Confidentiality

When a corresponding author sends a paper to *Optical Engineering* it is expected that the paper contains new, unpublished information. As it says in our Author Information page on our web site (http://www.spie.org/web/journals/oe_infocontrib.html):

> *Optical Engineering* publishes papers reporting on research and development in optical science and engineering and the practical applications of known optical science, engineering, and technology. Contributions should be substantial and significant in content. Papers should describe the original work of the authors that has not been previously published in a refereed journal and is not currently under consideration for publication elsewhere. Submissions based on reports that have been published in an SPIE Proceedings should be extensively revised according to the guidelines.

What is not stated on the web page, but is understood by authors of papers in science and engineering who submit to a peer-reviewed journal, is that their paper will be treated as a confidential transmission of information. Their paper can only be used to evaluate it for possible publication in the journal. Another part of the understanding is that the identity of reviewers of their paper will not be disclosed to anyone. Such understandings go under the term of confidentiality. This is a term that should need no definition. All of us are concerned with, rely upon, and exercise confidential agreements in the course of our daily lives, whether it is medical records, financial information, or technical concepts.

The argument for the confidentiality for reviewers is based on the assumption that to provide an unbiased evaluation of a paper in a community of peers the identity of the reviewer must be protected. In some fields, not only is the identity of the reviewer protected, but also the authors. My wife is on the 43-member editorial board of the *Journal of Nursing Education*. In the case of this journal, the board members do all the reviews and the author's names and affiliations are deleted from the papers. Here, while the reviewer's identity is not known, the number of possible evaluators is small.

Some have called for an open publishing of papers, with comments by anyone who cares to make them. Very much like a technical Wikipedia,* the openly editable Internet encyclopedia, it has been suggested that papers be subject to open commentary. I doubt it would work very well. Not because there would be too much discussion, but because there would be so little. Most papers would not get the consideration that is required of all papers before they become publishable. For most scientists or engineers, criticism of their papers will only take place if someone is asked to take the time and effort to look at the contents critically. I think that our current review procedures result in publishable papers that are corrected and much improved and in wrong or trivial papers that are rejected. While not perfect, peer review acts as a valuable noise filter for our community.

Sometimes the maintenance of confidentiality requires additional measures. In one instance, a reviewer felt that a program by an author and mentioned in the paper needed to be evaluated to see if the conclusions made by the author were warranted. However, he did not want to log onto the author's web site because there was the possibility that the web site software might capture his IP number. So I downloaded the program myself, placed in a folder on my personal web site, and the reviewer obtained the program from there.

Confidentiality regarding a reviewer's identity is taken as a given. But sometimes the confidentiality of the author's paper may be challenged. Several instances have occurred when a reviewer stated that he had reviewed the same paper by the same author for another journal. Many times the author is journal shopping (paper submitted to *Optical Engineering* after being rejected by the other journal). Sometimes this is a necessary process when the reviewers do not understand the import of the paper. For example, the announcement of the first laser was rejected by *Physical Review Letters* and then published by *Nature*. But in quite a few instances, which I consider, if not un-

*The Wikipedia has a well-written exposition on peer review. I doubt that this topic would be treated with such detail and wide distribution before Wikipedia was established.

ethical, at least unprofessional, an author takes his or her rejected paper back from one journal and submits it to another one without revising it to take advantage of the critiques provided by the reviewers.

Our great concern is when there is either a double submission (paper submitted to two different journals at the same time) or an attempt at duplicate publication (paper accepted for publication while paper is submitted to *Optical Engineering*). In some form or other the two versions of the paper must be compared. Even then, I am reluctant to send a copy of the paper submitted to us to another journal because of confidentiality. If another journal sends me their manuscript, I will compare it and tell them what I have found and if it is a duplicate, then I will share the entire paper, since the authors have broken their part of the compact. Otherwise, I will compare abstracts and other sections of the paper, usually its conclusion, to determine if there is a possible violation.

Unless there is something unusual with a paper, I have no idea who reviewed it. Only the Associate Editor assigned to the paper and SPIE's journal staff are aware of the reviewer's identity. These talented people handle over a thousand papers a year and they get a sense of odd or irregular manuscripts. The staff and sharp-eyed reviewers tend to provide a measure of oversight of ethical misconduct, while protecting the confidentiality of authors and contents of the papers submitted to this journal.

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