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التسامح المعلوماتي وتطبيقاته في المكتبات ومؤسسات المعلومات
Tolerance of Information: Applications in Library and Information Institutions
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Predatory Journals

A growing concern within the open access publishing model

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Abstract

The growing number of predatory journals within the open access publishing model is an increasing concern for information users and researchers. With false promises of high scientific quality, low turnaround time for publishing manuscripts and no or very low submission costs, the predatory journals illicitly generate profit by targeting researchers and information seekers that are in immediate need of information.

The predatory journals and their websites are designed to imitate legitimate and high quality publications and some open access journals have been hijacked and copied in order to deceive the readers to believe it's the original journal. Publishing in predatory journals can potentially damage the career of researchers and information seekers are misled to information of false or poor scientific standards.

Relating to information tolerance, predatory publishing has a negative impact on the concept of open access where information seekers and researchers without access to expensive information sources or research funding are specifically affected by these highly questionable marketing strategies.

By providing information about the nature of predatory publishing and guide users to high quality open access journals, librarians can support researchers to practice safe publishing and provide users with tools to separate high quality open access journals from predatory journals.

Keywords: predatory journals; open access publishing; information tolerance; blacklists; whitelists; librarians; libraries

Introduction

The concept of open access (OA) enables anyone to access scholarly information online free of charge (Kurt, 2018; Laakso et al., 2011). The OA publishing model supports the idea of information tolerance and makes it possible for individuals without access to large library collections to retrieve information for educational, research or everyday information needs (Kurt, 2018). Publishing in open access journals enable researchers to reach out to a larger audience that can lead to increased research impact through bibliometric or altmetric measures (González-Betancor & Dorta-González, 2019; Ottaviani, 2016; Wang, Pourang, & Burrall, 2019). This has made OA publishing a fast developing and popular alternative to traditional publishing models (Laakso et al., 2011).

The OA initiative is strongly supported by libraries worldwide and institutions such as the University of California and several universities in Europe have started to challenge large

publishing companies and cancel increasingly expensive journal subscriptions to encourage and support OA (Fox & Brainard, 2019; Wang et al., 2019).

Relating to today's conference theme: "Information tolerance" and the seven pillars defined in the framework for the ongoing Year of Tolerance in the United Arab Emirates, tolerance between communities, cultures, workplaces and in education are key values in our local society and worldwide (Year of Tolerance, 2019). The OA model has the potential to build bridges between peoples and these core values by enabling anyone, independent of cultural or socio-economic background, the possibility to create new innovations and knowledge with easy and free access to information (Kurt, 2018; Laakso et al., 2011).

The online, easy accessible open source format of OA has unfortunately brought with it some negative consequences both for researchers and for publishers (Kurt, 2018; Laakso et al., 2011; Shamseer et al., 2017). The rapidly increasing number of specifically OA journals has made it possible for so called "predatory publishers" to make a business from copying or mimicking academic journals through highly questionable marketing strategies. (Kurt, 2018; Laakso et al., 2011; Shen & Bjork, 2015). Predatory publishing of journals has become a growing concern within the open access publishing model and a threat to information tolerance.

Predatory Journals

There are many different types of predatory journals but they all build on similar business models where researchers are offered rapid publishing of papers to low or no cost with false information about their impact factors, indexing databases, editorial boards, and scientific status (Bartholomew, 2014; Ferris & Winker; Ruiten-Lopez, Lopez-Leon, & Forero, 2019; Umlauf & Mochizuki, 2018). Peer review and editing processes that do not match satisfactory academic standards, large volumes, and a high acceptance rate are other common identifiers (Dadkhhah & Borchardt, 2016; Eriksson & Helgesson, 2017; Ferris & Winker). Predatory publishers reach out to their targets via mass e-mails with links to well-designed journal home pages that can be difficult to differ from high impact OA journals (Beall, 2012; Eriksson & Helgesson, 2017; Ferris & Winker). The journals earn their profits mainly by author fees and therefore have an interest in getting as many papers out as quick as possible (Umlauf & Mochizuki, 2018).

One type of predatory journals that specifically can be hard to identify, are the so-called hijacked journals. These type of predatory journals mimic well established, peer reviewed academic journals with the intention to mislead researchers and earn money on their mistakes (Dadkhhah & Borchardt, 2016; Danevska, Spiroski, Donev, Pop-Jordanova, & Polenakovic, 2016; Eriksson & Helgesson, 2017; Ferris & Winker).

A classic example is the hijacking of the journal “Jökul”, published by the Iceland Glaciological and Geoscience societies. The illegally copied version of “Jökul” shares its original’s name, ISSN and basic design and includes information about policies for the peer review process and other academic indicators which makes the predatory journal hard to separate from the original (“Jökull Journal,” 2019; “Jökull; Journal of earth sciences,” 2013). Browsing through the archive for current and previous articles, the observant reader will start questioning why studies about web application frameworks for people with special needs and fertilization outcomes in patients with polycystic ovary syndrome are accepted in a journal about glaciers and geoscience (“Jökull Journal,” 2019).

With a promise to publish articles within a few days, or even within hours, researchers with pressure to enhance their CVs are targets for predatory publishers (Beall, 2012; Danevska et al., 2016; Harvey & Weinstein, 2017; Kurt, 2018). Publishing in Scholarly OA journals with rigorous peer-review and editorial processes takes time which is why authors under pressure are prepared to take short-cuts without properly evaluating the quality of the journal (Eriksson & Helgesson, 2017; Kurt, 2018; Umlauf & Mochizuki, 2018). The result of such decisions can be devastating for a researcher’s career.

To fall victim for a predatory publisher means that a lot of hard work and resources is lost and that the paper can’t, or will be very hard to get published elsewhere (Ferris & Winker; Moher et al., 2017; Umlauf & Mochizuki, 2018). Publishing in a predatory journal can also affect the researcher’s possibility for future funding and the loss of potential, career building bibliometrics such as citation counts that impacts the authors overall h-Index (Clark & Smith, 2015; Ferris & Winker; Kurt, 2018; Moher et al., 2017; Umlauf & Mochizuki, 2018). Some predatory journals have even made a business from the harm and embarrassment they caused, by offering authors to remove the articles from their sites in return for a large sum of money (Eriksson & Helgesson, 2017).

Junior researchers from developing countries with little experience of the publishing process or researchers lacking enough knowledge about research methodology to get their papers accepted in high impact journals are the ones most likely to publish in predatory journals (Danevska et al., 2016; Eriksson & Helgesson, 2017; Kurt, 2018; Shen & Bjork, 2015; Umlauf & Mochizuki, 2018; Xia et al., 2015). A research climate with pressure to publish as many papers as possible within a set time period for CV, promotion or contract renewal purposes does however make researchers from all over the world and in different stages of their careers possible targets for predatory publishers (Cobey et al., 2018; Danevska et al., 2016).

Impact and growth of predatory open access journals

Predatory publishing has caused a lot of negative publicity for OA, but it is important to point out that it isn't OA that generate predatory publishers, it is their unethical business models that do (Shen & Bjork, 2015). Nevertheless, predatory publishing is a real and rapidly growing problem within the OA model that needs to be taken seriously.

In a longitudinal study of predatory OA from 2015, Shen and Björk identified a growth of predatory OA journal articles from 53,000 in 2010 to an estimated 420,000 in 2014 (Shen & Björk 2015). Medicine is one of the fields that has been most affected by this growth (Harvey & Weinstein, 2017; Ross-White, Godfrey, Sears, & Wilson, 2019; Shen & Bjork, 2015). This is specifically concerning as clinicians rely on information from medical journals when practicing evidence-based medicine where patient's life and wellbeing are in focus (Harvey & Weinstein, 2017).

The fact that predatory journals have outnumbered the legitimate journals in medical specialties such as in neurology and that journals, identified as predatory, can be found in core academic databases like PubMed, Embase and Medline used as information sources for clinical evidence-based practice is worrying as it might lead to clinical decision making that causes patient harm (Harvey & Weinstein, 2017; Manca, Cugusi, Dvir, & Deriu, 2017; Manca, Martinez, et al., 2017; Ross-White et al., 2019).

Checklists, blacklists and whitelists

To support information seekers, researchers and practitioners, several "white lists" of legitimate journals and "blacklists", of predatory journals have been published together with checklists for peer-reviewing of OA journals.

Jeffery Beall, a librarian from the University of Colorado, was the first to coin the word "predatory publishing" in 2010 and has through numerous of articles, blog posts and an online list of predatory publishers, been one of the pioneers in the debate of predatory open access publishing (Cobey et al., 2018; Ross-White et al., 2019; Shen & Bjork, 2015).

In an attempt to standardize the identification of predatory publishers, Beall developed a list of 54 criteria common for predatory publishers and single journals (Biell, 2015). Following Beall's initiative one of the largest OA repository, the Directory of Open Access Journals (DOAJ) removed 40% of its content after introducing the "Principles of Transparency", a checklist with quality requirement for OA journals included in the directory (Baker, 2016; DOAJ, 2017, 2018).

Numerous of different checklists and peer reviewing tools have followed Beall's list and DOAJ's "Principles of Transparency. The Open Access Scholarly Publishers Association's (OASPA) members list of high-quality OA publishers and the user-friendly "Think, Check, Submit" checklist are some examples (OASPA, 2019; "Think. Check. Submit.," 2019). In 2017 and 18, Cabell's

Scholarly Analytics became the first company to offer subscription-based lists of predatory (Blacklist) and non-predatory (Whitelist), OA journals and publishers (Cabells, 2019a, 2019b; Strielkowski, 2018).

In a comprehensive study published earlier this year, Strinzel et al. compared the identification criteria used in Beall's Cabell's and DOAJ's black and white lists. The authors concluded that the black and white lists are good support for scholars but that the criteria used for the lists tend to build on variables that are too easy for journals to meet. The authors also raised a concern about the more difficult variables such as the peer review process being lesser covered in these lists (Strinzel, Severin, Milzow, & Egger, 2019).

Controversies and call for standards for identifying predatory journals

Up until today, there are no generally accepted standard criteria for identifying predatory journals from academic legitimate publications (Cobey et al., 2018; Ross-White et al., 2019; Singh Chawla, 2018; Strinzel et al., 2019). The growing number of different "white" and "black" lists and criticism about the subjectivity of the methods behind the lists, has sparked a discussion about an urgent need for scientifically standardized evaluation criteria for OA journals (Eriksson & Helgesson, 2018; Singh Chawla, 2018; Strinzel et al., 2019).

As a part of this controversy, Beall's list was shut down in early 2017 (Strielkowski, 2018; Strinzel et al., 2019). The reason why Beall suddenly decided to close the list was first not known, but political reasons, lawsuit threats from publishers in addition to criticism of subjectivity and lack of transparent identification criteria, was later mentioned as reasons (Beall, 2017; Strielkowski, 2018; Strinzel et al., 2019). An archived version of Beall's list has since then been published and an anonymous individual has taken over the responsibility of updating the site (Anonymous, 2019; Strinzel et al., 2019).

With the aim of challenging the OA format and identify the scale of predatory publishing, a series of controversial hoax experiments have been conducted. One of the most famous experiments was carried out in 2013 by John Bohannon, a staff member at the journal "Science". Bohannon submitted 304 versions of a bogus scientific paper to different OA journals. Half of the papers were accepted for publication, including the peer-reviewed "Journal of Natural Pharmaceuticals" (Bohannon, 2013).

The results from the hoax experiment and recent evidence suggests that predatory practice not only is connected to OA journals, but also can be found among subscription-based world leading scientific publishers (Cobey et al., 2018; Ross-White et al., 2019). A standardization of characteristics and identifiers of predatory OA journals, publishers and articles might therefore

enhance the quality and scientific standard of the peer review process of OA journals and change the current definition of predatory publishing.

How can librarians support patrons to identify predatory journals?

The number of predatory journals on the OA market, are not only growing at an alarming speed, they are also becoming increasingly adept at mimicking legitimate journals (Danevska et al., 2016). More information to warn researchers and information seekers about the risks of predatory journals is urgently needed (Danevska et al., 2016; Kurt, 2018; Moher et al., 2017).

This has become specifically important in a landscape where academic libraries increasingly rely on OA rather than traditional payed subscriptions (Danevska et al., 2016; Fox & Brainard, 2019; Wang et al., 2019).

With experience in research support, information retrieval, OA publishing and about the publication process, librarians can help patrons to navigate safely in the landscape of OA. Librarians have the potential to be key resources at their institutions and guide researchers to safe OA publishing with a direct impact on universities and single researchers scholarly output and reputation (Clark & Smith, 2015; Ferris & Winker; Kurt, 2018; Moher et al., 2017; Umlauf & Mochizuki, 2018).

Conclusion

Predatory journals are a growing concern within the open access model. It is a threat to scientific research, evidence-based practice and to information tolerance. With standardized criteria for defining predatory publishing, increased awareness and guidelines for peer reviewing of OA journals, publishers, researchers, and librarians have a great potential to work together to defeat the predatory journal industry and to support the development of OA in the context of information tolerance.

References

1. Anonymous. (2019, 2019). Beall's list: A list of potential predatory publishers [archived version]. Retrieved from <https://beallslist.weebly.com/>
2. Baker, M. (2016). Open-access index delists thousands of journals. *Nature*. doi:10.1038/nature.2016.19871
3. Bartholomew, R. E. (2014). Science for sale: The rise of predatory journals. *J R Soc Med*, 107(10), 384-385. doi:10.1177/0141076814548526
4. Beall, J. (2012). Predatory publishers are corrupting open access. *Nature*, 489(7415), 179. doi:10.1038/489179a
5. Beall, J. (2017). What I learned from predatory publishers. *Biochem Med (Zagreb)*, 27(2), 273-278. doi:10.11613/bm.2017.029

6. Biell, J. (2015). Criteria for determining predatory open-access publishers. Retrieved from <https://beallslist.weebly.com/uploads/3/0/9/5/30958339/criteria-2015.pdf>
7. Bohannon, J. (2013). Who's afraid of peer review? *Science*, 342(6154), 60-65. doi:10.1126/science.342.6154.60
8. Cabells. (2019a). The Journal Blacklist. Retrieved from <https://www2.cabells.com/>
9. Cabells. (2019b). The Journal Whitelist. Retrieved from <https://www2.cabells.com/>
10. Clark, J., & Smith, R. (2015). Firm action needed on predatory journals. *Bmj*, 350(Jan16 1), 210. <https://doi.org/10.1136/bmj.h210>
11. Cobey, K. D., Lalu, M. M., Skidmore, B., Ahmadzai, N., Grudniewicz, A., & Moher, D. (2018). What is a predatory journal? A scoping review. *F1000Res*, 7, 1001. doi:10.12688/f1000research.15256.2
12. Dadkhah, M., & Borchardt, G. (2016). Hijacked journals: An emerging challenge for scholarly publishing. *Aesthet Surg J*, 36(6), 739-741. doi:10.1093/asj/sjw026
13. Danevska, L., Spiroski, M., Donev, D., Pop-Jordanova, N., & Polenakovic, M. (2016). How to recognize and avoid potential, possible, or probable predatory open-access publishers, standalone, and hijacked journals. *Pril (Makedon Akad Nauk Umet Odd Med Nauki)*, 37(2-3), 5-13. doi:10.1515/prilozi-2016-0011
14. DOAJ. (2017). The reapplications project is officially complete [blog post]. Retrieved from <https://blog.doaj.org/category/reapplications/>
15. DOAJ. (2018). Principles of transparency and best practice in scholarly publishing. Retrieved from <https://doaj.org/bestpractice>
16. Eriksson, S., & Helgesson, G. (2017). The false academy: Predatory publishing in science and bioethics. *Med Health Care Philos*, 20(2), 163-170. doi:10.1007/s11019-016-9740-3
17. Eriksson, S., & Helgesson, G. (2018). Time to stop talking about 'predatory journals'. *Learned Publishing*, 31(2), 181-183. doi:10.1002/leap.1135
18. Ferris, L. E., & Winker, M. A. (2017). Ethical issues in publishing in predatory journals. *Biochemia Medica*, 27(2).
19. Fox, A., & Brainard, J. (2019). University of California takes a stand on open access. *Science*, 363(6431), 1023. doi:10.1126/science.363.6431.1023-a
20. González-Betancor, S. M., & Dorta-González, P. (2019). Publication modalities 'article in press' and 'open access' in relation to journal average citation. *Scientometrics*, 120(3), 1209-1223. doi:10.1007/s11192-019-03156-2
21. Harvey, H. B., & Weinstein, D. F. (2017). Predatory Publishing: An emerging threat to the medical literature. *Acad Med*, 92(2), 150-151. doi:10.1097/acm.0000000000001521
22. Jökull Journal. (2019). Retrieved from <https://www.jokulljournal.com/>
23. Jökull; Journal of earth sciences. (2013). Retrieved from <https://jokulljournal.is/>
24. Kurt, S. (2018). Why do authors publish in predatory journals? *Learned Publishing*, 31(2), 141-147. doi:10.1002/leap.1150

25. Laakso, M., Welling, P., Bukvova, H., Nyman, L., Bjork, B. C., & Hedlund, T. (2011). The development of open access journal publishing from 1993 to 2009. *Plos one*, 6(6), e20961. doi:10.1371/journal.pone.0020961
26. Manca, A., Cugusi, L., Dvir, Z., & Deriu, F. (2017). PubMed should raise the bar for journal inclusion. *Lancet*, 390(10096), 734-735. doi:10.1016/s0140-6736(17)31943-8
27. Manca, A., Martinez, G., Cugusi, L., Dragone, D., Dvir, Z., & Deriu, F. (2017). The surge of predatory open-access in neurosciences and neurology. *Neuroscience*, 353, 166-173. doi:10.1016/j.neuroscience.2017.04.014
28. Moher, D., Shamseer, L., Cobey, K. D., Lalu, M. M., Galipeau, J., Avey, M. T., . . . Ziai, H. (2017). Stop this waste of people, animals and money. *Nature*, 549(7670), 23-25. doi:10.1038/549023a
29. OASPA. (2019). Members of the Open Access Scholarly Publishers Association. Retrieved from <https://oaspa.org/membership/members/>
30. Ottaviani, J. (2016). The post-embargo open access citation advantage: It exists (probably), its modest (usually), and the rich get richer (of course). *Plos one*, 11(8). doi:10.1371/journal.pone.0159614
31. Ross-White, A., Godfrey, C. M., Sears, K. A., & Wilson, R. (2019). Predatory publications in evidence syntheses. *J Med Libr Assoc*, 107(1), 57-61. doi:10.5195/jmla.2019.491
32. Ruitter-Lopez, L., Lopez-Leon, S., & Forero, D. A. (2019). Predatory journals: Do not judge journals by their editorial board members. *Medical Teacher*, 41(6), 691-696. doi:10.1080/0142159X.2018.1556390
33. Shamseer, L., Moher, D., Maduekwe, O., Turner, L., Barbour, V., Burch, R., . . . Shea, B. J. (2017). Potential predatory and legitimate biomedical journals: can you tell the difference? A cross-sectional comparison. *BMC Med*, 15(1), 28. doi:10.1186/s12916-017-0785-9
34. Shen, C., & Bjork, B. C. (2015). 'Predatory' open access: A longitudinal study of article volumes and market characteristics. *BMC Med*, 13(1741-7015), 230. doi:10.1186/s12916-015-0469-2
35. Singh Chawla, D. (2018). The undercover academic keeping tabs on 'predatory' publishing. *Nature*, 555(7697), 422-423. doi:10.1038/d41586-018-02921-2
36. Strielkowski, W. (2018). Predatory publishing: What are the alternatives to Beall's List? *Am J Med*, 131(4), 333-334. doi:10.1016/j.amjmed.2017.10.054
37. Strinzel, M., Severin, A., Milzow, K., & Egger, M. (2019). Blacklists and Whitelists to tackle predatory publishing: A cross-sectional comparison and thematic analysis. *MBio*, 10(3). doi:10.1128/mBio.00411-19
38. Think. Check. Submit. (2019). Retrieved from <https://thinkchecksubmit.org/>
39. Umlauf, M. G., & Mochizuki, Y. (2018). Predatory publishing and cybercrime targeting academics. *Int J Nurs Pract*, 24 Suppl 1, e12656. doi:10.1111/ijn.12656

40. Wang, J. Z., Pourang, A., & Burrall, B. (2019). Open access medical journals: Benefits and challenges. *Clin Dermatol*, 37(1), 52-55. doi:10.1016/j.clindermatol.2018.09.010
41. Xia, J., Harmon, J. L., Connolly, K. G., Donnelly, R. M., Anderson, M. R., & Howard, H. A. (2015). Who publishes in “predatory” journals? *Journal of the Association for Information Science and Technology*, 66(7), 1406-1417. doi:10.1002/asi.23265
42. Year of Tolerance. (2019). Retrieved from:
<https://www.theyearoftolerance.ae/en/about>

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