Everything You Ever Wanted to Know About Predatory Publishing but Were Afraid to Ask

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Introduction: Librarians and Predatory Publishing
Librarians have a key role to play in educating users about predatory publishing. Predatory publishing can be described as low quality, amateurish, and often unethical academic publishing that is usually Open Access (OA). Understanding predatory publishing helps authors to make more informed decisions about where to publish. In the process of educating our users, librarians can set the ground for important conversations that encourage critical thinking about the scholarly communications process. Predatory publishing stems from broader problems including overemphasis on publication quantity, an OA models based on traditional, for-profit publishing, and resource disparities in the Global South. When users take fuller responsibility and ownership of scholarly communications, knowledge can be a public good and not a commodity. A more sustainable and just scholarly communications ecosystem can be a reality.

As effective advocates for OA, librarians need to be ready to respond to those who conflate OA and predatory publishing. It is helpful to contextualize predatory publishing as an aspect of evaluating publishers and the quality of scholarship. This helps promote the idea that due diligence is the responsibility of all scholars, whether as authors, peers, or administrators. Additionally, positioning (deliberate) predatory publishing in the broader arena of unethical and fraudulent scholarly practices helps to decouple predatory publishing from OA and boosts our ability to communicate effectively with non-librarians.

Overview
Defining predatory publishing is challenging: the word “predatory” may not do justice to a complex subject. It is helpful to re-contextualize predatory publishing as scholarly misconduct as well as understand that it is not new. Before the digital age, predatory publishing took the form of vanity monograph publishing. Other types of sketchy publishing have always existed. How and why did predatory publishing arise and how did a journalist stunt shock the scholarly publishing and information community? The results of this stunt, the “Bohannon Sting” resulted in some significant changes. Understanding the detailed characteristics and practices of predatory publishing as well as the research on publishers, authors, and editors is critical to moving towards the praxis of educating users. When predatory publishing is situated as just one aspect of evaluating the quality of scholarly publishing, some of the hysteria related to predatory publishing is mitigated, creating possibilities for generating critical thought about scholarly communications.

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Challenge of Defining Predatory Publishing

Predatory publishing is an awkward topic. Sometimes called “fake publishing,” it has been described as the “dark side of publishing.”

The term “predatory publishing” was coined in 2010 by librarian Jeffrey Beall, creator of a now defunct and well-known blacklist of journals and publishers. This term is reductionist. Predation by definition implies intentionality and not all predatory journals are deliberately exploitive. Alternative language for predatory publishing suggested includes “dubious,” “low credibility,” and “deceptive,” publishing as well as “scholarly bad faith.” The terms “fake journals,” “sham journals,” and “pseudojournals” are also used. No other language describing this phenomenon has taken root: this may be an outcome of Beall’s domination of the discourse. Beall’s list has functioned as the only listing of predatory journals.

Beall points to predatory publishers’ “deliberate intent to deceive,” as does Anderson. Unfortunately, the situation is more complex: some publishers identified as predatory may be low quality or amateurish. That said, most predatory publishing exists to make money with little or no consideration of the scholarly record. Predatory publishers use spam and they promise rapid peer-reviewed publication in order to attract authors. These authors may be naive, desperate, or knowingly disingenuous. The peer review process that occurs is superficial or non-existent. Predatory publishers will peer review and accept papers or conference proposals in absurdly short periods of time, sometimes as little as a day or two. Fees for publication are often not transparent. The worst situation is when authors, who recognize too late that a journal is not legitimate, are unable to withdraw their papers.

As to predators and victims, the picture is far more complex than meets the eye. Beall stated “unfortunately, there is no objective way to measure or determine whether a publisher is predatory.” This ambiguity is helpful for many reasons. It is not fair to pass judgment when someone innocently becomes associated with a predatory journal as an author, editor, or editorial board member. Checking our privilege is important as well: many predatory journals are based in the Global South (less developed countries) and it is all too easy to make insensitive generalizations. Lastly, sometimes a journal starts off as insufficiently rigorous and then meaningfully raises its standards: Hindawi Press is a good example.

Unethical Scholarly Practices and Vanity Publishing

Situating (deliberate) predatory publishing as a type of unethical scholarly practice or research misconduct is meaningful. Retraction Watch is an excellent resource to keep up with news related to “bad science” and other manifestations of unethical scholarship. Carafoli, Berdahl et al., as well as Reid and Cress, provide detailed overviews on scholarly and scientific misconduct that include predatory publishing.

In mainstream scholarly publishing, bad practices of authors include fabricating and falsifying data, plagiarism and self-plagiarism, and gaming author metrics and padding curriculum vitae with excessive self-citation. Gift authorship is a nefarious practice where a researcher gives another scholar sham authorship credit. Unethical editor and publisher practices include bogus peer review and coerced citation (excessive citation of journals from an article’s publisher) as well as “advocacy” research, (publications with a hidden agenda promoting a business interest). A well-known publisher famously created and then withdrew journals promoting a pharmaceutical company.

Predatory publishing is often a type of vanity publishing. Vanity academic publishing has a long history chiefly in the form of monograph publishing. Typically, the author pays to publish but there are many monograph publishers who instead pass their fees on to libraries by charging exorbitant prices. Librarian Drew Askey was sued unsuccessfully by Mellen Press, a publisher using this model.
History and Current State of Predatory Publishing

Predatory publishing arose from two conditions: the availability of journal publishing platforms and potential revenue from author-paid article processing charges (APCs) for OA. The OA publishing movement was formalized in 2002 when the Budapest Open Access Initiative (BOAI) declared that “the literature that should be freely accessible online is that which scholars give to the world without expectation of payment.” Since this publishing model does not require payment for the content, “these new journals will not charge subscription or access fees, and will turn to other methods for covering their expenses.”

How do OA journals cover their expenses? Many are subsidized by indirectly by the employer-paid labor of scholars, librarians and other. These journals are typically smaller and in the humanities and social sciences. However, in medicine and the sciences, the scenario is very different. Researchers build in funding for APCs for the mandated immediate (so-called “gold”) OA publication of their research that is a condition of federal and other grants.

The predatory publishing model is built on APCs. The vast majority of OA journals do not charge an APC. When an author is unable to pay a fee because there is no funding from a grant or an employer, he or she should ask for a waiver from the publisher. Any publisher who refuses to waive fees may be considered suspect. The Compact for Open-Access Publishing Equity advocates for universities to support these authors. It should also be noted that traditional publishers, Elsevier, Springer and others, provide OA options for authors, charging steep fees that some feel are predatory.

The 2013 “Bohannon Sting” in *Science* brought predatory publishing to the fore. Well-known publishing stings that predate “Bohannon” include the Sokal Hoax and gibberish, computer-generated articles published by controversial OA publisher Bentham Science as well as IEEE and Springer. John Bohannon, a science journalist, submitted a sham medical research paper to a broad list of OA journals from the well-regarded Directory of Open Access Journals (DOAJ) and Beall’s list. The majority of journals in DOAJ rejected the article and the majority on Beall’s list accepted it. The journals that accepted the article were clustered in India, Nigeria, as well as the United States and United Kingdom. The “Bohannon Sting,” generated broader awareness of predatory publishing and discussion in the library scholarly communications community.

Aftermath of the “Bohannon Sting” and Three Solutions

In December 2013, in response to the “Sting,” the Open Access Scholarly Publishers Association (OASPA) developed its “Principles of Transparency and Best Practice in Scholarly Publishing” in partnership with other key players supporting best practices including DOAJ, the Committee on Publication Ethics (COPE), and the World Association of Medical Editors. These organizations, along with the Scholarly Publishing and Academic Resources Coalition (SPARC) and its partner affiliates, continue to provide critically-needed guidance and resources.

The most significant result of the “sting” was that DOAJ, which continues to be the most important whitelist, required all its listed journals to reapply using a rigorous vetting system. As of December 2016, DOAJ “accepted 3,700 journals, rejected 6,500 applications … removed 1,450 journals and delisted 2,850 journals for not re-applying to stay indexed.” The International ISSN Centre has guidelines for the registration of an ISSN, the traditional identifier for journals, that provides for the right to reject a journal that provides misleading information. The ISSN Centre partnered with DOAJ in December 2015 to “promote both parties and exchange metadata about quality, open access journals.” For a very detailed examination, see Walt Crawford’s study of the changes to DOAJ before and after the revamp. Lastly, DOAJ maintains a blacklist of journals that falsely claim inclusion in DOAJ.
Blacklisting is an entirely different response to predatory publishing. Jeffrey Beall’s list of “potential, possible, or probable predatory scholarly open-access publishers,” was created years before the “sting.” After the “sting,” Beall was profiled by the New York Times. Beall’s website, which was taken down without explanation by Beall January 2017, was useful but highly controversial. Crawford noted that Beall did not consistently justify his decisions.24 Beall also was considered biased against publishers and journals based in the Global South.25,26,27 For example, SciELO, the highly regarded South American OA publishing cooperative, was characterized by Beall as a favela (slum).28 Beall was unsuccessfully sued for a billion dollars by OMICS,29 one of the world’s biggest and most concerning predatory publishers, currently under investigation by the Federal Trade Commission.30 Beall’s article in tripleC: Communication, Capitalism & Critique31 proved Beall to be hostile to OA. Wayne Bivens-Tatum’s response makes for provocative reading.32 A 2015 Beall article in Academe provides further evidence of Beall’s animus towards OA.33 Beall’s list was overused as a shortcut in place of thoughtful investigation of publishers and journals.

If Bohannon had also sent his “garbage” article to traditional, toll-access journals, how many of those journals would have accepted his article? Bad or fraudulent peer review and other misconduct occur in all types of scholarly publishing.34 The lack of a reward system for performing peer review and increasing numbers of articles needing peer review has created a fairly unsustainable situation. Open (and post) peer review, which have varied models,35 provide for greater transparency, as does sharing data. Steel and Gardy36 and Wehrmeijer37 discuss how new models for peer review have potential to diminish predatory publishing.

Detailed Characteristics of Predatory Journals
Below are some of the typical practices and characteristics of predatory publishers. These indicators do not replace first-hand experience interrogating a publisher’s website, cross-checking its claims and personnel and as reading its content.

1. *Spam emails sent to .edu addresses to attract potential authors for journals and conferences:* Written with fawning language, these solicitations use bogus personalization but have no connection to the recipient’s discipline and specialty.
2. *Promises of fast peer review and fast publication:* Peer review is poorly explained and the peer review itself may be faked or low quality.
3. *Lack of focus in subject matter or subject matter extremely broad:* many predatory journals lack a feasible scope.
4. *Lack of transparency about author fees:* Journal business model is based exclusively on APCs. The journal will not waive fees. Fees may be disclosed after acceptance or terms of fees change after acceptance.
5. *Contradictions and inconsistencies:* Journal scope may not match the content. The journal’s name may not match its location. Note that many publishers claim bogus addresses in the United States, Canada and United Kingdom.
6. *Editors are not editors:* Academics are listed as editors without that individual’s knowledge or involvement. Journal proprietors are editors. Look for duplicate editorial boards, cases where no editor is identified as well as a lack of academic-affiliated email and/or academic affiliation for editor(s).
7. *Newness and quantity:* Most predatory journals and their publishers are new businesses. They launch many journals at once. A high quantity of articles per issue and frequent issues signals lack of peer review and an over-eagerness to earn revenue.
8. *Copycat names with and without copycat websites:* Some predatory journals have names that sound familiar. Others are hijacked journals that take the exact or very close name, look, web domain, and
ISSN of an established journal. Well-known examples include *Wulfenia Journal*, *Jokull Journal*, and *Sylwan*. Dadkhah has written at length on the topic: for a quick overview, see Bohannon’s short article in *Science*. Hijacked journals may be the worst form of predatory publishing. They are especially deceptive and exist purely to defraud scholars, sometimes accepting author fees without publication.

9. **Author-editor nightmares:** There are no opportunities for an author to revise. Horrible editing errors are introduced. Sometimes an article will be published without author consent. The editor will refuse to retract an article or to retract an article without payment.

10. **Location information that is contradictory or missing:** Bad information about the physical location of publisher can be a telling signal. Many predatory publishers falsely claim a base in the United States or England or a business address that is residential. Use Google Earth to investigate.

11. **Standards and identifiers missing, stolen or faked:** Check for standard journal identifiers (ISSN) and linking standards (DOIs). ISSNs, however, can be stolen or fabricated. The presence of an ORCID ID (an author identifier) for a journal signals a bogus journal.

12. **False and fake bibliometrics:** Imaginatively named journal metrics are common as well as false claims of inclusion in legitimate bibliometric services. Fake ‘impact factors’ are supplied by companies that support predatory publishing.

13. **False and inappropriate claims of indexing and inclusion in databases:** Journals falsely claim inclusion in DOAJ as well as Ulrich’s, Serials Solutions, and Cabell’s. Look for claims of indexing in Sherpa RoMEO or other services that are not indexes as well as bogus indexing services.

14. **Amateurish website:** Poorly designed, difficult to navigate websites with dead links or many “coming soon” texts can signal a predatory publisher. Excessive and aggressive advertisements are also signs. More recently probable predatory publishers have more sophisticated websites.

15. **Nota bene:** Many legitimate journals, because they are small and poorly funded, may lack the hallmarks of their shinier, well-supported counterparts. Legitimate journals may lack ISSNs, indexing, impact factor, and other qualities of larger, monied journals. Less than stellar English is also not a meaningful indicator.

**Characteristics of Predatory Conferences and Monograph Publishers**

There is relatively little research specifically on predatory conferences. Predatory conferences are as varied as predatory journals. They range from a copycat-named conference to a standalone conference that makes false claims about speakers to the low caliber conference with a lack of cohesion and too many poor speakers. A 2009 article in the *Chronicle of Higher Education* described low quality conferences located in Las Vegas including one that combined registration fees and journal publishing charges. When *Science* reached out to some attendees of predatory conferences, the sum of responses was not entirely negative. A recent article in the *New York Times* reports on a variety of predatory conferences including one that is described as “hybrid conference that combines the shady, volume-first internet marketing practices of OMICS with the more quotidian inattention to academic rigor that characterizes much of legitimate academia.” Previous attendees of this annual conference, some of whom were based in the Global South, were satisfied by the conference which provided an opportunity for lower caliber academics to share their work.

Monographic predatory publishing includes the practice of targeting authors of masters and doctoral theses for potential publication. Theses are published as-is and revenue is generated by library purchases. There is relatively little information related to predatory monographic publishing.
What Does the Research Tell Us?

Until fairly recently, most of what has been written on predatory publishing has not be comprehensive. These researchers have published breakthrough research: Cenyu Shen and Bo-Christer Björk, based at the Hanken School of Economics in Helsinki, Finland and Jingfeng Xia (and colleagues) at Indiana University.

The Publishers

Shen and Björk based their study on all the publishers and journals in Beall’s list (which they acknowledge as problematic). Their research spanned from 2010 to 2014. Of the 11,873 journals found via 996 publishers on Beall’s list, only 67% were actively publishing. They found article publishing grew from 53,000 in 2010 to 420,000 in 2014 in approximately 8,000 journals. In the earlier years of the study, most publishers were large, with over 100 journals. However, after 2012, most publishers were mid-sized and have journal offerings of between 10 and 99 titles. Shen and Björk sampled 613 journals for more detailed information about the journals including location. They identified the most active predatory publishers in terms of number of articles per year as based in India (they used Google Earth to sleuth given addresses for validity). In terms of subject matter, after multidisciplinary journals, the most articles were in engineering journals followed by biomedicine.

Xia, also working with Beall’s list, found that 72% of predatory journals charge fees: money clearly is a motivator for publishers. However, the majority of journals charged low APCs. Surprisingly, “the vast majority of journals have a fee rate under $100, primarily falling in the range of $1–$50.” Looking at overall revenue, Xia found a fair amount of variation based on the scale of the journal and publisher. Shen and Björk, however, found predatory journals had an average APC of $178. These fees are significantly lower than DOAJ journals which average around $1000. An earlier study by Solomon and Björk, investigating all types of OA journals, found that for authors from highly developed countries, APCs came from personal funds only 10% of the time while 39% of authors from the Global South paid out-of-pocket.

The (Global South) Authors

Shen and Björk found authors in predatory journals were overwhelmingly from the Global South with the notable exception of South America (South and Latin America have a quality OA publishing infrastructure). Almost 35% were from India, 26% from Asia outside of India, and 16% from Africa. They conclude that most predatory authors are not duped. Pressure to publish in “international journals” drives many of these Global South authors to choose predatory journals. They point to a “global North-South dilemma” where scholarship in the Global South is limited by scholarly publishing standards set in the Global North. Different academic cultures in the Global South that value quantity over quality and which are weak in evaluation of scholarship compound this problem. A 2012 study by Truth, which in its title notes publication turn-around speed as key author motivator, characterizes predatory publishing and its authors as a phenomenon of the “largely ex-colonial and subalternated ‘academic periphery’.”

Cultural Aspects of OA and Academe in the Global South

Lunenfield aptly describes the North-South scientific information gap in terms of uploaders (Global North) and downloaders (Global South). Concepts of authorship can vary from country to country. For example, in an Islamic country, it is impolite to not give the head of an institution authorship credit even if he had nothing to do with the article. Charlotte Haug of COPE emphasizes how much global values related to science and scholarship are Western values. However, because English is the lingua-franca of science,
English proficient scholars are more likely to game the publishing system and engage in unethical behaviors including plagiarism. Rezaeian in his article about non-English speaking biomedical research notes that in the Global South, publication ethics is not usually taught in universities and that few or no governing bodies are in place. In addition to greater potential for corruption, scholars and scientists in the Global South face myriad infrastructure disadvantages.

Research on African, Indian, and Chinese Scholars and Predatory Journals

In some African countries, quantity is strictly valued and quality is generally disregarded. This value stems in part due to the newness of research at some institutions. The more fundamental issue is a lack of funding and support. Monies go to NGOs for research but not to support publishing. African academics insufficiently take advantage of international funding programs. Academic communities are semi-closed in their interaction with public policy-makers and others outside of academe. In response, great strides towards quality OA have been made by Research4Life, an African organization providing access to scientific information and support for publishing. It has partnered with DOAJ to assure their journals meet high standards. The Dakar Declaration and CODESRIA Open Access Conference also support quality OA and stand against predatory publishing.

India's rapid expansion without sufficient infrastructure for technology and research outside of its elite institutions has been problematic. Emphasis may be placed on quantity, not quality, and there is a lack of knowledge about publication ethics. Some Indian medical researchers may not comfortable with the criticism of peer review and peer review isn't part of medical training culture.

Chinese authorship is growing the most rapidly globally. Unfortunately, China has the most retractions of any country. There is a heavy focus on publishing in top journals with high impact factor leaving a few publishing venues for the best. Many authors publish in low caliber journals. An estimated $154,000,000 is spent on publishing in “assisted publishing” which includes vanity/predatory journals and other “underground trade.” A Science investigation of Chinese scientific publishing found previously published articles for sale via article brokers as well as other modes of scholarly cheating. Efforts to change the culture include training to help Chinese scholars learn about predatory publishing.

Authors, Early Career

Research points to a scholarly information literacy gap on the part of faculty and other scholarly authors. In particular, early career scholars seem vulnerable to predatory publishing because they are receptive to OA. Watkinson and Nicholas’s research views this cohort as less capable of identifying predatory journals and assessing journals and less meticulous in their literature reviews. These academics “lack a publishing culture” and Google Scholar decontextualizes the literature.

Editors

Who are the predatory journal editors who consciously opt into their role? Sometimes authors in predatory journals are invited to become editors of these journals. One case study is da Silva and Al-Khatib’s examination of an editor of a specific journal. The authors of the article do not share their correspondence with their subject. In nursing, some predatory editors mean well but “fail to do their due diligence” about the journal. Plackett tells the story of a well-regarded scholar who agrees to be editor of new journal but then gets pressured to forego peer review.
Tenure and Promotion Committees, Faculty Awareness

There has been little research related to those who assess scholarship and predatory publishing. The exception is Margaret Ray’s article on the University of Mary Washington College of Arts and Sciences Faculty Senate’s policy decision to create a policy on “fraudulent publishing.” Christopher and Young surveyed medical and veterinary students and faculty and Noga-Styron surveyed academics in criminal justice. Each study confirms faculty ignorance related to predatory publishing.

Educating Users

Guides and handouts are helpful but the most effective outreach through teaching. Librarians can empower users to advance their ‘scholarly publishing literacy’: the intersection of information literacy and scholarly communications. Grappling with ambivalence related to OA “provides a teachable moment for libraries.” No scholar should ever hesitate to publish OA. If predatory publishing is situated as one of many aspects of finding quality publishers and evaluating scholarship, the overall tone shifts from negative to positive. Opportunities to discuss about the pros and cons of various forms of peer review and bibliometrics/altmetrics as well as the many benefits of quality OA are golden. More importantly, these are moments for advocacy for evaluating scholarship based on quality and not quantity. Emphasizing disciplinary differences is also helpful in encouraging critical thinking about scholarship and its evaluation.

Partners

In addition to the usual library based activities and workshops, librarians can consider partnering with campus centers for faculty teaching and writing or other units that support faculty scholarship. Mid-career academics particularly may need publishing support. Graduate students as well as new faculty are another important cohort. Administrators and decision-makers including departmental and college appointments committees are key players: discussion related to evaluation of scholarship is crucial to changing campus culture.

Tools

Although there are complex journal quality scoring systems, simpler tools are better: every user should embrace due diligence. Think. Check. Submit. is a useful tool to help faculty to begin to evaluate publishers. Key questions include:

- Can you contact the publisher by telephone, e-mail and post?
- Is the journal clear about the type of peer review it uses?
- Is it clear what fees will be charged?
- Do the editorial board mention the journal on their own websites?

Beaubien and Eckard’s rubric of quality indicators for journal evaluation is another excellent tool. Handouts and guides familiarizing authors with typical indicators of predatory publishing as well as trusted sources and partners like DOAJ and OASPA are helpful particularly in conjunction with a talk or a workshop. It is very important to emphasize the importance of evaluating a journal by reading some recent articles.

Activities

The best activity is to directly analyze potential predatory journals, and spam emails. Megan Wacha, CUNY’s Scholarly Communications Librarian, created an activity entitled “Is It Predatory? Checklist for Evaluating Journals” based on Beaubien and Eckhard’s excellent rubric. We preselected a series of journals, mixing in some journals that were not obviously predatory. Using think-pair-share, faculty analyzed the journals and reported
back. Participants were also asked more qualitative questions about their impressions of the journal as well as how the journal might contribute to their work. For shorter workshops, it is easy to print out predatory spam emails and ask attendees to discuss what predatory indicators are present.

**Conclusion: Educating is Advocating**

If the APC system could be replaced by a different funding structure that de-commodifies scholarship, predatory publishing would be mortally wounded. In order to accomplish this goal, new funding models need our advocacy. The United Kingdom’s “diamond model,” of non-commercial “gold” OA publishing disperses funds in a grant-like manner. Rebecca Kennison and Lisa Norberg’s K|N Consultants and the Open Access Network are also supporting the movement towards a non-profit OA model where colleges and other institutions contribute to independent OA publishing that is sustainable and provides for long-term preservation.

Predatory publishing is an exciting opportunity for librarians to educate their colleagues, classroom faculty, administrators, graduate students, and others to move them away from dependence on blacklists. Dispelling erroneous notions about OA is critical as well. By contextualizing predatory publishing more broadly, negativity melts away, providing space for important conversations about evaluation of scholarship as well as the overall scholarly information system. Understanding predatory publishing can help librarians advocate for a more level scholarly publishing playing field. Pushing predatory publishing out of the shadows and into the light, ultimately advances scholarly communications one step further towards a more humane and scholar-centered system.

**Notes**


* Please contact the author at mberger@citytech.cuny.edu with any successful hands-on activities you would like to share in her forthcoming book: you will fully be credited. Please consider adding a Creative Commons license to your material.
49. Xia, “Predatory Journals and Their Article Publishing Charges,” 73.
50. Shen and Björk, “Predatory’ Open Access: A Longitudinal Study”
53. Shen and Björk, “Predatory’ Open Access: A Longitudinal Study”


