Description

Before research appears in scientific publications, it is peer-reviewed. Recognized experts often are researchers themselves who will scrutinize the manuscript. If the research is flawed or does not meet the scientific standard, it will be rejected. However, there are various forms of peer review to assess manuscripts these days. In one process, it is completely transparent and an extension of this is open post-publication peer review. In this, the scrutiny and discussion of the manuscript continues, or perhaps truly begins, by the wider community online.

Why Post-Publication Peer Review (PPPR)?

The traditional peer review process faces a tough future as there are many who are against it. In addition, the rise of digital communications technology and the Internet has given birth to the online publication of scientific journals. These journals are readily accessible and readable from anywhere, and review comments can be shared on social media platforms. Discussing the strengths and weaknesses of a scholarly scientific publication can now happen in real-time and take place globally.

In a formal peer review, the discussion is often limited to 2-3 reviewers and the journal editors. Nevertheless, this form of “gatekeeping” is a common occurrence, especially with anonymity granted to reviewers. Finding good reviewers is always important, but obtaining quality reviews is now getting harder. This leads to a time-consuming and frustrating cycle of revise and re-submit for many authors. Put simply, the traditional peer review process appears unable to deal with current research output and the pressures to publish.

What is Open PPPR?

The “open” part of PPPR is straightforward. A scientist located anywhere in the world can submit a review *anytime* to a public repository. Moreover, each review is open and accessible to all.

The “post-publication” part is also easy. Remember, in pre-publication peer review, the focus is on checking the manuscript, especially for its truth (accuracy). In PPPR, only when everyone can see the scientific publication, can any scientist have the opportunity to review it. This does not imply that manuscripts, especially of controversial findings, already published via the formal peer review process are necessarily excluded from PPPR.

Finally coming to the “peer review” part, the arguments for and against the manuscript are conveyed. This ought to be no different from that done in the traditional peer review process. In addressing the community at large, there is greater incentive to provide sound arguments. You can sign your name to the review, or stay anonymous.

Pros/Cons

The value of PPPR is potentially great. First, being a never-ending process, it offers opportunities for corrections. As an author, you can benefit by posting your paper online before submitting it to a formal peer review, to gain more feedback from peers. This should lessen the agony of revise and re-submit. Second, PPPR disseminates new research and ideas faster than via journals using the traditional peer review process.

Third, PPPR invites greater engagement of the scientific community with your research. This can lead to greater recognition and career advancement. Fourth, PPPR can help break the grip of private publishers, who charge a lot of money for access to their journals. Fifth, PPPR is transparent, as all reviews are publicly available. This benefits everyone who cares for scientific progress.

A major disadvantage to PPPR is that social media can hijack it. The threat of spammers and trolls is real. Good science cannot prevail if unqualified “peers” can mob and tarnish your research based on baseless arguments and falsehoods. To counter this, independent 3rd-party platforms need to be established. Moreover, there is the risk of nonconstructive criticism from real peers that can take a vigilante form.

Another drawback to PPPR is the effort involved. Remember, it is still “peer review”! Producing compelling arguments takes time and energy, which many scientists increasingly lack. However, on this PPPR has an advantage over pre-publication peer review. Being open, you could review one part of the manuscript that you are an expert on, leaving others to evaluate the other aspects.

Future of PPPR

The impact of PPPR on science is being felt. The web has made it possible for many scientists from across the globe to be “in a single room” again. Most scientists have a positive view of PPPR. However, there are barriers to post-publication peer review.

One is the current lack of motivation and the sense of duty. Unlike formal peer review, respected by all scientists, PPPR does not yet have that dignity. Another barrier is too much choice: too many platforms/alternative methods compete for use in communicating reviews. Both can deter scientists from participating in PPPR, complicating matters needlessly.

Platform Tools

One way to simplify the scope and use of PPPR is through designated web platforms. On these, registration would be obligatory (to weed out people not seriously interested in scientific publications). Recently, some third-party platforms have embraced PPPR. Here is a brief list, with key features.

1. *Pubpeer:* Comment on any DOI-linked paper, permits direct feedback to others.
2. *TrueReview:* Allows scientific communities to organize papers, ranked according to evaluations.
3. *PubMed Commons:* Reviewing restricted to *PubMed* authors, keeps expert reviewing.
4. *OpenReview:* Invites more formal forms of peer review via the *ResearchGate* network,
5. *F1000:* Paper versions are updated after the PPPRs, these are shown on the same pages.

Conclusion

We need peer review, in some form, to screen out bad science. Among the types of peer review of scientific publications, only post-publication peer review is, by definition, never finished. Given the major growth in open access publishing, PPPR offers an antidote to predatory publishing tactics. Although now experiencing “growing pains”, PPPR is already adding to formal peer review—though not yet replacing it.

Category

1. Publishing Research
2. Understanding Reviews

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Author
daveishan