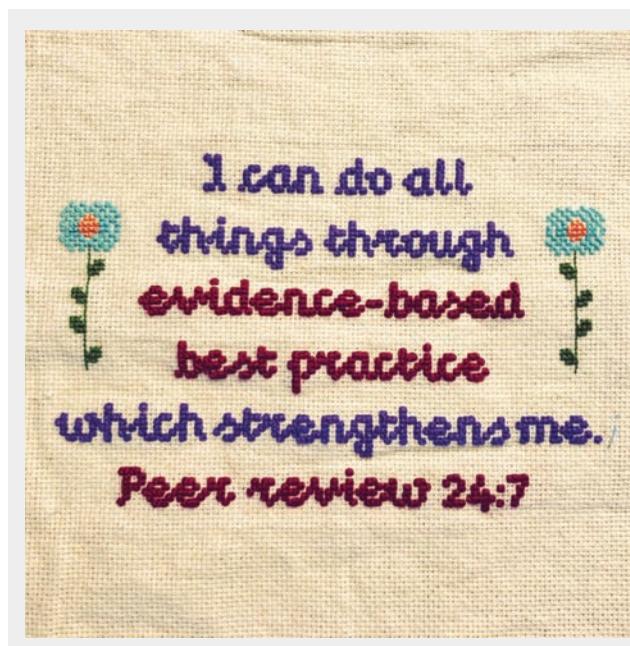
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Peer review is the cornerstone of quality assurance within the scholarly publishing process. To have no peer review would result in letting loose on the world treatises from honest and self-serving researchers alike. Faulty methodologies, inaccurate calculations, fraudulent data, outright plagiarism, and excessive hyperbole would go unchecked. However from its beginnings, which can be traced back over 350 years, we have yet to devise anything more perfect. We still grapple with whether it is useful and can be performed in a nonbiased and valid manner. Yes, peer review is an imperfect system, but like democracy, it's the least bad system we've got.

Peer review is meant to not merely separate wheat and chaff but to focus attention on ideas beneficial for the development of a line of inquiry. Scholarly research depends on the circulation of new approaches to sustain advancement in not just traditional areas of study but in the ever-increasing number of interdisciplinary fields. The challenges to the current peer review system's ability to achieve either the promise of accuracy or of fairness have only become more, rather than less, frequent.

There are signs of progress being made to improve the quality of peer review. Prior to the adoption of appeals processes, authors had little recourse to challenge biased reviews whether generated by inexperienced or less-than-competent reviewers or based on conflicts of interest from competitors or "the old guard." Improvements such as the education and training of reviewers, the application and continuous development of software programs, and new approaches such as post-publication and open review have increased each scholarly community's confidence to challenge past and even present approaches. Recent attention and mandates from funders and the general public's awareness of the role played by the peer review process in the larger context of policy have added to this sense of whether mere alterations will suffice or whether systemic change will be inevitable.

With a nod to Peer Review Weeks present and past, this column begins with recent 2020 articles and ends with resources from the Society for Scholarly Publishing's *The Scholarly Kitchen*, spanning a decade. The goal is to present



Credit: https://www.reddit.com/r/CrossStitch/comments/gp3va5/fo_evidencebased_best_practice_peer_review

attitudes and research about the successes and problems resulting from changing or maintaining the status quo. These may assist you and your organization in assessing your current operation and perhaps implementing changes to achieve the best peer review process for your publications.

Publish, profit, predate, perish and peer review

Fish P. Univ World News. 2020.

<https://www.universityworldnews.com/post.php?story=20201005070134522>

What can we do to improve peer review in NLP?

Rogers A, Augenstein I. 2020.

<https://arxiv.org/pdf/2010.03863.pdf>

An editorial and technical journey into Post Publication Peer Review (PPPR)

Roment L. 2020.

<https://hal.inria.fr/hal-02960535>

Transparent Peer Review at Wiley: Two years on what have we learnt?

Moylan E, Junge K, Oman C, Morris E, Graf C. 2020.

*A person who indulges in and desires information gathering and interpretation. The term was introduced in 2006 by neuroscientists Irving Biederman and Edward Vessel.

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Peer review declaration

J Phys: Conf Series. 2020.

<https://iopscience.iop.org/article/10.1088/1742-6596/1644/1/011003/pdf>

Exploring academic publishing for Peer Review Week

September 21–25 was Peer Review Week, an annual celebration of peer review, for which the 2020 theme was “trust.” In this list, *Technology Networks* highlights several important aspects of the scientific publication process to mark the event. Campbell M. Tech Networks. 2020.

<https://www.technologynetworks.com/tn/lists/exploring-academic-publishing-for-peer-review-week-340866>

IOP Publishing pledges to implement double-blind peer review

Banks M. Phys World. 2020.

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A parallel pandemic: the crush of covid-19 publications tests the capacity of scientific publishing

Kurth T, Piccininni M, Loder EW, Rohmann JL. BMJ Opinion. 2020. <https://blogs.bmj.com/bmj/2020/05/26/a-parallel-pandemic-the-crush-of-covid-19-publications-tests-the-capacity-of-scientific-publishing/>

Stanford researchers discuss the benefits – and perils – of science without peer review

Science moving forward without traditional forms of peer review could shorten the path to solutions—but it also increases the chances that low-quality science gets overhyped.

Kubota T. Stanford News. 2020.

<https://news.stanford.edu/2020/04/06/open-science-era-covid-19/>

External tests of peer review validity via impact measures

Gallo SA, Glisson SR. Front Res Metr Anal. 2018;3:1–22.

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Toward new indicators of a journal’s manuscript peer review process

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<https://doi.org/10.3389/frma.2016.00005>

Emerging trends in peer review—a survey

Walker R, da Silva PR. Front. Neurosci. 2015;9:1–169.

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Who’s afraid of peer review?

Bohannon J. Science. 2013;342(6154):60–65.

<https://science.sciencemag.org/content/342/6154/60/>

Beyond open access: visions for open evaluation of scientific papers by post-publication peer review

Kriegeskorte N, Deca D. Front Comp Neurosci. 2012.

<https://www.frontiersin.org/research-topics/137/beyond-open-access-visions-for-open-evaluation-of-scientific-papers-by-post-publication-peer-review>

Bias in peer review

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The history of the peer-review process

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The process of peer review of scientific manuscripts

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<https://jamanetwork.com/journals/jama/article-abstract/374151>

Parallel peer review at Cell Press: an interview with Deborah Sweet

Vines T. Scholarly Kitchen. 2020.

<https://scholarlykitchen.sspnet.org/2020/10/15/parallel-peer-review-at-cell-press-an-interview-with-deborah-sweet/?informz=1>

The Scholarly Kitchen Archives

Peer Review posts August 31, 2010 to October 1, 2020

<https://scholarlykitchen.sspnet.org/category/peer-review/>

AIP Publishing implements ORCID reviewer recognition service

<https://publishing.aip.org/about/news/aip-publishing-implements-orcid-reviewer-recognition-service/>