WHAT IS PEER REVIEW?

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The peer review process is a quality control system for published research. Experts in a particular field are invited to assess the strength of a piece of work and its suitability for publication. Although it is most common in academic journal publishing, other outputs are also assessed in this way. Reviewers may be either practitioners or researchers and will have in-depth subject knowledge which allows them to spot errors or inconsistencies in the research.

The process of peer review is cyclical, with research outputs often requiring a repetitive process of review and editing before they are ready. Peer review is seen by many as the gold standard in academic publishing and many researchers will aim to get their work included in a peer reviewed publication.

Why do we have peer review?

Peer review has traditionally been used to maintain the quality of published research and protect against substandard, misleading or fraudulent outputs. Academic research has many real-world applications and publishing poor research can have potentially damaging consequences. Good peer review checks the design of the research, ensures that any conclusions drawn are based on evidence, ascertains any potential conflicts of interest and works to make the finished output more readable.

Any publisher publishing an output is endorsing the research and as such it pays to go through a quality check. Undertaking peer review can help to protect the reputation of the publisher as well as the quality of research that enters the field.
Criticisms of peer review

The current system is not without its critics. Dating from the 18th century, several people have claimed that it is not fit for purpose in a 21st century research environment. The system relies heavily on human judgement and as a result it can be unreliable and inconsistent, with different reviewers offering conflicting opinions. Proper peer review takes time and not everyone is able to contribute, putting a burden on the dwindling number of available reviewers in some subjects and extending the waiting time for publication. In extreme circumstances the small groups of reviewers can abuse their powers to actively stop competing work from being published.

One major criticism is that the process is unfair to both those who review and the institutions that employ them. Researchers and academics carry out the review process for free on top of their other commitments and their institutions are then required to pay to access the finished output. Is this a fair system?

Open peer review

As a response to these circumstances a new system of review has been suggested – open peer review. This aims to make the whole process of reviewing research more transparent for both the reviewer and the author. Traditional peer review is a closed and anonymous process and can seem very mysterious. Under open review, reviewers sign their name to their comments and receive credit for their work whilst authors are able to see exactly what has been said about their work. Some reviews are also posted alongside the finished work when it is shared online. This process helps to prevent problems and demystifies the process of peer review – helping to encourage others to get involved in reviewing work.
HOW CAN YOU GET INVOLVED IN PEER REVIEW?

TAKE SOME TRAINING
Lots of publishers offer training programmes and advice for those interested in peer review. Keep an eye out for any new training opportunities on the OSC webpages as well.

CONTACT AN EDITOR
If there is a particular publication you want to review for then why not contact the editor directly? Publications are often looking for people to review and may be glad to add you to the list!

FIND A MENTOR
If you are still unsure about becoming a peer reviewer why not find a mentor to help you? Chances are you know someone who can talk to you about the process and they may even be able to guide you through your first reviews.

FURTHER RESOURCES
Visit our webpages: http://www.osc.cam.ac.uk
Watch our video on Peer Review in 3 Minutes: http://bit.ly/PeerReview3Minutes

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