Let’s Take Back Scholarly Journal Publishing and End the Wasted Spending

by William Miller

S cholarly journals were begun to facilitate communication among scholars, not to generate profits for commercial publishers. In recent years, however, most journal publication has been taken over, one way or another, by large commercial publishers which generate enormous profits from academic institutions, primarily through their libraries.

But technology now has advanced to the point that academia could reclaim scholarly journal publishing, and collectively save hundreds of millions of dollars each year for our institutions. We are one good foundation grant away from being able to establish a new, alternative system of scholarly communication that could fulfill all of our needs and save a fortune for hard-pressed institutions.

What is needed now are leadership, vision, and a willingness to endorse alternatives for validation of promotion and tenure. We are so close now to being able to do this that it would be a crime not to push through the last barriers for fear of change.

How We Have Reached Where We Are

In 1995, I wrote a piece for Library Issues entitled “Electronic Access to Information Will Not Reduce the Cost of Library Materials.” That prediction has unfortunately proven to be quite accurate. Back then, as electronic information was first making its appearance, I was trying to counteract the naïve belief that “electronic” meant “free.”

The past 18 years have certainly reinforced awareness that electronic access has not freed institutions from an ever-growing cost for research materials. The irony, however, is that such scholarly materials could now actually become substantially free, if only academic institutions had the vision and will to make it so, by rethinking the modes of publication and the process of promotion and tenure.

Through their libraries’ budgets, along with subventions to faculty and reliance on grant funding, institutions are shouldering an ever-increasing burden to acquire scholarly resources (chiefly journal publications, as libraries forego other forms of publication to maintain their subscriptions). Library budgets continue to be strained by commercial publishers’ annual price increases of 5 to 6 percent or more, charging whatever the market will bear, with no relationship to the overall rate of inflation, the Higher Education Price Index, or the diminution of institutional budgets (or legislative calls for 4-year degrees costing a total of $10,000).

In the face of large annual price increases, libraries have had to reduce the number of books and other materials purchased, in an increasingly desperate effort to maintain the journal subscriptions that are the foundation of faculty research and publication, especially in science and technology. How much longer this spiral downward can continue is unclear; it is a tribute to libraries that they have managed so far to juggle resources enough to prevent the entire house of cards from falling in upon itself. However, the party cannot continue forever, and as with most bubbles, the longer the inevitable is put off with one-time funds that may not continue, the worse the fall will be when it finally occurs.
The main reason for this circumstance is not hard to find. While information has moved substantially from the print to the electronic model, publishing now looks very different, but it really isn’t. The paradigm of commercial publishing for the academic market has not really changed significantly at all.

Whether publication is in print or electronic, publishers are in business to make money, and publishers of scholarly resources (unlike publishers of popular materials) are continuing to generate profits very successfully. They have a monopoly and a captive audience. Brain Research, for instance, costs more than $28,000 per year, but if researchers at your institution are engaged in the study of the brain, you have little choice but to subscribe, regardless of price.

Capitalism, in other words, has not operated very well in this arena. Commercial publication has stifled competition, rather than fostering it.

It is ironic that libraries and their parent institutions have, by and large, given monopoly power to the publishers in a variety of ways. Google’s massive book scanning project could not have been done without the library partners having made their extensive collections available for scanning, essentially for the price of a digital copy. Faculty members do the editorial and reviewing work of journals in their fields essentially without charge to the publishers, who nevertheless turn around and charge the editors’ and reviewers’ institutions handsomely for these titles. Publishers also place faculty on editorial boards, at least in part to create a lobby to pressure libraries to purchase (or not cancel) these titles, regardless of price or importance.

Many of these journals were originally published by scholarly societies, which gave them away to the commercial publishers for a small percentage of the profits, and to be relieved of the editorial and other tasks, only to be horrified to see the prices of their titles triple over and over again as the years have gone by. Many of these scholarly societies support the current system, nevertheless, having become addicted to the revenue that they receive.

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**Efforts at Revolt**

Librarians, faculty, and consortia have periodically fought back or threatened or attempted to revolt against the commercial monopoly over scholarly book and journal prices, though with little effect so far.

- The library director at SUNY Postdam recently refused to renew her institution’s subscriptions to the American Chemical Society’s suite of journal titles, which would cost more than 10 percent of her entire materials budget.
- In November of 2012, The Canadian Research Knowledge Network, a consortium of Canadian institutions, terminated its licensing agreement for members to use the journals of the American Chemical Society, over its use-based pricing model.
- Professor Timothy Gowers of the University of Cambridge has led a petition drive in which scientists pledge not to publish papers in Elsevier’s journals, or act as reviewers for their publications, because of their high prices. This petition, at http://thecostofknowledge.com, has over 13,000 signers at this time.

Such efforts sound impressive, but so far they have chiefly failed. Libraries capitulate, or end up signing up for marginally better terms than originally offered. Faculty sign petitions but, like most such efforts, these are largely honored chiefly in the breach rather than in the observance. Individual institutions of higher education, research institutes, statewide consortia, and even nations with centralized purchasing schemes rebel and in a few cases cancel subscriptions, but in the final analysis, an accommodation is usually reached and these subscriptions are ultimately reinstated, at a price which is still uncomfortable for the organizations, but not quite as uncomfortable as the original offer.

**Open Access Solutions**

The notion of Open Access, in which any reader has access to an article without having to subscribe (personally or via his or her institution) to the journal in which it appears, has been widely seen as the solution to the expensive journal problem. The fact that “open access” must still be paid for somehow, sometimes exorbitantly so, is not widely understood. Of course, anything that a library subscribes to and pays for, on behalf of its users, seems free to its users, but if a library subscribes to a journal, then only its users have had “open access.”

Librarians have advocated for free access to work funded by the U.S. Government. This and similar efforts in Europe have partially succeeded in opening up such work to public access. This effort, spearheaded in the U.S. by SPARC, the Scholarly Publishing and Academic Resources Coalition (housed within the Association of Research Libraries) has had some success.

PubMed Central, the host archive for NIH’s open-access research, typically sees more than 700,000 users retrieve more than 1.5 million papers each day. But again, such research is old by the time it appears in this repository, if it ever does (not all researchers comply with the mandate to deposit the research into an open repository eventually).

New open-access journals, such as the Public Library of Science’s seven PLOS titles, have arisen, with Foundation support. PLOS ONE,
the main publication of the Public Library of Science, has emerged as one of the most prolific publishers of scientific research, and is gaining rapid recognition and legitimacy. BioOne, the latest incarnation of the scientific journals originally enabled to go online through the support of SPARC, offer considerable open access content.

Commercial publishers, seeing the writing on the wall, have evolved various ways to introduce open access into their for-profit journals. Many commercial publishers now offer open-access options. This has meant charging authors, either personally, through their grant funding, through library underwriting, or other institutional support, to publish their article in an open-access mode. Such charges can range from $1,300 to as much as $5,000 per article. Even PLOS ONE, an open-access journal which was founded with Foundation support, charges authors $1,350 to publish an article.

Often, it is libraries which have been expected to underwrite the charges necessary to make articles open-access. BioMed Central, “The Open Access Publisher,” which is also owned by the commercial publishing firm Springer, offers a collection of journals spanning many areas of biology and medicine, all of which are made “freely and permanently accessible online immediately upon publication.” However, either the author or his or her institution or grant must pay a hefty charge to cover the cost of publication. BioMed Central leans heavily on libraries to subscribe to the collection, in order to “give varying levels of relief” from charges to researchers.

The European Organization for Nuclear Research (CERN) has fostered the creation of the Sponsoring Consortium for Open Access Publishing in Particle Physics (SCOAP³), enlisting libraries to pay hefty sums to publishers of 12 journals in the particle physics field to make all of their particle physics articles open access. In many cases, libraries would still also be paying for subscriptions to these same journals, as part of a large package of titles, yet they have largely supported this initiative, and would be chiefly responsible for paying these charges to the publishers.

One enormous positive aspect of paid open-access is that it makes information available to third-world nations and independent scholars who have no other means of access, and it is laudable that libraries and their institutions have been willing to underwrite this effort.

Commercial publishers have also waived author fees to scholars in parts of the world where payment would be impossible to come by. The fact remains, however, that it is the developed world which is paying for open access, if it exists, and from an institutional perspective, it matters little where the funds are coming from, as long as they are coming from one place or another within the same institution.

Open access still takes a major bite out of the budget, as does closed access. Recently, Harvard University, Cornell, Dartmouth, MIT, and UC Berkeley have announced a joint commitment to open-access publication, including the establishment of a fund to pay the publication fees of faculty publishing in OA journals. In England, the Research Councils UK National Working Group on Expanding Access to Published Research Findings (the Finch Report) has similarly endorsed the idea of public subvention of publication in commercial journals as a way of bringing open access about.

**New Alternatives Are Possible**

All of the open-access models described above have in common the fact that they do not question the primacy of commercial journal publishing. Indeed, they also do not question the notion of journal publishing itself. Open access advocates in the U.S. have focused on trying to force those who are publishing research funded with federal dollars to make that research open-access after an embargo period of 6 months or a year, after which it would be made publicly accessible via PubMed Central or some other public repository. But such an approach, laudable as it is, reinforces the notion that traditional publication, often via commercial journals, is the preferred approach. Similarly, in England, the Finch Report has been severely criticized as essentially suggesting a public funding mechanism to secure the future of commercial publishing, rather than seeking an innovative alternative.

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Alternatives are indeed possible. For instance, The Public Knowledge Project, a partnership of Simon Fraser University, Stanford’s School of Education, the University of British Columbia, the University of Pittsburgh, the Ontario Council of University Libraries, and the California Digital Library, has created the Open Journal Systems, software which allows libraries and scholars to create peer-reviewed journals without commercial involvement. So far, more than 11,500 such journals have been produced, including titles such as *ACS Digital Library, Management in Health*, and *World Journal of Medical Pharmaceutical and Biological Sciences*. Many libraries host and publish these journals (mine among them).

The University of Michigan Library, along with its MPublishing unit and Digital Library Production Service, is developing “mPach,” which is “a package of tools being developed to provide a modular platform to enable the publication of open-access journals in the HathiTrust repository.” This is software that would provide everything necessary to publish open-access journals online, and “allow integra-
tion with popular journal publishing tools such as Open Journal Systems.”

Four things stand out in thinking about these two software products. First, development costs have been modest, and the software can be sustained and developed with an annual expenditure of perhaps a million dollars (OJS’s estimate), coming from a relatively small institutional investment, foundation support, hosting fees for institutions which prefer not to host, and miscellaneous other revenue. Second, these systems will support all functions currently performed by commercial publishers, including editorial and peer review. Third, the systems can be university-based. Fourth, they can be extended beyond the realm of traditional journal literature into other forms of scholarly communication.

Thinking Outside the Box

In the U.S. alone, academic institutions spend hundreds of millions of dollars every year to support traditional journal publishing and subsidize commercial entities. Such expenditures are excessive and increasingly unsupportable. It is time now to think about alternatives. For a minute fraction of its current expenditures, academia, collectively, could mount its own scholarly communications system. Whatever the cost of such a system would be, rest assured that we are already paying it, plus far more, by supporting the existing system of journal publication.

PLOS ONE and its sister titles show that a new, open-access journal can quickly establish itself and become a prominent feature in the scholarly publishing landscape, and that narrow disciplinary titles are not necessarily productive or essential. But academia can go even further with the model.

By taking back our own communication system, now that technology makes it very possible to do so, we can save untold millions of dollars, free ourselves from servitude to the commercial sector, and make progress in showing those who complain about the cost of higher education that we have seized the opportunity to take advantage of new technology, break the paradigm, and roll back costs.

The main barriers are cultural. Can we eschew publication in the traditional vehicles, as a measure for promotion and tenure? Can societies give up the revenue they have come to depend on? Can a superstructure and governing mechanism be created, with an international dimension, that we can all buy into and support?

Paying to set up a new system is certainly an issue, but funding is perhaps the least of these issues, because the new system would be so much less expensive than the current one. Some major institutions would have to take the lead in establishing a new reality for scholarly communication, and all would have to agree to a tax of some sort, made more palatable by the fact that it would amount to much less than we are currently paying for the same quantum of information.

Beyond the Journal...

Libraries have long embraced the notion of free and open access, and have a rich tradition of sharing information and resources. Most academic libraries of any size already maintain digital institutional repositories, in which students and faculty are able to deposit a variety of materials, from faculty papers to dissertations. Libraries digitize their special collections, university archives, campus cultural events, and many other genres of content, and deposit all of this into their institutional repositories.

These repositories could easily become a part of a broader scholarly corpus, all searchable at the same time as the open-access journal literature is searched, and literature searching could thus become much richer in a newly configured scholarly information universe.

As part of this reconfiguration, it is now also time to question the concept of the journal, itself, as a relevant and useful entity. If the article becomes the primary mode of communication, rather that the journal title per se, then articles become one genre along a continuum of scholarly communication mechanisms, though perhaps they would continue to be the most important such genre.

Technology has now given academia the option to rethink scholarly article publication, and create a new mechanism for scholarly communication, while saving us all considerable expense.

Open access could now truly become not just open, but much less expensive and time-consuming to disseminate. This is an opportunity which should not be ignored. --miller@fau.edu