

Learned Publishing, 20: 83–84
doi: 10.1087/174148507X183542

It is the stated goal of the open access (OA) movement, in its various declarations, working groups and projects,¹ to make scientific research articles freely available to all via the Internet.

This goal might be accomplished in several ways. The two models emerging most strongly are first, the *publication of OA journals* (which provide all of their content freely to the public), and second, the *archiving of articles in repositories* that are freely available to the public, regardless of where those articles were originally published. In either case, articles may be provided on an OA basis immediately upon publication, or following an embargo period during which they are available only for a fee.² OA self-archiving is often discussed in the context of proposed legal mandates that would require all publicly funded research to result in free access to some version of the resulting article.

There is no question that OA offers potentially significant benefits to society. All other things being equal, free public access to scientific information is clearly a good thing. But all other things are never equal, and to know whether and to what degree any particular OA solution is really a good thing requires a calculation not simply of its benefits, but of its *net* benefits once costs are taken into account.

Like any distribution system, OA incurs costs. A decision to make content freely available does not make the costs of publication disappear, but only shifts them from the library or end-user to some other party. In the case of an OA journal, costs are most commonly borne by authors. Of course, the authors do not generally pay publication fees

GUEST EDITORIAL

Open access – clear benefits, hidden costs

from their own pockets, but rather rely upon institutional support or grant funding.

The costs of self-archiving are no less real, but are less obvious and direct. Setting up a repository costs money, as does its ongoing maintenance. More serious is the impact on publishers, which – to the degree that their content is archived immediately, completely, and in an easily found venue – will quickly lose the ability to charge for that content. It is highly likely that rational individuals and libraries will cancel subscriptions to journals whose content is immediately, freely, easily, and reliably available at no charge.

OA's champions sometimes draw a distinction between OA 'publishing' (i.e. the production of formal journals on an OA basis) and OA self-archiving. While this distinction can be useful in some contexts, it can also be used as a rhetorical gambit to mask the inevitable effects of pervasive and effective OA self-archiving. To make an article available to the public (whether in a journal issue or in a free archive) is, by any meaningful definition of the term, to publish it. The danger in saying that OA self-archiving is not publishing and therefore cannot harm publishers is that, if unchal-

lenged, it may lead the general public – including policy-makers – erroneously to believe that publishers have nothing to fear from OA. In fact, mandates that result in widespread and effective OA will inevitably drive at least some publishers out of business, whether or not such an effect is intended by those who promote OA.

All of which begs an important question: so what? It is not the business of the scholarly information community to keep publishers profitable, but to produce and provide access to information. A solution



Rick ANDERSON
*University of Nevada,
Reno*

© Rick Anderson 2007

that provides universal access without supporting publishers may be perfectly acceptable. There are two problems with this stance, however:

1. It assumes that publishers add no value to the scholarly information chain, and can therefore be harmed with impunity and without concern for negative consequences to the scholarly community in general.
2. It assumes that, in fact, publishers are not a *part* of the scholarly community, but rather entities from outside that community that enter the scholarly information space solely for the purpose of taking profit out of it.

In fact, most STM publishers are not profit-seeking corporations from outside the scholarly community, but rather learned societies and other non-profit entities, many of which rely on income from journal subscriptions to support their conferences, member services, and scholarly endeavours – as well as the peer-review and publishing activities that will remain important in a self-archiving environment. In other words, a publishing system that undermines the ability of publishers to make money in the marketplace thereby may also undermine scholars and scientists in their ability to do their work. As for non-profit organizations, to the degree that they need to be able to sell access to content in order to survive, effective OA self-archiving mandates will tend to drive them out of business. Recent studies of demand-side attitudes and expectations suggest strongly the truthfulness of what any rational person would intuitively assume: that immediate, full OA self-archiving leads inevitably to significant cancellations.^{3,4}

Even granted that damage to publishers is an inevitable consequence of effective OA, though, could that

damage be an acceptable price to pay for the public's free access to scholarly content? The answer to that question is beyond the scope of this editorial. What I wish to point out is that some degree of such damage will be an inevitable consequence of legally mandated OA self-archiving.

Author-funded OA journals will also incur hidden (but inevitable) costs. To the degree that authors write publication costs into grant proposals, funding will be redirected from the creation of knowledge to the dissemination of knowledge. In the United States, consider the National Institutes of Health: if that funding body were to set aside 0.5% of its annual budget to support OA author charges, the result would be a loss of \$140m in research funding. In the UK, a senior policy advisor for the Wellcome Trust has stated publicly that '1–2%' (or £4–8m) of its annual £400m research budget would be an acceptable level of support for author charges.⁵

Again, is this an unacceptable price to pay for the public's free access to the results of scientific research? That question cannot be answered here. However, it is worthwhile to ask the question: from which is the public likely to benefit more – free and universal public access to articles based on less medical research, or more medical research? While cancelled subscriptions will surely result in savings for universities, it is by no means obvious that such savings will offer as much benefit to the public as the research itself would have offered.

In summary: OA offers real benefits to society. However, the net value of those benefits cannot be determined unless its costs are computed as well. The purpose of this statement is not to call on participants in the scholarly information chain to fight against OA, but only to move forward while taking full

account of costs as well as benefits, and to work towards solutions that offer a net benefit to society. To the degree that society benefits more from research than from public access to research, and to the degree that it benefits from the continued viability of the publishing industry (both for-profit and nonprofit), the solutions that serve the public best may turn out to offer something less than complete and immediate free public access to all scientific information.

References

1. See the Berlin Declaration on Open Access to Knowledge in the Sciences and Humanities (<http://oa.mpg.de/openaccess-berlin/berlindeclaration.html>), the Bethesda Statement on Open Access (<http://www.earlham.edu/~peters/fos/bethesda.htm>), and the Budapest Open Access Initiative (<http://www.soros.org/open-access/read.shtml>).
2. Arguments about whether delayed OA is 'true' OA, important as that issue may be, are outside the scope of this statement.
3. Ware, M. *ALPSP Survey of Librarians on Factors in Journal Cancellation*. Working, Association of Learned and Professional Society Publishers, 2006.
4. Beckett, C. and Inger, S. *Self-archiving and Journal Subscriptions: Co-existence or Competition?* London, Publishing Research Consortium, 2006.
5. 'Wellcome support for open access', <http://www.biomedcentral.com/openaccess/archive/?page=features&issue=18>.

ALPSP strongly supports the sentiments in the above Editorial; in particular we agree that, while open access to the scientific research literature may offer benefits to society, the true costs of a change of business model must be investigated.

We would like to encourage other organizations and individuals to show their support for this statement by adding their names to the list of signatories at http://www.alp.org/ngen_public/article.asp?aid=723; the Washington DC Principles For Free Access to Science Coalition (www.dcprinciples.org) is one of the first signatories.