

Journal Publications, Indexing and Academic Excellence: Have We Chosen the Right Path

Venkataramana Kandi*

Department of Microbiology, Prathima Institute of Medical Sciences, Karimnagar

*Corresponding author: ramana_20021@rediffmail.com

Abstract Journal communications have been revolutionized by the evolution of the concept of online and open access publications. Even the older and traditional journals have adopted the online mode for paper submission, peer review and editorial procedures before a research communication is published. Most journals now have both an online and print version where in both are either freely available or available under subscription. Currently the situation of journal publications has been in a lot of criticism. This review attempts to elaborate on the current status of journal publication, indexing, impact factor, authorship and criteria for assessment of academic excellence.

Keywords: journal publication, indexing, impact factor

Cite This Article: Venkataramana Kandi, "Journal Publications, Indexing and Academic Excellence: Have We Chosen the Right Path." *American Journal of Infectious Diseases and Microbiology*, vol. 4, no. 3 (2016): 52-55. doi: 10.12691/ajidm-4-3-1.

1. Journal Publications

A decade back there were limited number of journals publishing research communications, which used to undergo rigorous peer review and editorial process and one had to wait for almost a year before his/her paper is finally accepted and published. With no availability of online submissions, most researchers had to send their papers through post which was responsible for the delay in the publication process. The idea of an online journal publication hardly has existed and most journals used to generate revenue through subscription from libraries/institutions/ individuals. A print journal that publishes a research communication compliments the author with a limited number of re-prints of the published manuscript and in case the authors require additional re-prints an extra amount had to be paid. The question of plagiarism, misconduct and unethical practices was rarely noticed. Traditionally journal publications have only been done by recognized scientific societies (these societies had members who evaluate the research results and accept) like the, American society of microbiology (ASM), Royal society of chemistry (RSC) and society of general microbiology (SGM) etc..

Journal communications have been revolutionized by the evolution of the concept of online and open access publications. Even the older and traditional journals have adopted the online mode for paper submission, peer review and editorial procedures before a research communication is published. Most journals now have both an online and print version where in both are either freely available or available under subscription.

Currently the situation of journal publications has been in a lot of criticism; reason being the emergence of various open access journals published by self styled scientific

societies, individuals, group of individuals, universities and even institutions. Most traditional publishers have been from the western countries and only few had existed in the other parts of the world. This had created a kind of imbalance and could have been responsible for the emergence of many publishers both from the developed and third world nations catering mostly to the researchers belonging to developing nations. All the journals are required to get an ISSN (International standard serial number) number, separate for print and online versions. There is no scientific criterion or evaluation process required for applying ISSN number except that a journal has to publish a given number of original research papers. In fact it is very easy for anybody to apply and acquire an ISSN for their journal [1,2].

2. Indexing

The meaning of indexing actually is how well a periodical/journal/serial/publication is located and protected at a particular place/repository and is available for use in future even after the discontinuance of the journals in which they were actually published. Journals hardly have an idea of what exactly are the indexing agencies and those which just act as cataloguing the serial/journal identities. Some libraries only store abstracts of the published content and are termed as abstracting indexes. Most indexing and abstracting libraries present their own criteria for including journals. Journals initially are required to submit the details of their serial in a journal submission format as defined by the respective abstracting and indexing agency. Evaluation usually is done based on various factors that include the editorial standards as indicated on the respective journals site, peer review process as described by the publisher, licensing details, regularity of publication and others. Till recently Pubmed,

pubmed central, Medline/Index medicus and exrepta medica/embase for medical literature and Scopus for other communications are considered as best indexing agencies [3,4,5,6,7]. Other agencies like the EBSCO (Named after the owner of EBSCO industries Inc., Elton B. Stephens Co.), Cumulative Index to Nursing and Allied Health Literature (CINAHL), CABI (Centre for agriculture and biosciences international), Proquest, Directory of open access journals (DOAJ), Index Copernicus, WHO's index medicus for south east regions (IMSEAR) and HINARI (Health inter-network access to research initiative), J-gate, CAS/CASSI (Chemical abstract service, American society of chemistry) and CNKI (Chinese national knowledge information centre) have also been considered as indexing and abstracting repositories [8-17]. Repositories like the genamics journal seek is another agency which only keeps a list of journals with their minute details that includes ISSN, aim and scope of the respective journal. Another repository which links the RSS (Rich site summary) feed of the journals articles as and when they are published is referred to as Journal TOC (table of contents) [18,19]. Recently there has been emergence of numerous indexing agencies throughout the world that includes Directory of research journal indexing (DRJI), Open access journal search engine (OAJSE), Geneva foundation for medical education research (GFMER), SHERPA/RoMEO (securing a hybrid environment for research preservation and access, an online repository formed by UK universities and administered by University of Nottingham), E-journal library, journal index, Cite factor and various others [20-33]. Irrespective of any formal application all the journal content uploaded in the internet is indexed by Google scholar [34].

Another cause of concern about the journal publications is the impact factor. Traditionally Thompson Reuters is considered as an acceptable agency throughout the world which releases impact factors of limited number of scientific journals most of which are listed in pubmed, pubmed central and the medline/index medicus [35]. Elsevier's Scopus also releases an impact index of a journal in the name of Schimago journal rank (SJR) of only those journals indexed in Scopus [36]. Today many agencies have evolved calculating the journal impact factor based on various criteria. Universal impact factor (UIF), global impact factor (GIF) and scientific journal impact factor (SJIF) are a few notable examples of agencies that provide journal impact factors [37,38,39]. Although these impact factor generating agencies are not officially recognized, many open access journals have registered and advertise the impact factors in their journals website. What is very interesting here is that the impact factor providing agencies use names similar to the ones which are actually recognized. The Thompson Reuters impact factor is called as ISI (Institute for scientific information) impact factor and the mimicking name of an unacceptable impact factor is also ISI (international standard indexing) [40]. Index Copernicus, which actually is an indexing agency (questionable) also releases index Copernicus values for each indexed journal and is not considered as acceptable universally [41].

The idea of indexation of a journal is to make sure that the journal maintains its quality and also that the papers published in such journals remain protected by indexing agencies for future use even if the journal stops publishing.

Mere indexing does not guarantee the quality of any journal. The decision to consider few indexing agencies and to accept papers published in journals indexed with them for taking decision on academic promotions needs to be debated. Pubmed/medline/index medicus/web of science is considered as a quality indexing in case of biomedical journals. Although the criteria for indexation of journals in pubmed appear to be well organized, it is not fool proof. Many journals with over five years of quality publishing experience fail to get indexed by pubmed, whereas a few other journals are covered by pubmed in their first year of publication. The Scopus/Embase/Exrepta Medica appears to be the second most preferred indexing platform for journals which covers different specialities that includes and not limited to biomedical sciences. It is interesting that few journals which are run by pay and publish model are included in Scopus [42].

Recent medical council of India's decision to consider papers published in journals indexed with index Copernicus needs to be reviewed as many journals indexed with this agency are questionable [43]. Another decision by MCI to not to consider electronic only journals cannot be justified as there are many online only journals/publishers which publish quality papers indexed by pubmed/medline (Biomed central (BMC) and Public library of science (PloS)) and that several other journals having print versions are highly questionable in terms of their scientific quality [44,45]. In the era of computerization, open access publication and internet, preferring a print journal over online journals remains questionable.

Another interesting recommendation of MCI regarding recognized indexing agencies includes the index medicus. MCI mentions that papers listed in index medicus are acceptable for promotions. It should be noted that index medicus is a print and bounded format of all those journal articles included in Medline. In fact many researchers/academicians do not clearly know about the pubmed, pubmed central, medline and index medicus. Pubmed includes journals which are both open access as well as many other journals which are not open access and are subscription based journals. Only abstracts of the published papers of non-open access journals will be available in pubmed. Full papers of all open access journals and few subscription based journals are included in pubmed central. Online repository which includes selected journals included both in pubmed and pubmed central are available in the form of Medline/ unbound Medline. Index medicus is the printed form/bounded form of the journal articles included in Medline [46].

Availability of other indexing agencies like the African index medicus, WHO's Index medicus for south East Asian region (IMSEAR), WHO's global index medicus and the Indian version of index medicus named as IndMED and MedIND clearly demonstrates the fact that MCI needs to be more precise of what actually they have meant when they recommend index medicus [47,48]. Another important fact is that currently the print version of medline i.e. the index medicus has been stopped since 2004 [46].

3. Academic Excellence

There has been a lot of debate as to what should be taken in to account while evaluating researcher/academicians

scientific credibility. Parameters that people consider for assessing the academic excellence of a person includes the number of publications, impact factors of the journals in which the papers have been published and citation index (how many times the paper has been cited by others) of the papers which are published. Mere analysis of journal impact factors has been traditionally accepted as a method of deciding an individual's scientific excellence. This system has undergone much criticism. Later emerged what is called as h-index (Hirsch's h-index), which is a value calculated considering the most citations obtained in a given number of papers, i.e. if a researcher has 50 papers and only if his 5 papers are cited a minimum of 5 times then his/her h-index is 5. This method of evaluating a researcher has also not been without any drawbacks. As for the h-index of a researcher to improve, it may take a very long time [49]. Many players have now emerged taking this advantage to woo researchers to join communities to showcase their research and improve the scientific exposure. Researchgate is one such scientific community wherein the researcher gets registered in this site and upload their publications both the journal articles and conference abstracts. Researchgate registered individuals also get a value which depends on the number of publications, impact factor of journals, and the ability of a researcher to participate in a scientific discussion either by raising a question or by answering in various forums [50]. Other scientific community websites currently functioning include the Frontiers, ORCID, ReseracherID, Academia and the Kudos [51,52,53,54,55].

Current status of evaluating scientific/academic excellence remains unclear where in institutions/universities follow their own methodologies and is different in various parts of the world. Medical institutions/academics/universities throughout the world prefer papers published in pubmed/pubmed central/medline/index medicus. Few others also consider papers published in journals indexed by Scopus and embase/exrepta medica. Having a paper published in an acceptable indexing agency partially confirms the scientific and editorial standards. Pubmed indexing of a journal previously was considered as a difficult one to get for journals where in a journal is scrutinized for editorial and scientific quality among many other aspects of journal publication [56]. It should also be understood that mere indexation by pubmed/pubmed central/Medline/index medicus does not always guarantee quality of a journal. Some journals take years to get indexed in pubmed where as few others gain entrance in to pubmed even before a year of release of its first volume. The Wellcome Trust and the higher education funding council for England recently had decided to avoid using the journal impact factor for making decisions on funding, appointment and promotion [57].

4. Authorship

There is a debate on which author among those listed in a published scientific paper should get its full credit. According to the committee for publication ethics (COPE) there are certain criterion which needs to be satisfied to be listed as an author of a manuscript [58]. Traditionally, the first author of a manuscript is considered as principal who was instrumental in the conduction of research work.

Credit also was given equally to the last author/corresponding author, who was the person responsible for designing and development of research paper and who is also a guide to the principal author. Scientific community at large does not seem to accept it citing the reason that most of the research work happens in collaboration and that a research work is translated in to a manuscript only with the help of several people and all deserve equal credit. Many others disagree with such a suggestion citing the fact that publications may include ghost authorship; which means authorship is given to people who may be colleagues, friends and relatives who have nothing to do with the paper/research work. Authorship in a scientific communication for the sake of improving the number of publications and gaining academic promotions has increased in the recent past igniting the debate as to who should be credited for publication.

5. Conclusion

Research and scientific publications are among those few parameters which indicate academic excellence of an individual. Indexing/abstracting of a journal only guarantees the extended visibility/availability/safety of a valuable research and can never indicate its scientific standards. Although research and scientific communications need to be encouraged in academic and other institutions, they should not be the only criteria for the career development/academic promotions. Impact factor of journals do not directly reflect the academic excellence of a researcher and that all factors including citations of the published papers and the role of a researcher in the improvement of current knowledge on a particular aspect and many other factors should be considered while assessing a researcher's academic excellence. Publications for the sake of promotions and sharing authorships only to increase the numbers of publications should be strongly discouraged. It should be noted that no single criteria (journal indexing, journal impact factor, H-index, citations to papers published) can actually be considered for evaluating the academic excellence of an individual. Academic improvement of an individual can only be measured by peer evaluation considering several factors which needs further discussion and regular appraisal.

References

- [1] Directory of open access journal indexing. <http://road.issn.org> Accessed: March 2, 2016.
- [2] International scientific serial number. www.issn.org Accessed: March 2, 2016.
- [3] Pubmed Central. www.ncbi.nlm.nih.gov/pmc/. Accessed: March 2, 2016.
- [4] Pubmed. www.ncbi.nlm.nih.gov/pubmed. Accessed: March 2, 2016.
- [5] Medline. www.medline.com/. Accessed: March 2, 2016.
- [6] Elsevier. <https://www.elsevier.com/solutions/embase-biomedical-research>. Accessed: March 2, 2016.
- [7] Scopus. www.scopus.com/. Accessed: March 2, 2016.
- [8] EBSCO. <http://support.ebsco.com/>. Accessed: March 2, 2016.
- [9] Centre for agriculture and biosciences international (CABI). <http://cabi.org>. Accessed: March 2, 2016.
- [10] Proquest. <http://proquest.com>. Accessed: March 2, 2016.

- [11] Directory of open access journals. <https://doaj.org/>. Accessed: March 2, 2016.
- [12] Index Copernicus. [WWW.en.indexcopernicus.com](http://www.indexcopernicus.com). Accessed: March 2, 2016.
- [13] Index medicus for south East Asian region (IMSEAR). <http://www.who.int/library/databases/searo/en/>. Accessed: March 2, 2016.
- [14] HINARI (Health inter-network access to research initiative). http://extranet.who.int/hinari/en/browse_publisher.php?pub=756. Accessed: March 2, 2016.
- [15] J-gate. <http://openj-gate.org/what-is-open-access-initiative/>. Accessed: March 2, 2016.
- [16] Chemical abstracts service. www.cas.org. Accessed: March 2, 2016.
- [17] Chinese national knowledge information centre (CNKI). <https://scholar.cnki.net/>. Accessed: March 2, 2016.
- [18] Genamics. <http://genamics.com/>. Accessed: March 2, 2016.
- [19] Journal table of contents (TOC). <http://www.journaltoocs.hw.ac.uk/>. Accessed: March 2, 2016.
- [20] Directory of research journal indexing (DRJI). <http://www.drji.org/>. Accessed: March 2, 2016.
- [21] Open access journal search engine. <http://www.oajse.com/>. Accessed: March 2, 2016.
- [22] Electronic journal library. www.e-journals.org/. Accessed: March 2, 2016.
- [23] Journal index. www.journalindex.net. Accessed: March 2, 2016.
- [24] Cite factor. www.citefactor.org. Accessed: March 2, 2016.
- [25] <http://rzblx1.uni-regensburg.de/ezeit/index.phtml?bibid=AAAAA&colors=7&lang=en>. Accessed: March 2, 2016.
- [26] <http://www.scholarly-societies.org/history/zdb.html>. Accessed: March 2, 2016.
- [27] Journal guide. <https://www.journalguide.com/>. Accessed: March 2, 2016.
- [28] Geneva foundation for medical education research (GFMER). http://www.gfmer.ch/000_Homepage_En.htm. Accessed: March 2, 2016.
- [29] COSMOS. www.cosmosimpactfactor.com. Accessed: March 2, 2016.
- [30] Directory of science. WWW.directoryofscience.com. Accessed: March 2, 2016.
- [31] SHERPA/RoMEO. <http://www.sherpa.ac.uk/romeo>. Accessed: March 2, 2016.
- [32] Academic keys. www.AcademicKeys.com. Accessed: March 2, 2016.
- [33] Online computer library centre (OCLC). <http://www.worldcat.org>. Accessed: March 2, 2016.
- [34] Google scholar. <https://scholar.google.com>. Accessed: March 2, 2016.
- [35] Thomson Reuters, Journal citation reports (JCR). Accessed: March 2, 2016. WWW.thomsonreuters.com/en/products...and.../journal-citation-reports.html
- [36] Schimago journal ranking (SJR). www.scimagojr.com/journalrank.php. Accessed: March 2, 2016.
- [37] Universal impact factor. <http://www.uifactor.org/AboutUs.aspx>. Accessed: March 2, 2016.
- [38] Global impact factor. WWW.globalimpactfactor.com. Accessed: March 2, 2016.
- [39] Scientific journal impact factor. WWW.sjifactor.com/. Accessed: March 2, 2016.
- [40] International scientific indexing. WWW.isindexing.com/isi/journals.php. Accessed: March 2, 2016.
- [41] Index Copernicus. WWW.journals.indexcopernicus.com/page.php?page=3https://www.growkudos.com/profiles/47848. Accessed: March 2, 2016.
- [42] List of Predatory publishers. <https://scholarlyoa.com/2014/01/02/list-of-predatory-publishers-2014/>. Accessed: March 2, 2016.
- [43] Medical council of india (MCI). <http://www.mciindia.org/circulars/Circular-03.09.2015-TEQ-Promotion-Publication.pdf>. Accessed: March 2, 2016.
- [44] Biomed central. <https://www.biomedcentral.com>. Accessed: March 2, 2016.
- [45] Public library of science. <https://www.plos.org>. Accessed: March 2, 2016.
- [46] Index Medicus. https://en.wikipedia.org/wiki/Index_Medicus. Accessed: March 2, 2016.
- [47] African Index medicus. www.who.int/library/databases/afro/en/. Accessed: March 2, 2016.
- [48] IndMed. http://indmed.nic.in/journal_list.html. Accessed: March 2, 2016.
- [49] Hirsch's Index. <https://en.wikipedia.org/wiki/H-index>. Accessed: March 2, 2016.
- [50] Researchgate. https://www.researchgate.net/profile/Ramana_K_V2. Accessed: March 2, 2016.
- [51] Frontiers. <http://loop.frontiersin.org/people/154354/overview>. Accessed: March 2, 2016.
- [52] ORCID. <http://orcid.org/0000-0002-7197-0448>. Accessed: March 2, 2016.
- [53] Researcher ID. <http://www.researcherid.com/rid/A-6331-2010>. Accessed: March 2, 2016.
- [54] Kudos. <https://www.growkudos.com/profiles/47848>. Accessed: March 2, 2016.
- [55] Academia. <https://pims.academia.edu/VKandi>. Accessed: March 2, 2016.
- [56] National library of medicine. http://www.nlm.nih.gov/pubs/factsheets/j_sel_faq.html. Accessed: March 2, 2016.
- [57] Declaration of independence from journal impact factor (2013). <https://www.timeshighereducation.com/news/declaration-of-independence-from-journal-impact-factor/2003865.article>.
- [58] Committee for publication ethics. www.publicationethics.org. Accessed: March 2, 2016.