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New Forms of Peer Review - Open Review.docx

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This is a Scholarly Communications Investigations (SCI) post!

By bringing you these posts, the STS Scholarly Communications Committee hopes to promote discussion and facilitate the professional development of STS members in the broad area of scholarly communications. The posts are written by our committee members (or volunteers from the STS librarian community) and automatically archived on the STS discussion list archive.

We are indebted to the STS Discovery & Access Committee and their "Inside Science Resources" initiative for inspiring our SCI Project!

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New Forms of Peer Review - Open Review

Peer review - the bedrock of the academic publishing model and the process that strengthens scholarship by carefully examining new research - is changing. Or at least being augmented. The traditional model is single or double-blind peer-review, where authors do not know the identity of their peer reviewers and the reviewers may or may not know the identity of the author. This process is slowly being supplanted and modified by aspects of open peer review. Open peer review of academic work has been discussed widely, from various points of view, and hopefully this investigation will clarify some issues for STS librarians.

Some definitions highlight varying ideas on the nature of open peer review -

- **Emily Ford** "any scholarly review mechanism providing disclosure of author and referee identities to one another at any point during the peer review or publication process."
- **Erin Green** "open peer review of scholarly publications takes place in an online forum that is open to either the public or to a particular community of scholars."
- **David Shotton** "The whole review process is entirely transparent. Each submitted manuscript is immediately made available on the journal's website. Reviews and comments from readers are welcomed, and are considered alongside the formal peer reviews solicited from experts by the journal. All the reviews, the author's responses, and the original and final versions of the article are published, and the appointed reviewers and editors are acknowledged by name in the final version."

These fairly divergent definitions can mean -

- That reviewers and authors know each other's identities.
- That referee comments and author responses are accessible to the reader, even if no reviewer names are revealed.
- The review process is open to public contributions, or viewable by the public in a post-publication setting.

These possible definitions are not mutually exclusive - a publication could disclose reviewer identities to authors, publish the reviewer comments publicly, and invite post-publication review from readers. *Atmospheric Chemistry & Physics* includes many of these open practices - starting with submission of a discussion paper open to interactive public commentary that also has traditional referee comments. Some aspects are voluntary (such as disclosing reviewer identity), but many features of open review are at work in *their process*. 
Why is the traditional blind review model challenged? Open peer review potentially offers much more rapid publication of results. Putting a pre-print on bioRxiv, operated by Cold Spring Harbor Laboratory, offers researchers immediate publication and feedback instead of a long wait for reviews to come back. The anonymity of blind review has been manipulated by fake peer reviewers and reviewing networks. Open peer review potentially offers reviewers public credit for their important scholarly work. On the other hand, scholars in their early careers may want the protection from possible retribution in a small scholarly field. While there are good reasons for traditional peer review, new models of peer review are ultimately driven by researcher interest. For example, Nature Communications is experimenting with transparent review due to author interest. As librarians for science and technology disciplines, understanding new models of peer review is another way of helping our patrons.

Further Reading:
Some science publishing platforms with non-traditional peer review (links are to the review process):
F1000Research - Brief review of platform guidelines followed by publication and public peer review and revisions.
PeerJ - Editorial review of scientific methodological soundness followed by optional signed reviews and an author option of reproducing the review history.
eLife - Fairly traditional review by editors and reviewers, but a lightly edited editorial decision letter and author responses are always published, so the review contribution and quality is transparent.
BMJ - Medical journal with a fully open peer review of research papers - each article since 2014 is accompanied by the review history and author responses.

Open Peer Review Resources:
Publons - A platform for tracking researcher contributions in the realm of peer review.
Defining and Characterizing Open Peer Review - Solid review of the literature by Emily Ford with a useful list of open peer review characteristics.
Transforming Peer Review Bibliography - If you are interested in the literature on open peer review and would like to know more, this is an excellent list of readings.

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All SCI posts are archived on the STS discussion list archive (you may need to use your ALA login): [http://lists.ala.org/sympa/arc/sts-l]. Please contact a member of the SCI Planning Team if you have comments or suggestions... or to volunteer to write a post!

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