SYSTEMATIC REVIEW



Impact of Predatory Journal Publishing on Scholarly Practices among Academic Librarians in Nigeria: A Systematic Review of Literature

Impacto de la publicación abusiva de revistas en las prácticas académicas de los bibliotecarios académicos de Nigeria: Una revisión sistemática de la literatura

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ABSTRACT

The rise of predatory publishing poses a concerning trend among academics, including librarians, in Nigeria. This study explores the essential aspects and consequences of predatory publishing within the realm of Nigerian academic librarians. It delineates the characteristics of predatory publishers and journals, shedding light on their subtle methods of enticing unwitting authors. The discussion navigates the intricate dimensions of predatory publishing and its detrimental impacts on research and scholarship within the librarian community. Emphasizing the devastating effects on the future of research and scholarship, the paper concludes by presenting intervention strategies and urging relevant authorities in Nigeria to take proactive measures in curtailing predatory publishing, particularly among academic librarians. The paper recommends that academic libraries and librarians should lead the awareness campaign, and individual institutions should organize periodic seminars and workshops on the consequences of predatory publishing.

Keywords: Predatory Journals; Publishing; Academic Libraries; Librarians' Scholarship; Research.

RESUMEN

El aumento de la publicación predatoria plantea una tendencia preocupante entre los académicos, incluidos los bibliotecarios, en Nigeria. Este estudio explora los aspectos esenciales y las consecuencias de la publicación depredadora en el ámbito de los bibliotecarios académicos nigerianos. Describe las características de las editoriales y revistas depredadoras y arroja luz sobre sus sutiles métodos para atraer a autores inconscientes. El debate aborda las intrincadas dimensiones de la edición depredadora y sus efectos perjudiciales en la investigación y la erudición dentro de la comunidad bibliotecaria. Haciendo hincapié en los efectos devastadores sobre el futuro de la investigación y la erudición, el artículo concluye presentando estrategias de intervención e instando a las autoridades competentes de Nigeria a tomar medidas proactivas para reducir la publicación depredadora, en particular entre los bibliotecarios académicos. El artículo recomienda que las bibliotecas académicas y los bibliotecarios dirijan la campaña de sensibilización, y que las instituciones individuales organicen periódicamente seminarios y talleres sobre las consecuencias de la publicación predatoria.

Palabras clave: Revistas Depredadoras; Publicación; Bibliotecas Académicas; Becas de Bibliotecarios; Investigación.

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INTRODUCTION

In academia, research and publication stand as pivotal indicators of scholarly achievement. The assessment of academic staff, particularly in higher education institutions, extends beyond teaching activities to encompass their research and publishing endeavors over time. Evaluations conducted by institutions and international organizations for the recognition and reward of academics heavily rely on the output of research and publication. The standing of academic institutions is often determined and ranked based on the research and publication outputs of their faculties (Ayeni & Adetoro, 2017). Consequently, these institutions place significant emphasis on research and publishing as prerequisites for faculty members.^(1,2,3)

Observations by Okwu and Oladokun (2023) highlight that similar expectations extend to academic librarians in Nigerian Universities, who, being accorded faculty status, engage in teaching and research in library schools. The authors note that librarians actively publish to secure career-related rewards such as promotion, recognition, visibility, and acceptance within their institutions and among peers.^(4,5) Moreover, systematic research is deemed essential for addressing challenges inherent in the profession, and the advancement of knowledge is fostered through ongoing research and publishing.^(6,7)

Over time, Nigerian academic librarians have contributed substantially to the scientific knowledge of their profession, disseminating their research across reputable outlets, including books, local and international journals, conference papers, proceedings, and technical reports (Tella, 2020). Journals, in particular, are widely utilized by researchers, including librarians, necessitating the development of requisite research and editorial skills, an understanding of publishing ethics, and a commitment to professionalism.^(8,9,10)

Regrettably, this positive trend faces a growing threat from the rise of predatory publishing. Coined by Jeffrey Beall in 2010, predatory publishing operates as a business model that exploits authors by levying publication fees without providing essential preview, review, and editorial services required for scholarly works prior to publication. This profit-driven model shows no interest in fostering scholarly pursuits and capitalizes on authors and researchers seeking rapid publication to meet promotion or reward deadlines.^(5,11) The system thrives on the promise of swift publication and open access for easy citation, often releasing works within one to four weeks of submission without undergoing plagiarism tests, scholarly review, copyediting, and proofreading. If this practice persists, it poses severe consequences for scholarship, research, and the future of the profession. Notably, predatory publishing extends beyond library and information science, emerging as a concerning phenomenon in various fields of study (Owolabi et al., 2020).

Beall (2015) annually compiled a list of predatory journals and publishers, a practice that has faced some scrutiny from scholars. However, the concerning reality is the escalating prevalence of predatory journals and publishers. According to Straumsheim (2017), the number of articles published in predatory journals surged from 53,000 in 2010 to a staggering 420,000 in 2014, disseminated by approximately 8,000 predatory journals. The challenge in addressing this issue lies in the difficulty of identifying and categorizing predatory journals based on specific fields of study, as many of them indiscriminately accept and publish articles across diverse knowledge domains. The entire concept of predatory publishing poses a significant threat to the future of research and scholarship. This issue is particularly pressing in developing countries like Nigeria, where awareness of the dangers associated with predatory publishing is limited. This examines the need to address and rectify this trend, especially concerning its implications for the scholarly endeavors of academic librarians in Nigeria.^(12,13)

Objectives

- 1. To determine the characteristics and nature of predatory publishing
- 2. To determine prevalence of scholarship and predatory publishing among Nigerian academic librarians
- 3. To ascertain the implications of predatory publishing on scholarship and research

METHODOLOGY

The study utilized a qualitative research approach, employing the explanatory research method to investigate predatory journal publishing as a gain or loss for scholarly practices among academic librarians in Nigeria. A systematic literature review was conducted during the research process, focusing on articles published between 2015 and 2023. The researchers accessed relevant data from the databases of Google Scholar and ResearchGate over an eight-year interval, chosen purposefully for the study. The search strategy involved the use of key terms such as "predatory journal publishing" and "scholarly practices among academic librarians in Nigeria" This methodological approach spanned one week to gather pertinent articles for the research papers. Following the compilation of articles from the databases, the researchers thoroughly examined and assimilated the content related to predatory journal publishing as a gain or loss for scholarly practices among academic librarians in Nigeria into the paper.⁽²¹⁾ The entire research project was completed within a two-month timeframe, demonstrating a commitment to rigorous investigation. Ethical considerations were meticulously observed throughout the research process, with proper referencing of authors cited in the paper and ensuring

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consistency in the presentation of research findings.^(22,23)

Literature Review

Several literatures were review according to the formulated objectives.

DEVELOPMENT

Characteristics and Nature of Predatory Publishing

Identifying predatory journals can pose challenges, especially for unsuspecting authors. Beall's (2015) examination of predatory publishing, along with his subsequent annual compilations of predatory publishers and journals, has proven highly valuable. Despite facing criticism from some scholars and librarians, Beall's list remains arguably the most comprehensive compilation of predatory publishers and journals, having been released annually for six years. A primary point of contention regarding Beall's list is the occasional inclusion of genuinely reputable journals and the omission of certain predatory journals. Nevertheless, Beall, the creator of the list, incorporated provisions for corrections and updates throughout the six-year period. He consistently encouraged editors of listed journals to provide justifications and request exclusions if they had strong reasons or queries. Certain characteristics consistent with predatory journals are highlighted by Ayeni and Adetoro (2017) as well as Okwu and Oladokun (2023). These characteristics include:

- Swift acceptance of research papers and articles with minimal or no peer review
- · Lack of a known or established strategy for maintaining quality control and standards
- Notification to authors about article processing fees occurring only after paper acceptance
- Aggressive solicitation of article submissions through frequent emails to prospective authors
- Publication of multiple articles encompassing unrelated subject areas within a single journal
- Inclusion of scholars and academics as editorial board members without their permission
- · Listing of non-existent or fake academics/scholars on the editorial board
- Cloning of websites and imitation of names from established and highly regarded journals
- False claims regarding the names and qualifications of editors and the journal's location address
- Misuse of International Standard Serials Number (ISSN)
- Falsification of impact factors and indexing information

• Appointments and engagements of editors lacking the requisite qualifications for their positions Predatory publishing outlets can be classified into four categories: predatory publishers, standalone journals, misleading metrics, and hijacked journals. Predatory publishers are organizations that release multiple predatory journals spanning various subject areas, including library and information science. Standalone journals lack a known publisher name and address, publishing papers from diverse fields without a specified area of expertise (Okwu & Oladokun, 2023). The misleading metrics category comprises fake indexing bodies and companies that fabricate and publish counterfeit impact factors (and other ranking metrics). Owolabi et al. (2020 mention that predatory journals utilize these deceptive metrics on their websites and in spam emails, misleading authors into publishing with them under the false pretense of legitimate impact factors. The final category, hijacked journals, involves journals stealing the identity of established ones, sharing the same name as authentic and scholarly journals. The main distinction often lies in the use of counterfeit websites, which may mimic the features of the originals (Ifijeh, 2017).

For ethical reasons, this paper refrains from mentioning specific predatory publishers or journals. A substantial number of predatory publications originate from regions such as Asia (especially India and Bangladesh) and some parts of Africa, including Nigeria (Straumsheim, 2015). Despite occasionally displaying contact addresses in Europe and the United States on their websites, these entities often require authors to make article processing fee payments through international money transfer agents to addresses in Asia and Africa. Predatory publishing, inherently fraudulent in nature and operation, clashes with the ethical standards expected of researchers and scholars who hold esteemed positions in society. Given their role as custodians of knowledge, library and information practitioners, professionals, and researchers are obligated to preserve knowledge rather than contribute to its destruction. Therefore, librarians cannot afford to be associated with or endorse predatory publishing practices.^(6,8)

Prevalence of Scholarship and Predatory Publishing among Academic Librarians in Nigeria

The inception of academic libraries and the pursuit of academic librarianship as a career in Nigeria trace back to 1948 with the establishment of the University College, Ibadan. Over time, the proliferation of higher learning institutions, fostered by governments, corporate entities, and individuals, has led to a substantial increase in academic libraries operated by librarians. However, it wasn't until the 1990s that librarians within these institutions were formally granted academic status (Ifijeh, 2017). Prior to this, librarians in academic settings were not obligated to engage in research and publish papers, a requirement typically expected of other academic staff in faculties or colleges. Research productivity, often measured by the number of academic papers published within a specified timeframe, encompasses various forms of scholarly output. According to Okonedo (2015), this includes research findings, theoretical papers, and contributions to scholarly outlets such as journals, conference proceedings, books, or book chapters. Academic writing also extends to editorial responsibilities, obtaining patents and licenses, composing monographs, and participating in public debates and commentaries. The demanding workload of librarians as information professionals, however, can put them at a disadvantage in terms of time available for research and paper publication.⁽¹⁴⁾

Despite an observed increase in publication output among academic librarians in Nigeria, Tella (2020) notes that the level remains notably lower compared to counterparts in developed regions of Europe and North America. Examining the research output of librarians in northern Nigeria from 2000 to 2012, Tsafe et al. (2016) reported a total of 373 publications by 165 librarians over the 12-year period, translating to an annual average of 31 publications per 165 librarians. Similarly, Okonedo's (2015) study on the research output of academic librarians in Southwest Nigeria between 2009 and 2014 revealed 726 papers published in learned journals by 166 librarians within the five-year span, averaging 145 papers annually for the group. These figures underscore the fact that a portion of academic librarians may not publish any papers in an entire year.

However, a more alarming concern is that, among the limited papers published by librarians, a significant number find their way into predatory journals. Research conducted by Okonedo (2015) and Tsafe et al. (2016) indicates that academic librarians show a preference for publishing in journals, both local and international. In this context, 'local journals' pertain to publications within Nigeria, often without online accessibility, while 'international journals' are publications outside the country, generally available online. Many Nigerian universities tend to give higher regard to international journals, prompting scholars, including librarians, to favor publishing in these outlets. Unfortunately, it has been observed that some journals labeled as 'international' are, in fact, predatory (Owolabi et al., 2020). The desire to publish in international journals has led many Nigerian scholars, librarians included, to inadvertently become victims of predatory publishing. The allure of predatory journals lies in their seemingly easier path to publication, compared to the demanding process associated with reputable international journals.

Implications of Predatory Publishing on Scholarship and Research

As mentioned earlier, engaging in predatory publishing within any academic discipline, including library and information science, carries both immediate and enduring consequences for scholars and researchers. Librarians, often regarded as custodians of knowledge, face not only the detriment of their field of study but also a detrimental impact on the practice of librarianship when involved in predatory publishing. The following outlines some of the repercussions of predatory publishing, particularly concerning scholarship:

- Contamination of Literature and Research Processes: The integrity of current research relies on accurate and reliable prior knowledge and findings. However, when existing knowledge is flawed or misleading, it corrupts both present and future research built upon it. Predatory journals often lack thorough peer-review processes conducted by qualified experts, leading to inaccuracies in the published findings (Cobey et al., 2018). Consequently, researchers who draw upon such publications may unintentionally propagate misinformation. For Nigerian librarians, the contamination of the research process holds significant repercussions. Academic writing and publishing among librarians are still in a developmental stage in Nigeria. Predatory publishing poses a risk of polluting the foundational knowledge essential for future research. Nigerian academic librarians play a vital role in conducting research to address challenges within the country's libraries. However, when the findings from such research are inaccurate, the existing and future challenges of libraries remain unresolved.^(5,9)
- Loss of Valuable Knowledge and Research Findings: Authors, often unaware, submit their papers to predatory journals, and some of these contributions may contain valuable theoretical knowledge and legitimate empirical findings. The significant drawback lies in the inherent risk of predatory journals facing extinction. When a journal ceases to exist, the loss of valid theoretical and empirical knowledge becomes a real concern, particularly when the journal's content is exclusively accessible online. Predatory journals, primarily driven by profit motives (Downes, 2020), are susceptible to discontinuation if deemed financially unviable. These publishers show little regard for the preservation of knowledge and research findings for future generations. In the context of scholarly writings and research within the evolving landscape of Nigerian academic librarianship, the loss of past research findings would be profoundly detrimental.⁽¹⁵⁾
- Loss of Authors' Credibility: The credibility of authors, especially emerging scholars yet to establish themselves in their respective fields, is often bolstered by the publication of high-quality research and theoretical papers in reputable and acknowledged journals. Publications in well-regarded journals, particularly those with impact factors recognized by reputable indexing bodies, contribute significantly to enhancing authors' credibility. Authors associated with such journals are seen as diligent, brilliant contributors to their fields of knowledge. Conversely, those who publish in predatory

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journals risk having their credibility scrutinized and may be perceived as less committed professionals and academics (Kumar et al., 2022). Given that Nigerian academic librarians are still relatively young in academia, maintaining integrity is crucial to their professional standing. A lack of credibility can impede career advancement for faculty and academics.⁽¹⁶⁾

- Low or Zero Rankings for Authors' Institutions: Universities globally take pride in their international and local rankings, as these rankings influence students' choices and an institution's access to grants and funds. Notably, global rankings by respected bodies like the Times Higher Education World University Rankings and the QS World University Rankings heavily rely on publications indexed by recognized agencies. The two foremost indexing agencies for rankings are SCOPUS and Web of Science. Therefore, institutions and their authors benefit significantly from publications in journals, conference proceedings, and books indexed by these agencies, impacting their global rankings and influencing their ability to secure support from donor agencies and industries.^(17,18)
- Erosion of Scholarship and Academic Culture: Established academic cultures encompass research, scholarly writings, editing, and peer review mechanisms within academic publications, with scholars and faculties serving as custodians of these essential practices. Predatory publishing, by bypassing the peer review process integral to the research and publication procedures, undermines academic culture and poses a significant threat to scholarship (Zhang et al., 2022). This systematic degradation of academic culture and scholarship is gradual but persistent, jeopardizing the future of academic endeavors. For emerging scholars, such as Nigerian academic librarians, engaging in predatory publishing may deprive them of the valuable experience of genuine research and the rigorous peer review systems that foster the development of scholars.⁽¹⁹⁾
- Encouragement of Plagiarism: Another peril associated with predatory publishing is the facilitation of plagiarism. Plagiarism entails the unethical act of appropriating another author's ideas, expression, and published work as one's own, without providing proper acknowledgment to the original source. Predatory publishers typically neglect to conduct plagiarism checks on submitted papers, opening the door for potential plagiarism. In some instances, authors exploit predatory journals to engage in self-plagiarism (Moussa, 2021). Self-plagiarism involves authors reusing their previously published works without proper acknowledgment or citation of the original work. One of the privileges extended to authors is the due acknowledgment achieved through the proper citation of their published works. Plagiarism denies authors this essential recognition.⁽²⁰⁾

CONCLUSION

The significance of research and scholarship in fostering knowledge creation, expansion, and societal development cannot be overstated. Educational institutions are established with the primary purpose of facilitating research and scholarly pursuits. When the integrity of the research and scholarly publication process is compromised, it jeopardizes the existence of academics, the future of knowledge, educational institutions, and society at large. While this paper specifically addresses issues of predatory publishing within the context of academic librarians in Nigeria, it also serves as a clarion call to all stakeholders in the country. Urgent measures are needed to combat predatory publishing and safeguard the future of research and scholarship. Academic librarians, being custodians of knowledge, should exemplify intellectual honesty among their academic peers. They ought to take a leading role in the campaign against predatory publishing, refraining from engaging with predatory publishers and actively discouraging others from doing so. In taking these steps, they contribute to the preservation of the legacy of research and scholarly writing in the country.

RECOMMENDATIONS

Based on the findings of the study, the following recommendations were made:

- 1. Management of academic libraries should create awareness of predatory publishing among library professionals. This is because there are those who are unaware of the existence of predatory journals and so fall prey to them; and there are authors who are aware of the existence of predatory journals and publish in them in order to get their papers published as quickly as possible. The first category of authors needs orientation on the existence of predatory journals and how to identify them. On the other hand, predatory authors need awareness on the consequences of predatory publishing. Perhaps, an awareness of the consequences of their actions on scholarship and research in their field of study as well as their Institutions could help to deter them from the fraudulent practice.
- 2. Academic libraries and librarians should lead the awareness campaign. Libraries and librarians are the custodians of knowledge; they should lead any campaign that is geared towards promoting scholarship and the posterity of knowledge and research. They could take advantage of faculty and staff library orientation periods to create awareness on predatory publishing.
- 3. Individual institutions should organize periodic seminars and workshops on the consequences of

predatory publishing. This will help academic staff to be abreast with latest developments in predatory publishing as well as new antics employed by predatory publishers

REFERENCES

1. Downes M. Thousands of Australian academics on the editorial boards of journals run by predatory publishers. Learned Publishing 2020;33:287-95. https://doi.org/10.1002/leap.1297.

2. What is a predatory journal? A scoping review | F1000Research s. f. https://f1000research.com/ articles/7-1001/v2 (accedido 31 de enero de 2024).

3. Masic I. Predatory Journals and Publishers - Dilemmas: How to Assess it and How to Avoid it? Med Arch 2021;75:328-34. https://doi.org/10.5455/medarh.2021.75.328-334.

4. Beshyah A, Basher M, Beshyah S. A bibliometric analysis of the international medical literature on predatory publishing. Ibnosina Journal of Medicine and Biomedical Sciences 2020;12:23-32. https://doi.org/10.4103/ ijmbs.jjmbs_25_20.

5. Zhang L, Wei Y, Sivertsen G, Huang Y. The motivations and criteria behind China's list of questionable journals. Learned Publishing 2022;35:467-80. https://doi.org/10.1002/leap.1456.

6. Okonedo S. RESEARCH AND PUBLICATION PRODUCTIVITY OF LIBRARIANS IN PUBLIC UNIVERSITIES IN SOUTH-WEST, NIGERIA 2015.

7. Ifijeh G. Emergence of Predatory Publishing in Library and Information Science: Issues and Implications for Scholarship among Academic Librarians in Nigeria. Bilgi Dünyasi 2017;18. https://doi.org/10.15612/BD.2017.572.

8. Zambia U of. Revistas de acceso abierto y publicaciones depredadoras | Revista de Bibliotecas y Ciencias de la Información de Zambia (ZAJLIS), ISSN: 2708-2695 2023.

9. Tsafe Dr GA, Basaka Nil BAA, Mohammed Dr CU. Scholarly Publications of Librarians in Universities in Nigeria: 2000 2012 -- A Bibliometric Analysis 2016.

10. Pérez Yarango JR. Gestión del conocimiento: usos y aplicaciones en bibliotecas académicas. Universidad Nacional Mayor de San Marcos 2020.

11. University of Ibadan. Times Higher Education (THE) 2024. https://www.timeshighereducation.com/ world-university-rankings/university-ibadan (accedido 31 de enero de 2024).

12. Kumar DrA, Gupta R, Tripathi DrK, Singh R. Predatory Publications in the Era of the Internet and Technology: Open Access Publications are at Risk. ATHENS JOURNAL OF MASS MEDIA AND COMMUNICATIONS 2022;8:79-92. https://doi.org/10.30958/ajmmc.8-2-1.

13. Moussa S. Citation contagion: a citation analysis of selected predatory marketing journals. Scientometrics 2021;126:485-506.

14. Tella A. Nigerian Academics Patronizing Predatory Journals: Implications for Scholarly Communication. Journal of Scholarly Publishing 2020;51:182-96. https://doi.org/10.3138/jsp.51.3.02.

15. Raíces y flores: la vida y obra de la bibliotecaria afrocubana Marta Terry ... - Abdul Alkalimat, Kate Williams - Google Libros s.

16. Miranda Medina CF. La mediación como constructo científico. phd. Universidad Autónoma de Nuevo León, 2019.

17. Trazando puentes entre las neurociencias y la educación. Aportes, límites y caminos futuros en el campo educativo s. f. http://www.scielo.org.co/scielo.php?pid=S0124-01372018000200476&script=sci_arttext (accedido 31 de enero de 2024).

7 Akanmu Aboyade W, et al

18. Lewis A. Academic Librarians in Spanish-Speaking Latin America See a Growing Need for Librarian Role in Scholarly Publishing Literacy / Buitrago Ciro, J. (2022). How are academic libraries in Spanish-speaking Latin America responding to new models of scholarly communication and predatory publishing? Journal of Librarianship and Information Science, 54(3), 373-388. https://doi.org/10.1177/09610006211016533. Eblip 2023;18:108-10. https://doi.org/10.18438/eblip30308.

19. Cerebro y aprendizaje: Competencias e implicaciones educativas - Eric Jensen - Google Libros s. f. https:// books.google.es/books?hl=es&lr=&id=wUWqnQi6meEC&oi=fnd&pg=PA11&dq=related:Liv1A7mkST4J:scholar. google.com/&ots=xaCeWWjmHs&sig=6ioZeRj-nwVXldkbw6MPoX7Xb8I#v=onepage&q&f=false (accedido 31 de enero de 2024).

20. El cerebro y el aprendizaje | eumed.net s. f. https://www.eumed.net/rev/atlante/2020/06/cerebro-aprendizaje.html (accedido 31 de enero de 2024).

21. Leyva Pérez L, Carina Fuentes Reyes S, Casate Fernández R. Transformación digital en bibliotecas académicas y de investigación (2010-2020): revisión bibliográfica sistematizada. Bibliotecas Anales de Investigación 2023;19:15.

22. E CECM-EC-I | C 23 # 654 entre D y, Revolución P de la, Habana L, 10400, viernes C | T 1893 | H de atención: lunes a, Información de 8:30 a m a 5:00 p m LSMDE principal | L en B y C de la, et al. Actualidades - Página 13 - ECIMED s. f. http://www.ecimed.sld.cu/category/actualidades/page/13/ (accedido 31 de enero de 2024).

23. Urbano C. Ineficiencias, defectos y prácticas fraudulentas en la comunicación científica: abriendo el foco más allá de las revistas y congresos depredadores 2022.

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