Peer Review: Types and Challenges

What is Peer Review?

Peer review is a system of evaluation conducted by expert scholars to evaluate the quality and veracity of academic research.

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Peer reviewed publications operate by having a group of editors evaluate submitted articles and select pieces that match their publication criteria for further review. These materials are then sent to other scholars who are considered to be experts in their respective sub-specialties; these reviewers then advise the editors about whether the research is factual, well-argued, and innovative.

Peer reviewers are expert commentators who are not necessarily affiliated with the journal. Because the peer review system is highly subjective it is susceptible to bias and error and can perpetuate a lack of diversity. Therefore editors play an important role in creating a thoughtful set of policies and practices around selection and peer review to recruit a diverse range of reviewers and instruct them in how to conduct a thorough, constructive, and unbiased evaluation.

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Types of Peer Review

Peer review shapes and improves scholarship by helping authors to enhance their writing and the structure of their arguments. Peer review is usually conducted according to a few established models. The three most common are:

Double Blind Review:
The most common type of review practiced in academic publishing. Both the author and the reviewer are anonymous to each other.

Single Blind Review:
The reviewer knows the identity of the author, but the author does not know who the reviewer is.

Open Peer Review:
A newer and less strictly defined practice in which the identity of participants is not disguised. Some publications that practice open review follow a fairly traditional format of editor-mediated review in which the participants know each other's names. Other kinds of open peer review result in a final publication in which the reviewers comments are displayed alongside the published article, or a publication that is open for public comment rather than review by only preselected, expert reviewers.

Challenges in Peer Review

Bias and Inequality

Well-structured peer review processes can help authors improve their writing and rigorously vet research for publication. However, in the absence of careful policy planning, and sometimes in spite of editorial intervention, peer review can be subject to bias and inequality.

Double blind peer review has long been considered the gold standard for peer review, as its anonymity provides the basis for objective, unbiased evaluation. Yet everyone operates under their own inherent biases.

Reviewers may be critical of certain arguments, methodologies, and subjects on the basis of gender, language, and nationality or race. They might also be subject to confirmation bias, adhering to conservative or widely held beliefs, or rejecting out of hand—rather than engaging with and valuing—innovation in process and argument.

Even in blind review, the peer reviewer pool could lack diversity and be biased against work in emerging fields or that demonstrates non-mainstream thinking. This system of anonymity can also create a lack of accountability, unscrupulous editors can ignore or obscure the results of peer review. Reviewers can also provide poor or even mean-spirited commentary, knowing that authors might not see their exact comments or won't know who made them.

One response to these criticisms is an alternative system of "open peer review," in which the identities of the author and reviewer are known to each other, and in some cases to the public readership as well.

Open peer review creates a system of accountability and transparency which encourages reviewers to be more thorough and constructive in their evaluations. When peer review commentary and results are shared publicly, readers can even benefit from the opportunity to see dialogues and disagreements with the author.

By seeing the critiques and suggestions from other experts, which are usually visible only to authors and editors, readers can develop more nuanced or critical views on the subjects of the research.

Quality and Fallibility

It is important to problematize the process of peer review, seeing its faults and benefits. As a subjective system, peer review is prone to human error and unreliability. Some journals rely on the opinions of only one or two experts and an in-house editor, although faulty research and findings often make their way through rigorous review processes. Peer reviewers do not, for instance, recreate laboratory or social science experiments, and cannot confirm whether findings can be replicated or the methodologies are sound. It is valuable to keep these issues in mind as we read research and maintain a critical approach to published work.

Resources on Peer Review

If you've been asked to be a peer reviewer, you may be uncertain where to start. Luckily there are resources available that can help you to be a thoughtful and effective participant in the publishing process.

- COPE Ethical Guidelines for Peer Reviewers: The COPE Ethical Guidelines for Peer Reviewers set out the basic principles and standards to which all peer reviewers should adhere during the peer review process. Click on the following link for the guidelines:
  https://bit.ly/COPEB2B
- AAUP Handbook: Best practices for peer review. This handbook from the Association of American University Presses Acquisitions Editorial Committee outlines the types and processes of peer review in scholarly publications. Click on the following link:
  https://bit.ly/AAUPB2B
