

**EDITORIAL**

## **Open Access: A Hot Topic in the Publishing World**

Open access refers to the products of scientific and medical research (usually meaning published articles) being made available, free of charge, to everyone. First floated some 10 years ago in reaction to escalating subscription rates, open access has gone from an idea to a movement. The open-access movement was born of the Information Age and the Internet. It holds that information should be available to the widest possible audience rather than just to the elite and the privileged.

Governments and academic communities have been the most vocal advocates for open access. Their argument goes something like this: Public institutions and government grants, as well as private endowments, support and underwrite the cost of research; therefore, the results of that research should be accessible and available to those who, ultimately, have paid for it — that is, the public. Commercial, for-profit publishing houses are viewed as profiting unduly from the work of the academic community, publishing manuscripts that are largely the product of public funding. This user-pay model functioned well until the mid-1980s. However, subscription rates then rose significantly, making many serials unaffordable for smaller institutions, while the larger institutions were able to continue subscribing to the most prestigious medical and scientific journals only by cutting back their holdings. (Subscription rates for for-profit journals increased by 227% between 1986 and 2002 [Frankish, 2004].)

Governments have taken steps to rectify the situation by developing national policies of open access to scientific and medical journals. For example, the US House of Representatives Appropriations Subcommittee has decreed that an electronic copy of any manuscript accepted by a peer-review journal that has received support from the National Institutes of Health (NIH) be deposited in PubMed Central — the free archive maintained by the US National Library of Medicine — and that the NIH make the manuscript available to the public free of charge after an interval, chosen by the author, of anywhere up to 12 months following publication (Barrett, 2005); the NIH has until the end of 2005 to submit to Congress an implementation plan for this scheme. In Great Britain, the House of Commons Science and Technology Committee has recommended that every institution of higher learning in the United

Kingdom set up a repository to enable its researchers to self-archive their publications (Frankish, 2004). At the international level, meanwhile, the Public Library of Science is a not-for-profit organization of “scientists and physicians committed to making the world’s scientific and medical literature a freely available public resource.”

Opponents of open access come primarily from for-profit publishing houses, who maintain that they provide an invaluable service by selecting, editing, and publishing the work of scholars. These services are expensive: the cost of publishing an article is in excess of \$3,000. They further justify their profits by citing the risks they take and the losses they absorb. Commercial publishers operate from a business model. They further argue that they are good corporate citizens — funding conferences and educational outreach programs and underwriting scholarships — that in fact they are partners with universities and government.

In an ideal world who could be against open access? There is consensus that open access would indeed be a great thing if only it worked. But it presents many problems. At the heart of the issue are two questions: Who will pay? and How will standards be maintained?

Let us look first at the issue of payment. In the fee-for-access system, the user pays through individual and institutional subscriptions. In the open-access system, some other means has to be found to cover the cost of publishing a manuscript. Several economic models have been floated and tested (Willinsky, 2003). One of the most discussed is a model in which the payer is not the user but the author. In other words, the publisher (whether commercial or not-for-profit) continues to provide the services of peer review, editing, and production, but instead of the user it is the author who pays. How does this work?

What is being proposed is that research grants cover the cost of publication as well as the cost of the research itself. The rationale is that if the public pays salaries and other costs associated with research, why not the final step in the research process, publication of the results? The weaknesses in this proposal are obvious. For instance, not every publication is supported by grant money. Who will pay for the publication of theoretical articles, articles by students, articles reporting the findings of low-budget research, articles publishing data long after the grant has expired? In addition, because each grant will have to be larger in order to cover publication costs, the number of available grants will be smaller — unless of course the budgets of the various granting agencies are increased significantly.

Because few can argue against the principle of open access, the more established and prestigious journal publishers are now making publications available, free of charge, after a certain period following publication — usually 6 or 12 months — while retaining the old system of having

the user pay. This system functions well in disciplines where knowledge becomes (or is perceived to become) outdated more quickly than it is in the behavioural sciences and where competition is particularly fierce.

Another model being tried is for authors to post their manuscripts on the Internet, thus eliminating the middleman. However, this model immediately raises a red flag: What will happen to standards and quality control? The Internet is replete with unsubstantiated, erroneous information. Some online publishers have review panels but it is difficult to know which articles have undergone a review process and which have not.

Under the user-pay system, several mechanisms are in place to ensure that standards are being met. Publishing houses have been responsible for enforcing standards. The tried and true method is rigorous (and costly) peer review. This system relies heavily on experts to review and adjudicate the quality and veracity of the research. Although much criticism has been levelled at the peer-review process, an ideal replacement has yet to be proposed. When a manuscript is submitted to an established, reputable publishing house, many eyes will have scrutinized it before the paper appears in print or online. A key role of the journal editor is to review the reviewers, in order to ensure that quality is preserved and to protect against conflict of interest. The next level of quality assurance is the editing and production process. Copy editors are trained to catch inconsistencies and errors of omission and commission; they also make a manuscript more readable and thus more accessible to the reader.

Another of the many issues that have been raised is the storing of information — archiving. Archiving of material is an important function, currently assumed by publishers, that allows users to access published material quickly and efficiently. Systems have been developed to enable databases such as CINAHL, MEDLINE, and PsycINFO to index and catalogue manuscripts. At the moment, each journal must undergo a complex process before it is eligible for inclusion in one of these important indexing services.

Coalitions of scientists, granting agencies, and publishers have been looking into this issue. Their task is to propose the most efficient ways of making information available while safeguarding standards with regard to electronic publication. To date there have been much talk and some trials but no single “best” solution. It is too early to determine sustainability and long-term effects based on any of the trials. The idea of open access is a noble one, but, as Peter Blank observes, “the devil is in the details. How do we get universal access to medical literature?” (“The Gathering Storm,” 2005, p. 5).

Among editors of nursing journals, the debate on open access has yet to heat up. The topic was touched on last summer at the annual meeting

of INANE (yes! the acronym for the International Nursing Association of Nurse Editors) and there has been some exchange on the Association's listserv.

The majority of nursing journals are published by large commercial concerns. There are few surviving academic not-for-profit journals such as *CJNR*. We keep our subscription rates comparatively low and survive through an SSHRC grant, institutional and individual subscriptions, revenues from copyright permission, and volunteerism (all editors with the exception of the managing editor volunteer their time), and by running a very tight ship. The effect of the shift from open access to user pay will be very different for small, independent nursing journals and association journals as compared to large journals or those published by commercial firms. Some journals, such as the *Canadian Medical Association Journal*, rely heavily on revenues from paid advertisements in their print version to support their more academic online version.

It is too early to say how open access will affect *CJNR* and journals like it. In the meantime we are online through Ingenta and can be downloaded by all individual subscribers and those whose institutions subscribe to this service. We will observe from the sidelines, keep informed, participate in the debate, and watch as the process plays out. Open access will not go away. Stay tuned — the rocky road of uncertainty will continue for some time to come.

**Laurie N. Gottlieb**  
**Editor-in-Chief**

### References

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