8 questions and answers about predatory journals: Protecting your research, reputation, and funding from theft and fraud

Latest update: November 2020

ThinkSCIENCE, Inc. | Publishing

Initial posting: July 2015 by Chad Musick, PhD



We first wrote about predatory journals as a serious threat to the scholarly community in July 2015 and about the emerging problem of predatory conferences in July 2017. Although there is now greater awareness that such journals and conferences exist and there are more resources available to help identify them, it

can still be difficult for authors to distinguish predatory journals and events from reputable ones.

In this updated featured article on predatory journals, we include

- A consensus definition of predatory journals and publishers, released in late 2019
- Recent guidance to help authors protect their research, reputation, and funding from theft and fraud by predatory journals
- A summary of warning signs that a journal might be predatory

Background

Academic publishing has changed tremendously with the spread of open access journals and the shift to online publishing. There are now more journals for authors to publish their work in than ever before. This benefits authors by providing more avenues for



publication, but it also puts greater responsibility on them to avoid the serious threat of publishing in a **predatory journal**.

In this article, we describe the features of predatory journals and answer some questions of the sort that we get asked by authors and by attendees at our author training events. We also summarize some warning signs of predatory journals and give links to resources that we hope will be helpful to you in learning more about this topic.

Note that we use the well-known term "predatory" here to describe journals that are self-serving and intentionally do not seek to provide value to the research community or maintain the integrity of the scientific literature. Other terms in use include "deceptive", "pseudo", "fake", "illegitimate", "exploitative", "unscrupulous", "scam", "bogus", and "non-reputable" journals.

And we use the term "reputable" to indicate journals that provide valuable services, follow standard ethical publishing practices, and help to safeguard the integrity of the scientific literature. Other terms in use include "credible", "legitimate", and "non-exploitative" journals.

Q1. What is a predatory journal?

Preprints There are many definitions of predatory journals available, but perhaps it can be most simply stated as follows:

"A predatory journal is a journal that deceptively takes from an author."

This concept of deceptively taking from an author can have a number of forms, which we discuss below. Opinions can differ on whether certain publishers and journals are predatory or not, but what is not in question is that the bulk of predatory journals engage in clear fraud.

Predatory journals seek to obtain money from authors (usually via article processing charges [APCs]) to publish their papers (usually open access) but fail to uphold the standard editorial, peer review, or other ethical publishing practices that reputable journals do. They typically conceal, lie about, or mislead authors on fees and the publication process.

The most recent definition of predatory journals and publishers was published in December 2019 in Nature. This clear and comprehensive consensus definition was reached during a 3-round modified Delphi process involving 43 participants from 10 countries in 12 hours of discussion, addressing 18 questions and 28 sub-questions.



Consensus definition:

"Predatory journals and publishers are entities that prioritize self-interest at the expense of scholarship and are characterized by false or misleading information, deviation from best editorial and publication practices, a lack of transparency, and/or the use of aggressive and indiscriminate solicitation practices."

Grudniewicz et al., *Nature* 576, 210-212 (2019)

Now that we have a clear definition of what predatory journals are, we next need to know how — as authors and reviewers — we can identify and avoid them.

Q2. What's the difference between reputable and predatory journals?

Sometimes you may want to consider publishing in a journal that you and your colleagues are not familiar with: perhaps you received an email inviting you to contribute an article (such emails are sent by reputable as well as predatory journals) or perhaps your paper was rejected so you are looking for a new journal to approach. You'll need to distinguish reputable journals from predatory journals when deciding where to submit.

Simply put, reputable journals provide all of the following things, and predatory iournals don't.

Adequate, qualified review

A reputable scholarly journal provides some form of adequate and qualified review, whether that be peer, editorial, or institutional review. If a journal does not provide such review, then publishing a paper in it is no different than publishing a paper on your own website, on a pre-print server, or in a general magazine. Of course, not all works are intended for peer-reviewed publication, and there is certainly a place for things such as expository articles, textbooks, monographs, and other explanatory materials, but these publications serve a different purpose. A journal without some form of adequate and qualified review is not a scholarly journal.

Qualified, independent editorial oversight



Reputable scholarly journals are typically established by respected academics to serve an unfilled need. To be considered reputable, a journal must clearly and accurately state the membership of its editorial board. The board should comprise academics with the expertise to understand and evaluate the papers that the journal publishes. STM, a trade association for journal publishers, sets out the principle of qualified and independent editorial oversight (split into two parts: correctness and independence) for publishers in their International Ethical Principles for Scholarly Publication.

Transparent fees, procedures, and policies

A reputable journal will describe — clearly and transparently — on its website all fees, procedures, and policies, which should follow the latest ethical research and publication practices. If such information is missing or difficult to find, this is a warning sign that you should check the legitimacy of the journal further.

Acceptance by reputable scholarly organizations

Reputable journals are indexed in large, trusted databases of scholarly work such as Web of Science, Scopus, MEDLINE (for biomedical work), the Directory of Open Access Journals (DOAJ), Open Access Scholarly Publishers Association (OASPA), and the Committee on Publication Ethics (COPE). Being indexed means the journals have passed a review of quality practices and procedures. Lack of inclusion in a repository does not necessarily mean by itself that a journal is predatory (a new journal is not eligible for listing immediately) and, conversely, some articles from predatory journals have leaked into well-known repositories such as PubMed Central and Scopus. Therefore, determining whether a journal is indexed or not is just one step in deciding whether a journal is reputable or predatory. (See Q6 for a summary of warning signs to check for.)

For more detailed information about the duties of journals and publishers, we recommend visiting the COPE website.

Q3. What do predatory journals do?

Predatory publishers engage in deception to exploit authors. One of the most common forms of abuse is charging excessive or hidden APCs. This type of abuse is, at heart, an attempt by predatory journals and publishers to get paid out of your research funding without providing suitable value in return. However, it's important to distinguish between the APCs charged by reputable open access journals and



publishers and those charged by predatory journals and publishers (see our summary of warning signs for predatory journals under Q6).

So, what makes one group reputable and the other predatory? Put simply: quality and transparency.

Reputable journals will uphold the 4 principles listed under Q2, and they will be extremely clear about any APCs or other fees associated with publication.

Predatory journals pervert these principles, often providing falsified information about the readership, importance, and oversight of the journal. In particular, predatory journals are likely to give misleading metrics or lie about their impact factor, editorial board, and content (sometimes going so far as to plagiarize other journals to give the appearance of having legitimate papers). Some predatory journals may even create a very similar looking website or use the same branding of a reputable journal to trick authors into paying to publish with them; this type of predatory journal is known as a "hijacked" or "imposter" journal.

Q4. Are excessive or hidden APCs the only type of abuse?

No, there are other types. For example, predatory journals may steal intellectual property through deception, engage in fraudulent or fake peer review, or list respected researchers on its editorial board without their knowledge or consent.

Because APCs are the most direct route to profiting from others' effort, they are a frequent target of abuse, but generally speaking, abuse can occur whenever the journal or publisher fails to fulfill its obligations to authors.

Q5. How common are predatory journals?

This question is a subject of debate among academics, but predatory journals number in the thousands. There are enough active predatory journals for major funders and organizations to issue advice on how their researchers can avoid publishing in predatory journals as well as any penalties incurred for publishing in them; for example, newly announced policy documents in China state that researchers will be severely punished for publishing in journals deemed to be predatory.

When we first wrote about predatory journals in July 2015, there were 671 journals and 811 publishers on "Beall's List" of predatory journals and publishers. This list was maintained by Jeffrey Beall, an associate professor at the University of



Colorado Denver, who tracked one particular segment of abusers: open-access journals and publishers.

Beall's list went offline in January 2017.

The same year, Cabell's International started two lists: a list of predatory journals, now called "Predatory Reports" (the criteria for which can be seen here), and a curated list of reputable journals, now called "Journalytics". Both require a subscription to access. The list of predatory journals currently includes more than 12,000 journals.

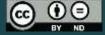
Q6. What are some of the warning signs that a journal or publisher is predatory?

Predatory journals and publishers exist to defraud the scientific community, and they spend a lot of time and effort thinking of new and innovative ways to do so. Still, checking for a few warning signs can often identify them.

Typically, **multiple warning signs**, rather than a single warning sign, indicate a journal's predatory nature, and we still need to exercise our own judgement taking into account all of the information we find out. Here are some warning signs of a predatory journal.

- Is included under "Predatory Reports" by Cabell's International
 - Cabell's International uses 60 indicators to evaluate whether a journal is predatory. If your institution does not subscribe to Cabell's Predatory Reports section (or its Journalytics section of reputable journals), you can work through the following general characteristics of predatory journals to help you decide.
- Is not indexed in large, trusted databases of scholarly work
 - As mentioned under Q2, check if the journal is indexed. See Q7 for a list of some of the largest databases and organizations to check.
- Has many mistakes in English (or the target language) on the journal's website

Mistakes can slip past even the best of us, but if a journal's editors cannot write well in the language that the journal is published in, it seems unlikely that they're qualified to edit that journal. Note that the level of language in the journal articles is a distinct issue: some journals are very concerned about



proper language, while others are more concerned with the scientific ideas and less with fully correct English presentation.

Promotes the ISSN (International Standard Serial Number) or misleading metrics as a sign of quality

Any publisher in an ISSN member country can get an ISSN by applying and fulfilling the requirements. The ISSN is simply an identifier; it is not an indicator of quality. The governing body of the ISSN specifically states that "[The ISSN] is a digital code without any intrinsic meaning.... [I]t does not guarantee the quality or validity of the contents." Also, some predatory journals falsify their impact factor or they provide misleading metrics that are not used by reputable journals and publishers.

Lacks clear and transparent information about processes and fees on the journal website and/or in the guidelines for authors

Some predatory journals do not mention in detail processes or fees on their website, and hope that an email soliciting a paper will be enough to get a submission from you. Reputable journals state their processes and fees clearly and transparently on their websites, so if a journal does not do this or, conversely, puts an excessive focus on payment policies when communicating with you, this can indicate that the primary goal of the journal is to receive payments — rather than publish quality scientific work. Note also that reputable journals often have higher APCs because they incur more expenses than predatory journals, so always consider what value you will get for any fees stated.

Has an anonymous editorial board

Reputable journals will list the members of the editorial board and their affiliations. If you are doubtful about any of them, this allows you to contact them directly to verify their involvement with the journal.

Has a journal name, URL, and/or branding that is very similar to a reputable iournal

As mentioned under Q3, some hijacked journals try to trick authors into submitting to them by making their journal look very similar to a reputable one. Double-check these journal details before you submit.

The Think. Check. Submit checklist helps authors to decide if a journal is reputable or not.



Also, the AMWA-EMWA-ISMPP Joint Position Statement on Predatory Publishing gives a good summary of 11 characteristics of predatory journals as part of the organizations' ongoing efforts to educate the scientific community. (The Japanese version is officially translated by our team at ThinkSCIENCE.)

Cabell's A-Z list gives some additional quick tips for identifying predatory publishing practices.

Q7. Where can I get information about specific journals?

Some good starting points to see whether a journal is reputable or potentially predatory are Cabell's Journalytics and Predatory Reports sections (subscription needed) and large indexing services like Web of Science, Scopus, MEDLINE (for biomedical work), COPE, DOAJ, and OASPA.

Also, as in many aspects of scholarly research, your peers and mentors are likely to be an excellent source of information and a second opinion. Your institution's librarian should also be able to advise you (and help you access Cabell's lists if your institution subscribes).

Above all, you need to exercise your own judgement based on all of the information available to you. By keeping in mind what journals are intended to do, and what publication is intended to accomplish, you are less likely to be lured into submitting to a predatory publisher.

Q8. Can you help me evaluate a journal?

At ThinkSCIENCE, we continually strive to set ourselves apart as the best at what we do, and most of the researchers we know do the same. Upgrading the linguistic quality of papers or translating them into high-quality writing lets us help researchers get published in better journals — but it's not the only way we help. We're happy to help if you or your colleagues need assistance with verifying the credibility of a journal or publisher.

Summary



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Academic publishing fundamentally relies on the integrity of the system's participants: publishers have a duty to support their journals' editors; journal staff have a duty to effectively review submitted manuscripts, communicate clearly with authors, and perform the promised services; peer reviewers have a duty to review adequately and for reputable journals; and authors have a duty to submit ethically conducted research that is free of plagiarism and other ethical violations. When some parties act unethically, however, problems like predatory publishing arise.

We hope that this article has been helpful in making you aware of the issues that should be considered in choosing a journal and publisher, whether for yourself or for your students. At ThinkSCIENCE, we offer support at each stage of the publishing process, so please let us know if you need assistance in selecting a journal or book publisher (or responding to a publisher's invitation to publish).

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