Chapter-37

How to detect and avoid predatory Journals?

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Introduction

Scholarly publishing is important for faculty members as it fulfills the promotion requirement, enhances the credibility and reputation of the researcher, institutions and the country as a whole. Often, the universities require their faculty members and students to publish regularly and this "pressure to publish" may lead to a variety of unethical practices.[1] Usually, the number of publications is often linked with promotions, pay incentives, and fulfillment of degree requirements. Sometimes it does not consider the quality of work (reflected by the impact factor and repute of the publishing journal and number of citations).[2,3] When quantity is preferred over the quality, the outcome is expected to be low. For example the faculty promotion guidelines laid down by the national organizations in South Asia (for instance, Pakistan and India) appear to favor publication of a certain number of papers instead of calculating the real impact of the published research.[2-4]

Scientific publishing has evolved over the years from subscription-based, print only journals to the open-access, freely available online journals. Open-access (OA) publishing was introduced in the early 1990s and the Journal of Medical Internet Research was initiated in 1998 as one of the first open access journals in medicine.[5,6] Open-access publishing with different models (including gold, green, hybrid and platinum or diamond open-access[(a)] has gained popularity just in a few

years after its inception.[6-8] However, it simultaneously lead to emergence of unethical and "predatory" publishing practices; thus, changing this academic feat into a marketing tool for commercializing research. Predatory journals may be one-room and/or one-computer based operation, which damages science.[9] They are mostly operated by individuals or a questionable publishing group and lack formal peer-review process.[10]

What is a predatory journal?

While the scholarly publishing paradigm is gradually moving to open-access environment that fosters the advancement of high-quality, peer-reviewed open access publications; it simultaneously has also provided opportunities for certain journals and publishers to engage in unprofessional or unethical practices.[8] These journals and publishers are termed predatory journals and/or publishers. Predatory publishing refers specifically to publishing practices which exploit the author-pays model by "set[ting] up bogus publishing operations and trick[ing] authors into thinking that they are legitimate scholarly publishing outlets".[11,12] These journals or publishers abuse the open-access publishing model and are interested in money making rather than disseminating research.[13] The term "predatory journals" was coined in 2011 by Jeffrey Beall, a librarian from University of Colorado Denver, who managed the list of "possible predatory" journals on his blog titled ScholarlyOpen Access.[9,14] Table-I lists the rise in the number of predatory publishers, predatory journals, hijacked journals[(b)] and fake metrics.[(c)] The blog is defunct now and has been substituted by the Cabell's International, a scholarly-services firm that provides a subscription-based list of predatory journals.[15]

In response to such journals, Open Access Scholarly Publishing Association (OASPA) was formed.[7] Moreover, certain criteria and tools for detecting predatory publishers and journals have also been introduced. These include Beall's Criteria for Identification of Predatory Journals and Publishers, World Association of Medical Editors (WAME) guidelines for Identifying Predatory or Pseudo-Journals, Criteria for Receipt

Table-I: Number of predatory publishers, predatory journals, hijacked journals and fake metrics from 2011 to 2017.[16,17]

Year	*Predatory Publishers*	*Predatory Journals*	*Hijacked Journals*	*Fake Metrics*
2011	18	Not available	Not available	Not available
2012	23	Not available	Not available	Not available
2013	225	126	Not available	Not available
2014	477	303	Not available	Not available
2015	693	507	30	26
2016	923	882	101	38
2017	1155	1294	115	53

Note that all the predatory journals and publishers are predatory, so the more likely term in the recent literature may be "OA predatory journals" or "predatory OA journals".

of the Directory of Open Access Journals (DOAJ) Seal, and Predatory Rate — to name a few.[16-18] We will discuss these criteria and features of predatory journals in detail in the later section of this chapter.

How to detect and avoid publishing in a predatory journal?

In order to differentiate "good" journals from "questionable" or "bad" journals, whitelists and blacklists were created. One such initiative was the blacklists of journals and publishers published by Jeffrey Beall. However, this blacklist faced criticism from different quarters resulting into mysterious shutdown of Beall's blog in early 2017.[9,19,20] Nevertheless, Beall's list was the first step against predatory publishing and helped many researchers and institutions. Beall's list was often quoted in context of selecting a journal for publication and was used by various universities and organizations. After the disappearance of Beall's blog, Cabell's International (https://www.cabells.com/) has started a subscription-based list of predatory journals. Along with the blacklists, databases like Directory of Open Access Journals (DOAJ), PubMed/MEDLINE, and Clarivate Analytics (formerly

Thomson Reuters) and scholarly organizations like Committee on Publication Ethics (COPE), Open Access Scholarly Publishers Association (OASPA), and International Committee of Medical Journal Editors (ICMJE) serve as the "providers" of whitelists.[2] Additionally, several journal selectors have been created by different publishers and organizations to help authors avoid predatory journals [Table-II]. A recent collaborative endeavor is the "Think.Check.Submit" Campaign (www.thinkchecksubmit.org) that is helpful in journal selection. The sources that can be used for journal selection and avoiding predatory journals are listed in Table-II.

Table-II: Sources for journal selection and avoiding predatory journals.

Source [2]	***Website***
Blacklists of journals and publishers	
Beall's blog (archived copies)	https://web.archive.org/web/20170112125427/https://scholarlyoa.com/publishers/
Cabell's International	https://www.cabells.com/
Whitelists of journals and publishers	
1. PubMed/MEDLINE	https://www.nlm.nih.gov/bsd/serfile_addedinfo.html or https://www.ncbi.nlm.nih.gov/labs/journals/ or https://www.ncbi.nlm.nih.gov/nlmcatalog/journals
2. Directory of Open Access Journals (DOAJ)	https://doaj.org/search
3. Open Access Scholarly Publishers Association (OASPA)	http://oaspa.org/membership/members/
4. International Association of STM Publishers	http://www.stm-assoc.org/membership/our-members/

5. International Committee of Medical Journal Editors (ICMJE)	http://www.icmje.org/journals-following-the-icmje-recommendations/
6. Committee on Publication Ethics (COPE)	http://publicationethics.org/members/journals/?f[0]=bundle%3Ajournal
7. Master Journal List of Clarivate Analytics	http://ip-science.thomsonreuters.com/mjl/
8. Publons	https://publons.com/journal/?order_by=reviews
9. EndNoteTM Journal Matching	http://endnote.com/product-details/manuscript-matcher
Additional resources for journal selection	
1. Journal Selectors	
a) Edanz Journal Selector	https://www.edanzediting.com/journal-selector
b) Elsevier Journal Finder	http://journalfinder.elsevier.com/
c) Springer Journal Suggester	http://journalsuggester.springer.com
d) Find the right journal-BioMed Central	https://www.biomedcentral.com/get-published/find-the-right-journal
d) JANE-journal author name estimator	http://jane.biosemantics.org/
e) Journal Guide by Research Square	https://www.journalguide.com/
2. Think Check Submit Campaign	http://www.thinkchecksubmit.org/

***** Note that these resources are not exhaustive. Authors are suggested to use their cautious judgment and get help from experienced researchers in selecting the target journal. In case of any suspicion or doubt, the authors are suggested to avoid the journal.

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Characteristics of a predatory Journal

The common defining features of predatory journals have been reported in the literature and may include some or all of the followings:

1. Use of attractive names that mimic high ranking legitimate journals to deceive the authors. The name may include the words like International, American, British, European, Universal, or Global. For example, International Journal of Current Research (IJCR), Asian Journal of Science and Technology (AJST), Excellent Word Journal of Education Review (EWJER), and Global Journal For Research Analysis (GJRA) etc.[14,17,21,22]
2. They have a very broad scope and invite submissions from all disciplines which are often unrelated to each other.[17,22]
3. They use fake metrics like Global Impact Factor (GIF), Scientific Journal Impact Factor (SJIF), Index Copernicus Value (IC Value), Universal Impact Factor (UIF), and the Quality Impact Factor whereas some may even copy the logo used by Clarivate Analytics (formerly Thomson and Reuters).[17,23] The aim is to impress the naive researchers in believing that this is legit journal with a high impact factor. Notice that such metrics are not the measure of scientific impact.
4. Predatory journals often falsely claim to be indexed in the popular databases like PubMed, DOAJ, Scopus and EBSCO, which is displayed boldly on their websites.[22] Their additional betraying schemes may be the claims of indexation or membership in ResearcherID, CrossRef, Mendeley, ProQuest, Clarivate Analytics (formerly Thomson Reuters), WAME, COPE, ICMJE and HINARI— they even abuse the logo of these organizations by simply placing it on the homepage of their website.[17,18,24] They may also be indexed in non-reputable indexation databases like Indian Science Indexing (ISI).[18,19] They also claim indexing in non-scholarly websites such as Scribd and DocStoc or academic social networking websites such as ResearchGate.[25]
5. There may be a huge number of poor quality articles on a variety of topics (usually multidisciplinary) in a single issue of the predatory journals. There may also be a questionable "special issue" that is out of the scope of the journal.[18,26]

6. Most of them provide addresses in the US or UK, but a quick search on Google maps will reveal their actual location which can be a house or shopping mall. Many of them are based in developing countries like India, Pakistan or Nigeria.[17,22,27] It is difficult or impossible to find the address of the editorial office or only a blank form is available to contact the editorial office.[17,18]
7. They often offer a short or ultra-short review cycle ranging from a few days to few weeks (<4 weeks). In most of the cases, the details of the review process are not clear. They may also provide the author with a fast-track option at an additional cost.[17,18,22]
8. They either have very few editorial board members (from one institution or one country only), or the editorial members are named without any details and academic affiliations.[14,17,18] In some cases, the Editor-in-Chief is not even from the subject on which the journal is being published (e.g. the Editor-in-Chief of the International Journal of Physical Medicine and Rehabilitation, published by OMICS Group (a predatory publisher), does not even has any background of Rehabilitation Medicine.[(d)] They may even place the names of the editors (usually the prestigious scholars of their fields) without their permission just to betray the authors.
9. They use email services like Gmail or Yahoo and ask authors to submit the article through email rather than a journal management system (like ScholarOne, Editorial Manager or Open Journal System). For example currentjournalcr6@yahoo.com and currentjournalcr9@yahoo.com for International Journal of Current Research (IJCR).[14,17,18]
10. Many predatory journals send an author certificate for publication in order to lure in naive researchers.[17] Such authorship certificate are not sent by any of the reputable, and indexed journals.
11. Many predatory journals especially those published by the same publisher often have similar webpage design

and content which is usually copy pasted and has many grammatical mistakes.[17,28,29] The articles published in such journals often have poor proof-reading and many technical errors.

12. The article processing charges of some predatory journals are usually hidden or not clearly mentioned in the instructions to authors.[18] Publication fees is then demanded once the author submits the manuscripts and receives the letter of acceptance. Alternatively, it ranges between approximately 50-2000 USDs.[17]
13. These journals may send unsolicited or bulk spam emails to the researchers, inviting them to be one of the editors and/or reviewers, or inviting authors to submit the papers or sending "call for papers".[14,17,29]

Current debates in predatory publishing

The most likely victims of predatory journals are the young and inexperienced researchers from developing countries who lack sufficient skills and training for selecting a correct journal for publication.[30,31] However, even some experienced researchers have also been tricked into publishing in predatory journals.[28] Since the predatory journals are considered to produce "junk" science, authors publishing in such journals may not usually get any official credit for their work.[32,33] There is a debate on what should these authors do? It is essential that one should always consult his/her supervisor and institutional research office for guidance, and local policies regarding publishing in predatory journals.

Different solutions have been proposed for this issue.[28,34] Some recommend that once the authors realize the mistake of publishing in a predatory journal, they should immediately contact the editorial office of the predatory journal with a request to withdraw their paper. In some cases, predatory journals will resist withdrawals, authors must therefore, not sign any copyright agreement form during the submission process or after acceptance in case of predatory journals. Once the article has been successfully retracted or withdrawn from the

predatory journal, it might be submitted to a legit journal. But, it is necessary to disclose the interaction with the predatory journal to the editors in order to maintain the research integrity and transparency.

It is advisable that the authors consult the resources mentioned in Table-II, and use their own judgment (based on the features of predatory journals) in selecting a target journal. Also, non-scholarly metrics like ResearchGate Impact Factor should not be used by legitimate journals.[35] Any practice that may be suspicious or may render a legitimate journal predatory should be avoided to establish a clear demarcation between legitimate and predatory journals.[36] Scholarly organizations and Cabell's International, current source of blacklisting the predatory journals, should take strict steps and devise clear criteria in this regard. Authors may choose to publish in local journals provided they are associated with an organization or a university. It is also necessary to ascertain that in the current paradigm of scholarly publishing, authors should try to opt for journals that may enhance the visibility of their work and access of the research to the consumers.

Recommendations for the academic organizations, faculty, researchers and students

The paradigm of research and publication has substantially changed in the last few decades. Faculty members and students are required to publish a certain number of papers while avoiding any form of scientific misconduct. The current race of publishing more papers just for the sake of promotions and pay increments should be discouraged. Higher education institutions and governing bodies should encourage publication of impactful research which should be measured by using different parameters like h-index. Scientometrics like impact factor should not be used as the single measure of quality. Academic institutes, universities and scientific societies should promote research skills in the academics and students, strive to improve research dissemination by creating research repositories, and improve the quality of journals published by

their affiliated institutions.[37] They should also provide training to the students, post-graduate trainees and faculty about research ethics and scholarly publishing so that they may not be victimized by predatory publishers. This is of particular importance to the developing countries where researchers are not skilled enough in scientific publishing and are more likely the victims to fraudulent and questionable journals.[17,27] Also, authors can improve the visibility and reach of their research via social media.[38,39] Depending upon the journal policy in which the manuscript is published, they can share their research on ResearchGate (http://researchgate.net/), Academia (http://academia.edu/), LinkedIn (http://linkedin.com/), and Twitter (http://twitter.com/). In addition, use of ORCID (https://orcid.org/) can also improve the visibility of their research.

At the same time, publishing industry and scholarly organizations need to consider the financial constraints of the researchers based in the low resourced regions of the world, and offer them full waivers. It is worthwhile to mention that despite the partial waivers being offered by many journals and publishers, the publishing costs are still too high for the researchers from such countries to afford (as many of them are not supported by their institutes to cover the cost of publication). This is one of the main reasons for low publications rates in the open access journals from the developing countries. National universities and international academic organizations should consider funding and monitoring the use of funds in order to improve research output from developing countries.

To conclude, every stake holder has to play its role in improving the research dissemination, publication visibility, and access. A collaborative effort is required to increase the awareness regarding the rising menace of predatory and unethical publishing. The future fight against the predatory publishing will be long, multipronged and complicated. Some of the winning strategies can be training the future researchers, academics and students; implementing strict and clear rules regarding publishing, and financially supporting researchers from the developing countries.

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ADDITIONAL RESOURCES

1. WAME Statement on identifying predatory journals: http://www.wame.org/identifying-predatory-or-pseudo-journals
2. Open Access Journal Quality Indicators: https://www.gvsu.edu/library/sc/open-access-journal-quality-indicators-5.htm
3. Jocalyn Clark: How to s predatory journals—a five point plan: http://blogs.bmj.com/bmj/2015/01/19/jocalyn-clark-how-to-avoid-predatory-journals-a-five-point-plan/
4. Journal Citation Reports (JCR): http://clarivate.com/?product=journal-citation-reports#

FURTHER READING

(a) For further reading, please refer to:

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(b) These journals set up counterfeit websites mimicking the legitimate journals and mislead the researchers by abusing the names and ISSNs of reputable journals. Their most likely targets are non-Anglophonic journals.

(c) These fake impact factors are calculated by incompetent centers so as to help the predatory journals appear legitimate and deceive researchers.

(d) https://www.omicsonline.org/editorinchief-physical-medicine-rehabilitation-open-access.php

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