Does open access really threaten peer review?

Posted on January 11, 2012 by Britt Holbrook

Here, I mean peer review in the sense of pre-publication review by experts in a relevant field of manuscripts submitted for publication in scholarly journals.

Peer review, in this sense, has been the backbone of scholarly publishing at least since the widespread adoption of photocopying equipment, which allowed editors to copy and distribute manuscripts for review without having to copy them manually (Spier, 2002). Two points should be made immediately:

1. Peer review became a widespread practice much more recently than tales of the Royal Society might lead us to believe.
2. Peer review became a widespread practice in part because of a new technology that made the process easier to manage.

Enter new digital technologies and the push for — and against — open access.

One of the major arguments against open access policies is that such policies would undermine peer review. On the other hand, some proponents of new publishing models, such as Jason Priem, embrace the idea that peer review as it is currently practiced would be rendered obsolete. Stevan Harnad, another proponent of open access, suggests that peer review is a "medium independent" process, and so could and should survive the open access revolution. Like Harnad, Don Taylor argues that, though new technology for scholarly communication should be embraced, we need/ought not to do away with traditional peer review.

There are several questions underlying these various views:

1. What is the relationship between new digital technologies and open access?
2. What is the relationship between new digital technologies and peer review?
3. What is the relationship between open access and peer review?

To answer the first question: At a minimum, new digital technologies make open access possible in a way that it was not really in the past. A technological determinist would also hold that new digital technologies make open access inevitable, as well. On the other hand, social determinists would argue that how a technology is used can be determined by social factors, such as government policies. (For instance, Priem, who seems to be a technological determinist, focuses on the technology and tends not to discuss open access policy as much as Harnad, whose claim that peer review is "medium independent" marks him as a possible social determinist.) So, one's answer to the first question actually provides evidence of one's attitude toward the relation between technology and society. Note that social determinists may well disagree about the advisability of open access policies, as well as that there may be another category of non-technological determinists that includes those who think there is something like a dialectical

relationship between society and technology (each influences the other, but neither fully determines the other) .

The answer to the second question also turns on one's view of technology — does technology determine society, or not? If the former, then new digital technologies will inevitably alter peer review. If the latter, then we can choose whether and how to use new technologies, and this applies also to the process of peer review.

To answer the third question: the relationship between open access and peer review also depends *in part* on one's view of the relationship between technology and society. Technological determinists will decry current peer review practices and publishing policies as doomed ("Blind peer review is dead. It just doesn't know it yet," according to Aaron J. Barlow). For technological determinists, the answers are always already given by the technology. For anyone who is not a technological determinist, however, the question remains open.

I have suggested that the idea that open access policies threaten peer review is a kind of scare tactic. This is because I believe that one could have open access policies and still maintain the practice of prepublication peer review. What *is* threatened by open access policies is the current model of scholarly publication, which relies on journals that charge for access to their articles. These journals also currently run the pre-publication peer review system. So, either we maintain the current publishing model, which would mean limiting open access policies in some way, or we find another way to manage pre-publication peer review. (N.B. — This presumes that we do not want to do away with pre-publication peer review. I think this is true, but the argument for this claim would take me beyond the scope of this post.)

Researchers ought to favor open access policies, since the reason they write articles is so that other people will read them and (one hopes) cite them or otherwise use the knowledge they contain, and open access (along with other digital technologies and social media) makes that more likely. Those outside the Academy should also favor open access, since not being affiliated with a university usually means that one must pay for access to articles (those at universities get access through their libraries having paid for subscriptions to the journals). Is it only scholarly publishers, then who oppose open access policies?

Academic researchers also depend on academic disciplines, and scholarly journals, as Steve Fuller pointed out in a comment on an earlier post, provide "a palpable sense of discipline" for scholars. To a great extent, this sense of discipline is fostered by the process of peer review — one gets published in a journal only after one's peers have accepted one's manuscript as worthy of publication in a journal that is read, usually, by even more of one's peers.

But what if one could maintain the sense of community a discipline provides, of having peer review, valorization, and attention, without the current system of scholarly publication that charges for access to articles? This does not necessarily entail getting rid of journals; but it does involve a radical change in their current business models.

This is a time for experimentation, as some journals have already realized. Journals, however, have a vested interest in the status quo. Researchers, such as those at Peer Evaluation, are also

starting to experiment with alternative models of peer review. In conducting such experiments, however, we will need to remember that peer review serves political, as well as social and epistemological, functions. Disciplines, too, may have to adapt. Who ought to count as a peer is now a legitimate question for us to ask.

References

Spier, R. (2002). The history of the peer-review process. *Trends in Biotechnology, 20*(8), 357-358.