DOI: https://doi.org/10.4038/jccp.v54i2.8023

Predatory journals and publishing fraud

Saman B Gunatilake[1]

Journal of the Ceylon College of Physicians, 2023, **54**, 77-80

Quality of published research faces many threats, from poorly designed studies, ethical concerns, biased results, publishing costs, and unfair judgment. A significant feature of publications in science is their devotion to the systematic collection of data and their analysis through proper scientific methods. Dissemination of scientific findings is an important step and science journals play a vital role in achieving this. The scientific community expects these journals' originality, trust worthiness, and accuracy. This is ensured by the journals via a rigid editorial process and peer review. Before the internet began to play a role in scholarly publishing, that is, prior to about 1998, almost all scholarly journals were print-based, subscription journals. At that time, most journals were generally respected and of good quality, and peer review was taken seriously and managed well. A few low-quality scholarly publishers existed, but generally, researchers were aware of them and knew how to avoid them.

The emergence of the open access movement in the early 2000s was considered as a welcome change and scientists believed that it would enable universal access to important scientific advances. Open access journals were freely accessible, there were no subscription fees, so to cover the costs author fees were introduced. Authors were to pay a fee on acceptance of their article. There are many open access journals that are ethical and very successful. With widespread access to the internet, open access journals gained momentum and the numbers increased exponentially. Establishment of publishers such as BioMed Central (BMC), a United Kingdom-based, for-profit scientific open access publisher that produces over 250 scientific journals, and The Public Library of Science (PLOS) which was founded in 2001 as a nonprofit organization to accelerate progress in science and medicine changed academic publishing for the better, lowered the costs and increased worldwide access. However, there was a downside to this. Open access model was exploited by some publishers and paved the way for predatory publishers and journals.

Predatory journals actively ask researchers for the manuscripts. Moreover, they have no proper peer review system, and they have no true editorial board as well and are often found to publish mediocre or worthless papers. They also ask for publication charges. Predatory journals have a high acceptance rate and fast-track publishing and often report falsely high impact factors. They typically have no editorial office or well-recognized organization associated with the journal. Many claim their head offices are in the USA, UK, Canada, or Australia but really are based in India, China, Pakistan, South America, or West Africa. Names of predatory journals cover broad areas aiming to attract more submissions. Some such names are *the Journal of Ayurveda and Integrated Medical Sciences, the Journal of Chemical, Biological, and Physical Sciences, and the Journal of Medical Science and Clinical Research.*

The term "Predatory Journals" (PJ) first appeared in literature in 2012 in a note published in the journal Nature by Jeffrey Beall.[1] Beall maintained a list of potential, possible, or probable predatory publishers and journals and identified certain features that are characteristic of predatory publishers. Spam emails requesting article submissions, or to join the editorial board, absence of a publisher's location, poor copy editing, and fast peer review. The definition of predatory journals was agreed as "Predatory journals and publishers are entities that prioritize self-interest at the expense of scholarship and are characterized by false or misleading information, deviation from best editorial and publication practices, a lack of transparency, and/or the use of aggressive and indiscriminate solicitation practices".[2] Unlike Beall's List, which went offline permanently in early 2017, allegedly was forced to close it, others like predatory reports are available on a subscription basis.

[1]*Emeritus Professor of Medicine, University of Sri Jayewardenepura, Sri Lanka.*

Correspondence: E-mail: saman.gunatilake@sjp.ac.lk, saman.gunatilake@hotmail.com

Cabells' Predatory Reports is a paid subscription service featuring a database of deceptive and predatory journals, and Journalytics is a database of "verified, reputable journals", with details about those journals' acceptance rates and invited article percentages. In June 2020, Cabells changed the name of its previous Whitelist and Blacklist to Journalytics and Predatory Reports, respectively. Cabells describes Predatory Reports as "the only database of deceptive and predatory academic journals." As of 2023, several freely available alternatives exist. An international initiative called "Think. Check. Submit," (http://thinkcheck submit.org) provides valuable advice to potential authors on how to detect PJs and fake publishers. Cabells' Predatory Reports database reached a total of 15,000 journals, 15,059 by 1st September 2021 to be precise, pushed to that level by a recent surge in positive identifications of predatory journals.

In a survey, Manca et al. identified 192 potential PJ in the fields of neurology and neurosciences, and 59 in the field of rehabilitation, with 20% in neurology, 11% in neurosciences, 12% in rehabilitation indexed in PubMed.[3] In a sample of 613 journals, Shen et al. identified that 27.1% of the publishers were from India and that 34.7, 25.6, and 16.4% of the corresponding authors were from India, Asia (without India), and Africa, respectively. In this study, the authors also identified that 9.2, 8.8, and 2.2% of the corresponding authors were from North America, Europe, and South America, respectively.[4] In an interesting experiment, Bohannon submitted a deeply flawed manuscript to 304 OA journals (including 161 journals from the Directory of Open Access Journals [DOAJ], 121 from Beall's list and 16 from both) and found that it was accepted by 157 of them. He reported that the manuscript was accepted with no or superficial peer review by 84 journals included in Beall's list and by 66 journals indexed in DOAJ.[5] Sorokowski et al. sent applications for a fictitious character, to be a member of editorial boards, and 33 and 7% of journals included in the list of PJ and DOAJ accepted it, respectively.[6] The requirement by some academic bodies like universities for a specific number of publications before being considered for promotion has benefited such predatory publishing. Regrettably, some publications with a lower evidence base (e.g., case reports) are in many cases merely to see authors' own names in print, or for building up their list of publications. The mantra of 'publish or perish', the desire for exhibiting one's name in print, or even the inadequacy in the teaching of medical writing, may also drive authors towards PJ. To counteract such negative patterns, some national funding bodies and universities have incorporated the list of PJ into their blacklist of journals and publishers.

The damage

Low-quality journals like PJs enable the publication of pseudo-science. Health sciences have been particularly affected, with journals now devoted to alternative medicines like Ayurveda and Homeopathy. These journals provide an opportunity for the publication of articles on poorly tested medicines. This was very evident at the beginning of the COVID-19 pandemic where many papers came out claiming the efficacy of medications, namely, ivermectin etc. Publishing in a predatory journal or accepting to serve on their editorial boards (mostly unknowingly accepting an email invitation) can be taken as a negative point in a researcher's career and can affect your promotions. Some exploit the quick, easy, and cheap publishing process that the predatory open-access journals offer. Current academic evaluation systems consider the number of publications one has against the quality of the work they have done. This can give an undue advantage to a person who has low quality but more publications mostly in PJs. Evaluators must be aware of this when they are assessing academics for posts and promotions so that no injustice is done to honest researchers.

Identifying fake sites and journals

Table 1. Features used to identify predatory journals[7]

• Journal names similar to reputable journals
• Low-budget website with grammatical errors
• Editor names not recognizable in the field of interest
• Promise of prompt submission to publication times
• No formal online submission processes
• Require submission fee regardless of acceptance
• Advertise open access with difficult to find or missing fees
• Mandate copyright transfer or do not discuss copyright
• No retraction policy after submission
• Peer-review process is not mentioned
• Minimal contact information is provided
• Ethics policies are not mentioned
• No mention of guidelines for authorship
• Journal is not indexed by reputable databases

Researchers and academics with little experience in international publications must be cautious when selecting journals to publish their work. PJs particularly aim at researchers in developing countries. Verify if the journal is indexed in well-known and high-quality databases such as Medline, Scopus, and Journal Citation Reports. Authors should look at the journal website and review some of the articles published for quality and this can help to identify PJs. However, some of the predatory journals have managed to be listed in reputed databases and this is worth keeping in mind. Another ruse these fake publishers adopt is to invite to be external reviewers or to join the editorial board. Before accepting any invitation, carefully assess the quality and origins of the journal and the publisher. Also, good to note that inadequate English is not acceptable in published English language journals, and an email in poor English from someone communicating from such a journal should at least be a red flag to look further into the credibility of the journal. Some of the other features are the promise of a rapid publication time, use of fake impact factors, lack of transparency regarding the ownership and office location of the publisher.

Following are some of the commonly known databases that are available, listing authentic journal publications.The **Thomson Reuters** is a journal indexing and articles database. It indexes papers from many journals that passed a threshold of citations and several other quality criteria. **Scopus** is another journals' indexing database, created by the publisher Elsevier. **The Web of Science** is a paid-access platform that provides access to multiple databases that provide reference and citation data from academic journals, conference proceedings, and other documents in various academic disciplines. **PubMed** is a free search engine accessing primarily the MEDLINE database of references and abstracts on life sciences and biomedical topics. The United States National Library of Medicine at the National Institutes of Health maintains the database as part of the Entrez system of information retrieval. **ScienceDirect** is a website that provides access to a large bibliographic database of scientific and medical publications of the Dutch publisher Elsevier.

Avoiding predatory publishers

Be wary of a publisher's website or email received that looks unprofessional or has significant grammatical errors. If in doubt refer to Beall or Cabell's lists. Email solicitations for articles praising you for your eminence in the field come from predatory journals, so check them carefully. Publish in well-known journals and young and new authors should consult with their supervisors and mentors if thinking of submitting to an unfamiliar publisher.

Other frauds

Cybercrime is seen even in the academic publishing world. There is a lack of knowledge about these cybercrimes. Following are some examples:

Hijacked journals

Hijacked journals are fake websites that use the same name and ISSN of authentic journals to trick authors. Their web address may be slightly different from the original but not noticeable – www.sciencmag.org rather than www.sciencemag.org and this will direct online submissions and correspondence to the fake site. Unsuspecting authors to the fake websites will pay subscription fees and article processing fees to the wrong site. Prevalence of hijacked journals are increasing and by 2015, 90 hijacked journals had been detected.[8] Forgers use similar URLs to authentic journal URLs or create the website for journals that do not have a website. Another newer method is to find expired domains which belonged previously to real journals, and then re-register them.

Paper hijacking

Hijackers have created fake proofreading sites. These fake sites offer fast, high-quality, and cheap proofreading to persuade authors to send papers to them. The paper is hijacked and then sold to another party. The paper is published by different authors. These fake sites can be detected by using the Whois database.

Conclusion

PJ are undermining the credibility of the scientific literature as they can promote and propagate errors. As these publications are freely accessible, patients and the public looking for information on their illnesses, when roaming the internet will be directed to these publications which can have a detrimental effect on medical education and patient knowledge. Authors should be aware that publication in PJs can result in negative effects on their careers and their institutes. Researchers should avoid the temptation to submit their work to easy-acceptance journals. Stick to known publishers and journals and be suspicious of any email solicitation you receive requesting for manuscripts or to join the editorial board. Medical research is important and should be published in top-quality journals with a proper peer review system and proper copyediting.

References

1. Beal J. Predatory publishers are corrupting open access. *Nature* 2012; **489**: 179. DOI: 10.1038/489179a.
2. Grudniewicz A, Moher D, Cobey K, et al. Predatory journals: no definition, no defence. *Nature* 2019; **576**: 210. DOI: 10.1038/d41586-019-03759-y.
3. Manca A, Martinez G, Cugusi L, et al. The surge of predatory open access in neurosciences and neurology. *Neuroscience* 2017; **353**: 166-73. DOI: 10.1016/j.neuroscience.2017.04.014.
4. Shen C, Bjork BC. Predatory open access: A longitudinal study of article volumes and market characteristics. *BMC Medicine* 2015; **13**: 230. DOI: 10.1186/s12916-015-0469-2.
5. Bohannon J. Who's afraid of peer review? *Science* 2013; **342**: 60. DOI: 10.1126/science.342.6154.60
6. Sorokowski P, Kulczycki E, Sorokowska A, et al. Predatory journals recruit fake editor. *Nature* 2017; **543**: 481-3. DOI: 10.1038/543481a.
7. Jonathan G. Leung, Patrick M. Wieruszewski, LeAnn Stee, Christopher R. Takala, Brian A. Palmer. Predatory Journals: A Cautionary Tale and a Lesson in Copyright Transfer. *Mayo Clin Proc*. 2020; **95(**3): 441-44. DOI: 10.1016/j.mayocp.2019.09.001.
8. Jalalian M, Dadkah M. The full story of 90 hijacked journals from August 2011 to June 2015. *Geographica Pannonica* 2015; **19**: 73-87.