

# Researchers Beware of Predatory and Counterfeit Journals: Are Academics Gullible?

Shawren Singh and Dan Remenyi  
School of Computing, University of South Africa

[Singhs@unisa.ac.za](mailto:Singhs@unisa.ac.za)

[dan.remenyi@academic-publishing.org](mailto:dan.remenyi@academic-publishing.org)

**Abstract:** Academic standards are being assaulted by cyber criminals who have been introducing fake academic journals, which can look to the uninitiated to be publications that comply with the established standards of the academic community. This new form of cybercrime, predatory and counterfeit journals, has impacted the academic publishing landscape and has resulted in some unsuspecting academics being defrauded and having an indelible black mark on their publishing record. It is critical that the all members of academic community be made aware of these new phenomena in order to avoid being associated with them. It is also critical that universities monitor these developments and keep their staff fully informed of the developments in such criminal activities.

**Keywords:** Academic standards, counterfeit journals, predatory journals, fake journals, hijacked journals, academic fraud, cybercrime, gullible academics, paywall, Directory of Open Access, Beall's list, academic publishing, vanity publishing

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## 1 Introduction

Cybercrime is a well-established phenomenon (Ablon, & Libicki, 2015; Herley, 2014). Depending on how it is defined, there are examples of attacks on computers and computers being used by criminals to facilitate illegal activities dating back many decades. However it was only the arrival of the Internet that allowed cybercrime to burgeon into a major worldwide activity (Federal Bureau of Investigation, 2015; Interpol, 2015; McAfee, 2014; Williams, 2014).

Since the arrival of the Internet, the catalogue of cybercrime has flourished and the list of the ways in which criminals can use the Internet to further their ends, including the soliciting or the extortion of money from unsuspecting individuals and corporations, is now quite substantial (McAfee, 2014). It is not the intention of this paper to address this long list, but rather to focus on one of the latest developments which directly affects academic researchers, namely the proliferation of predatory journals and counterfeit journals in Open Access publishing. This paper will establish the current and likely future severity of the threats to academic researchers from the development of these new types of pseudo journals spawned by the open access movement and propose some ways for researchers to avoid these threats.

There is still an active debate in some academic circles about the wisdom of Open Access publishing. Those who oppose it see it as the cause of the problem of predatory and counterfeit journals. They argue that the traditional approach practiced by the large highly profitable publishing houses has ensured high quality scientific publications for many decades and that this has to be paid for in the usual way. On the other hand, the cost of access to the traditional journals has become a major concern and it is perceived by many as being an inhibitor to knowledge creation and development.

Open Access is a growing movement and is seen as a solution to the journal cost problem. It is now clear that Open Access Journals are not a passing fad. They will increase in significance over the forthcoming years. Page charges, which are their method of funding will become even more common. The problem is that this form of payment will continue to deliver opportunities to cyber criminals and some academics will inevitably fall victim to this type of predatory scam. However, it is important to note that the traditional academic publishing model has its own set of problems as well, see for example Broad and Wade (1982), W5 (2008) and Radford (2003).

## 2 A Brief Background to Academic Publishing

These new forms of criminality are the result of a change in practice in the academic publishing world. Traditionally the research conducted by academics has always been formally recorded by its being published in peer-reviewed scientific journals, which ensured that the papers submitted to them were rigorously

scrutinised by competent readers or reviewers familiar with the subject (Cargill, & O'Connor, 2013). This process often took quite some time and incurred some amount of expense on the part of the publisher (Worstell, 2012). In the traditional publishing model academic authors are not paid for their papers nor are reviewers paid for their commentaries (Gatti, 2012). The costs incurred relate to the editorial staff employed by the journal. As a result the publisher charged a substantial fee for access to the journal, i.e. the reader paid. The cost of a single journal was often quite reasonable, but the cost of a university library acquiring the rights to give access to the papers in the journal for all the students could be quite substantial (There are examples of such access to journals costing tens of thousands of pounds) (Albert, 2006). This meant that not all university libraries could afford access to the journals they wanted to offer. The cost of journals is now regarded by many as having become a barrier to the distribution of research findings (Braman, 2014; Liesegang, Schachat, & Albert, 2005), which is a prime *raison d'être* of a university. Table 1 is a summary of some of the criticisms of the traditional publishing model in terms of the key stakeholders, who are the commercial publishers, researchers, universities, funders/government and society.

**Table 1:**The Traditional publishing Model for Academic Journals

	Stakeholders	Offer	Recoup Cost	Criticisms
1.	Commercial publishers	<ul style="list-style-type: none"> <li>• Publishing platform – editorial staff, type setting and distribution</li> <li>• Development of journals in new subject areas</li> </ul>	<ul style="list-style-type: none"> <li>• These costs are covered by subscription and page fees</li> </ul>	<ul style="list-style-type: none"> <li>• Research cedes intellectual rights to the publisher</li> <li>• Journals are expensive</li> <li>• Libraries forces to purchase bundle of journal and higher prices</li> </ul>
2.	Researcher	<ul style="list-style-type: none"> <li>• Conducted the research</li> <li>• Involved in the peer review process</li> <li>• Do editorial work</li> </ul>	<ul style="list-style-type: none"> <li>• Free service</li> <li>• Receives no royalties</li> </ul>	<ul style="list-style-type: none"> <li>• Does not have access to the work they reviewed</li> <li>• High subscription fees to journal</li> <li>• Research cedes intellectual rights to the publisher</li> </ul>
3.	University	<ul style="list-style-type: none"> <li>• Resources for the research</li> <li>• Funding</li> </ul>	<ul style="list-style-type: none"> <li>• In some cases from government grants</li> <li>• In some cases from business incubator</li> <li>• Licensing royalties from patents</li> </ul>	<ul style="list-style-type: none"> <li>• Due to shrinking budget cannot afford to subscribe to the journals</li> </ul>
4.	Funders/ Government	<ul style="list-style-type: none"> <li>• Funding</li> </ul>	<ul style="list-style-type: none"> <li>• Taxes from citizens</li> </ul>	<ul style="list-style-type: none"> <li>• Results of research are behind “paid wall”</li> </ul>
5.	Society	<ul style="list-style-type: none"> <li>• Taxes</li> </ul>		<ul style="list-style-type: none"> <li>• Results of research are behind “paid wall”</li> </ul>

The term paywall (Yess, 2014) has been used to describe the fact that some journals can be inaccessible to anyone other than those who are especially well funded. Furthermore even those universities that are well funded have found that the cost of journals have been rising faster than their budgets (Wellen, 2004). Of course, there are universities that can find the money required and therefore the large scientific publishers have been able to make very substantial profits (Monbiot, 2011). These profits are in part due to the fact that in general scientific journals do not pay a fee or honorarium to reviewers or to members of their editorial boards.

### 3 Neither in the Public nor the Author’s interest

In the latter part of the 20<sup>th</sup> century the traditional publishing business model, which had been so successful for the publishers, began to be questioned (Rodrigues, & Abadal, 2014; Shortliffe, 2015). Those objecting to it pointed out that academic research was largely paid for by the public purse, as most universities are publicly funded institutions, and that the publishers were therefore asking society to pay a second time to have printed access to the research conducted by their staff when it was formally published. It seemed to some observers that this effectively meant that the universities were paying twice for access to the research. Also at this time

it became apparent that the Internet and the web were particularly good at delivering digital products such as printed material, and thus online publishing would be completely acceptable to the academic community.

Starting in the early years of the 21<sup>st</sup> century there was a substantial impetus towards making access to published research free of charge to scholars and universities through the Open Access movement (see for example: The Budapest Open Access Initiative in 2002, The Bethesda Statement on Open Access Publishing in 2003, The Berlin Declaration on Open Access in 2003

<http://cshl.libguides.com/content.php?pid=222607&sid=1847688>).

With Open Access journals the reader does not pay. The content of journals becomes available to anyone who is interested in reading them free of charge. In addition there is no restriction to how the content of a paper is used in the pursuit of scholarship. The cost of the editorial services in producing the journal may not be materially less than in the old traditional publishing model, but it is not paid for by the reader. As a result it was necessary to have the researchers pay a fee for having the paper published. Many, if not most, universities will cover this cost for the individual academic. The intention was that the fee should cover costs and make some return for the publisher, but that enormous profits would not be generated in the same way as could be done using the traditional publishing model. Many academics initially found this uncomfortable as there was and still is a general feeling that if a researcher pays for research to be published then this has to constitute some sort of vanity publishing.

Traditional academic publishing is also not in the author's interest. A published academic paper is a report of a research project or a research process which has been concluded by an academic researcher and the more visible this report is the greater the prospect of the researcher's work being noticed and obtaining feedback. Furthermore academic performance is increasingly measured in terms of the impact factor of the research produced. The impact factor is a measurement of the extent to which the results of published academic work is referenced by other researchers in further published papers. If scientific journals are free to read and use then there is a greater chance of research results being seen and influencing the thinking of others. This results in the original academic's impact factor being increased.

#### **4 Covering the cost of Publishing**

To cover the cost of academic publishing, several strategies have been adopted by publishers and the most notable are page charges and web sales of journal papers.

##### **4.1 Page charges**

Paying for publishing is not entirely new. Even under the traditional publishing regime, there had always been small, specialised journals who were not able to summon up enough paying readers to cover the cost of production of the journal, and in these instances, the authors of papers were required to pay what was called "page charges" for the privilege of being published. In these cases page charges were set to cover the cost of producing the journal, as the revenue from subscriptions was not adequate for this purpose. However, in the larger picture of scientific publishing most academics were not asked to pay for having their research published and there remained to some degree a general suspicion that anyone who did pay may have been engaging in some sort of vanity publishing, which was not academically respectable. However, in most cases these suspicions were unfounded as many open access journals maintain the same high level of academic and publishing professionalism as the traditional journals did and still do (Xia, 2010).

##### **4.2 Web sales of journal papers**

From the 1990s the major scientific publishers began to intensively developed website portals for the sales of papers either on a whole journal issue basis or on a paper by paper basis. This improved convenience for their readers and the charges they placed on this service ensured that their profitability would continue. In some respects this shifted the paywall from the university library to the individual researchers who wanted to read a particular paper (Truth, 2012).

Academic and other key stakeholders, however, became increasingly concerned about the barriers to accessing scientific literature and began to investigate alternative publishing models.

## 5 The Open Access movement

Dissatisfaction with the cost of scientific journals and the profits made by the publishers spurred on the Open Access movement. This was supported by some national governments and research institutions, which insisted that if University research was to be recognised for funding purposes, then it had to be published in a way in which it was accessible to anyone who wished to read it i.e. an Open Access format. The Open access format is a viable approach because of the advancements in internet technologies and the challenges associated with the traditional publishing model. Table 2 is a brief outlines of some the issues that affect key stakeholders.

**Table 2:** Open Access Publishing (Geib, 2013; Heller, Moshiri, & Bhargava, 2013; W3, 2016; W4, n/d; Worlock)

	Stakeholders	Benefits	Challenges	Cost Factor	Concerns
1.	Publisher	<ul style="list-style-type: none"> <li>transparent business model</li> <li>wider distribution channels</li> </ul>	<ul style="list-style-type: none"> <li>complexities of intellectual property rights and copyright issues</li> <li>Publication fees</li> <li>Sustainability</li> </ul>	<ul style="list-style-type: none"> <li>Expensive to setup and maintain</li> </ul>	<ul style="list-style-type: none"> <li>May compromise the review process to remain afloat</li> </ul>
2.	Researcher	<ul style="list-style-type: none"> <li>immediate visibility</li> <li>possible increase in impact of research</li> <li>freely available academic literature</li> </ul>	<ul style="list-style-type: none"> <li>publication fees</li> <li>possible lack of quality control</li> </ul>	<ul style="list-style-type: none"> <li>researcher is now paying to publish</li> </ul>	<ul style="list-style-type: none"> <li>Predatory journal</li> <li>Counterfeit journal</li> </ul>
3.	University	<ul style="list-style-type: none"> <li>increased return on investment</li> <li>increased visibility</li> <li>reduction in library subscription fees</li> <li>unrestricted access to material</li> </ul>	<ul style="list-style-type: none"> <li>ensure access to digital archives</li> <li>complexities of intellectual property rights and copyright issues</li> <li>research-intensive universities may end up subsidising access for other organizations with lower research outputs, including commercial companies</li> </ul>	<ul style="list-style-type: none"> <li>publication fees</li> </ul>	<ul style="list-style-type: none"> <li>fraud</li> <li>Predatory journal</li> <li>Counterfeit journal</li> </ul>
4.	Funders/ Government	<ul style="list-style-type: none"> <li>increased return on investment</li> </ul>	<ul style="list-style-type: none"> <li>fraud</li> </ul>	<ul style="list-style-type: none"> <li>taxes lost to fraud</li> </ul>	<ul style="list-style-type: none"> <li>Predatory journal</li> <li>Counterfeit journal</li> </ul>
5.	Society	<ul style="list-style-type: none"> <li>enhanced and accelerated research cycle</li> <li>greater access to scientific literature</li> <li>greater access for researchers in developing countries</li> <li>Improved education</li> </ul>	<ul style="list-style-type: none"> <li>Information overload</li> </ul>	<ul style="list-style-type: none"> <li>free access to scientific literature</li> </ul>	<ul style="list-style-type: none"> <li>specious science in the form of Predatory journal and Counterfeit journal</li> </ul>

It is important to note that the Directory of Open Access Journals (W2, 2016) today claims that there are 10,529 journals and 2,012,745 articles available without charge. Many of these journals now only exist in Internet format as the cost of producing paper journals is too great. However, the processing costs of having an article reviewed, typeset, proofread the uploaded to the Internet in an Open Access Journal can range from £100 to about £2,000. Thus there are large sums of money involved in this industry.

Further, the academic standards of most of these Open Access Journals are regarded by many academics to be just as high as the standard of the traditional journals (Miller, 2009). However as is discuss later in this paper, this is not universally the case.

## **6 Pressure to publish**

There has been for a considerable time pressure on academics to have their research published in scientific journals. The term *Publish or Perish* originated in the USA in the 1930s (Association of American Colleges, 1938) and it progressively spread throughout academe around the world in subsequent decades. But in the last 20 years it has become essential for nearly all academics to be able to demonstrate a material publishing record.

Traditionally, having a paper published in a scientific journal has been and still is a substantial challenge for most academics. The research has generally had to be both relevant and rigorous. It has had to be written in academic language with a relatively easy accessible style. In many cases when a researcher submitted a paper to a scientific journal reviewers asked for revisions and these could result in a considerable amount of additional work and perhaps took many months or even in some cases a couple of years to complete (With some leading journals there is a publishing backlog and it may take a year or more after the paper has been finally accepted before it appears in print.). Becoming a published academic researcher was a significant challenge over and above all the work that was necessary in conducting the research and obtaining useful results. On top of this, with the new Open Access publishing regime a researcher also had to find the money required to pay an open access journal to accept and publish the paper.

## **7 A new business model and academic journals**

The change in the publishing business model which resulted from the acceptance of the Open Access movement facilitated by Internet and web technology offered opportunities for small scale publishers to establish themselves with relatively low levels of investment and on-going costs. The substantial costs of print runs and the distribution of paper journals are eliminated. The cost of marketing to libraries is substantially reduced. Direct contact with authors, reviewers and readers is much easier through the Internet.

As a result many small publishers began to appear on the scene. Of course, there was a learning curve facing such entrants especially with regards to the delivery of competent editorial services and the quality of work they produced varied. Even in the most reputable journals there have always been the occasional typographical problem but in the new small journals there are sometimes many language problems which professional editorial services would have identified and eliminated. This is especially true of journals produced in non-English speaking countries with the involvement of very few if any native English speaking individuals. In this environment cybercriminals perceived an opportunity to defraud gullible academics.

## **8 Specious Academic Publishing**

The definition of a predatory journal (Beall, 2012; Singh, 2015) is complex and there are many dimensions to this issue. But at the heart of it is the fact that a predatory journal will not maintain the academic standards that are expected of a reputable scientific journal. The objective of the predatory journal is to make money for the owners without concern for the quality of the research published (Beall, 2012). In one or more of a number of different ways a predatory journal will pretend to follow the essential editorial processes required for authentic academic publishing, but will not so do. This is often, but not exclusively, related to double blind peer reviewing. A predatory journal will generally publish whatever is submitted by the author/s with little or no review. Thus the quality of the research published in a predatory journal is likely to be low. Predatory journals can be identified by a number of characteristics, the most important of which is perhaps the fact that they tend to market themselves through intensive e-mailing to invite selective victims (Tamnurri, 2013) who might otherwise have difficulty in having their research published in reputable journals.

The issue of counterfeit or hijacked journals is much simpler. A counterfeit or fake journal is a fraudulent misrepresentation of an established journal. This it is an act of identity theft. A counterfeit journal solicits papers, but will not publish any that are submitted. It will take money from an aspiring author and deliver nothing (Beale 2015). The modus operandi of counterfeit journals differ but they will generally require an early payment from prospective authors of a substantial amount of money but will not deliver the editorial services for which the payment was required. The paper submitted may or may not be published but if it is then it will

have no standing in the academic community. It has been estimated that there are now scores of counterfeit journals in operation.

### 8.1 Predatory journals

Unfortunately the new business model and the technology behind it suggested to certain unethical individuals that easy money was to be made out of inexperienced academics who did not understand the quality controls which were essential for reputable academic publishing. This led to the development of what has become known as the predatory journal (Beall, 2013), which for a fee paid by the author delivers a completely unscrutinised and unedited piece of writing purporting to be a high quality report on a piece of rigorously conducted scientific research. These journals are then presented to the public as Open Access journals.

Since 2011 Jeffery Beall, a librarian and associate professor at Auraria Library, University of Colorado in Denver has been publishing a list of what he regards as potential, possible, or probable predatory scholarly open-access publishers (see <http://scholarlyoa.com/about/> ). This list, which started with 18 publishers in its first year, now contains 693. This list is updated on an on-going basis and thus the number is continually changing. Beall's interest in this subject started in 2009 when he was first inundated with offers from obscure journals to publish his research.

The list claiming to identify predatory publishers is not uncontroversial, with a number of important institutions and individuals arguing that Beall has a bias against open access publishing and that not all publishers on his list should be regarded as predatory (Crawford, 2014). Esposito (2013) questions the political ethos behind Beall's opinions. On a more practical level The Canadian Center of Science and Education, a company based in Toronto that publishes many open-access journals threatened to sue Beall if he did not withdraw their name for his list (Butler, 2013). The OMICS Publishing Group based in India have threatened to sue Beall for \$1 Billion for including them in his list (New, 2013). Nonetheless Beall is still in operation.

Indeed there are problems with Beall's list but it is recognised that many of the entries on this list are publishers which cannot be regarded as standard bearers of academic rigor or excellence.

Beall's blog also contains a list of characteristics of predatory publishers and as such it is useful to anyone who suspects that a publisher who has been soliciting a paper may not be entirely genuine (See <http://scholarlyoa.com/2012/11/30/criteria-for-determining-predatory-open-access-publishers-2nd-edition/>). But there is an important caveat needed in the use of Beall's list of the characteristics of predatory publishers (Anderson, 2015; Berger, & Cirasella, 2015; W1, 2014). If this list is used to judge publishers, then small and inexperienced publishers who are in the process of creating a genuine high quality publishing house might appear to be predatory. These small publishers who are still facing a steep learning curve could easily fall foul of Beall's criteria. It is for this reason that Beall refers to his list as Probable Predatory Journals. Table 3 below is an extract from Beall's website.

Universities are increasingly aware of predatory publishers and they have requested academics to withdraw their papers from such publications. However it is difficult to see how a paper can be withdrawn. Even if the paper has only been published in an electronic form it is not possible to entirely eliminate its presence from the web. This can turn out to be an indelible black mark on an individual's publishing record if for no other reason than being published in a predatory journal shows a lack of sound judgment or at least a level of naivety concerning established academic standards.

### 8.2 The Counterfeit Journal

Predatory journals are fraudulent money making devices, but they do require some of the organisation of a respectable publishing house. A counterfeit journal (Mehrpour, & Khajavi, 2014) does not.

The counterfeit journal operation is simply one of theft of the publishing fees which may be levied for page charges or monies paid to the fraudsters purporting to be for obtaining academic reviews. To this end a fake website is created which exists in parallel to the original website. The URL will be very similar to the original journal but the website will be located on a computer in some far away country which does not have the resources or the inclination to police fraudulent websites. The identities of the editor and the editorial board are stolen or hijacked without their knowledge. The unsuspecting author/s submits a paper which is accepted

for publication. A request for payment to the unsuspecting academic is made and the appropriate funds are transmitted to a bank account in a country where there is little financial regulation.

Obviously there are a number of different counterfeit journal business models. Sometimes no publication takes place. On other occasions the paper is unloaded to the fake website but it is of no value to the academic. The author/s are out of pocket and the fraudsters are enriched.

Beall also supplies some examples of counterfeit journals as does Jalalian & Dadkhah (2015) and an extract from their lists is supplied in Table 4.

**Table 3:** List of Some Probable Predatory Journals (Beall, 2015b)

	<b>Journal Name</b>	<b>URL</b>
1.	International Journal of Advanced Information Science and Technology	<a href="http://www.ijaist.com/">http://www.ijaist.com/</a>
2.	International Journal Of Communication Networks And Information Security	<a href="http://www.ijcnis.org/index.php/ijcnis/index">http://www.ijcnis.org/index.php/ijcnis/index</a>
3.	International Journal of Computer and Information Technology	<a href="http://www.ijcit.com/index.php">http://www.ijcit.com/index.php</a>
4.	International Journal of Computer Science and Information Security	<a href="https://sites.google.com/site/ijcsis/">https://sites.google.com/site/ijcsis/</a>
5.	International Journal of Computer Science and Information Technologies	<a href="http://www.ijcsit.com/index.php">http://www.ijcsit.com/index.php</a>
6.	International Journal of Computer Science, Information Technology, & Security	<a href="http://ijcsits.org/">http://ijcsits.org/</a>
7.	International Journal of Computing Science and Information Technology	<a href="http://ijcsit.org/index.php?type=home&amp;userid=">http://ijcsit.org/index.php?type=home&amp;userid=</a>
8.	International Journal of Information and Communication Technology Research	<a href="http://esjournals.org/index.php">http://esjournals.org/index.php</a>
9.	International Journal of Information and Communication Technology Trends	<a href="http://www.ijictt.ictt.info/home">http://www.ijictt.ictt.info/home</a>
10.	International Journal of Information Technology & Business Management	<a href="http://www.jitbm.com/index.html">http://www.jitbm.com/index.html</a>

## 9 Are academics gullible?

In general it would not be disingenuous to suggest that academics as a group are gullible but inexperienced academics anxious to be published are quite vulnerable. Indeed the pressure on academics to publish is substantial. An appointment to a University is increasingly dependent on publications. Confirmation of a University post is also contingent on publication. Without an adequate number of publications promotion is all but impossible. Thus achieving and sustaining a high publication rate is all important to career academics. As a result, when an academic is invited to submit a paper to journal, he or she is often flattered and grateful. It seems like an opportunity which should not be passed up, even if the journal is rather obscure. But being published in a predatory journal is counterproductive and there is anecdotal evidence of academic careers being adversely impacted because of claiming publications in such journals (Beall 2014a&b).

What the predatory and the counterfeit journal have in common is the ease with which they accept a paper for publication. Academic publishing has always been competitive. There have always been more papers presented to journals than there has been space in these journals. This competition for space means that the quality of the papers presented to publisher has to be high. Furthermore the quality of most papers will be materially improved if they have been reviewed by competent and responsible academics. Therefore, it is seldom the case that the paper is accepted by a reputable journal without any suggestions for changes or modifications proposed by reviewers.

If a paper is accepted by a journal without any revisions and if the author is not an internationally recognised authority in the field of research, then this should be cause for some suspicion. As mentioned above if it is a counterfeit journal then only the loss of money is involved. It is a predatory journal, then the likely outcome is both the loss of money and damage to the reputation of the individual, and indeed the university.

**Table 4:** List of Some Counterfeit Journals (Beall, 2015a)

	Authentic Journal	URL	Counterfeit Journal	URL	Comment
1.	Survey Methodology	<a href="http://www5.statcan.gc.ca/olc-olc.action?ObjId=12-001-X&amp;ObjType=2&amp;lang=en&amp;limit=0">http://www5.statcan.gc.ca/olc-olc.action?ObjId=12-001-X&amp;ObjType=2&amp;lang=en&amp;limit=0</a>	Survey Methodology	<a href="http://survmethodjournal.org/index.php">http://survmethodjournal.org/index.php</a>	Both sites currently active
2.	Namibia Scientific Society	Namibia Scientific Society currently does not have a website.	JOURNAL NAMIBIA SCIENTIFIC SOCIETY	<a href="http://jnss.zz.mu/">http://jnss.zz.mu/</a>	Active deceptive website
3.	International Journal of Game Theory	<a href="http://www.springer.com/economics/economic+theory/journal/182">http://www.springer.com/economics/economic+theory/journal/182</a>	International Journal of Game Theory	<a href="http://ijgt-springer.org/index.php">http://ijgt-springer.org/index.php</a>	Both sites currently active
4.	HFSP journal: frontiers of interdisciplinary research in the life sciences	<a href="http://www.ncbi.nlm.nih.gov/pmc/journals/811/">http://www.ncbi.nlm.nih.gov/pmc/journals/811/</a>	HFSP JOURNAL Human Frontier Science Program	<a href="http://www.hfsp-journal.org/">http://www.hfsp-journal.org/</a>	Both sites currently active
5.	Agrochimica	<a href="http://www.pisauniversitypress.it/scheda-abbonamento/autori-vari/agrochimica-ISSN0002-1857-135080.html">http://www.pisauniversitypress.it/scheda-abbonamento/autori-vari/agrochimica-ISSN0002-1857-135080.html</a>	AGROCHIMICA	<a href="http://www.agcjournal.org/index.php/agc_upload">http://www.agcjournal.org/index.php/agc_upload</a>	Both sites currently active with same ISSN
6.	Aula Orientalis	<a href="http://www.editorialausa.com/cola12.asp">http://www.editorialausa.com/cola12.asp</a>	Aula Orientalis	<a href="http://www.editorialusa.com/">http://www.editorialusa.com/</a>	Both sites currently active with same ISSN
7.	Jökull Research Journal	<a href="http://jokulljournal.is/">http://jokulljournal.is/</a>	Jökull journal	<a href="http://www.jokulljournal.com/">http://www.jokulljournal.com/</a>	Both sites currently active with same ISSN
8.	Sylwan	<a href="http://sylwan.ibles.waw.pl/pls/apex/f?p=105:1:0">http://sylwan.ibles.waw.pl/pls/apex/f?p=105:1:0</a>	SYLWAN.English Edition	<a href="http://sylwan.ibles.org/">http://sylwan.ibles.org/</a>	Both sites currently active with same ISSN
9.	Wulfenia	<a href="http://www.landesmuseum.ktn.gv.at/210226w_DE.htm?seite=15">http://www.landesmuseum.ktn.gv.at/210226w_DE.htm?seite=15</a>	Wulfenia	<a href="http://www.multidisciplinariwulfenia.org/">http://www.multidisciplinariwulfenia.org/</a>	Both sites currently active with same ISSN
10.	Chemical and Process Engineering	<a href="http://cpe.czasopisma.pan.pl/">http://cpe.czasopisma.pan.pl/</a>	Chemical and Process Engineering	<a href="http://processengineering.net/">http://processengineering.net/</a>	Both sites currently active with same ISSN

## 10 Avoiding predatory and counterfeit journals

Beall's list of the characteristic of predatory and counterfeit journals is long and may not be that useful to novice academics as it may confuse them. Also there are likely to be journals on this list which are not predatory but which are new and still working through the learning curve of what is required to be a competent publisher. Following a few guidelines will avoid much of the problems which may be encountered.

Firstly, research the journals in the field of study. Consult websites such as UlrichsWeb (See <http://ulrichsweb.serialssolutions.com/login>, this is a subscription based service.) and Harzing (See [www.harzing.com](http://www.harzing.com), this is a free service.) to establish the authenticity of any particular journal. Only publish in journals which are relatively well known to the academic community. Obscure journals should be avoided, especially obscure journals published in remote parts of the world. This does mean that there will be a bias against new journals but it is perhaps wise to allow others to experiment with these new comers.

Secondly, do not publish in journals which contain any significant number of typographical errors, spelling mistake or grammatical mistakes. These are the primary signs that there is little or no editorial service being delivered.

Thirdly, be careful of fees. Do not pay any fees in advance. Page charges may be required when the paper has been peer reviewed and is ready for publishing. Furthermore do not pay excessive fees. What is excessive can be determined by doing some research among similar journals.

There are other issue to look out for but these three are useful heuristics which really get to the heart of the matter. It is further argued that the universities themselves need to become proactive with regular intelligence supplied to academics about what new criminal initiatives are taking place in the academic publishing space.

## 11 Conclusion

Predatory and counterfeit journals pose an interesting challenge to academic researchers. The counterfeit journal is a sophisticated short life cycle criminal enterprise that clones any journal and to the uninitiated appears to be a legitimate journal. The modus operandi of these cyber criminals is to cast a wide net out and someone will surely take the bait.

The weapon at the academics and universities disposal to counter the cyber criminals is the knowledge of how predatory and counterfeit journals operate and the whole academic community has to be made aware of these fraudsters. This can be done with joint action by academics and universities in the form of papers and articles, by blogs and vlogs and by engaging in general discussion about these crimes. Although it may be problematic to prosecute predatory journals it should not be such a big problem to take legal action against counterfeit journals which are simply devices for theft.

But finally the message that needs to be delivered and reinforced is a very old one which dates back to Roman times in the form of Caveat Emptor which translates into *Let the buyer beware*. In modern day academe the Latin expression *Caveat Sciscitator* translated as "Let the academic researcher beware" needs to be foremost in the researchers mind. In the end the old English aphorism is most apposite, "A fool and his money is easily parted".

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