

Editorial**Open Access**

Open Access Journals: Ready for Prime Time?

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Are open access journals as scholarly and prestigious as subscription-only journals? With the advent of open access journals, you might ask these questions before submitting an article for publication or quoting the results from an open access journal study. Clinicians want immediate access to information and that access to evidence based practice (EBP) promotes research analysis for translation to bedside. Internet access is all that is needed for access to the articles; readership is not restricted by subscription.

Open access is integrated with the information environment that is formed by search engines, such as Google Scholar, making articles available with only a word search [1]. Readers do not have to look for specific journals but rather, search according to specific topics. The option for anyone to use these search engines can lead to a better informed public and allow authors to teach the public and to encourage verification of facts. Additionally, articles published in open access had no difference than hard copies in regards to length or word usage [2].

Primary research among scientists and translational research among clinicians is not mutually exclusive. Information is free and freely exchanged. The impact of open access has been felt globally. With the growing access to online information, diseases such as malaria may see a significant decrease. Over 90% of malaria mortality occurs in Africa. There are many African medical journals, but most are paper-based or online via subscription only and not available in PubMed. The growth of Malaria Journal over 9 years is due to its being the first open access journal in tropical medicine and helping first-time authors to present their work [3].

Certainly, open access can lead to a greater number of downloads of an article. In Davis's study, 712 articles were randomly assigned to open access, leaving 2533 articles as the control group. The open access articles received more downloads from a broader audience than traditional publications, yet were no more frequently or earlier cited than subscription controlled articles in a 3 year period [4]. Actual downloads has a number of limitations if equated with reading an article; there is no way to know who downloaded an article or if it was used, and robots probably account for much of the increase in downloads [5].

Often article downloads measure general interest in a particular subject, while citations measure the incorporation of that knowledge into a new document [4]. Citations imply the article was read and therefore, used by the research community. If this is the case, the real beneficiaries of online access are probably the communities of practice rather than the research community, who traditionally have access to scientific literature.

With the growth of the internet and near immediate access to digital information from many sources, it seems inevitable that scholarly peer-reviewed journals would follow suit. Common open access forums such as Wikipedia, Blogs, and web pages allow freely downloadable access to information but lack a formalized, verifiable, and transparent review process. Peer-reviewed open access journals seek to incorporate the benefits of open access with a formalized peer-review process mirroring traditional subscription based journals. Open access journals are relative newcomers to the established subscription

based print journals. They are not a time tested verified method of peer-reviewed publication. As such, they should be scrutinized and thoroughly evaluated before expecting widespread endorsement. A survey of authors by Schroter and Title found "Only 24% (112/468) of authors were aware of a current open access author-pays journal, and only 10% (49/468) had submitted to an open access author-pays Journal [6]". This exemplifies the open access model in its infancy.

Operating costs are also a concern. The cost of open access is usually borne by the author(s) with fees that range from the equivalent of \$25.00-2,500 US dollars. These fees are disincentives for authors who already have invested time and effort to prepare manuscripts which are not reimbursable. Authors who do not have funding bodies or access to reimbursement are at a disadvantage. Therefore, open access author fee structure establishes a system that may be influenced by special interest funding bodies such as pharmaceutical companies and medical equipment manufacturers. Disclosure of who pays these author fees are currently not required by open access publishers. For true "openness", open access publishers should require authors to disclose any funding sources for publication fees. The potential influence of payees who fund open access authors detracts from the credibility of published works.

Requiring authors to pay fees in addition to the sacrifices already made is also an obstacle to dissemination of information. Imposing fees on authors may have the unintended consequence of restricting quality information or skewing the dissemination of information that is unacceptable to conventional journals. Reluctance among researchers and scholars to embrace open access journals may limit the quality and breadth of work published in open access form. This may skew true meaning derived from review of available works, especially if those utilized are primarily open access. The possible dissemination advantage that open access journals may have is also a call for full disclosure of funding and a thorough evaluation of quality equivalence to conventional journal material.

Journal impact factors also weigh heavily on author's choice of where to submit their works. "Many new journals struggle to attract papers until they are given an impact factor (a measure of the citations its papers receive), but a journal that accepts everything can't usefully be classified in this way [7]". An impact factor provides the relative importance of a particular journal by calculating the yearly average number of citations an article in that journal receives over the last two years. Journal Citation Reports are compiled by Thomson Reuters Corporation. A current review of anesthesiology journals fails to show

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any open access journals in the top two dozen [8]. If open access journal articles are not being cited by others, then the scholarly value may be less. Others have questioned the value of impact factors as a measure of importance as this does not measure readership.

The accessible digital format that open-access journals espouse has been incorporated into most other conventional journals. The benefits such as ease of access via internet search databases are available. The professional communities, including anesthesiology, are usually based in institutions that have readily available library and pre-paid subscription services to access peer-reviewed materials. Clinicians and the general public, on the other hand, may only access that which is freely available and traditional journals are answering this call. More content is being made available by traditional subscription journals either immediately or after a year or two. The innovation of open access may have been the catalyst to promote this greater accessibility.

Open access may be a response to the digital age's need for ease of access to information but issues of impact, quality, and transparency will need to be addressed. Time and further evaluation are needed before its true value is known. Will it stay a newcomer that merely encourage traditional publishers to improve information access to all

or will it grow and mature into a widely accepted and utilized avenue of peer-reviewed publication and scholarly exchange? For now open access is not ready for prime time.

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