



Best practices for scholarly authors in the age of predatory journals

'Continuous effort, not strength or intelligence, is the key to understanding our potential.'

Margaret J Wheatley

The focus of any academic or research author is to share his or her findings, and to gain respect and reward for publishing. The ideal journal is one that not only publishes an article quickly but also helps the author to improve the article before publication through peer review, selects only the best research so that the author's article lies alongside other high quality articles, and provides maximum (and long-term) visibility and access to the article.

Unfortunately, in the real world, authors need to make tradeoffs between high quality journals, those that work quickly, those that are willing to accept the article and those that provide the best access. Into this mix has come the potential of open access as a means of increasing visibility: journals publish the article without a subscription barrier so anyone, anywhere, can read the article. However, the growth of open access (pushed by institutions, grant bodies and governments as a means of improving human health and knowledge) has come with some unforeseen consequences.

In this article, Jeffrey Beall discusses one recent phenomenon that has arisen from the open access movement: that of 'predatory publishers'. These are individuals or companies that use the open access financial system (author pays, rather than library subscribes) to defraud authors and readers by promising reputable publishing platforms but delivering nothing of the sort. They frequently have imaginary editorial boards, do not operate any peer review or quality control, are unclear about payment requirements and opaque about ownership or location, include plagiarised content and publish whatever somebody will pay them to publish. Predatory publishers generally make false promises to authors and behave unethically. They also undermine the scholarly information and publishing environment with a deluge of poor quality, unchecked and invalidated articles often published on temporary sites, thus losing the scholarly record.

Jeffrey Beall, a librarian in Denver, US, has watched the rise of such fraudulent practice, and manages a blog site that names publishers and journals that he has identified as predatory. While Beall's lists can provide librarians and knowledgeable authors with information on which journals and publishers to be cautious about, several legitimate publishers, library groups and others have joined forces to educate and inform authors in what to look for when selecting journals to publish in (or read). This initiative, called *Think. Check. Submit.* (<http://thinkchecksubmit.org/>), was launched in the latter half of 2015 and hopes to raise awareness of disreputable journals while clearly separating them from valid, high quality, open access journals (of which there are many).

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The way academia finances scholarly publishing is changing. In the past, library subscriptions covered the costs of publishing scholarly journals but with the shift to open access, journals are increasingly being financed by fees charged to authors whose papers are accepted for publication. This 'gold open access' model has the advantage of making research freely available but the system of payments from authors has created many unanticipated and negative side effects.

Unlike in the past, there is now a low barrier to launching a new scholarly publishing operation, and almost anyone can quickly and cheaply start a new journal or suite of journals (and indeed many have). Owing to its importance to society, medical research is commonly supported by grants and many researchers now use grant money to pay the author fees charged by open access journals – money that used to be devoted entirely to research. There is also pressure from grant funders (especially those in health sciences) and governments to make access to scientific findings free, and they are strongly encouraging (or even requiring) authors to make their work open access in some form. Now, increasing numbers of gold open access publishers have appeared that seek to earn this grant money from scholarly authors in the form of open access author fees.

How I started compiling the list and why

The first decade of this century saw the emergence of gold open access journals. Like many, I started to receive fishy looking emails from unknown publishers based in locations they kept secret. Curious, I began to print out the spam emails and save them in a folder. My instinct as an academic librarian was to catalogue or list the new journals and publishers. I had been reviewing science books for a library journal for many years and the folder, filled with printouts of spam emails, marked my transition from reviewing books to reviewing scholarly journals.

The printouts in the folder eventually became a list published on a blog. A second list for standalone journals also became necessary. Soon, I developed and wrote criteria to enable consistency in the evaluation of journals and publishers. In early 2012, as the problems and threats from predatory journals became more acute, the lists (now moved to a WordPress blog platform) saw increasing use and drew more attention. While most found the lists useful in avoiding scholarly publishing scams, others questioned whether criticising open access journals was appropriate given what they cited as profiteering by subscription publishers. Nevertheless, I have managed to maintain the lists for four years and, unfortunately, they continue to grow.

What is the problem with predatory publishers?

Predatory journals threaten science, scientists and the effective communication of science. Under the gold open access model, each article published means more revenue for the publisher. Of course, peer review, properly conducted, often results in journals rejecting manuscripts for publication. However, the promise of more revenue

pressures dishonest publishers to accept and publish articles despite the poor quality of science they contain and reject recommendations from peer reviewers.

This fatal flaw in the gold open access model has led to the publication of numerous papers that are unscientific and should never have been published. It has also led to the emergence of hundreds of pecuniary, open access publishers that are designed only to exploit the flaw and generate revenue for their owners. Demarcation (the division between science and pseudoscience) is becoming vague and unenforced. Using predatory journals, anyone can publish articles that appear scientific and such articles are frequently included in academic indexes such as Google Scholar™.

Dozens of surgery journals

New predatory publishers often launch with scores of journals. Typically, each journal is broad in scope, which is a strategy to ensure as many manuscripts as possible fall into the journal's coverage. Many predatory publishers focus on journals in the health sciences. Routinely, they create one new journal for each medical specialty, such as surgery. As a result, there are dozens of low quality surgery journals, publications with titles such as *Universal Surgery*.

Loss of selectivity

One of the strengths of the subscription model, especially before the internet, was its selectivity. Print journals had 'page budgets' (limits on the number of pages that could be published in each issue). Accordingly, editors selected only the best articles from among those submitted to appear in each issue, a practice that increased the quality of such journals. As such journals gained reputations as quality publishing outlets, they further attracted top manuscripts.

At the same time, journals that failed to deliver quality content saw a loss in the number of subscriptions. The subscription model had a built-in quality control feature: when quality declined, subscribers balked. This reality motivated journals to accept and publish only the most promising, highest quality research.

Open access publishing and the advent of the internet have changed this. Most scholarly journals are online only and no longer have page budgets. Many open access scholarly journals have abandoned article selectivity as they aim to grow revenue by increasing the number of author-fee articles they accept and publish. The number of scholarly articles published has exploded, making it harder to stay abreast of current research, and it now takes more time to filter out the irrelevant and low quality articles. The validation function provided by subscriptions is also gradually disappearing. With open access journals, there are no subscriptions to cancel.

What is Beall's List?

The eponymous Beall's List is actually a set of four lists. There are organisations for journal editors (eg the European Association of Science Editors) and organisations for scholarly

publishers (eg the Association of Learned and Professional Society Publishers) but there are really no organisations that look out for the interests of scholarly authors, especially authors as consumers of publishing services.

The lists I author aim to fill this gap. They serve to help authors avoid questionable and low quality scholarly journals as well as other scholarly publishing related scams. One of my lists itemises predatory or questionable publishers and one lists predatory or questionable standalone journals. The third list aggregates hijacked journals (ie where someone has set up a site pretending to be an already established, reputable journal)¹ and the fourth lists fake metrics companies.

By fake metrics, I refer specifically to fake impact factors. A couple of years ago, predatory publishers realised that many authors prefer to publish in journals with impact factors. Impact factors are calculated each year by the firm Thomson Reuters and published in a proprietary product called Journal Citation Reports®. The product is highly selective and it can take many years for an individual journal to earn an impact factor. Impact factor has been the subject of an earlier article published in this series.²

Hardly any of the predatory journals meet the quality guidelines required by Thomson Reuters, nor do they want to wait to earn one. In order to fill the need, a number of companies appeared (based chiefly in India) that supply 'impact factors' to predatory journals (and also defraud some naive journal publishers into paying for them). In many cases, the values are just made up. Moreover, some journals assign themselves impact factors and announce them on their websites. Many scholarly authors have been fooled into thinking they have published their work in an authentic impact factor journal, when in fact the journal had never earned one. Thomson Reuters never trademarked the term 'impact factor' so many simply use it with impunity.

How do you identify predatory publishers?

In the great majority of cases, predatory journal identification is easy, obvious and without disagreement. A six-page criteria document published on my blog details a useful list of typical predatory journal behaviours.³ These include the promise of a very quick time between submission and publication, the use of fake impact factors, the presence of plagiarism in the published articles, and a lack of transparency or honesty regarding the ownership and headquarter location of the publisher.

Spamming is a hallmark of a predatory publisher, especially manipulative spam that praises one's earlier publications and seeks another. Overall, predatory publishers use deceit, are not transparent and do not follow scholarly publishing industry best practices.

Tips for avoiding predatory publishers

Be wary of any publisher website or email that is unprofessional or full of grammatical errors. When in doubt, refer to my lists. Most email solicitations for article submissions come from predatory journals so you should be especially wary of them. Choose to publish in known journals, preferably ones that you and your colleagues already read. Students and others just entering the profession are particularly vulnerable and should consult with mentors or senior colleagues before submitting manuscripts to an unfamiliar publisher.

References

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3. Beall J. Criteria for determining predatory open-access publishers. 3rd edn. 2015. Available from: <https://scholarlyoa.files.wordpress.com/2015/01/criteria-2015.pdf>.



Coming up next time

Pippa Smart, Guest Editor of this series, introduces the topic of copyright for authors. Copyright is a type of legal protection for intellectual property including literary works, music, computer software, architecture and medical research. You do not need to apply for it and copyright protects against publication without explicit permission from the copyright owner.