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Fake Journals, spurious published papers and bogus impact factors: Need for an overhaul and transparency for an academic perspective

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Abstract

Background

Since over the last more than several decades there has been mushrooming growth of journals and/or publication agencies which mimic the peer-reviewed scientific journals. This article entails the fabrication of the network of some of the bogus impact factors and misnomer terms, such as Universal Impact Factor (UIF), Global Impact Factor (GIG), Cite-factor and even a fake Thomson Reuters Company for commercial purposes. The recent explosion in the number of rapacious journals has led to the appearance of websites that provide spurious impact factors. It is believed that academic associations, universities, and research funding bodies must take action to annul these questionable practices. The misleading metrics and fake impact factors have damaged the prestige and reliability of scientific research and scholarly journals.

Methodology

To accomplish the target, peer-reviewed English language articles published during third millennium up to 2017 were selected from Pub Med, Pub Med Central, Science Direct, Up-to-date, Med Line, comprehensive databases, Cochrane library, and the Internet (Google, Yahoo).

Review of Literature:

In the recent years, the world of academic publishing has rampantly become contaminated by fake impact factors and misleading metrics that are launched by fake Journals. It involved predatory publishers using spams fake metrics, by which they cause problems to the science and universities. The review constituted a systematic search of literature on such journals and impact factors.

Keywords: Fake journals, spurious impact factors, commercialization,

Introduction

Publishing the outcome of research is one of the requirements to earn credit of appeasement and mental satisfaction for the authors. To achieve this there are maneuvers in selection of journals that lack strength in citation and impact. Since times immemorial, there has been mushrooming growth of journals and/or publication agencies which imitate the peer-reviewed scientific journals. This article entails the fabrication of the network of some of the bogus impact factors and misnomer terms,

such as Universal Impact Factor (UIF), Global Impact Factor (GIG), Cite-factor and even a fake Thomson Reuters Company for commercial purposes. The recent explosion in the number of rapacious journals has led to the appearance of websites that provide spurious impact factors. It is presumed that academic associations, universities, and research funding bodies must take action to annul these questionable practices (Jalalian, 2015).

The recent explosion in the number of rapacious journals has led to the advent of questionable websites providing fake or spurious impact factors, It is believed that academic associations, universities, and research funding bodies must take action to stop these practices (Gutierrez et al., 2015). The publications in low quality journals, having no citation and/or the impact factor is a fraud in biomedical literature. This is in addition to the "massive" fake which involves a great majority of papers published with made-up data in peer-review journals with high impact factor. Editors have an increasing responsibility to prevent publication of perpetrator studies, leading to check not only the value and the interpretation of submitted data but the entire process of elaborating protocols and performing studies. Increased transparency in clinical trials performance is critical to prevent biomedical fraud (Bonnet and Samama, 2012). It is high time to fight against predatory publishers and journals in addition to the ever-increasing number of predatory conferences, who derogate the standards of awareness and education (Darbyshire, 2017).

Open access publishing

A threat now hovers the integrity of scholarly publishing: predatory journals. Internet-only, "open-access" publishing an effective way for researchers to reach the public by commercial means. Today, out of thousands of open-access scientific journals, as many as twenty-five percent are believed to be fake,existing only to make money by charging authors high processing fees. In such bogus or fake journals, peer review process is almost absent; as many as 80-90 per cent of the submitted manuscripts are accepted within a short time, without any editorial comment. This is mostly liked by majority of the authors. Predatory journalism is good at mimicking reputable publishers. The Sham journals use names and logos that closely resemble those of legitimate journals, deliberately confusing site visitors. If junk science is not challenged and eliminated, it will continue to corrode and undermine ethical, open-access scholarly publishing (Klyce and Feller, 2017).

Materials and Methods

The articles selected to include in this review were based on their relevance and understanding of the literature in pursuit of different aspects of fake and bogus journals and articles. To accomplish the target, peer-reviewed English language articles published beyond 2001 (beginning of the third millennium) to 2017 were selected from Pub Med, Pub Med Central, Science Direct, Up-to-date, Med Line, comprehensive databases, Cochrane library, and the Internet (Google, Yahoo). The strategy to search incorporated the terms that included the title and the keywords relating the prerequisites that warrant fake impact factors and spurious journals and bogus companies.

Review of Literature

Scientific Reputation and Prestige

The fake journals often have their advertisement and publication techniques. These types of journals mostly start and continue their activities by using the name of some indexed journals and establish bogus websites. The fake journals and publishers, ask the authors a significant amount of money for publishing their papers. These journals have no peer-review process, publish the papers without any revision on the fake sites, and put the

scientific reputation and prestige of the researchers in jeopardy (Hemmat Esfe et al., 2014)

Fraud in biomedical literature

Irregularities and fraud in biomedical literature has been highlighted by recent cases referring to key opinion leaders responsible for "massive" fake due to the number of papers published with made-up or cooked data in peer-review journals with high impact factor. Editors have an increasing responsibility in preventing publication of culprit studies, leading to check not only the value and the interpretation of submitted data but the whole process of elaborating protocols and performing studies. Increased transparency in clinical trials performance is critical to prevent biomedical fraud. (Bonnet and Samama, 2012)

Predatory Publishers Threaten Medical Research

Beall, (2016) described the characteristics of predatory publishers in biomedical sciences research. These publishers use spams fake metrics, by which they cause problems to the science and universities. The Predatory journals fail to properly manage peer review and allow pseudo-science to be published as authentic science. This affects academic evaluation, as some researchers take advantage of the quick, easy, and cheap publishing predatory journals provide. By understanding how predatory publishers operate, researchers can avoid becoming victimized by them.

Bogus and Fake Conferences

A large number of fake/bogus conferences are organized, which introduce themselves as international conferences. These are multidisciplinary and indexed in major scientific digital libraries. They are indexed in major scientific digital libraries. Furthermore, most of the fake/bogus conference holders offer publishing the accepted papers in ISI journals and use other techniques in their advertisement (Asadi et al., 2017).

Identity Theft

Most of the fraudulent journals use the names of eminent scientists, researchers and professors on their editorial boards, without permission, this is just to look legitimate. Sometimes, they even create fake profiles for prominent scientists in attempt to manipulate the publishing process. Genuine authors interested to publish in these journals should be aware of the identity theft and verify from these people on the editorial board (Dadkhah et al., 2017).

Academic networking sites

Memon, (2016) opined that there are a number of attractive academic social networking sites for scientific community, which have been trying to improve user-centered interfaces to gain more attractiveness to scientists around the world. The scientific community has been much interested in promoting their work and exhibiting its impact to others through reliable scientometric measures. However, with the growing market of publications and in the field of research, this community has been victimized by the cybercrime in the form of ghost journals, fake publishers and magical impact measures. In the interest of science, these social networking sites must not be linient in their policies against this dark side of academic writing.

Peer review

Peer review is the most imperative aspect of trustworthy journals. Without it, we would be unsure about whether the material published was valid and reliable. However, with the advent of the Internet, scientific literature has become subject to a production of fake peer reviews. Some dishonest researchers are manipulating the peer review process able to publish even the most inferior papers. There are even published papers available to teach, how to do it (Dadkhah et al., 2017).

Impact Factors and Prediction

The principle of the impact factor (IF) for a given year is the average number of citations of articles published in the

journal in the two previous years. While authors frequently cite the IF as a determining factor for submission, the IF does not predict how many times individual articles will be cited (Nielsen and Seityz, 2016). It is strange to know that the fake and the bogus journals give the impact factor, without the journal being published and any of the articles cited even a single time. Notwithstanding its widespread acceptance in the scientific world, impact factor has been criticized recently on many accounts: including lack of quality assessment of the citations, influence of self-citation, English language bias, etc. In their one of the studies, Ramin and Shirazi (2012) evaluated three indices of journal scientific impact: (IF), Eigenfactor Score (ES), and SCImago Journal rank indicator (SJR) of nuclear medicine journals. Overall 13 nuclear medicine journals were indexed in ISI and SCOPUS and 7 in SCOPUS only.

How to Identify the Real Journals and the Hijacked Journals and or fake journals

It is very difficult to evaluate the difference between the scientific journals and publishers and to differentiate them from the hijacked ones, regardless of their disciplines. With the advent of open-access journals, many hijacked journals and publishers have dishonestly assumed the covering of authenticity in order to take advantage of researchers and students. Although, by checking their advertisement techniques and their websites, these hijacked journals and publishers can be identified, these ways do not always result in their identification. However, there are some approaches of using Master Journal List provided by Thomson Reuters, and Scopus database, and using the DOI of a paper, to certify the realness of a journal or publisher. The in experienced students and researchers, often fail to differentiate the real and the bogus journals (Asadi et al., 2017).

In their recent paper, Esfe et al. (2014) present some criteria for fake journals and propose some 'features' to recognize them. While it is shared most of the authors' concerns about this issue in general, some of the reported criteria are not fit to differentiate fake journals from genuine ones. Here are some examples derived from their list, which illustrate that such criteria are not necessarily specific to fake journals only, but they could also apply to well-established journals and, therefore, should not be considered as is. (Moustafa, 2014) identified some features to know fake journals and differentiate them from the real ones. They analyzed the fake and real journals in detail and came to the conclusion that the criteria are not specific to fake journals only, and they could also apply to well-established journals.

Fabricated data and its detection by Statistical methods:

Fraud is much less likely to go undetected, if authors are required to post the raw data supporting their published results. Simonsohn (2013) described two cases of fabricated data detected by statistical approach. This point was illustrated by describing the cases of suspected fraud which was identified through statistical analysis of reported means and standard deviations. Analyses of the raw data behind these published results provided invaluable confirmation of the initial suspicions, ruling out benign explanations (e.g., reporting errors, unusual distributions), identifying additional signs of fabrication, and also ruling out one of the suspected fraud's explanations for the anomalous results. If journals, granting agencies, universities, or other entities overseeing research promoted or required data posting, it appears inevitable that fraud would be reduced.

Bias in the **sponsorship of clinical research.**

The clinical research that is undertaken on medications is mostly funded by majority of the Pharmaceutical

companies, but face a conflict of interest between producing good science and results that will enhance the sales of their products. The extent biases are often in the areas of research question/topic, choice of doses and comparator agents, control over trial design and changes in protocols, early termination of clinical trials, reporting to regulatory authorities, reinterpretation of data, restrictions on publication rights, use of fake journals, journal supplements and symposia, ghostwriting, publication and reporting of results and outcomes. Bias in favour of industry is clear in almost all the themes examined with the result that research funded by industry undermines confidence in medical knowledge (Lexchin, 2012)..

Development of medical databases on the World Wide Web

Ability to perform citation analysis are often offered by numerous medical databases on the World Wide Web. Falagas et al., (2008) compared the content coverage and practical utility of PubMed, Scopus, Web of Science, and Google Scholar by using the official Web pages of the databases to extract information on the range of journals covered, search facilities and restrictions, and update frequency. The authors used the example of a keyword search to evaluate the usefulness of these databases in biomedical information retrieval and a specific published article to evaluate their utility in performing citation analysis. All databases were practical in use and offered numerous search facilities. PubMed and Google Scholar are accessed for free. The keyword search with PubMed was found to offer optimal update frequency and includes online early articles; other databases can rate articles by number of citations, as an index of importance. For citation analysis, Scopus was found to offer about 20% more coverage than Web of Science, whereas Google Scholar offers results of inconsistent accuracy. PubMed remains an optimal tool in biomedical electronic research. Scopus covers a wider journal range, of help both in keyword searching and citation analysis, but it is currently limited to recent articles (published after 1995) compared with Web of Science. Google Scholar, as for the Web in general, can help in the retrieval of even the most obscure information but its use is spoiled by inadequate, less often updated, citation information.

Among the indexed journals, we have definite methods to analyze on a comparative basis, but for the non-indexed journals there is no such comparison.

Conclusion:

The recent explosion in the number of rapacious journals has led to the advent of questionable websites providing fake or spurious impact factors, and appearance of websites that provide spurious impact factors. It is believed that academic associations, universities, and research funding bodies must take action to annul these questionable practices. Fraud is much less likely to go undetected, if authors are required to post the raw data supporting their published results. Simonsohn (2013) described two cases of fabricated data detected by statistical approach. This point was illustrated by describing the cases of suspected fraud which was identified through statistical analysis of reported means and standard deviations. Although, by checking their advertisement techniques and their websites, these hijacked journals and publishers can be identified, these ways do not always result in their identification. However, there are some approaches of using Master Journal List provided by Thomson Reuters, and Scopus database, and using the DOI of a paper, to certify the realness of a journal or publisher. The inexperienced students and researchers, often fail to differentiate the real and the bogus journals.

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