



Description

The traditional peer review process is a vital part of scientific publication, though it is known to be imperfect. This has led to scientists and publishers debating new models to bring the best out of peer reviewing and ensuring it meets its true purpose.

One of the new models entails [critiquing scientific work](#) even after it is published. A growing number of scientists view post-publication peer review as an opportunity to elevate the quality of published science. Online publication of scientific journals allows scientists to share their views on published papers usually in the form of comments/reviews and have online discussions. Different platforms for commenting on published papers make it difficult for researchers to gather all comments for a particular paper/article in one place.

As a step towards a centralized commenting system and with growing request from its readers, PubMed initiated the forum PubMed Commons.

PubMed Commons enables researchers to post comments on any published paper indexed by PubMed. Registered users add comments that can be viewed by anyone accessing the paper. The site mentions “PubMed Commons is a forum for open and constructive criticism and discussion of scientific issues. It will thrive with high quality interchange from the scientific community.” For more details, visit PubMed Commons. Another such initiative involving comments on published papers is PubPeer.

Will such initiatives of posting comments have a positive impact on scholarly scientific communication and increase participation in scientific dialogue? Will adding comments abandon reliance on Letters to the Editor and overcome the current shortcomings of pre-publication peer review? Will the comments play a role in the metrics for measuring the quality of research? Let’s see the views of some of our industry experts on this topic.

Our Experts’ Opinions on Post-publication Peer Review

Unfortunately, the system has turned out to be rife with money-hungry companies (i.e., extortionate [journal submission](#) fees) with very poor editorship and peer-review

systems. It has actually lowered the quality of published research!

PhD, Neuroscience (18+ years of scientific and editing experience, AU)

The [peer review process](#) is far from ideal. Nearly any researcher would tell you that they have experienced a peer-review process where they 1) could not get a quality study published after several [journal submissions](#) and 2) could not believe that study got through and was published. The reason for this, unfortunately, is often the same reason—a lack of objective reviewers within a specialized field. So I ask myself, what is the best way forward? It was not long ago that there was the open-access journal explosion, promising an open, peer review process that would revolutionize the scientific publishing world. Unfortunately, the system has turned out to be rife with money-hungry companies (i.e., extortionate journal submission fees) with very poor editorship and peer-review systems. It has actually lowered the quality of published research! So, will embracing the post-publication peer-review system and injecting it with a dose of social media such as PubMed Commons restore order and faith to the system? Maybe. The next generation of scientists, those students in undergraduate and post-graduate school living their life in a lab, are also spending a significant amount of time living their life through social media. Can we believe everything we read on social media? Of course not, but at the same time, the masses are capable of finding brilliance equally as well as uncovering dirt. One thing is for sure: with social media, it will be tougher for the next generation of scientists to be anonymous and subjective.

Although the sense of a decrease in the authority of published material may be inconvenient for some, the collective science effort will benefit, and the debate on PubMed Commons will be enlivened with a multitude of opinions.

PhD, Cancer (12+ years of scientific and medical writing experience, AU)

The current peer review process necessitates selection of scientists from closely related fields, whose views and motivations may conflict with those of the authors. Hence adherence of scientific interpretations, and even experimental data, to canonical science is paramount under review by selected peers, and can often form the criteria for publication. Thus, as a new scientific process, replacement of pre-publication peer review with a widely used post-publication review platform will likely improve the quality and quantity of scientific scrutiny, and will speed up the dissemination of novel scientific discoveries. Although the sense of a decrease in the authority of published material may be inconvenient for some, the collective science effort will benefit, and the debate on PubMed Commons will be enlivened with a multitude of opinions.

Reluctance of junior scientists to comment critically on the work of more senior scientists may be an obstacle to the goals of this reform if anonymity is not granted. Indeed, the need for anonymity goes to the core of competitive funding systems, which like the current peer review process, rely on the authority of select opinion leaders, who may feel the need to protect their interests and undermine scientists with controversial views. Hence to circumvent biases of opinion leaders, equivalent reforms to funding systems may be required in addition to post-publication peer review.

Post-publication peer review permits the wider community to further scrutinize the article, presenting the open forum that peer review ideally aims for. This ideal forum,

however, is not free of conflicts of interest, which are otherwise mediated or controlled for by the journal editor

PhD, Biology (12+ years of scientific and editing experience, UK)

The peer review process was born not only as a way to scrutinize the data behind any scientific publication, to ensure the article ultimately conforms to the standards set by the scientific community, but also to enable scientific discussion. However, rarely does this discussion involve more than few reviewers at the pre-publication stage. [Post-publication peer review](#) permits the wider community to further scrutinize the article, presenting the open forum that peer review ideally aims for. This ideal forum, however, is not free of conflicts of interest, which are otherwise mediated or controlled for by the journal editor. Discussion of a mainstream theory against a competing mainstream theory is often not permitted through peer review (even if one does not necessarily invalidate the other); similarly, theoretical scientists often are not given the chance to review and discuss empirical data, and vice versa. Thus, openly voicing and discussing scientific issues in a constructive manner cannot but enhance and expedite scientific advance.

Category

1. Publishing Research
2. Understanding Reviews

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