



“Open Access” to Scientific Literature

There are always new ideas in the publishing world to try to bring information to a broader audience in an affordable way. Certainly the advent of the Internet has helped, because anyone with Internet access can now perform Medline searches on virtually any medical topic. These searches generally reveal pertinent references, and most of the references that come from peer-reviewed journals have abstracts that allow the reader a glimpse at the author's interpretation of the pertinent material from that article. In addition, readers can often purchase the individual article through the publisher.

The availability of information through these means is a definite improvement from the days when individuals were forced to maintain vast stockpiles of back issues of their favorite journals. Even if the journal was available, retrieval of specific articles was dependent upon the reader's access to and understanding of indexing systems such as Index Medicus. Readers today have the additional benefit of electronic subscriptions to printed journals. Combining the ability to search the expanses of medical and dental literature with the ability to access back issues of journals to which the reader subscribes results in a valuable set of informational tools.

One factor that remains to be considered is the cost of subscriptions. Medical libraries find themselves faced with increasing subscription costs, while budgets rarely keep pace. A solution that has been proposed to address the condition of rising costs and dwindling budgets is described as “open access” (OA). In an OA system the scientific literature is made available to any reader free of charge while the literature is maintained by the publisher. Although this sounds like a great idea on the surface, this business model has no obvious revenue stream to support the expenses of publication and literature maintenance.

This issue of revenue is addressed in most OA proposals by having the author pay for manuscript management through the peer review system. The figure that is mentioned most often is US \$3,000 per manuscript, and the assumption is that this charge will be made for every submitted manuscript. Since most peer-reviewed journals reject more articles than they accept, an “author pays” system could result in major up-front costs to authors who may never see their material published. It is not difficult to imagine a reduction in the

number of submitted manuscripts because of the cost, and with a reduction in submissions, the quality of publications could suffer. Should submissions decrease and revenues fall, the survival of the OA publishers could be threatened, and retrieval of previously published articles from an exclusively OA publisher might be impossible. In that situation, published material could be lost forever.

The assumption is that the OA approach maintains the current method of peer review. Unfortunately, this may not be the case for all OA articles, and distinguishing peer-reviewed articles from non-peer-reviewed articles might be impossible. If peer review were eliminated, the system would change from open access to open forum, and the reader would be unable to determine which authors spoke from a platform of investigation and which described opinion only. Rather than looking to the literature for answers, readers would find themselves mired in a vast Internet wasteland unable to differentiate between truth and fiction.

Would OA create a better environment for distribution of scientific knowledge? At this point the question may be moot as dental, oral, and maxillofacial journals have yet to embrace this system, but the discussion rages on. There are legislative actions in the United States and Europe that would mandate the free distribution of any governmentally funded research. Given the paucity of governmentally funded research in the implant field, such a mandate would have a limited impact on publications in this area.

Today *The International Journal of Oral & Maxillofacial Implants* (JOMI) provides its readers a printed version of the journal as well as electronic access to past issues through the Quintessence web page. Subscribers must register for access, but the process is relatively painless. This system, however, is not OA. Manuscripts are submitted to the journal without charge to the authors, and each manuscript goes through an editorial and peer review process. Most articles published in JOMI have been reviewed by 1 or 2 editors and 2 reviewers. At its best, peer review performed in this manner prevents publication of flawed research, but there can be situations where differences of opinion exist, and in those situations the readers often benefit from open debate of the described differences. The system is not flawless, but

reader can rest assured with some level of comfort that the material published in this journal has been scrutinized by many eyes and minds.

For the field of oral and maxillofacial implants, the need to maintain current knowledge is obvious. The value to readers of journals like JOMI is established by providing a product, the journal, that presents solid peer-reviewed material at a reasonable cost. When this information comes from a publisher that is

likely to survive in the volatile economic landscape of scientific publishing, the reader may take comfort in the knowledge that material will be retrievable for years to come.



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