Predatory Publications in the Era of Internet and Technology: Open Access Publications are at Risk

Nowadays, a fascinating, relatively uncommon, term ‘predatory publication’ or ‘predatory journal’ has become very popular among researchers across the globe. It seems it has been a giant concern in research for researchers from each and every corner of the world and surprisingly has no universally accepted definition at yet. ‘Predatory publications’ or ‘predatory journals’ is an eerie term with no clear defining and identifying features. It is also not clear what are the core features of a ‘predatory journal’ so that it could be distinguished from a so-called legitimate journal. Discussions are ongoing on the issue of ‘predatory journals’ and as a result open access’ initiative is under a question mark as many researchers equated these predatory journals with open access journals just because so-called predatory journals are available over internet free of cost for viewers and readers like open access journals. The objective of the present paper is to critically analyze the defining features of ‘predatory journals’ and to critically examine the issue of predatory journals in the context of open access movement. The article sheds light how the misinterpretation of the term ‘predatory journals’ has defamed open access journals by giving prominence to so called non-open access or ‘pay & access, model of traditional journal publication industry.

Internet and development of tools of information and communication technology made it easy to share, publish, archive and preserve the science and scientific knowledge in easy cost-effective way and further it has made scientific communication faster and easier than earlier when publications were based mainly on print media. The emergence of digitization and Internet increased the possibility of making information available to anyone, anywhere, anytime, and in any format (Swan, 2012) and as a result, the online version of a journal gradually became very popular. The open access publication initiative is relatively young which is based on the fundamental criteria of 3F: Freedom, Flexibility & Fairness (Swan, 2012) and its formal roots can be traced back in the beginning of twenty first century, officially, started in 2002 with Budapest open access initiative (Pamukcu Gunaydin & Dogan, 2015). Before moving forward to predatory journals, an overview of open access is of great worth. As noted by Swan (2012) in the policy document of UNESCO, Open Access (OA) is the provision of free access to peer-reviewed, scholarly and research information to all (Swan, 2012) which connotates that an open access publishing must be freely available to all and the published content must be peer-reviewed, then only it could be considered as an open access journal. Open accessibility and the peer-review are two defining features of an open access journal failing any one of which excludes an article/journal/publication to be considered as an open access journal.

The definition of open access given by the Budapest Open Access Initiative (BOAI) is the central idea behind open access which explains:
“The public good they make possible is the world-wide electronic distribution of the peer-reviewed journal literature and completely free and unrestricted access to it by all scientists, scholars, teachers, students, and other curious minds. Removing access barriers to this literature will accelerate research, enrich education, share the learning of the rich with the poor and the poor with the rich, make this literature as useful as it can be, and lay the foundation for uniting humanity in a common intellectual conversation and quest for knowledge.” (BOAI, 2002)

It is vital here to note that mere accessible to everyone ‘free of cost’ does not confirm an article/journal/publication to be called as open access, rather, additionally it needs to be peer reviewed too. Further, the Open Access agenda has widened its scope by generalizing it as Open Educational Resources (OER), Open Science, Open Innovation and Open Data (Swan, 2012).

The open access initiative was based on the noble idea of lifelong learning and making available scientific information to all without any restrictions (Swan, 2012) and without compromising the most important criteria of a scientific publication ‘peer review’ but since last decade it has been widely stigmatized and victimized by over generalizing the concept of ‘predatory journals’ to most of the open access contents. As noted by Bartholomew,

“While the dream of OA journals is a noble concept that was supposed to herald a revolution in scholarly publishing by making research freely accessible to anyone online, it has quickly turned into a quagmire.” (Bartholomew, 2014)

Here the question arises how, when and why stigmatization and victimization of Open Access articles/journals/publications took place. This stigmatization could be traced back very first in the writings of Beall in 2010 when he prepared a list of several journals which were not following the said criteria of ‘peer-review’ and as felt by him and publishing sub-standard content. The librarian Jeffrey Beall at University of Colorado Denver first used the term ‘predatory journals’ and published a list of so called ‘predatory’ journals (Beall, 2017b; Cartwright, 2016; Clark & Smith, 2015; Clemons et al., 2017; Manca et al., 2018; Masten & Ashcraft, 2016; Narimani & Dadkhah, 2017; Shamseer et al., 2017; Shyam, 2015; Xia, 2015). Beall outlined the mystery associated with open-access journals and the derailment of the peer-review process due to profit-driven publishers(Cook, 2017). After Beall’s list of predatory journals, a big debate started in scientific community on definition, features and the drawbacks of predatory journals and a wave started against journals publishing substandard or low-quality contents termed as predatory-journals which stigmatized entire group of open access journals because most of the so-called predatory journals, as discussed in many contemporary scientific publications, were available for readers and viewers free of cost which and considered it as ‘open access’ by misinterpreting single common feature ‘free availability’ as open access ignoring the second most important feature of open access articles/journals/publications which is ‘peer-review’. As a measure of quality and standard, internationally, a wave against predatory journals

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begun based on unclear and poorly defined term predatory journals which in turn made a lot of maltreatment to the open access articles/journals/publications due to misconception about the term ‘open access and many a times used synonymous to the predatory one.

In order to understand these developments, one has to go several years back, when print media was dominant and during that time only selected publishers had the expertise of starting a journal. This monopoly was broken by the online publishers who could now start journals independently (Shyam, 2015). Until 2002, prior to the open access initiative, the scientific knowledge was available for those researchers only who could pay or more explicitly who can afford science as scientific knowledge was a costly affair and not available for those not in a position to pay for it. Further, the cost of scientific knowledge was increasing every year making it difficult for the researchers to have cost-effective access of it.

As noted by Swan, the rising cost of journal subscription is a major force behind the emergence of the OA movement(Swan, 2012). The idea of open access of knowledge and subsequently emerged open access publications opened up avenues for researchers to get access of the scientific knowledge free of cost, bridging the gap of rich and poor in science but as burning of candle leaves some smoke, idea of open access and the policies related to it was exploited by few ill meaning publishers. Open access allowed publishers to get the publication cost from the authors in order to meet expenses associated with publication and maintenance of records so that it could be made freely available to readers and researchers and this author pay model was exploited by several ill meaning publishers. They started publishing low quality content without peer review for their own interest and income from authors but it was not the only cause behind the emergence of poor-quality journals.

The mushrooming of several low-quality publications, especially journals was the consequence of system of performance appraisal for a teacher involved in higher education and keeping them under very high pressure to carryout sufficient number of research projects, to attract research grants and fundings along with their teaching and academic activities. Teachers of higher education institutions were forced to publish their report of research in scientific journals as an evidence of research, sufficient in quantity in scientific journals. Publication in journals is directly linked to appointment, promotion and research grants of teachers. A teacher who is honest in his academic and teaching activities and doing his/her job honesty has no oe limited opportunity to get a promotion and benefits of career advancement until there is strong evidence of research and sufficient number of publications in journals in his/her name. In such situation teachers started finding out ways to get published. Traditional so-called legitimate journals were taking longer than usual time in taking a decision of publication and publishing a research article sometimes taking 6 months to 2 years to accept and publish an article, many a times, in ‘open access’ model charging a very high article processing fee proportionate with the impact factor and the H-Index of the journal This pressure is compounded by high rejection rates at many so called non-predatory scientific journals (Moher & Srivastava, 2015) and as a result several new publishers
emerged providing a platform for early career research scholars & teachers who could not afford publication in so called renowned quality journals. Few big publication houses, controlling specifically the journal publication industry, made scientific publication a number game like H-Index, Impact Factor, Cite Score and so on. Responding to their number game several new agencies also came up determining the impact factor of a journal in their own way and started providing very high impact factors to low-standard of fake journals keeping authors and readers confused about which impact factor and indexing to rely upon?

It is true that much debate took place on the issue of predatory journals (Beall, 2015) but it is equally true that Predatory Journals/Publications have no universally accepted definition(Berger & Cirasella, 2015; Manca et al., 2018; Masten & Ashcraft, 2016) and different scientists have attached different meanings to it, largely, based on their individual judgement ‘having a low or substandard quality’. It is another issue beyond the scope of the present paper that how such substandard quality, fake journals have been assigned the International Standard Serial Number (ISSN) by concerned agency without any quality check and if such compromise with quality has been observed then why not their ISSN number were withdrawn? For a better understanding of the issue of predatory journals/publications one need to look at how the term ‘predatory journals/publications’ has been defined and used in contemporary scientific literature. Table 1 summarized some such definitions of predatory journals/publications used in scientific literature and the key ideas involved in identifying a predatory journal:

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<tr>
<th>Researchers /Scholars</th>
<th>Characterizing Predatory Journals</th>
<th>Key Features Identified</th>
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<tbody>
<tr>
<td>Pamukcu Gunaydin &amp; Dogan (2015)</td>
<td>They exploit the idea of the author paid gold model open access publishing by charging a fee but not providing the promised publishing services in return. They do not follow accepted scholarly publishing industry standards and seek only to profit from author fees (Pamukcu Gunaydin &amp; Dogan, 2015).</td>
<td>Article processing fee Low standard Not providing promised services</td>
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<td>Clemons et al. (2017)</td>
<td>So-called “predatory journals” are defined as those that display “an intention to deceive authors and readers”. The main purpose of these journals is to profit from article processing charges, and they may therefore have little regard for the scientific quality or integrity of the work they accept (Clemons et al., 2017).</td>
<td>Intension to deceive authors Profit making from Article Processing Fee (APC) No quality concerns.</td>
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<td>Eriksson &amp; Helgesson (2018)</td>
<td>Browsing a few of the many recent articles on the topic shows that the main emphasis often has been on the motives of journal owners: ‘Pay- to-publish journals—often known as ‘predatory journals’ The other often mentioned and defining characteristic is a lack of proper peer review despite promises to the contrary (Eriksson &amp; Helgesson, 2018)</td>
<td>Lack of proper peer review Pay &amp; publish</td>
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<td>Author(s)</td>
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| Shamseer et al. (2017) | A fundamental problem of predatory journals seems to be that they collect an APC from authors without offering concomitant scholarly peer review. Additionally, they do not appear to provide typical publishing services such as quality control, licensing, indexing, and perpetual content preservation and may not even be fully open access. Online journals characterized as ‘predatory’, which actively solicit manuscripts and charge publications fees without providing robust peer review and editorial services (Shamseer et al., 2017). | Article processing fee   
No peer reviews  
No quality controls  
Poor editorial services |
| Shyam (2015)        | These journals will claim to be indexed, will have an ISSN number and will also claim to have an impact factor (not a Thomas Reuter impact). The letter would state rapid review and promise to publish fast. The problem with these journals is that they lack any organized editorial process and are mainly focused on the article processing fees. This allows a lot of inferior scientific material to be published. Also, these journals are rarely indexed with standard indexing bodies and thus do not show up in an online search, making the article as good as non-existent (Shyam, 2015). | No organized editorial process  
Rapid review  
Focus on Article Processing Fee  
Inferior scientific material  
No indexing in reputed indexes |
| Manca et al. (2018) | There is no clear consensus definition for predatory publishers and journals. Such journals have been referred to as “low quality, amateurish, and often unethical academic publishing that is usually Open Access (OA) (Manca et al., 2018). | Low quality  
Unethical academic publication  
Usually open access |
| Ferris & Winker (2017) | Predatory journals, or journals that charge an article processing charge (APC) to authors, yet do not have the hallmarks of legitimate scholarly journals such as peer review and editing, Editorial Boards, editorial offices, and other editorial standards, pose a number of new ethical issues in journal publishing (Ferris & Winker, 2017). | Charging an article processing fee  
Lack of peer review  
Lack of editorial board |
| Ferris & Winker (2017) | Predatory journals misrepresent who they are and what services they offer, including not providing peer review, editing, and indexing services. Their websites often lack an editorial office address or even contact information. They lack information about the academic appointments and locations of the editor and Editorial Board (Ferris & Winker, 2017). | Mis-representation of identity & services  
Lack of peer review, editing and indexing  
Lack of editorial office  
Lack of information about location of office and editorial board |
| Xia et al. (2015)    | Many open access journals have a reputation for being of low quality and being dishonest with regard to peer review and publishing costs. Such journals are labeled “predatory” journals (Xia et al., 2015). | Low quality  
Dishonesty regarding peer review  
Dishonesty regarding Publication costs |
| Cook (2017)         | A predatory journal is a journal that bypasses the traditional peer-review process and, for an article-processing charge, publishes any paper, often one with questionable scientific value (Cook, 2017). | Bypassing peer review  
Imposing Article Processing charges (APC) |
The critical analysis of the above nine scholarly publications provided inputs for identifying features of predatory journals. It was observed that a predatory journal imposes article processing charge (APC) from authors, does not carry out the peer review and thus having faster acceptance and faster publication with a wider reach to audience. Some other features which were identified while analyzing the definitions of ‘predatory journals’ were providing misleading information related to publisher, unreasonably high processing fee, poor indexing and poor editorial services but most of the authors quoted two main defining features for predatory journals one of which is a provision of publication fee and the other is lack of peer -review but no common consensus definition was found. Let us examine both the criteria of predatory journals in context of open access publications.

The Issue of ‘Pay & Publish’ and Open Access

The definition of ‘Predatory Journals or Publications is still an issue of great debate and scholars have started to question the validity of the term ‘predatory’ (Eriksson & Helgesson, 2018). Till the date it is not clear what is in fact meant by a ‘predatory’ journal or publisher (Eriksson & Helgesson, 2018) and also it is quite fuzzy what is contained (i.e., ‘published’) within potential predatory journals (Shamseer et al., 2017). Beall mentioned that by definition, predatory journals are open-access, so at first, one might conclude that they perform the awareness function well, because anyone with internet access can read the articles they publish (Beall, 2015). This is the turning point where Beall’s statement about predatory journals as open access was reinforced by global journal publishing industry for their own interest, creating a wave against so-called predatory journals in particular but open access journals in general by ignoring the fact that several times many characteristics used to identify ‘predatory’ journals can be seen in the practices of established journals as well (Eriksson & Helgesson, 2018). In many of his publications, Beall has criticized the open access model as a root cause of spread of ‘predatory journals’ which is not the case. For example Beall mentioned that many around the world are promoting scholarly open-access publishing but turning a blind eye to the corruption the open-access publishing model has fostered (Beall, 2015). It is pertinent to mention that corruption is equally involved in traditional model of publications of journals too but an obsession that only traditional models of journal publication could provide quality scientific knowledge, the open access has been labelled as ‘Pay & Publish’ model and stigmatized to be perceived as predatory one. It is beyond our understanding that promoting open access may lead to corruption in publication but promoting subscription based traditional publication might not lead any corruption in publication as if the subscription model is the only model of and guarantee of quality scientific publication. It may be noted here that quality is a very subjective term and the term is so fuzzy that quantitative obsessed researchers do not see ‘quality’ even in qualitative research.
Beall further mentions,

“The open-access publishers are interested in soliciting authors’ monies for publication, specifically those who have grant funding to spend on author fees (Beall, 2017a).”

Such inclination of researchers towards subscription-based journal publication model contributed in marginalizing open access journals from the mainstream publishing business and keeping the profit of few international publishers unaltered. In this context one may note that the traditional journal publication houses are also gradually turning to the hybrid and transformative model from subscription model and encouraging authors to get published under open access model. Advocates of subscription-based journal publication model ignored the corruption and finances involved in traditional publishing. Most of the traditional publishing houses have their own ‘Author Services’ which provides a researcher language editing service, formatting services, data analysis services and so on based on the plan and payment the researcher has chosen. Higher the payment higher the publication support. It is the issue of another debate that getting published in a reputed journal by efforts of an agency providing such author services is how much ethical and whether it is a form of corruption? As noted by Eriksson and Helgesson (2017),

“Although ‘predatory practices’, such as spamming researchers incessantly, charging elaborate fees, or publishing anything against a fee regardless of the quality of the work, are all worthy of criticism, they do not necessarily make the journal applying them predatory.”

All traditional reputed journals also convince researchers why publish with them like so-called predatory journals do. Further, similar observation has been made by Pamukcu Gunaydin & Dogan, (2015),

“Many open access publishers are trustworthy and many are making amateurish mistakes, particularly when they are at the start of entering the publishing market. These are not predatory or fake journals.”

Masten & Ashcraft (2016) also expressed similar views and equated open access journals with so called traditional scientific journal and wrote,

“Characteristics of scholarly OA journals are compatible with many characteristics of traditional journals, including the four key criteria of archiving/preservation, reputable board members, indexing, and peer review.”

When considering predatory journals it is important to clarify one common misperception that while predatory journals are almost always open access, most open access journals are far from predatory (Roberts, 2016).
Many researchers, in their several writings, have ignored many aspects of a scientific publication and indirectly (and may be unintentionally?), stigmatized journals having open access policy to be suspected as predatory one. Beall (2017) mentions, “Predatory publishers are essentially counterfeit publishers. They pretend to be genuine scholarly publishers, but they aim really to generate as much revenue as possible from researchers (Beall, 2017b)”. The quality of a journal could not be judged based on the model it has adopted either pay & publish or pay & access. If ‘pay & publish’ is enough to suspect a journal predatory, then most of the scientific publishers are predatory up to certain extent and there should be degrees of ‘Predation’ as almost all traditional journals ask some amount from authors to make their articles open for all free of cost and even encourage authors to opt publication of their article under ‘open access’ for wider reach. Most of the definitions of predatory journals included the criteria of payment for publication, upon which they have criticized open access publishers as predatory, and labelled such practice as profit making for publishers. If the same criteria is applied to traditional journals, the profit is much higher in the ‘pay & Access’ model than a pay and publish model. Moreover, a journal asking for a publication fee one time from author and remain free all the time for readers is a profit-making journal then what about those charging every time many Dollars from readers to access that article either through individual subscription or through institutional subscription? If former could be termed as ‘Predatory’ then why not later could be termed as ‘Wolfish’ model? Not asking an article processing charges (APC) does not guarantee the quality of publication. Also, the ‘pay & access’ model of scientific articles is not based on ‘universal access’ rather these are based on the philosophy that ‘scientific knowledge is only for those who can pay’ model making science a luxury affair.

The reality behind the wave against so-called predatory journals could be seen from the different perspective of market. Usually, the journal publication market is under control of few international publishing houses which can be counted on figures. These publishing houses might never wish and allow either open access journals or small scale local scientific publishers to grow in order to continue their monopoly in publication, maximizing their profit and they won’t wish to lose their potential market of developing countries. A fear of loss of business for them comes from the ‘open access movement’ and open educational resources movement which are trying to break monopoly traditional journal publication. Developing an open access culture strikes the interest of traditional publishers and thus will not be supported at all by them. Beall mentions that ‘authors are now seen as a source of revenue for publishers, and other companies and services are being formed to exploit the author-fee market (Beall, 2015)’. Here the question is that when, the author was not seen as a source of revenue for publishers? In fact, the supporter of open access community is a result of consistent exploitation of author-fee as well as access-fee market since long by few big players of publication industry. Traditional publication industry is also tailored around exploiting access-fee as well as author-fee market otherwise what is the necessity
The Issue of Peer-Review and the Open Access

The second issue which characterizes an open access journal to be called ‘predatory’ is the diluted process of peer review. It is beyond critic that ‘Peer-Review’ is an essential component of scientific-publication. As peer review is the basis for reliable scholarly dissemination of research, it is, for many, the chief problem presented by predatory journals (Eriksson & Helgesson, 2017). Further, because they (predatory publishers) want to earn money quickly and easily, most predatory journals fail to perform on the single most important element of scholarly communication: peer review (Beall, 2017b). Unfortuantely, there is no such tool or device or mechanism is available for authors or end-users, other than their own subjective judgements, to cross-check the peer review claim of a journal either ‘Predatory’ or ‘Non-predatory’. If it is true that manuscripts in predatory journals receive only superficial reviewing then one should find that they are given a stamp of approval even if they contain significant weaknesses (McCutcheon et al., 2016) but the similar is true for those non-predatory scientific journals too. There is a more general problem with false peer review. The reputed indexing agency BioMed Central (BMC) discovered in November 2014 that about fifty articles were carrying false reviews (Eriksson & Helgesson, 2017). The issue of peer review indicates that if the journal (predatory or traditional) says its Peer Reviewed, one has to accept that it is. If a journal mentions its international and it meets the criteria of ‘Internationality’ as per the International Standard Serial Number assigning agency, it is. If mere delayed acceptance, delayed response and delayed publication confirms that the journal is peer reviewed, so called ‘Predatory’ journals will make a delay in publication. It is a criteria which is not objective and can not be assessed and is based upon individual subjective judgement of authors and readers and mostly based upon their intuition. Eriksson & Helgesson (2018) seems right when they suggest that we should stop talking about predatory publishing and start distinguishing between deceptive and low-quality journals (Eriksson & Helgesson, 2018).

Another question is pertinent here that what role the ISSN agency plays? Asking and assessing the publication policy, publication ethics and the peer review process along with a list of members of editorial board, Reviewers etc supported by acceptance of editorial board members as well as reviewers might be helpful in controlling such low quality journals meant only for business. Infact, the information available over the website of ISSN agency, it is clearly mentioned that the agency can grant as well as withdraw or decline the request of ISSN if the journal does not fulfil the standard as required by ISSN Agency. As a last comment Gathering a wide variety of problems under the broad notion of ‘predatory publishing’ might cause us to overreact and too easily look at fairly low-cost, open-access journals as all evil: “Might the label ‘predatory publishing’
harm the cause of open access? Or inhibit publishing in developing countries (Eriksson & Helgesson, 2018)? The scientific community must take note of it while discouraging open access initiatives in the name of predatory one, stigmatizing and victimizing it, either unintentionally or deliberately, labelling it mostly predatory in nature.

In brief, after critical analysis of ongoing debate of predatory and non-predatory journals, it was learnt that there is no such standard universal definition communicating clear meaning of predatory journals. Also, it is not clear how these journals emerged despite of the rigorous process of getting an International Standard Serial number (ISSN) prior to starting a new journal. Just because most such predatory journals are freely available over internet, these could not be termed as an open access journal because such journals lack the criteria of peer review which is essential for a publication to be termed as an open access article/journal or publication. Further making such comments that as predatory journals are freely available thus are open access journal is a way of victimizing and stigmatizing the open access model. A journal having no proper peer-review and collecting a huge amount as article processing charges (APC) is something else but not an open access journal, and thus one should not equate or label open access journals as predatory journals. Measures need to be taken and policies need to be in place to fight with predatory journals but open access journals should not to be marginalized from the business of publication and not to be victimized by generalizing the predatory word rather international scientific community need to think of distinguishing features and universally accepted definition of predatory journals and making policies to discourage them.

References


