

Predatory Journals: The Threat to Credibility of Open Access Publishing

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ABSTRACT: The present study examines the publication trends in predatory journals listed in Beall's list of 'predatory journals' website (<https://beallslist.net>). 1310 journals were downloaded from Beall's list of predatory journal websites and saved in a separate Excel file. The extracted data has been analyzed based on different parameters such as the name of the journals, year of establishment, publisher name, country, subject, processing fees and editorial board. It is found that most of the predatory journals are published in Asia (30.38%). Surprisingly, most predatory journals are published in Medical Science (10.83%) and Engineering (11.37%). It is also noticed that most of the websites of predatory journals' website URLs are dead links (31.52%). Further, it is found that most of the predatory journals have not mentioned the publisher's name on the website.

Keywords: Predatory journals, Open Access, Open Access Publishing, Article Processing fee

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1. Introduction

Today, the Open-access domain is in a problematic situation because of poor-quality research and the large number of predatory journals (Beall, 2017). The word 'Predatory' is a biological term defined by Merriam-Webster dictionary as inclined or intended to injure or exploit others for personal gain or profit. The term 'Predatory publisher' was first coined by Jeffrey Beall in 2010 (Cobey et al., 2018). According to Jeffrey Beall, predatory open-access publishers exploit the author and get money from them for publishing articles. These publishers typically have a low article acceptance threshold, with a false-front or non-existent peer review process. They use deception to appear legitimate, entrapping researchers in submitting their work and then charging them to publish it".

Predatory publishing is a serious and growing problem like cancer that is affecting the ethics and quality of scholarly publishing. Typical signs of predatory publishing are imitating journal titles by slightly changing the words, demanding high APCs after accepting the article, non-existent editorial board members, fake impact factors and claiming their journals are indexed in reputed databases (Xia, 2015). In this context, this study has been made to analyze the number of predatory journals listed in Beall's list of predatory journals. Further, the study also explored the number of predatory journals in different subjects, the availability of publishers' names, and the editorial board on the websites of such predatory journals.

2. Review of Related Literature

The literature review is an integral part of academic writing. It is a critical and in-depth evaluation of previous research. A good literature review expands upon the reason behind selecting a particular research question and plays a very important role in the research process. The purpose of reviews is to provide as much information as possible pertaining to the topic chosen. In this context, a systematic review of literature has been conducted to understand the quantum of research carried out in predatory journals and publishers. Some of the articles are reviewed in this section:

Jeffrey Bell (2015) opines that predatory publishers and conferences use an ineffective peer-review procedure, allowing low-quality research to become part of the scholarly record. He feels that the author-pay model has created a structural change in scholarly publishing which brought negative effects and competition among the predatory journals and has brought down the author fees for publishing these bogus journals. He suggests the quality of a journal should be a criterion for academic evaluation.

Eriksson and Helgesson (2017) showed that deceptive journals deceive authors, readers, and institutions by providing false information about critical evaluation, peer review, editorial board, impact factor, indexing, and other factors, as well as including well-known researcher names in their editorial board without their permission. Memon (2018) in his study reveals that most of the authors from developing countries publish in predatory journals because of a lack of funding, support and training. He suggests training young researchers so that they can deal with predatory publishing situations.

Memon (2018) predatory journals and publishers are generally based in poor nations, and they use various strategies to target inexperienced researchers from these nations. These authors fall prey to these predatory publishers, and their publications are published in predatory journals. Ritching et al., (2018) suggest young and inexperienced authors who publish in a predatory journal must be aware of their credibility which damages their reputation. Lack of inadequate peer review process and the risk of unprofitable journals would be closed resulting in the loss of all published research papers in that journal. They also feel that the rise of open open-access movement of publishing articles online has increased the number of publishers and journals that have exploited the open-access model.

Kurt (2018) chose 50 journals from Beall's list and examined 300 articles, why authors publish in predatory journals and found that the researchers may be unconcerned about the quality of journals and that they are attempting to publish more papers in predatory journals for promotion purposes. The author also feels that the researchers avoid the peer-review process so that they can make their name more quickly and easily. The result of the study indicates that many scholars are unaware of the research methodology and ethics and they are insufficiently trained. The study suggested that there is a need to provide authors with knowledge and skills to write and publish in high-quality journals. Demir (2018) examined 24840 articles published in 832 journals in the year 2017. The journals were selected from Beall's list. The study found that some published their articles in the same journals more than once. Grudniewicz et al., (2019) find that it is difficult to distinguish a predatory journal from an under-resourced journal. They claim that predatory journals are self-interested in finances and they present themselves with false and misleading information. Vakil (2019) feels that in publish or perish academic culture, the authors who don't know predatory journals, succumb to these dubious journals and then valuable published work is held as hostage in these non-credible journals.

Jiban Shrestha et al., (2020) explained how predatory publishing threats to the credibility of science are. He collected journal articles, website materials and newspapers as a way to recognize predatory journals from 2012 to 2020. Finally identify how the recognize predatory journals, the harmful effects of predatory publishing, ways to recognize legitimate journals and ways to discourage predatory publishing. Lejla Zunic et al., (2020) find out how predatory journals are indexed in reputable databases. The purpose of this paper explain the issue to help inexperienced scientists avoid publishing in predatory journals. They used reputable databases such as PubMed, MEDLINE, SCOPUS, and Web of Science, finally analysis from this database, identified and suggested 28 characteristics of predatory journals to boycott both readers and writers.

Bala Mandrekar and Rajendra Kumbhar(2021) suggested how predatory journals are a threat to academicians. The main purpose of studywasto provide awareness to researchers to enable the researchers to publish one or two papers in peer-reviewed journals. The inexperienced researcher are in a hurry in the process of publishing their articles and offer some basic knowledge so that can avoid publishing in predatory journals.

3. Objectives of the Study

This paper aims to study the publications trends in predatory journals, and the main objectives of the study are as follows:

- To find the number of predatory journals published from different continents and countries.
- To know the number of predatory journals published on different subjects.

c) To identify misleading titles used in the predatory journals.

d) To analyze the availability of the editorial board, the status of the website, and APCs of predatory journals.

4. Scope and Methodology

The scope of the study is confined to analyzing the predatory journals included only in Beall's list of predatory journals (<https://beallslslist.net>). The study mainly analyzed 1310 predatory journals that are published across various disciplines. The primary data has been taken from each journal's website in the first week of August 2023. The journals are manually grouped based on some parameters such as continent, subject, journal titles, frequency of publications, the format of publications, the status of the website and APCs. The collected data has been analyzed and presented in the form of tables.

5. Analysis and Interpretation of Data

Table 1. Distribution of Predatory Journals by Continents

Continents	Number of Predatory Journals	Percentage
Asia	398	30.38
Africa	10	0.76
Europe	62	4.73
North America	37	2.82
South America	2	0.15
Australia/Oceania	7	0.53
The country name is not mentioned	794	60.61
Total	1310	100.00

Table 1 shows the distribution of predatory journals by continent. A total of 1310 predatory journals are included in Beall's list of predatory journals (<https://beallslslist.net>). All the journals are extracted and segregated by continent. It is found from the table that most of the predatory journals are published in Asia (30.38%) followed by Europe (4.73) and North America (2.82). It is also noticed that 60% of the predatory journals have not mentioned the country of origin.

Table 2. Country wise distribution of Predatory journals

Country	Number of predatory journals	Percentage
India	350	26.72
United States of America	29	2.21
United Kingdom	10	0.76
Pakistan	10	0.76
Romania	08	0.61
Singapore	08	0.61
Australia	07	0.53
Canada	05	0.38
Spain	05	0.38
Turkey	05	0.38

Further, an attempt has also been made to identify the number of journals published from different countries and the data is presented in Table 2. The table shows that more than 26% of predatory journals are being published in India. A distant second is the United States of America with 29 journals (2.21%), followed by the United Kingdom with 10 journals (0.76%) and Pakistan with 10 (0.76%).

Table 3. Distribution of Predatory Journals by Subject

SI No	Subject	Number of journals	Percentage
1	Information Technology	52	3.96
2	Library and Information Science	6	0.45
3	Psychology	1	0.07
4	Media and Communication	2	0.15
5	Economics	10	0.76
6	Law	3	0.22
7	Environmental Science	14	1.06
8	Education	14	1.06
9	Health Science	142	10.83
10	Linguistics	11	0.83
11	Physics	9	0.68
12	Mathematics	5	0.38
13	Chemistry	10	0.76
14	Life Science	8	0.61
15	Physical Education & sports	3	0.22
16	Engineering	149	11.37
17	Agricultural & Animal Science	18	1.37
18	Business & Management studies	12	0.91
19	Multidisciplinary	841	64.19
	Total	1310	100

Table 3 shows the subject-wise distribution of predatory journals. Medical science leads with 142 and Engineering with 149 predatory journals. They are publishing these journals to extract large amounts of money from authors in the form of APCs and do not have any commitment to a particular subject of research communication.

Table 4 presents the misleading titles used in the predatory journals (Table-4). The misleading titles viz., "American Journal of ..." "European Journal of ..." "Asian Journal of ..." and "International Journal of ..." are used to attract the authors to publish the articles in such predatory journals.

Table 4. Misleading Journal Titles used in predatory journals

Misleading titles	Frequency
American Journals of...	36
Indian Journals of....	23
Asian Journal of	24
International Journal of ...	783
Global Journal of ...	30
Asian Pacific Journal...	05
European Journal of...	31
World journal of...	09
Journal of ...	257
Others	112

Table 5. Article Processing Charge (APCs) of Predatory Publication

Authors	Maximum APCs	Minimum APCs
Indian Authors	2000INR	250 INR
Foreign Authors	955 USD	20 USD

Table 5 indicates that APC is the fee charged to authors by the publishers to make work freely available either in an OA journal or in a hybrid journal(Ifjeh, 2017;Menon & Khosravi, 2019). It is usually paid by an author's institution or research funding agency rather than by the author(Xia, 2015). These predatory journals are exploiting the fee component of the golden OA model, and making large profits. From the analysis (table 4) it is found that these journals are charging an average Rs.2000/- from Indian authors and USD20 for authors from outside India (per article) towards the article processing fee. The minimum APCs start from 250 INR and the maximum goes up to 2000INR for Indian authors. Similarly for foreign authors the minimum is 20 USD and the maximum is 955 USD.

Table 6. Distribution of Predatory Journals by status of website

Status of website	Number of journals	Percentage
Working	704	53.74
Dead link	413	31.52
Non-English journals	70	5.34
Displaying another website	43	3.28
Displaying only the home page	28	2.13
Open with irrelevant website	15	1.14

Open with publisher page	12	0.91
Open with Association page	06	0.45
Link to another social network	04	0.30
Link to online shopping website	07	0.53
Open with Blog page	05	0.38
Open with advertisement website	01	0.07
Verification for the email address	01	0.07
Website under construction	01	0.07
Total	1310	100

Table 6 presents the status of websites of predatory journals. It is clear from the table that 53.74% of websites of predatory journal are accessible. 5.34% of journals are in different languages (other than English).

Table 7. Availability of Editorial board on the website of Predatory Journal

Availability of Editorial Board	Number of Journals	Percentage (%)
Yes	670	51.14
No	640	48.85
Total	1310	99.99

Table 7 indicates the availability of the Editorial Board in predatory journals. It can be seen from the table that only 51.14% of predatory journals have an editorial board to look into the quality of the articles. Surprisingly 48.85% of predatory journals have no editorial board.

Table 8. Availability of publisher's details of Predatory Journals

Availability of publishers' detail	Number of journals	Percentage
Yes	238	18.17
No	1072	81.83
Total	1310	

Table 8 shows the availability of publishers on the websites of the predatory journals. It is observed that only 18.17% of predatory journals have provided the details of the publishers on the website. The remaining 81.83% have not mentioned the publishers' details on the websites of the predatory journals.

6. Discussion and Conclusion

Open access journals are journals whose articles are available and reusable worldwide free of charge and without restrictions immediately on publication. Even the most open-access journals do not charge their authors for publishing articles. But the predatory journals are the major threat to scholarly communication and today many low-quality papers are getting

published (Ayeni & Adetoro, 2017). In terms of subject coverage, about 50% of predatory journals are related to medical science and Engineering and technology. If the government is not take proper action against these false/substandard publishers, they will pollute entire medical science scholarly communication(Bett, 2020). Many of the predatory publishing houses used misleading titles.

Academics, researchers, students and scientists do not publish articles in predatory journals. In India, the University Grants Commission (UGC) notified a list of journals in which the researchers can publish their scholarly content. This is a good step from the UGC to control predatory publishing to some extent. Predatory journals/publishers degraded the quality and hindered the growth of scholarly publishing. Thus, the predatory journals have become a threat to the credibility of open-access publishing.

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