

## Review

### Ethical issues in publishing in predatory journals

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#### Abstract

Predatory journals, or journals that charge an article processing charge (APC) to authors, yet do not have the hallmarks of legitimate scholarly journals such as peer review and editing, Editorial Boards, editorial offices, and other editorial standards, pose a number of new ethical issues in journal publishing. This paper discusses ethical issues around predatory journals and publishing in them. These issues include misrepresentation; lack of editorial and publishing standards and practices; academic deception; research and funding wasted; lack of archived content; and undermining confidence in research literature. It is important that the scholarly community, including authors, institutions, editors, and publishers, support the legitimate scholarly research enterprise, and avoid supporting predatory journals by not publishing in them, serving as their editors or on the Editorial Boards, or permitting faculty to knowingly publish in them without consequences.

**Key words:** predatory journals; publication ethics; medical publishing

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#### Introduction

Predatory journals, or journals that charge an article processing charge (APC) to authors, yet do not have the hallmarks of legitimate scholarly journals such as peer review and editing, Editorial Boards, editorial offices, and other editorial standards, pose a new challenge for authors, editors, and readers. Their "motive is financial gain, and their *modus operandi* is a corruption of the business model of legitimate open-access publishing" (1). These journals sometimes do not reveal the APC charge to the author at the time of submission but eventually bill the authors "without providing robust editorial or publishing services" (2). Many academics receive almost daily solicitations from predatory journals; their invitations to submit to the journal (often offering very fast turnaround time from submission to publication) are often outside the recipients' fields of study. Unfortunately, the demarcation between these and legitimate open-access journals is often unclear. There are now an estimated 8000 active predatory jour-

nals (3), making ways to identify them increasingly important. Several authors have suggested useful approaches and authors should apply such suggestions before submitting their work to a journal that may be predatory (4-8). Authors should also consider that an unsolicited email invitation that promises rapid publication for a wide range of topics is suspicious at best, probably "too good to be true". A manuscript accepted "as is" with no reviewer comments and with an APC bill also suggests a potential problem. At the same time, some authors welcome the fast turnaround to publication and often relatively low APCs and accept the lack of standards as a means to achieve their publishing ends (9). Therefore, the term "predatory" may not always refer to the journal's relationship with the author.

Journals that appeared to be scholarly ones but were deceptive have been published previously, example, in 2000-2005 when journals were published for undisclosed marketing purposes (10).

Other deceptions include hijacked journal websites, which occur when the registration of a domain name is allowed to lapse and a third party claims the URL and puts up a site that mimics the original journal. Some predatory journals mimic existing journals' names to confuse potential authors into submitting. Some sites offer impact factors that predatory journals then use to attract authors, implying they are the established impact factor published by Clarivate Analytics' (formerly Thomson Reuters) Web of Science.

### Main ethical issues posed by predatory journals

Predatory journals raise a thorny problem for the scholarly literature. Peer review traditionally is the hallmark of scholarly publication, and manuscripts published without peer review are considered to have not passed a critical hurdle, as imperfect as it is (11). Some manuscripts published in predatory journals have plagiarized content, are potentially fraudulent, or otherwise generally would not be published in a peer-reviewed journal. However, authors who have conducted legitimate research may also publish in predatory journals, intentionally or not. A challenge for the research enterprise is what to do about research published in predatory journals – consider it gray literature, like a preprint, or consider it flawed until proven otherwise? The ethical issues around predatory journals make their case different from simply a market-driven response to publishing's cost and time. The follow-

ing points describe the main ethical issues posed by predatory journals (summarized in Table 1).

#### Misrepresentation

Predatory journals misrepresent who they are and what services they offer, including not providing peer review, editing and indexing services. Their websites often lack an editorial office address or even contact information. They lack information about the academic appointments and locations of the editor and Editorial Board (if one is provided at all). They sometimes list as members of the Editorial Board individuals who are not even aware their names appear, much less have a relationship with the journal, or they may list Editorial Board members or editors who have agreed but are not aware they are serving in a predatory journal. They often lack transparency about APCs. They fail to reveal that published content has not undergone peer review. They may list indexes in which they falsely claim their journal is listed. They list the false impact factors mentioned above, or they use a journal name extremely similar to an existing journal. Thus they misrepresent their standards, services, and identities to readers, and often to authors.

#### Lack of editorial and publishing standards and best practices

Predatory journals lack the standards and best practices established by the scholarly publishing community, which evaluate the research and improve the quality of the published work. These

**TABLE 1.** Summary of ethical considerations in publishing in predatory journals

Issue	Elaboration
<b>Misrepresentation</b>	Predatory journals distort who they are and what services they offer
<b>Lack of editorial and publishing standards and practices</b>	Predatory journals lack standards and best practices as established by the scholarly publishing community, which improve the quality and ethics of published work
<b>Academic deception</b>	Authors misrepresent their scholarly effort by choosing to publish in predatory journals
<b>Research and funding wasted</b>	Research published in predatory journals may not receive the recognition it deserves and may become inaccessible, hence the effort and risk of research as well as funding are wasted
<b>Lack of archived content</b>	Predatory journals do not archive their content in third party sites making it inaccessible in the future
<b>Undermining confidence in research literature</b>	Predatory journals undermine faith that readers and the public have in research literature

standards and practices include publishing corrections and retractions as needed, processes to deal with alleged research misconduct (to ensure allegations of research misconduct are appropriately addressed), screening for plagiarized content, reviewing ethics of research conduct, requiring authorship statements to attempt to exclude ghost and guest authors, and requiring funding and conflicts of interest disclosures. The World Association of Medical Editors (WAME), Committee on Publication Ethics (COPE) and Council of Science Editors (CSE) have codes of conduct/professionalism that help educate editors about their responsibilities (12-14). Publishers (and journal owners) also have ethical responsibilities (see for example COPE's Code of Conduct for Journal Publishers) (15). While not all legitimate journals follow all these best practices, predatory journals have no intent of following best practices since the journal's sole purpose is to make money. Predatory journals spam potential authors in unrelated fields with solicitations promising fast publication, whereas legitimate journals selectively contact authors and never guarantee publication.

### **Academic deception**

Authors may knowingly publish in predatory journals and list those publications on their CVs as if they were published in legitimate peer-reviewed journals (16). Citing the articles as legitimate publications misrepresents authors' scholarly effort. These authors cheat the system, harming authors who play by the rules and adhere to the standards of academic practice without shortcutting the peer review system. These authors also help support predatory journals through their APCs. Legitimate journals have been harmed when some academic organizations have responded to the problem of predatory journals with a list of unacceptable journals that inadvertently includes legitimate journals or a list of acceptable journals that excludes them (17,18).

### **Research and funding wasted**

Whether or not authors are aware they are submitting their research to a predatory journal, when

others discover that their research has been published in a predatory journal, the legitimacy of their research will be questioned. The authors will have to either attempt to retract their research from the predatory journal and have it evaluated and published in a legitimate journal, or accept that their research may never be considered legitimate. Such an outcome wastes research, funding, and the involvement of human study participants or animals.

### **Lack of archived content**

Predatory journals do not archive their content in third party sites such as CLOCKSS (Controlled Lots Of Copies Keeps Stuff Safe: a community-governed archive) or PubMedCentral. Since the journals are founded solely for financial reasons they are likely to cease publication when profits decline or investors turn their attention elsewhere. If authors have not pursued republishing in a legitimate journal, their research will disappear.

### **Undermining public confidence in the research literature**

Some authors have revealed the problems of predatory journals by publishing bogus research, which has made these issues highly public. For example, a bogus paper generated by Science was submitted to 304 open-access journals and published by more than half (19). In that case, Bohannon conflated the issues identified with the predatory journals with open access journal in general, casting aspersions on legitimate open access journals and raising a firestorm of protest. In another instance, an editorial submitted specifically to point out a journal's lack of screening was accepted and led to additional notoriety (20). Readers who learn of such sting operations may misunderstand the distinctions between predatory and legitimate journals and question the scientific process itself, undermining the work of all researchers.

Some scenarios help to illustrate the types of problems that predatory journals create for authors, readers, academia, and the public. These scenarios are based on actual cases, but some details have been changed to protect identities.

### Case scenario #1

Professor A recognized that a paper published by a predatory journal and credited to other authors had plagiarized an article he had published 2 years earlier. After multiple attempts to notify the predatory journal of the plagiarism and receiving no response, he contacted the journal editor that had published his paper. That editor also was unable to get a response from the predatory journal.

As noted under ethics issue #1, predatory journals misrepresent their services and often do not provide an actual editorial office; there appears to be “no one home” when communication is sent to them (or communication from the predatory journal is sparse and infrequent).

The lack of screening for plagiarism (ethics issue #2) means that publication of plagiarized content is possible, and the journal is unlikely to have steps in place to correct or retract papers. In this case scenario, a resolution is unlikely even if there has been a copyright infringement. Taking legal action is difficult when it is not clear who “owns” the journal. The author whose work has been plagiarized and the editor and publisher who published the original work should address the alleged misconduct with the plagiarizing author’s institution and, if possible, the publisher of the predatory journal (although there may not be a satisfactory outcome with the predatory journal).

### Case scenario #2

Professor H and her colleagues submitted a manuscript to journal X, not realizing it was a predatory journal until they learned their paper would be published “as is”. Alarmed that there was no peer review as they would have expected from a legitimate journal, they decided to withdraw their article, as they were concerned about publishing in a journal with a poor reputation. They asked to withdraw the paper numerous times but received no response from the predatory journal. They had not paid the re-

quested author fee so they believe the paper will not be published, but they also want to submit the paper to a reputable journal, which might be reluctant to consider a manuscript still technically under consideration at another journal.

Generally, authors are strongly discouraged from withdrawing their manuscripts after acceptance, because of the work of editors and peer reviewers that has gone into the manuscript before acceptance. However, in the case of a predatory journal, the lack of work and the deception the journal practices (ethics issue #1) means the author who submits the manuscript unaware of the predatory nature of the journal is justified in withdrawing it (the author must be careful there were no conditions agreed to as part of uploading the paper to the website).

One approach, assuming the authors have not bound themselves legally to the predatory journal, is for the authors or their legal counsel to submit letters to the journal (using known addresses, e-addresses and otherwise) withdrawing the manuscript, with the last letter reminding them of the authors’ previous letters and indicating they now are assuming as of that date the paper has been withdrawn. The letter should include as addresses any named editors and managing editors. The authors may never receive confirmation from the predatory journal, but should they then decide to submit to a new journal, they must disclose their submission and withdrawal from the predatory journal (along with the communication and evidence they have that it is a predatory journal). If the authors have already paid the APC when they decide to withdraw, they are at higher risk of the manuscript being published by the predatory journal. A similar case in which an article was published in and withdrawn from a predatory journal was published on the COPE website (21).

Academic institutions could have an important role in this process. They could, for example, review the situation with the authors and provide advice or write to the predatory journal on behalf

of the authors. More generally though, academic institutions need to educate their community (particularly new scholars) so that they are aware of the existence of predatory journals and of the tools available to help distinguish them from legitimate journals. While some organizations have attempted to develop “legitimate” or “predatory” lists of journals, efforts to date have led to mislabelling legitimate journals as predatory (*e.g.*, 17) or excluding legitimate journals (18). Systematically evaluating all journals as to their predatory characteristics would require a massive undertaking of funding and person-hours.

### Case scenario #3

Professor K was coming up for tenure review in one year and was hoping to publish several papers quickly. He did not see this work as being important for his career, but he needed to increase the number of published papers he had. He submitted his papers to different online journals that had promised publication within two weeks. His papers were accepted and he paid the author fees.

Professor K’s scenario illustrates ethics issue #3, academic deception. Authors knowingly submitting and publishing with predatory journals are keeping these entities in business even though they negatively impact academic communities. Unfortunately it can be difficult to determine whether authors knowingly submitted to a predatory journal or did so unintentionally; however, a pattern of publishing in predatory journals should certainly raise suspicions.

### Options and tools

Institutions should use existing tools (see, *e.g.*, 4-8) to educate their faculty and students about how to identify predatory journals and ensure that they understand the ethical and professional consequences of submitting their work to predatory journals. These tools do not rely on lists of journals, but rather approaches to suspect a journal may be predatory. For example, “Think.Check.Sub-

mit.” provides simple steps for authors to use to identify predatory journals (7). A tool developed by Laine and Winker on behalf of WAME provides an algorithm to follow and a list of warning signs that should increase suspicion that a journal is predatory (4). Institutions should avoid creating or following lists of unacceptable journals because of their tendency to inadvertently penalize legitimate journals. For example, the Medical Council of India declared that academic institutions should only consider journals with a print version for promotion and tenure decisions (17). New journals or journals from low or middle income countries may not meet criteria for listing in indexes, and may meet other “predatory” criteria of some lists, despite their legitimate practices.

One approach to curbing predatory journals is the legal challenge. In August 2016, the US Federal Trade Commission announced it had filed a lawsuit in the U.S District Court for Nevada against OMICS Group Inc, two of its affiliated companies, and their president, for “multiple violations of the FTC ACT’s prohibition on deceptive acts or practices” (22). It is important to watch such cases and determine if other jurisdictions are using legal instruments, on what grounds, and with what outcomes.

### Conclusion

Predatory journals pose a number of ethical issues as well as conundrums for authors and academic institutions who must decide how to deal with content submitted to and/or published in them. Everyone – authors, institutions, editors, and publishers – has a responsibility to support the legitimate scholarly research enterprise, and to avoid supporting predatory journals by not publishing in them, serving as their editors or on the Editorial Boards, or permitting faculty to knowingly publish in them without consequences. Institutions need to refrain from raising unrealistic expectations that drive authors from making unwise decisions. Only by addressing the underlying reasons for the continued presence of predatory journals can this challenge to the scholarly research enterprise be solved.

### Potential conflict of interest

None declared.

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