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Why Peer Review Matters

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The peer review of manuscripts submitted to OSA journals is a hugely important component of the scholarly communication process. In order for OSA publications to remain sustainable, everyone who submits a manuscript should complete at least two reviews. Are you doing your part?

Reviews are the prime pieces of information that journal editors rely on to judge the value of a submitted article and determine whether it should be published. Authors also benefit from the review process by receiving the constructive feedback of their peers, often resulting in substantial improvements in their papers—whether they are published by OSA or not. The end result is that readers and the scholarly community benefit by having access to high quality, original research to absorb and build upon for their own work.

The peer review process also illustrates to the general public how scientific information is validated. Key to this is the skeptical attitude that a reviewer is asked to take when approaching the information under review. This is an extremely powerful way to separate true, objective fact—the very stuff of science and scientific progress—from opinion and unsupported conclusions.

If you read or publish technical papers in a scholarly journal, it is part of your responsibility to review manuscripts in your area of expertise. While the peer review of a manuscript has some distinct characteristics (such as being anonymous), it is really just another form of the technical conversation we have with each other all the time—at the blackboard, in the laboratory, at conferences and in written documents.

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Of course, doing peer review well requires effort and time. All of us feel the pressure of having too much to do in our workdays. After being asked to perform a review, and after doing the right thing by accepting, it is sometimes hard to find the time to do a proper job. Sometimes reviews are very short and generic, or delayed and incomplete. Such minimal efforts are not worth very much to an editor or to the author. Would you want such a review for one of your manuscripts? Doing a review that is thoughtful, useful and timely should be your goal.

In 2010, there were over 12,500 manuscripts submitted to OSA journals by some 30,000 authors. To help judge the quality of those submissions, OSA editors called on 11,000 reviewers who performed almost 23,000 reviews. Overall, 84 percent of the manuscripts came from outside the United States, but only 61 percent of the reviewers did—an imbalance that OSA is addressing by expanding their global reviewer database at every opportunity.

Editors sometimes come across authors who submit manuscripts to OSA journals but who do not review other manuscripts when asked. This is unfortunate, and the journals could not sustain themselves if too many authors acted this way. If a researcher is truly too busy to review manuscripts, but is still an active author, he or she must find other ways to help fulfill

peer review obligations. One path might be to encourage and mentor younger, less experienced co-authors to accept peer review duties and to write effective reviews. More experienced authors will also have seen how an effective peer review has improved their papers. They should share this knowledge with students and colleagues, with the goal of encouraging them to write the same kind of reviews.

So, as an active participant in the larger scientific community, you should agree to be an OSA reviewer when asked. Do this by quickly responding to the request through the OSA peer-review website. (The email asking you to do the review will provide the link.) A quick response is essential so that the editor can manage our precious reviewer resources properly. If you don't follow up right away, the editor will usually be forced to contact another reviewer in order to remain on schedule with the article.

Next, write a quality review and submit it on time. There are a number of places you can turn for guidelines on how to write an effective review. (See References and Resources.) If you really need more time to write a proper review, most OSA editors will be glad to extend the deadline, at least for a reasonable amount of time. Communication with the editor through the OSA peer-review system is essential, so that the editor does not feel compelled to contact yet another reviewer.

Remember, it is important that you review at least twice for every paper you submit to an OSA journal, since OSA journal editors seek two reviews for each *submitted* manuscript. Also, as an OSA member, be sure to keep your profile up-to-date (<https://account.osa.org>). Since it contains information about your technical expertise, your profile is used by journal editors to match manuscripts with appropriate reviewers.

OSA and the journal editors are trying to do their part in making the review process easier to participate in. For example, for many steps in the peer-review process, email

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messages to reviewers contain links that go directly to the peer-review website. Also, the editors are expanding their efforts to quickly reject manuscripts that clearly do not meet OSA's standards. For manuscripts that are difficult to review because the authors have difficulty with English, OSA is working with an outside group that can offer, for a fee, editing services to improve the clarity of the language. OSA is also constantly improving its peer-review website to make it easier to respond to review requests and submit the actual reviews.

When faced with requests for reviews from non-OSA journals, especially those from commercial

publishers, be sure to consider what you will be supporting with your review. Spending time to review an OSA manuscript contributes to the whole functioning of the Society, since OSA depends on publishing revenue in order to sustain many of its educational and outreach programs. Therefore, your review for an OSA journal will benefit the research community beyond the impact of the journal itself. On the other hand, commercial publishers use the profit from their publishing business to benefit company shareholders.

The peer review process is essential for publishing important, accurate, technical and scientific information in OSA journals. As a member of the research community, you are part of that process, and therefore you must accept review duties on a periodic basis, perform them thoroughly and get them done in a timely fashion. Your full participation is vital to the scientific communication process. ▲

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References and Resources

- >> Sense about Science: www.senseaboutscience.org. This charitable trust helps people to make sense of scientific and medical claims in public discussion.
- >> J. Gutiérrez-Vega and C. López-Mariscal. "Peer review 101: Building a reputation as a reviewer," *Opt. Photon. News* **21**(11), 12-13 (November 2010).
- >> D. Brainard. "How to Write an Effective Manuscript Review," *Opt. Photon. News* **11**(6), 42-3 (June 2000).

Got Views?

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