Open Peer Review

After you submit a manuscript to a journal and if it passes the initial in-house assessment, it is sent out for **external peer review**. Different journals may vary in terms of how they organise the peer-review, for example, the number of external reviewers or the role of the Editorial Board may differ.

Traditionally, journals operate a **single-blind** or **double-blind peer review**. In this form of peer review, the authors do not know the identity of the reviewers and/or the reviewers do not know the identity of the authors. The aim of the blinded peer review is to avoid potential biases such as authors' gender, nationality, affiliation or academic rank, and to avoid potential retaliation against critical reviewers, especially if the reviewer is at an early career stage.

Some scholars point out that it might be difficult to truly anonymise submitted manuscripts and instead promote an **open peer review** model, which attempts to make the review process more transparent and also credit reviewers for their work.

Definition and principles

There is no single definition of open peer review; rather, the term encompasses different methods that aim to make the peer review process more transparent.

In his comprehensive review, <u>Tony Ross-Hellauer (2017)</u> identifies the following ways in which peer review can be opened. Journals or platforms that perform "open peer review" may apply one or more of these traits.

1. Open identities

= authors and reviewers know each other's identity

Among the proposed benefits of open identities are the increase of review quality as reviewers would be held accountable for their reports, and it could make potential conflicts of interest more apparent. Furthermore, reviewers would receive credit for their work. On the other hand, opponents of this method argue that reviewers might not be sincere in their reviews to avoid causing offence. Furthermore, critics are concerned that revealing the identities of the authors and reviewers might enable social biases.

2. Open reports

= review reports are published alongside the relevant article

The reports are often published along with the reviewers' identities (combination of open reports and open identities), but it does not have to be the case. The benefits of publishing review reports openly are that potentially useful scholarly information that has traditionally been hidden can be reused and the process would be more transparent as readers could consider the criticisms themselves. If the reports are published along with reviewers' names, it would allow reviewers to get recognition and credit for their work and review reports could become citable outputs. It is also argued that knowing that the reports would be made public, the reviewers would be motivated to be more thorough in their reviews.

3. Open participation

= wider community is able to contribute to the review process

Traditionally, editors would identify and invite specific reviewers. In open participation review, the manuscript is placed online and interested members of the scholarly community are invited to participate in the review process. In this way, scholars from related disciplines, who would normally not be approached, can contribute to the process. The implementation of this method might differ across platforms – comments might be open to anyone (anonymous or registered), or some credentials might be required. Proponents of this method further argue that it might help resolve potential conflicts associated with editorial selection. Critics of this approach focus on question regarding the reviewers' qualifications, willingness to participate and motivations as this approach might increase engagement by those with a conflict of interest. Due to the raised issues, it is unlikely that this method would replace traditional solicited peer review, but it might be used as a complement that runs parallel with the traditional review process.

4. Open interaction

= direct reciprocal discussion between authors and reviewers, and/or between reviewers, is allowed and encouraged

In traditional review, authors and reviewers can usually communicate only via a response to reviewers' letter mediated by the editor. Using open interaction, authors and reviewers could work together on improving the paper.

5. Open pre-review manuscripts

= manuscripts are published online in advance of or in synchrony with any formal peer review (usually using subject specific preprint platforms like arXiv or bioRxiv)

Other scholars can then be invited to comment on the pre-published manuscript and their comments can be subsequently incorporated into the revised version of the paper as it goes through traditional peer review with a journal. The benefit of this approach is that the findings can be shared immediately without the need to wait for the peer review process to be over. If you would like to publish your manuscript as a preprint, make sure that the journal you are submitting to allows this. Especially if a journal operates a double-blind peer review, they might not want the manuscript to be available online prior to finishing the peer review process.

6. Open final-version commenting

= refers to a process where scholars review or comment on the final "version of record" publications

Some journals might offer their own commentary sections for such post-publication feedback. However, readers can publish their comments anywhere online, e.g., via blog posts, academic social networks or Twitter. The idea behind open final-version commenting is to point out that peer review is an ongoing process rather than a distinct process leading to publication. There is even a specialised platform for post-publication peer review called PubPeer.

7. Open platforms ("decoupled review")

= it is a label for review facilitated by a different organizational entity than the venue of publication

Such platforms invite authors to submit manuscripts directly to them, then organise review amongst their own community of reviewers and returns review reports. The platforms may vary in how the reviewed manuscripts are treated. With some platforms, participating journals have access to the manuscript and reviews and may approach the author with an offer of submission, other platforms might forward the manuscript along with the reviews to the author's preferred journal. This approach aims to reduce the problem of duplication of effort when manuscripts undergo peer review at several journals as they are submitted, rejected, then submitted elsewhere, and so on until they find their home.

Main source: Ross-Hellauer, Tony. 2017. What is open peer review? A systematic review [version 2; peer review: 4 approved]. F1000Research 6:588 (https://doi.org/10.12688/f1000research.11369.2)