As an academic librarian, I was intrigued by these new publishers, many of which were based in Asia and Africa. I was also interested in the economic model behind them, the author-pays model, now called gold open access. In the gold OA model, the author is charged a fee when a scientific paper is accepted for publication. One advantage of this model is that the journals are open-access – everyone with a computer and an internet connection can freely access the content, including those in developing countries where access to current research is desperately needed. Another advantage is the open access citation effect (OACE), in which articles published in open-access journals receive more citations than papers published in journals that are behind a paywall (Doty, 2013).

The disadvantage, I soon discovered, is that the model has a fatal flaw. The gold open access model is beset by a significant conflict of interest – the more papers a publisher accepts for publication, the more money it earns, a perfect recipe for corruption. The gold open-access publication model quickly spread, and in the years since 2009, hundreds of publishers using the author-pays model have appeared, some legitimate, and some corrupt.

Back in 2009 I began to print out the spam emails I received, and I also printed out copies of the websites of the publishers sending me spam manuscript submission invitations. Later, in 2010, I coined the term “predatory publisher” and published my first list, which contained fewer than 20 publishers. The list, published on a former blog of mine, was largely ignored.

In 2011, I defined predatory publishers as those that unprofessionally abuse the author-pays publishing model for their own profit. Throughout 2011 I continued to collect information about predatory publishers, hoping to publish a second list later in the year.

Then I published my second list in December 2011, and it garnered much attention. In early 2012, I moved my blog to a WordPress platform and gave it a new name, Scholarly Open Access, found at http://scholarlyoa.com. The blog contains two frequently-updated lists, one of questionable publishers and one of questionable, standalone journals.

With contributions and suggestions from readers, I developed a set of criteria for determining which publishers and journals belong on the lists. In addition, I use the main section of the blog to share critical analysis of scholarly open-access publishing in general. The many emails I receive from scholars around the world alert me to possible new additions. Also, in early 2013, the blog added an appeals process. A review board of four members reviews appeal requests and advises me whether to retain a publisher or to remove it. Since early 2012, there has been an amazing surge of new publishers and journals, as the barrier to start up operations as an open-access publisher is low. All that one needs is a website and some unique journal titles.

Predatory publishers are bad for science and bad for science communication for several reasons. First, science is cumulative – contemporary research builds on research recorded as part of the scholarly record. Because many predatory publishers do a fake or minimal peer review, it is possible for bogus research to be published in these journals, masquerading as real science. This work can then get cited in legitimate journals, dirtying future science. In my blog, I have documented a case of fake peer review (Beall, April 2, 2013). Documenting
the unethical practices of predatory publishers is difficult because most are not transparent in their operations. Further, because of the dishonest peer review and the lack of proper vetting by predatory publishers, these counterfeit journals contain many instances of author misconduct. This misconduct can include plagiarism and self-plagiarism, and it can extend to more serious misconduct including data and image manipulation. Indeed, many predatory journals are veritable reservoirs of author misconduct. Because predatory publishers earn their money through author fees, they prioritize their efforts to meet the authors’ needs over the readers’ needs. For instance, let us say the average researcher publishes one article per year but reads several dozen. Thus, we are more often consumers of research than we are producers of it. Predatory publishers care much more about us as authors than as readers. They pay insufficient attention to value-added features that benefit readers – such as automated reference linking – preferring instead to focus on authors’ needs, such as a super-fast review process, so it is easy for potential authors to be lured into their traps. This change in focus brought on by the gold open-access model is hurting all consumers of research and may threaten the future of high quality scholarly communication.

Society places great value on scientific research. Scholarly articles reporting novel findings frequently receive press coverage. Legal cases sometimes hinge on science as reported in the scientific literature. Various areas of public policy also rely on findings generated from peer-reviewed research. Perhaps most importantly, public health depends on honest, peer-reviewed medical research and the publishing of successful laboratory experiments that eventually get translated into clinical practice. This competent medical practice is one of the societal needs predatory publishers most threaten. Because of predatory publishers, it is possible that corrupt science might make its way into the scholarly record and eventually into practice, negatively affecting the public health.

In this context, doctors, as consumers of research, have a difficult task. They need to avoid corrupt science by avoiding publishers whose articles have not received an honest peer review. The problem is worsened by the fact that predatory publishers are most active in the bio-medical sciences, because that is where the grant money is. The grant money in bio-medical research now generally funds the article processing charges (APCs) that are billed to researchers upon acceptance of their manuscripts.

So, more than any other group of consumers of research, doctors and health sciences researchers have the greatest need to acquire the skill I call scholarly publishing literacy. This skill includes the ability to recognize and avoid publishing scams. There are some simple steps that we all should take to avoid being taken in by predatory publishers and their scams. The first step is to simply be aware that the scams exist, and that the scammers are very good at what they do. They will communicate with you, generally using email. As a general rule, all scholars should be wary of any publishing offer they receive through email.

Some publishers have taken their spam emails to the next level, using a very effective and novel strategy. They send personalized spam emails to researchers, praising an earlier work in another publication, and inviting the researcher to submit a new, similar work to the predatory publisher. They frequently promise a quick review. They may supply false information, claiming they have an impact factor when they really do not. Moreover, in their spam emails, some of the publishers fail to mention that they are a gold open-access journal that charges an article processing fee. Unfortunately, many are unfamiliar with article processing fees or assume the publisher does not charge them. Later, they are shocked to receive an invoice, often for over £1,000.

Some publishers will invite you to join their editorial boards. While editorial board membership on a legitimate journal offers academic credit, the chance to read new research before it is published, and the opportunity to learn about the scholarly publishing process, service on a predatory publisher’s editorial board can be a negative experience. Many have found it difficult to get their names removed once they decide to resign from the editorial board; the publisher wants to exploit their names and affiliations to attract more articles. Also be aware of invitations to guest-edit special issues of journals. Typically, one of the guest-editor’s roles is to invite and secure the manuscripts for a special issue. In the context of author-pays journals, the guest editor essentially becomes an agent for the publisher, attracting article processing payments from among his colleagues and collaborators.

Predatory publishers frequently hide or misrepresent their true headquarters locations. Many purport to be based in Anglophone countries but really hail from Asia or Africa. Predatory journal titles are also often misrepresented. For example, many Asian publishers use titles that begin with “British Journal of...” or “American Journal of...”. I think there are more British journals based in Pakistan than there are in the U.K. itself.

Medical publishing in particular and scholarly publishing in general are caught between the past and the future. Scholarly communication is undergoing great changes, with some exploiting the system’s weaknesses. As producers and consumers of research, those in the health professions need to be aware of the corrupt practices in scholarly publishing and avoid them. There are still many excellent venues for sharing and reading high-quality, peer-reviewed research, and all scholars should engage with these high-quality venues and resist the temptation to conduct business with predatory publishers and journals.

Addendum: Some warning signs of questionable publishers:

- The publisher does not state its headquarters location or misrepresents its true location
- The publisher sends spam email solicitations for article submissions, editorial board memberships, or special issue editorships
- The publisher’s website contains significant typographical and grammatical errors or otherwise looks unprofessional
- The publisher’s journal portfolio is large, with over 100 titles, many of them new and or with little content
- Papers in the publisher’s journals are poorly copy-edited
- The publisher’s journals have a broad scope to attract more papers (e.g. Journal of Medicine)
- The publisher’s email addresses are from free providers such as gmail.com, yahoo.com, etc.

Ethical approval

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