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## An Overview of Predatory Journal Publishing in Asia

### Jingfeng Xia, Yue Li, Ping Situ

#### **Abstract**

Open access journal publishing has experienced a dramatic growth in the past decades and significantly reshaped the landscape of scholarly communication. In the evolving landscape, unprofessional practices have been discovered such as the so-called predatory publishing. Predatory journals are those that charge article processing fees to authors but fail to provide necessary editorial and publishing services (Berger and Cirasella, 2015). Most predatory journals are published in developing countries, particularly India and Pakistan (Ameen, 2017; Pulla, 2016). Our study attempts to provide an overview of this type of publishing in Asia, hoping to paint a fuller picture of open access by taking into account alternative practices. It finds that the predatory journals have primarily tried to benefit from the open access model to scam people by misrepresenting editorial information, promising a broad coverage of scholarly subjects, and levying charges for publications while ignoring peer review. It is our hope to use the findings to support academics in battling with unprofessional conduct.

#### Introduction

Studies find that the majority of predatory publishers are located in Asia – including continental Asia and the Middle East – particularly in India and Pakistan (Ameen, 2017; Bohannon, 2013; Lakhotia, 2015; Pulla, 2016; Seethapathy, Santhosh Kumar & Hareesha, 2016; Shen & Björk, 2015). India is also identified as a country where single-journal predatory publishers prefer to grow their business (Shen & Björk, 2015). Examinations of the origin of authors who publish in predatory journals singled out Asian countries, primarily China, India, and Pakistan, although Nigeria also ranks high on the list (Ezinwa Nwagwu & Ojemeni, 2015; Lakhotia, 2015; Xia *et al.*, 2015).

This geographic distribution makes one wonder why this business model is Asia-centric and what effect predatory publishing has had on scholarly communication within Asia. The present study is an attempt to answer the questions by presenting readers with an overview of this questionable business. Specifically, the authors focus on exploring the routine business of predatory journals in some Asian countries, hoping to draw a complete picture of open access journal publishing by taking into account alternative practices.

Defined as unprofessional and lacking quality control, predatory publishing has many attributes that make it different from professionally managed scholarly publishing (Butler, 2013; Clarke & Smith, 2015; Raghavan, Dahanukar & Molur, 2015). Among many other qualities, a predatory journal is known for its article processing charges (APC), dubious editorial boards, and absence of a formal peer review process. Having taken advantage of the Internet technology, the open access movement, and the needs of young, inexperienced, or incompetent researchers for scholarly publications, avaricious individuals and publishers created shoddy websites where authors might be enticed to publish because of lax review, if any, and promised fast printing. Motivated primarily by hopes for quick financial rewards, opportunistic entrepreneurs engage in unprofessional exercises which have

created a negative impact on open access publishing in particular and on scholarly communication in general. In this ethical scenario, Asia is especially visible.

#### **Background**

Open access journal publishing, which is characterized by online availability with free content to readers, is an answer to ever-increasing subscription rates for scholarly journals, a continuous decrease in library budgets, and researchers' frustration at a lengthy and cumbersome publication process (Branin & Case, 1998; Laakso *et al.*, 2011). The purpose of open access publishing is to remove price barriers, including licensing fees, subscriptions, and pay-per-view fees, as well as barriers such as copyright and licensing restrictions (Suber, 2015). The unrestricted access and reuse bring convenience and approachability to the latest research findings for everyone, resulting in immediate popularity for such journals.

In order to make open access journals accessible on a no-charge basis, publishing entities such as academic institutions and learned societies must provide necessary financial support for journal publishing and production. To make open access journals financially sustainable, a business model was developed that charges authors an article processing fee (Solomon & Björk, 2012; Van Noorden, 2013). Journals entailing such a charge carefully manage their review process to ensure that peer review decisions will be made based on quality. Many such fee-based open access journals have successfully maintained high scholarly vigor while retaining financial independence, such as the internationally recognized British Medical Journals (*BMJ*) and Public Library of Science (*PLOS*) journals. As of 2013, a total of 80% of all open access journals registered with the Directory of Open Access Journals (DOAJ) operated on the fee-based model (Kozak & Hartly, 2013).

Having observed the success of fee-based publishing, some businessmen found it a profitable business model and started creating their own open access journals. When profitability becomes the primary goal of publishing, scholarly quality is nearly always inevitably compromised. In order to maximize profit, such new journals needed to attract as many submissions as possible by making themselves look like legitimate journals. They did not hesitate to enhance their images by adding misleading words such as "global" or "international" to journal titles, promising publication within a week or two, and using fake journal impact factors. In recent years, such journals have mushroomed and established a notorious presence in the world of learned publishing (Beall, 2012a; Seethapathy, Santhosh Kumar & Hareesha, 2016).

The prosperity of such journal publishing reflects an imbalanced supply-demand market that sees an inadequate number of publishing venues and an increasing number of researchers who need publications for survival (Xia, 2014a). There are sociocultural and political factors that may have also driven submissions to these journals by authors from some developing countries, e.g., the culture that values quantity of publications more than quality, or simply policies that compel junior researchers, who do not usually have necessary experience and resources for conducting high quality scientific studies and completing scholarly acceptable articles, to publish in international journals (Pulla, 2016).

Facing these realities, scholars have devised strategies to battle these noxious practices. These include submitting grammatically correct but nonsensical papers to shabby open access journals to detect the deception (e.g., Bohannon, 2013; Davis, 2009; Djuric, 2015), and opening blog threads to expose particular journals (e.g., Eisen, 2013). Most famous are two long lists of the so-called

predatory publishers and journals, amounting to a virtual blacklist of as many as 1,000 publishers and almost the same number of standalone open access journals (see Beall, 2016a, 2016b). These two lists were suddenly taken down in January of 2017 for unknown reasons, which shocked the media and scholarly community (Chawla, 2017; Silver, 2017). Fortunately, the Internet archive site *Web Archive* (web.archive.org) has preserved the lists, including all of their update history since the first publication of both lists.

Several studies have been conducted to investigate predatory journal publishing. For example, Björk and his colleagues published a series of articles seeking to understand it within the context of a scholarly publishing ecosystem (Björk, 2012; Laakso & Björk, 2012; Shen & Björk, 2105). Other scholars have engaged in empirical research to explore reasons behind such practices in selected countries (e.g., Ezinwa Nwagwu & Ojemeni, 2015; Nwagwu, 2015; Omobowale *et al.*, 2014). Xia also has analyzed the article processing charges of a group of such journals (Xia, 2015) and has reviewed the quality of publications in two mega-journals (Xia, 2014b).

Regarding the origin of authors in predatory journals – based upon authors' institutional affiliations, studies of randomly selected journals find that Asian countries, particularly India, Pakistan and China, are especially prominent (Seethapathy, Santhosh Kumar & Hareesha, 2016; Shen & Björk, 2015; Xia *et al.*, 2015). The findings are strongly supported by a study on Nigerian predatory biomedical open access journals from 2007 to 2012 (Ezinwa Nwagwu & Ojemeni, 2015). A similar pattern also holds when it comes to the location of predatory journals based upon the contact information of their editor(s) or publisher, or currency used in transactions (Bohannon, 2013; Xia, 2015). These studies, however, have not narrowed down their subjects to Asian countries, even though case studies are available on the practice in one or two such nations (e.g., Lakhotia, 2015; Lin & Zhan, 2014; Mukherjee, 2014; Xia, 2014b). The present study seeks to fill that gap.

#### Method

Our data base is based on a list of standalone journals originally published on Scholarly Open Access (scholarlyoa.com) that documented questionable, scholarly open access journals identified as predatory. The data is now available through *Web Archive* which was recorded on February 3, 2017 for a list of journals last updated on December 30, 2016 (Web Archive, 2017). We understand that this list has drawn criticism, such as the ambiguous criteria of journal selection, as described in numerous blogs. However, it is the only comprehensive blacklist of its type and has been used in most, if not all, studies of predatory publishing. Most importantly, we found the listed journals to be really questionable in scholarly quality of their articles (Xia, 2014) and decided to use them for the analysis of this present research.

A simple random sampling strategy was applied to select a group of 300 titles out of a total of nearly 1,000 journals available as of December 2016. By consulting recognized criteria for determining predatory publishing on the same site, we identified types of publishing practices of interest to researchers and corresponding to those examined in earlier studies, e.g., journal locations, editorial members, article processing fees, subject areas, etc. To collect data, we manually opened websites and reviewed each of the selected journals.

Unsurprisingly, data collection was not an easy job. A common denominator for predatory practice is concealment of key information that might expose unprofessional and unethical conduct. As a result, for example, a journal's location may be a P.O. Box in the United States although it charges

Indian Rupees for article processing fees, simply because the journal seeks to create an international persona in order to attract submissions from a broader region. Whenever a journal's location was unidentifiable or not in Asia, it would be dropped off our sample list and would be replaced with another one picked at random. Thanks to the large number of Asian predatory journals, we had no trouble finding additional sources to keep our sample size at 300. With regard to article processing fees, we converted all currencies to U.S. dollars for the sake of comparison.

Due to time restrictions and the scope of our research design, we did not examine the scholarly quality of the publications. To achieve such a goal, alternative strategies would be in order. In another study by the senior author, the quality of predatory publications in terms of presentation (language use) and production (format) confirmed the shoddy quality of analyzed journals (Xia, 2014b). For the present study, we have availed ourselves of Scholarly Open Access that compiled a list of standalone predatory journals.

#### **Findings**

#### Geographic distribution

Regarding the geographic distribution of the predatory journals by country, our sample includes 16 countries or regions in Asia, among which India produces 235 journals, over 78% of all the total number. A distant second is Pakistan with 17 journals (about 6%), followed by Iran with 9 journals (about 3%) and Turkey with eight (about 2.7%). Other countries are limited to isolated cases (Figure 1).

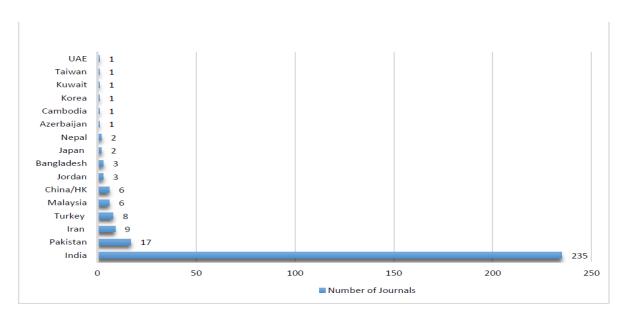


Figure 1. Predatory journals in Asia by country

Compared to previous studies on the distribution pattern of predatory journals by country on a global scale (e.g., Xia, 2015), India is unrivaled. Yet its share among Asian countries is larger than its share among all countries in the world. This is simply because another predatory journal rich country, Nigeria, is not included in our analysis. On the other hand, although many Chinese publish in predatory journals, based upon their institutional affiliations (Ezinwa Nwagwu & Ojemeni, 2015;

Xia *et al.*, 2015), China has only six such journals in our samples. We are witnessing the result of the Chinese government's recently implementation of a set of harsh policies to regulate China's publishing market, resulting in the suspension of many unprofessional journals (Lin & Zhan, 2014).

#### Editorial information

Although as many as 51 journals do not provide any information about their editors or editorial boards on their websites, 249 journals list an editorial board; some also have a review board. However, for some journals the same person serves both as chief editor and chief reviewer, with a shadowy editorial board. Not much information is provided for the credentials of the editor(s) or the editorial board members. In many cases, there is even no contact information at all for the editor(s). Gmail, Yahoo mail, Hotmail, or other free commercial email addresses are commonly used as the contact, compared to institutional affiliated emails associated with typical academic journals.

#### *Publishing history and frequency*

Most journals started in the early 2010s. Figure 2 reveals that 2012 was the peak year for the creation of journals. Only a year later, the number noticeably dropped. The market had apparently reached saturation. Even though a few journals launched as early as 2006 according to their websites, many provide no archival content until around 2012 or later.

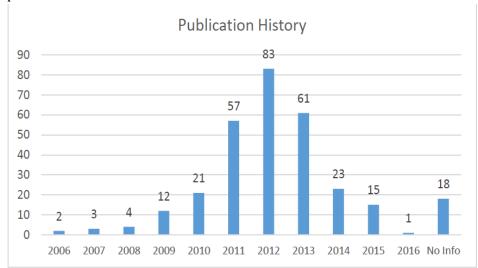


Figure 2. Journal publishing history

The publishing frequency of each journal and the number of articles in each issue are very irregular. For example, *Journal for Research*, which started in 2015, has published two volumes so far, with 12 and 7 issues respectively. Volume 1 published seven articles in Issue 1, whereas the subsequent 5 issues (2, 3, 4, 5 and 6) published zero articles. Issues 8, 9, 10 and 11 each contained no more than five articles. *International Journal for Innovative Research in Science and Technology* is another example, where the number of articles varies very widely from 9 in one issue to 141 in another. The number of articles published presumably correlates with the number of submissions received, although we lack evidence to document that assumption.

#### Subject coverage

Predatory journals typically feature wide coverage of research subjects in order to maximize the number of submissions. This is precisely the case for journals in our study. Most of these claim to encompass all of the natural sciences, social sciences, or humanities, if not more. None is truly dedicated to a single well-defined subject area. Within our samples:

- 78 journals have multiple subject areas ranging from humanities and social sciences to agriculture/life science and computer sciences.
- 66 journals focus on phytomedicine, medical and biomedical sciences.
- 22 journals cover a broad range of research domains in engineering, as well as multifold aspects of sciences and technology.
- 14 journals accept submission in business, management and related subjects.
- 3 journals emphasize arts, along with many other broad subject areas that have nothing to do with arts such as agriculture.

#### Article processing charge

As shown in Figure 3, approximately 75% of the journals state on their website that they charge an article processing fee (APC). APCs range from \$8 to \$2,819. Most journals charge domestic authors their local currency while asking others to pay with US dollars, Euros, or another European currency - usually at a higher rate.

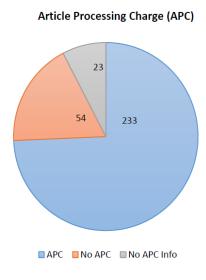


Figure 3. Percentage of journals charging APCs

Some journals offer a fast track publication option if authors are willing to pay an additional APC. Many levy a mandatory excessive page/author fee in addition to their regular APC. For example, one journal charges 2,000 Indian rupees for a seven-page paper, plus 400 Indian rupees or \$15 for each additional page. Another sets a standard rate of 1,000 Indian rupees for an article with up to two coauthors. For each additional author, an extra 300 Indian rupees are required.

A few journals claim not to charge an APC, but instead ask authors to make a monetary donation or purchase a subscription. For example, an annual membership rate of 500 Indian rupees is

required for Indian authors, or \$100 for foreign authors. The *International Journal of Advance Research, Ideas and Innovations in Technology* asks authors to pay an online maintenance fee at the rate of 2,200 Indian rupees for Indian authors or \$60 for non-resident ethnic Indians. For the few journals that provide no APC details on their websites, authors must communicate with the editor for the APC rate once their submission is accepted.

#### **Discussion**

Having outlined the general practices of predatory publishing in Asia, we may hazard some observations regarding (1) the geographic pattern of the practices, (2) misrepresentations of the publishing methods, and (3) purpose of the business.

It is clear that overwhelming majority of the predatory journals are published in only a few countries, especially in India and Pakistan, which two countries account for more than 80% of our samples. There are economic, cultural, and political reasons for this that deserve special investigation beyond the scope of the present study. Though accounting for the largest number of the unprofessional journals by country, India ranks only ninth in the DOAJ list with a total of 345 journals as of the fall of 2016. The DOAJ has implemented a strict screening process on the status of peer review for open access publishing when a journal registers with it. Therefore, although India boasts a highly profitable open access publishing industry (Mukherjee, 2014), there is a severe shortage of publications with quality and integrity. A previous study tries to explain the reasons by pointing to the great demand for young scholars in India to publish (Xia, 2014a). However, this is only one piece of the puzzle and falls far short when it comes to drawing a full-scale picture of digital scholarly communication in the country.

Pulla (2016) explains that India has developed an academic culture that evaluates the performance of researchers only by number of publications. Even top-flight research institutions have been pressured to chase the metrics. For example, a study finds a large percentage of publications in low-quality journals are authored by scholars from India's premier government research bodies (Seethapathy, Santhosh Kumar & Hareesha, 2016). This academic culture has provided necessary soil for profit-oriented publishers to grow their business.

Predatory journals developed in India have not only allowed many domestic researchers to accumulate a satisfactory record of publications, but also successfully attracted authors from China for several reasons. In the past two decades, various internationalization policies developed and implemented by the Chinese government and institutions helped push researchers to submit their publications to open access journals based outside of China and published in English. Because English is an official language in India, their journals are typically in English, the standard language in scholarly publishing in the world. Also, publishing in an India journal is considered "international" by the Chinese standard. The quick and easy publishing promised by predatory journals seem to be an appropriate venue, and the benefit for academic advancement of Chinese authors outweighs the APC costs.

As briefly mentioned above, the situation in China is contradictory: there are few predatory journals published in China, but there are many China-based authors who publish in the predatory journals of other countries. In fact, China has suffered from a huge number of so called profit-seeking *trash* journals, as well as a flawed academic evaluation system (Lin & Zhan, 2014). However, this extraordinary practice has not attracted international attention because (1) they were mainly

published in Chinese and (2) the government was serious about "raising academic standards and weeding out slapdash and irrelevant publications" (Hvistendahl, 2011, p. 301).

Publishers purposely provide their journals with academic facades in order to attract submissions and maximize profits. Yet, they pay no attention to rigorous review and professional content. *Criteria for Determining Predatory Open-Access Publishers* provides a long list of checkpoints for identifying various wrongdoings in scholarly publishing (Beall, 2012b). Rather than repeat these points here, we will spotlight a new finding to support our indictment of unscrupulous behavior by predatory journals, that is, the presence of fake journal impact factors.

Journal impact factor (JIF) is derived from a formula that calculates the average number of citations for a journal on a yearly basis (Garfield, 1972). It is based upon journals indexed in the Journal Citation Reports (JCR), a product of Clarivate Analytics. Since JCR has a vigorous rule of selecting peer-reviewed scholarly journals and only a limited group of established journals are indexed in each academic field, open access journals, being a recent phenomenon, are typically not included. JIF has been internationally recognized as the standard in academia to verify the prestige of a journal and is, therefore, consulted when authors submit their articles.

It is not surprising that none of the predatory journals has been indexed in, or even considered by, JCR. This creates a market for fake JIF with predatory journals as target customers. Such businesses are mainly based in Asia and Africa. A typical fake JIF website delivers real JIF data, usually copied from JCR, to make it look legitimate and mixes with fabricated data for journals that pay for a JIF rating. The fake JIF provider may even make available an online certificate. By posting an eyecatching JIF value on its website, a predatory journal seeks to deceive authors and receive more submissions. Figure 4 is a copy of such JIF certificate linked on the website of the *Journal for Research*, one of our sample journals. Note that the JIF provider has a name, Scientific Journal Impact Factor, a shoddy imitation of the renowned journal impact factor.

In addition to being perceived, recorded, and assailed by academia, predatory publishing has attracted the attention of government authorities in different countries. In the United States, the Federal Trade Commission started to crack down on such dishonest publishers by filing a complaint against the OMICS Group in India. The commission is "seeking both monetary relief for researchers that have published with OMICS and to prevent the publisher from further violations of the Federal Trade Commission Act of 1914" (Straumsheim, 2016). China's above-mentioned effort to block trash journals is another example. If the government of other concerned countries, particularly those prominent in India, could take similar actions, we would likely see a healthier scholarly publishing ecosystem.



Figure 4. Certificate of Scientific Journal Impact Factor

Future studies may focus on (1) exploring the sociocultural, economic and political causes of predatory publishing in selected countries in the context of open access and scholarly communication, (2) examining both predatory publishers and standalone journals, and (3) developing strategies to reach an understanding of the behavior of the authors who publish in predatory journals. It is also important to distinguish predatory practices from unsophisticated forays into open access publishing.

#### Limitations

This present study collected its samples out of the predatory journal list developed by Beall. His criteria of predatory publishing has been criticized for relying too much on editorial looks such as defects of publishers' websites, but ignoring systematic analyses of published content (Butler, 2013). As a review paper, we also did not present an examination of individual articles in studied journals on their scholarly quality. We simply relied on Beall's judgement, which may end up with the inclusion of a few incorrectly classified open access journals.

Fortunately, scholars have explored the issue of predatory publishing for many years and analyzed predatory journals from various angles. It has become a recognized fact that the majority of journals on Beall's list indeed pose certain levels of unprofessional practices in addition to their demand for article processing charges (Raghavan, Dahanukar & Molur, 2015; Xia, 2014b). Yet, readers are still advised to pay attention to the difference.

#### **Conclusion**

When we state that Asia is a major area in predatory publishing, we are, in fact, focusing upon a small number of countries, particularly China, India, and Pakistan, which have published an overwhelming portion of such journals. We have detected multifold varieties of professional misconduct by those "who are trying to benefit from the open access model to scam people" (Straumsheim, 2016). These

miscreants misrepresent editorial information, promise a broad coverage of scholarly subjects, and levy charges for publications. Armed with a better understanding of ways in which such practices damage and discredit scholarly communication, individuals in the academic community now should be able to work together, alongside government, institutional, and professional authorities, to battle this unprofessional business.

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