Predatory vs. Legitimate Publishers

In 2010, University of Colorado librarian and researcher Jeffrey Beall began receiving a large number of emails inviting him to submit articles or join editorial boards of unfamiliar journals. As a result, he created a list of criteria for identifying a predatory publisher or journal, and this list led to another list of both publishers and standalone journals that have been deemed as predatory, and thus not reputable. He updates the latter list every year.

In 2013, John Bohannon, a science journalist with a PhD in molecular biology from Oxford, reported in Science the results of a publishing experiment. In his experiment, he submitted nearly identical research papers, containing a fundamental and unpublishable scientific flaw, to 304 journals. Of those journals, 167 were listed in the Directory of Open Access Journals, which Bohannon describes as the “Who’s Who of credible open-access journals”. 121 were from Beall’s list, and 16 were listed by both.

Bohannon’s paper was titled “Molecule X from lichen species Y inhibits the growth of cancer cell Z.” He then set up a database of molecules, lichens, and cancer cells and produced hundreds of manuscripts that were each different only with respect to these three variables. He also took on a pseudonym from fictitious African institutions and withdrew the paper each time it was accepted.

At the end of Bohannon’s experiment, 157 journals had accepted his paper that had numerous scientific red flags, and these papers were accepted, on average, within 40 days. Ninety-eight journals rejected the paper, and the other 69 had not yet made a decision. Only 36 manuscripts were returned with peer review comments addressing the papers’ flaws.

Bohannon warns that this information should not be interpreted as an attack on open access publishing; after all, some journals from the industry’s largest and most respected publishers, Elsevier and Sage, also accepted his phony manuscript. However, it is much easier for predatory publishers to hide behind the anonymity of the Internet, a situation to which much easier for predatory publishers to hide behind the anonymity of the Internet, a situation to which online-only open access publishing particularly lends itself.

With NIH and NSF leading the way in requiring its grant recipients to embrace open access to research results, we need to remain vigilant in ensuring publication and editorial membership in reputable journals.

Beall’s Tips to Help Identify Possible Predatory Journals and Publishers

• Poorly maintains websites, including dead links, prominent misspellings, and grammatical errors.
• Does not identify a single individual as the journal’s editor.
• Falsely claims to have an impact factor, or uses some made up measure (e.g., view factor).
• Has a “contact us” page that includes only a web form.
• Hides or does not reveal its physical location.

In theory, peer reviewing is simple: honestly critique, in writing, the methods and presentation of information while maintaining the confidentiality of that information. Nevertheless, almost every author has received some peer reviewer comments that are not at all helpful or are confusing.

To help ensure that peer-review comments to authors are straightforward and valuable, BMJ's publishing group put together a substantial (but optional) training package. The package was originally used in a randomized, controlled study of peer reviewer training and is now offered online.

The advice offered by BMJ is meant to help not only authors and reviewers, but also editors. In general, BMJ recommends reviewing a manuscript from the perspective of the readership of the journal. Is the article important for that readership, and will it help readers? Beyond that primary focus, a peer reviewer must become a member of the PubMed Commons community,

**Commenting on PubMed entries**

Scholarly conversation about a research project usually largely ends after peer review and subsequent publication. However, with the launch of PubMed Commons, any author with at least one item in PubMed is able to publicly comment on any PubMed entry, thus extending the life of research projects.

To participate in this pilot forum for open, constructive criticism and discussion of scientific issues, one must become a member of the PubMed Commons. All authors of publications in PubMed are eligible to become members, and PubMed Commons is exploring other options for joining. Once verified, members can then comment on any publication in PubMed, rate the helpfulness of comments, and invite other eligible authors to join. So far, over 5,000 scientists have joined.

Comments are public and attributed to the commenter (anonymous comments are prohibited).

Comments, if any exist, are listed at the bottom of specific PubMed entries. However, PubMed Commons also keeps a feed of trending and selected recent comments on its home page. This page also allows the user to search for comments made by specific authors. Currently, comments are limited to 8,000 characters, but linking to external sites is permitted.

Although PubMed Commons has had a presence since October 2013, it is still in a state of flux as a pilot program.

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**Launch of PubMed Commons**

**Commenting on PubMed entries**

In a survey of 234 reviewers of the American Journal of Public Health, reviewers said they spent an average of 2.4 hours (weighted median) on each review (Yankauer). Part of that time is likely spent doing a literature search to determine the originality of the paper and if important studies have been referenced. BMJ suggests that if a reviewer believes a paper to be unoriginal, it is worth the effort to look at the review (Yankauer). Part of that time is likely spent doing a literature search to determine the originality of the paper and if important studies have been referenced. BMJ suggests that if a reviewer believes a paper to be unoriginal, it is worth the effort to look at the original reference.

To review the complete BMJ training, see "Training materials" below.

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**What do journal editors ask reviewers to avoid?**

Reviewers need not point out spelling, grammar, and punctuation mistakes, nor style or formatting issues. All these types of mistakes can be discussed generally with an example or two to support the comment, but ultimately, journal copyeditors and the authors themselves have the responsibility of ensuring the professionalism of the final product. In addition, reviewers should avoid suggesting that authors change the way they structure phrases because the phrases are not written as the reviewer would write them.

To participate in this pilot forum for open, constructive criticism and discussion of scientific issues, one must become a member of the PubMed Commons. All authors of publications in PubMed are eligible to become members, and PubMed Commons is exploring other options for joining. Once verified, members can then comment on any publication in PubMed, rate the helpfulness of comments, and invite other eligible authors to join. So far, over 5,000 scientists have joined.

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Self-Plagiarism?

Plagiarism is clear-cut: it is using the words or ideas of someone else without giving proper credit. However, self-plagiarism is less clear and might even be an unknown concept to some.

By definition, self-plagiarism is reusing material from one’s own previously published manuscript as though it were new. Why is it potentially problematic to reuse one’s own material? When an author submits a manuscript to a journal and signs a copyright transfer agreement, the material then belongs to the journal. Therefore, reusing the material may violate copyright. In addition, the ethics of duplicate publication might come into play when a large portion of one article is republished in another article. Redundant publication pollutes the literature and muddies future efforts in meta-analysis.

So, just how much is too much? Most guidelines are vague because, in general, no concrete limits exist regarding exactly how much material may be copied verbatim before copyright infringement becomes an issue.

How can we avoid self plagiarism? When submitting a manuscript that includes material that has already been disseminated elsewhere, paraphrase and cite or request permission from the publisher/copyright holder to reuse. Publisher Wiley instructs its authors to request permission in instances of quotations of over 300 words from a book or 50 words from a journal. Wiley also requires permission for reproduction of photos, charts/graphs, and tables that have been published elsewhere.


Plagiarism Detection Tool iThenticate

University of Tennessee faculty and staff now have access to the plagiarism checking tool iThenticate, which is used by many academic publishers, such as Elsevier and Springer, to compare manuscripts to over 40 million published research articles. Although the service is free via a University Libraries subscription, to use it, individuals must request an account from Gayle Baker at gsbaker@utk.edu using their UTK email address.

To use iThenticate, users simply upload a file (various formats acceptable), and a similarity index and originality report are produced. Users must then examine matching text to determine if plagiarism exists. This is a particularly important step because reference lists will inevitably be marked as potential plagiarism, so virtually no document will receive a 0% similarity index.

The university offers in-person or phone training through Jeanine Williamson at jwilliamson@utk.edu or 865-974-9164. Training videos are also available at http://www.ithenticate.com/resources/customer-training.

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