Predatory Publishing

Shedding Light on a Deceptive Industry

Your colleagues discuss the seriousness of predatory publishing in ophthalmology and what to do about it.

By Annie Stuart, Contributing Writer

PEN ACCESS JOURNALS FROM PUBLISHERS, SUCH AS *PLOS ONE*, have been around for years. To broaden access to the latest science, these journals allow readers full access to their online journals free of charge. Although articles undergo rigorous peer review, they are published relatively quickly in order to rapidly disseminate scientific advances. And, in a twist on traditional publishing, the authors pay an open access fee, rather than advertisers or subscribers funding the journal's publication.

The term "open access" was coined in the 2000s to signify research articles and peerreviewed journals that provide unrestricted online access to scholarly research. The open access movement was driven by issues of social inequality (i.e., large institutions with financial means could purchase access to many journals, whereas others could not) and by the economic challenges and perceived unsustainability of academic publishing.

With the increasing popularity of the open access business model, more than a few devious individuals saw an opening: Here was a way to easily turn a profit, but at truth's expense. Often misrepresenting themselves or using unsavory marketing tactics, predatory journals solicit potential authors for submissions with promises of rapid publication—never mind the promised peer review.\(^1\) And with seemingly hydralike abilities, pseudo publishing soon became a burgeoning industry.

Features of Predatory Journals

"In my mind, deceptive intent is the fundamental criterion of a predatory journal," said Rick Anderson, MLIS, at the University of Utah in Salt Lake City. "They take money in return for something they say they are going to do but don't deliver. Whether the goal is to defraud the author or help the author to defraud his colleagues, it's deception."

Con artistry. This deception runs the gamut, said Stephen D. McLeod, MD, at the University of California, San Francisco (UCSF) and editor-in-chief of *Ophthalmology*. "There's often a deliberate lack of transparency about publication charges," he said. "In addition to no real peer review, there may be false claims about editorial board members, standard publication support structures, and journal impact factors." Impact factors measure the importance of a journal by calculating the number of times selected

EYENET MAGAZINE • 41

articles are cited within the last few years. The higher the impact factor, the more highly ranked the journal. It is one tool researchers can use to compare journals in a subject category.

In fact, there's a black market for fake impact factors, added Jason Winkler, MBA, at Elsevier in Philadelphia. "Very little stops a predatory publisher from saying, 'We have an impact factor of 15,' placing the burden on the author to do the research and find out whether or not it's true." Predatory publishers have also been known to put a logo from an established, reputable society in their email when sending out a call for papers, he said. "To an unsuspecting author, it might sound legitimate."

In addition, said Gary N. Holland, MD, predatory solicitations invariably end with an American or English street address, but with emails, one does not know where the message truly originates. Dr. Holland is associate editor of the *American Journal of Ophthalmology* and is at the David Geffen School of Medicine at the University of California, Los Angeles.

"Funny" red flags. Dr. Holland is barraged daily by about 15 to 20 unsolicited email requests for submissions to predatory publishers. The majority of them are supposedly from ophthalmology journals. On a recent day, however, he received one from a "cardiology" journal, another requesting pregnancy-related articles, and yet another soliciting articles about noses.

"Poorly written and packed with hyperbole—honorable this and distinguished that—the emails are easily identified and quickly discarded," said Dr. Holland. "They're good for a laugh, but a more important issue is the problems they may cause at the other end. How does the reader identify which articles are unreliable if the articles actually get published in one of these online journals?"

Evolving. "Egregiously poor English may be a hallmark of predatory communications today, but what is to stop publishers from hiring an English speaker to clean things up?" asked Mr. Winkler. In fact, some publishers have already apparently invested in their websites, making them more sophisticated, he said. Some also directly lift content such as editorial scope statements from genuine websites, making it more challenging for visitors to discern legitimacy.

"Predatory publishers are also becoming more aggressive," said Dr. Holland, "sending emails with subject lines like, 'Your submission is overdue."

Growing. From 2011 to 2017, Jeffrey Beall, a librarian at the University of Colorado in Denver, kept a list of "potential, possible, or probable" predatory journals and publishers. Some criticized him for casting his net too wide and "catching"

some legitimate journals and publishers. Before shutting down in January 2017, Beall's List included 1,155 publishers and 1,294 journals.²

Reporting in *BMC Medicine* in 2015, Shen and Björk used Beall's List to report on the growth of predatory journals. They found an increase in published articles from 53,000 in 2010 to an estimated 420,000 in 2014.¹

Last year, Cabell's International picked up where Beall left off and created a new blacklist. (See "Cabell's Journal Blacklist and Journal Whitelist," posted with this article at aao.org/eyenet.) Currently there are 8,531 journals in the Cabell's Journal Blacklist, said Lacey Earle, MBA, at Cabell's in Beaumont, Texas. Only about 30 of these are in the field of ophthalmology. "However, because predatory journals are notorious for publishing in many fields, there is no reliable way to categorize them by subject matter," she said.

Contributors to a Growing Trend

While the author-funded open access model unintentionally opened the floodgates to fraudulent practices, other factors have also contributed.

Lack of awareness. "For most of my peers, these journals are a joke," said Dr. Holland. "I can't imagine anybody submitting an article to a journal like the ones that solicit my work via email. But to unsuspecting authors—especially those in other countries—some journal names sound credible, containing various combinations of words such as therapeutics, surgery, and clinical. Individuals may not realize that they are not mainstream journals in the United States."

Some of the clues that U.S. physicians or those in other English-speaking countries might pick up on—nuances of usage and tone—might be lost on doctors from countries with different customs and terms of address, said Kgaogelo Edward Legodi, MD, vice president of the International Council of Ophthalmology and in practice in Pretoria, South Africa. "Obviously, these difficulties may be compounded further when physicians don't speak English as a first language," he said.

In addition, active researchers—those conducting a literature review or those looking to publish their results—no doubt find it difficult to keep tabs on legitimacy in a world where even in 2014 there were close to 30,000 peer-reviewed journals, a 50% growth just since 2001, said Mr. Winkler.

Perceptions of bias. Certain perceptions may have also helped fuel the growth of predatory publishing, said Mr. Winkler. When he was newly appointed as editor-in-chief for the *American Journal of Ophthalmology*, Richard K. Parrish II, MD, commissioned a listening survey³ of journal reviewers and editorial board members in 2016

to learn what was working well and what might need improvement. "Among other findings, 5% of respondents noted a perception of U.S. bias in acceptance of manuscripts," said Mr. Winkler.

This is supported by a 2014 study by Omobawale et al.⁴ that looked at Nigerian academics' publishing practices and their increasing use of predatory journals, he said. They found that a national trend of requiring publication in "international" journals for promotion, coupled with perceived difficulty of publishing in those journals, fueled the growth of predatory publishing.

The point of this requirement is to encourage publication in journals with rigorous peer review in order to contribute to the advancement of science—and to reflect well on the author and his or her institution, said Dr. Legodi, "But with

the emergence of predatory journals, the pressure to fulfill this requirement may result in just the opposite." (See Dangers of Deceptive Publishing, next page.)

Publish or perish paradigm. Where there's a pressure to publish, especially in other countries, deceptive journals are an easy route for authors to get something published, said Dr. Holland. The majority of papers ending up in predatory journals are a particular phenotype, added Dr. McLeod. "Demographically, many come from developing countries where there is a high premium on having an inflated publication record for the obvious reasons of securing promotion and advancement."

However, a recent survey of nearly 2,000 articles in more than 200 suspected predatory

Pseudo-Ophthalmology Journals

Taken from Cabell's Journal Blacklist, below is a list of 4 potentially predatory journals in the field of ophthalmology, along with the red flags that signal problems with their legitimacy.

Title: American Open Ophthalmology Journal **Publisher:** Research and Knowledge Publication

Red flags:

- —No articles are published, or the archives are missing issues and/or articles.
- —The journal's website does not have a clearly stated peer-review policy.
- —The website does not identify a physical address for the publisher or gives a fake address.

Title: Journal of Clinical & Experimental Ophthalmology

Publisher: OMICS International

Red flags:

- —The journal uses misleading metrics (i.e., metrics with the words "impact factor" that are not the Clarivate Impact Factor).
- —Has board members who are prominent researchers but exempt them from any contribution to the journal except the use of their names and/or photographs.
- —The publisher displays prominent statements



that promise rapid publication and/or unusually quick peer review (less than 4 weeks).

Title: Journal of Ophthalmology and Ophthalmic Surgery

Publisher: Vow Scientific Quest

Red flags:

- —The journal states there is an article processing charge (APC) or other fee but does not give information on the amount.
- —The publisher or its journals are not listed in standard periodical direc-

tories or are not widely catalogued in library databases.

—The journal has a poorly written copyright policy and/or transfer form that does not actually transfer copyright.

Title: Austin Ophthalmology **Publisher:** Austin Publishing Group **Red flags:**

- —The same articles appear in more than 1 journal.
- —The journal offers options for researchers to prepay APCs for future articles.
- —The journal or publisher uses a virtual office or other proxy business as its physical address.

SOURCE: Cabell's Journal Blacklist.

journals challenges this view. Contrary to Shen and Björk, who found the predatory problem was contained to a few countries—mainly in Asia and Africa¹—Moher and colleagues found that nearly half the contributing authors came from high- and upper-middle-income countries. Of the sampled articles, 15% came from the United States—second only to India—and the U.S. National Institutes of Health funded many of these papers.⁵

Technology. Technology has also played a significant role in greasing the wheels of this industry. "Now it's very easy for journals to reach out electronically to many people multiple times," said Dr. McLeod.

Technology has also made it easy and cheap to set up a predatory journal. "In an afternoon, predatory publishers can easily purchase a domain name, create a website with some prominent people in the field—whether or not they are aware of it—and gather email addresses off the Internet," said Mr. Winkler. "It's feasible to do this with very low overhead because they don't have to pay for a submission system and production, or to compensate editors."

And when they get caught and called out, it's very easy to shut it down and open up another one with a completely different title, added Mr. Anderson.

Dangers of Deceptive Publishing

A clogged email inbox, although annoying, is relatively benign. What are some of the real dangers of deceptive publishing?

Tarnished open access. "Conflation of open access and predatory publishing—even by some editors at subscription-based journals—is one of my biggest concerns," said Mr. Winkler, adding that in 2016, open access represented 20% of the total number of journal articles published in legitimate journals, a proportion that is growing.

"Predatory publishing was built on the backbone of open access, so it does paint that movement in a poor light," said Dr. McLeod, explaining that virtually all predatory journals are open access. "But it's really important to make distinctions between the two. In and of itself, there is nothing intrinsically wrong with the open access model. It's just another way of paying for the editorial process—a different market model."

Hijacked articles. Acting in good faith, authors may think they are submitting an article to a

From: International Journal of Ophthalmology & Eye Science - SciDoc Publishers <editor.ijoes@scidoc.info> Sent: Wednesday, May 16, 2018 10:06 PM

Subject: Follow Up : IJOES is Attracting Global Attention - Join Us $\,$

Respected Dr.

We have approached you on earlier for invite you to contribute a Research Paper for publication in IJOES. We publish Original Research Articles, Case Study, Review Articles and Short Communication.

We having a refreshing topics as well as be helpful on providing good information, for the researchers working in that respective field and also can help us in enhancing the scope, and also in attracting good research for the IJOES.

We would be glad, if you could submit us the Article.

"Special discount will be provided on publication charges for manuscripts submitted within the deadline."

You are kindly requested to submit your manuscript at https://scidoc.org/submission.php

We hope that you are glad with our reply and Expecting your positive reply.

Best Regards

Giannoudi Louisa SciDoc Publishers,

USA.

AN EXAMPLE. An invitation received by an Academy member, above. When EyeNet contacted an IJOES editorial board member for information about the publication, she replied that she had never heard of the journal and was dismayed that her name was being used. Next time you receive such an invitation, look at the board. It's possible that your name—or that of a colleague—is being used without permission.

reputable journal but erroneously send it off to a journal with a very similar name, said Dr. McLeod, recounting an anecdote about a UCSF faculty member. "He submitted his publication to the wrong place and the publisher 'hijacked' the article, saying they would only release [the manuscript back to the author] if he paid a fee. UCSF subsequently became involved, which invoked the threat of the State of California, and the publisher ultimately released the paper."

CV inflation. The lies propagated by predatory publishers also lead to CV inflation, said Mr. Anderson. "A predatory journal's website may not look very much like a legitimate journal's website," he said, "but a citation for an article in a predatory journal may look exactly like one in a legitimate journal. For authors, the temptation is to pad their CVs with these spurious publications, gambling that a search committee or a tenure committee won't bother closely investigating all of the references. The temptation is especially strong in places where researchers are given very concrete financial incentives to publish a certain number of articles in peer-reviewed journals with high impact factors."

Unvetted science. The gravest potential danger, said Mr. Anderson, is damage to the public's health

from publication of bad science in predatory journals, which is cited in popular magazines. "We saw the potential for this with John Bohannon's fake study claiming that chocolate helps you lose weight," he said. The study, intended as a hoax to expose the dangers of predatory publishing, was picked up and publicized by legitimate news outlets around the world.

Even professionals may take on faith what's written in a research paper or review article by another author without looking critically at the data analysis or going back to an original source that is cited, said Dr. Holland. Years ago, while writing a book chapter, Dr. Holland found that every single article he read on the topic had quoted a particular statistic from a study published in 1951. Turning to that original paper, however, he found the study was no more than a small case series, and the often-cited results had been a misinterpretation from the very beginning. The original, flawed conclusion had been passed along from paper to paper—in a kind of print variation of the game Telephone. "If authors start to cite papers without peer review from predatory journals, that problem is only going to become worse," said Dr. Holland.

Counteracting a Fraudulent Industry

The onus should be on both academia and publishing, among others, to counteract this deceptive industry, said Mr. Anderson. "Solving this problem is a community ecosystemic responsibility. All

Think. Check. Submit.

"Blacklists can help," said Mr. Winkler, "but they're in the habit of giving people fish, rather than teaching them how to fish. In addition, it's nearly impossible to keep these lists up to date." That's where other tools can help.

Produced with support from a coalition of scholarly communications organizations, Think. Check. Submit is a campaign to help authors assess the credentials of a journal or publisher. Available at www.thinkchecksubmit.org, the resource helps authors think about whether or not they are submitting their research to a trusted journal and provides a checklist of questions to answer before submitting their articles.

"Think.Check.Submit is a wonderful tool for authors who are operating in good faith," said Mr. Anderson. "Of course, it has absolutely no effect whatsoever on authors who are deliberately using the services of deceptive publishers to deceive their own colleagues." of us have a role to play in driving predators out of the marketplace. If we're willing to talk about the problem openly and critically and cooperate with each other, I really think it can be done."

Academic oversight. "It should absolutely be incumbent upon us as academics to read CVs carefully when people apply for jobs or go up for promotion and tenure," said Mr. Anderson. "We need to at least check citations and the journals in which they are published to make sure they are legitimate." Some universities are going even further, said Dr. McLeod, and are considering for promotion only those who publish in journals that are included in legitimate lists.

Persistence in publishing. "Is it realistic to say that academics just need to do their jobs better and this problem will go away?" asked Mr. Anderson. "No. That's why there is also a place for publishing to clean up its own act—to cast a light on people who are deceptive actors in the marketplace and to collaborate in the exposure and public identification of genuine predators."

National efforts. To help identify attributes of journals that are not following best scholarly publishing practices, the National Institutes of Health issued a statement⁶ in 2017. "It's one of the clearest sets of guidelines on predatory publishing I've seen," said Mr. Winkler.

The National Library of Medicine (NLM) also looks for ongoing publisher conformance with guidelines and best practices published by professional organizations, said Joyce E.B. Backus, MSLIS, associate director for Library Operations at the NLM. These guidelines include Recome mendations for the Conduct, Reporting, Editing, and Publication of Scholarly Work in Medical Journals⁷ from the International Committee of Medical Journal Editors, and Principles of Transt parency and Best Practice in Scholarly Publishing⁸ (a joint statement by Committee on Publications Ethics, Directory of Open Access Journals, World Association of Medical Editors, and Open Access Scholarly Publishers Association).

"If a publisher is found to not be following established industry best practices, NLM will cease collecting the publisher's journals and not accept applications for any of the NLM literature databases, including PubMed Central (PMC) and MEDLINE, for a minimum of 3 years," she said.

Defending open access. Predatory journals are besmirching the reputation of open access, said Mr. Anderson, but open access advocates are often the least willing to talk about this. "To the degree that the open access movement discourages discussion or minimizes the significance of the problem, it makes the problem harder to eradicate. Supporters of open access need to take a very clear

and unified stance against deceptive publishing."

Some organizations are making moves in this direction: For example, in 2014 the Directory of Open Access Journals tightened the criteria for inclusion in its well-regarded list, excluding many journals that did not meet them, said Mr. Anderson.

Education and awareness. We expect physicians to be lifelong learners, so part of professional training and responsibility now needs to be learning how to do legitimate searches for information and vetting the quality of information used for clinical judgment, said Dr. McLeod. He added that it's not just about how facile you are with PubMed and Google, but also how facile you are in sifting through the search results and identifying those that represent very different editorial and peer review rigor.

The Academy has also been playing a role in this vetting process, he said. "Academy membervolunteers develop many practice guidance documents by sifting through mounds of material, oftentimes working with a methodologist who is able to grade and assess the quality of the evidence. This leads to specific, comprehensive clinical guidance."

Make inroads on incentives? "As long as incentives are in place to publish in illegitimate journals or there is little retribution for doing so, predatory publishing will probably continue," said Mr. Winkler.

Publishers in open access do often waive fees for authors from developing countries and, except for the promise of quick turnaround publishing times, this could make predatory journals a less desirable outlet, he said. "However, overall changes in incentives will be needed to dissuade those who are predisposed to work willingly with predatory publishers. All stakeholders involved in the incentive process need to play their part."

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MORE ONLINE. For more about National Library of Medicine Indexing

and Cabell's Journal Blacklist and Journal Whitelist, find this article at aao.org/eyenet. Also be sure to watch for an editorial on predatory publishing in the September Ophthalmology.















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