

## The orthodoxy of Open Access<sup>1</sup>

Snow White was working around the cottage one day when she got word of a terrible cave-in at the mine of the seven dwarves. She frantically rushed to the mine, peered down the dust-filled shaft, and called out: ‘Hello there, are you all right?’

A distant voice came back: ‘I believe the politicians when they say we can solve our healthcare problems, fix Social Security, increase defense spending, pay down the debt, balance the budget, and still cut our taxes’.

Snow White looked up. ‘Whew!’ she said... ‘at least Dopey is alive’.

We hear a lot about Open Access (OA) these days at publishing conferences, in scholarly magazines and even in the popular press. Advocates have tried to shape the debate as merely a call for experimentation, claiming they are only promoting a new business model: OA, they say, can be achieved by a simple shift of costs from subscribers to authors; OA is another model for paying the costs of publishing; OA is so obviously good for scholars that surely no-one can object.

The debate, however, is neither about experiments nor about business models. This debate is about single-minded beliefs—an orthodoxy that is promoted with religious fervour. A few quotes illustrate that fervour:

*From the Budapest Initiative:*

‘Removing access barriers to literature will accelerate research, enrich education, share the learning of the rich with the poor and the poor with the rich, ... and lay the foundation for uniting humanity in a common intellectual conversation ...’<sup>2</sup>

*From the Public Library of Science (PLoS), after acknowledging that scientific societies use journals to fund outreach:*

‘By switching to open-access publishing, a ... society has the opportunity to do an even greater good. There would be risks associated with such a change, both to income and possibly to membership, but societies that grasp this opportunity will be demonstrating a fundamental commitment to the public good ...’<sup>3</sup>

*And from an interview with Harold Varmus in the New Scientist:*

‘They (meaning societies) should serve the members, and when they don't, there's no reason to keep them going ... I don't believe that traditional business plans that depend upon the sale—the inappropriate sale from my point of view—of subscriptions to these journals should be how these societies finance their activities.’<sup>4</sup>

The proponents of OA are not just offering one more good idea; they are promoting the one true faith, and they demand that we all become converts.

There are reasons to resist that demand, primarily because this is a religion with a narrow view of research and a short-sighted perspective on publishing. Why is their view of research narrow? OA advocates do not seem to understand how research is done ... in general. Leaders of the PLoS suggest that authors pay a \$1,500 fee, which can be viewed, they say, as the final expense in our research projects. It is, they say, a small and insignificant expense in a huge grant. But, in mathematics, fewer than 1/3 of active researchers have any grant at all, much less one with spare cash and *many* scholars in *many* fields are doing good research without large grants. Many papers arrive from scholars abroad (more than half for American Mathematical Society journals), and many of those come from the developing world. OA is based on an arrogant

assumption—that most research is done in wealthy countries (or perhaps only in the USA).

This view of publishing is also short-sighted because it focuses on only one goal of scholarly publishing. The goals of scholarly publishing differ by discipline, however. At one extreme is clinical medicine, where journals seem to be viewed as professional development—a way to tell doctors and patients about the latest treatment or a new breakthrough. Other disciplines take a long-term view of journals, as a way to create an edifice—a construction built on scholarship extending both in space and in time. Journal articles form the building blocks of that edifice; each block rests upon the ones that came before and supports those that come after. In some disciplines (especially in mathematics) building this edifice is the key role of journals. More than half the citations in current mathematics journals predate 1990; more than a quarter predate 1980. Protecting the edifice and its integrity is not merely an intellectual exercise—it is an essential task for scientific societies.

Why does OA threaten such edifices of scholarship? I am not certain it does, not for sure—but I do worry because those who zealously promote OA focus on a single, short-term aspect of journals—reader access—and fail to consider any long-term consequences.

What kinds of consequences should they consider? Here is a sample of just four (among many others) that are bothersome in the author-pays model of journals.

**1. Reader access versus author access.** Although scholars gain access as readers in the author-pays model, they may *lose* a different kind of access, that is, the access to publish. The PLoS says that the ability to pay will not be an impediment, but that is disingenuous. Does this mean that if authors merely say ‘I cannot pay’, they will not have to? Who determines who has the ‘ability to pay’? And if most authors refuse, how much will they charge those who are left? Is this not dangerously like our present US health care system (surely something we don't want to emulate)? OA means that everyone has one kind of access—the ability to read the journal. Not everyone may have what is arguably the more important access—access as authors.

**2. Dependence on federal funding.** Scholarly publishing will surely become more dependent on federal funding in the author-pays model. That is good, the PLoS says. But a graph of the increases in research funding over the last 50 years looks like a random walk. Those who promote this view in the USA have been seduced by the heady past few years of NIH doubling. A government that cancels the Hubble telescope may not hesitate to pull the plug on something as esoteric as a journal. And remember the adage: *A government that is big enough to give you all you want is big enough to take it all away.*

**3. New sources of funding.** Journals will ultimately depend on funding other than author charges—things like sponsorships. Already, the PLoS accepts sponsorships of \$25,000–\$100,000 from pharmaceutical companies. They insist that these will play no role in the editorial process, and I am certain they intend that to continue to be true. But surely such potential conflicts of interest should trouble everyone. We do not have to wait to see what will happen: Oxford University Press is publishing a new journal on Alternative Medicine. It is OA and without author charges, sponsored by the Ishikawa Natural Medicinal Products Research Center. In any case, are sponsorships any more reliable than federal funding?

**4. Decision makers.** Perhaps the most ominous change in the author-pays model is subtle and hence easily overlooked: in moving from the subscription to the author-pays model, the decision makers change. In the subscription model, the decision makers are the librarians working with scholars; they decide which journals to buy. To stay in business, publishers must produce high-quality journals that scholars want to read. In the new model, authors make decisions. This

can have profound consequences. Publishers who want to thrive must convince authors to publish in their journals, and there are many ways to accomplish this, not all of them benefiting scholarship. There are some simple relationships here: fewer rejections mean lower costs; more acceptances mean increased revenues. Think about it.

Each of these effects is long-term—a change that will drift into place rather than burst into view. Will unscrupulous publishers gradually lower standards to attract more authors? Will unstable federal funding undermine scholarship over time? Will authors in certain disciplines or countries find themselves disadvantaged in the new system? It is true that reader access to scientific research is valuable. But do these *long-term* changes offset that *short-term* value? I do not know. But I do know we should not accept answers based on blind faith alone.

Should we experiment? Of course we should. But strident demands that we dismantle our system of journals and wild accusations about not serving our members are not experiments; they are religion based on narrow views and short-term vision.

I am not against experiments like the *PLoS*, but I *am* against efforts to destroy our system of journals in order to save it. Remember, the *PLoS* began as a boycott—a boycott that failed—not as an experiment. We should beware of experiments whose central purpose is to weaken our present journals system; the ultimate effect may only be to eliminate small publishers and strengthen the large.<sup>5</sup>

Many other kinds of experiments can and should be tried:

- Provide free access to abstracts *and* to references, fully linked. That gives every scholar the key information about the article, and allows readers to traverse the literature using the links.
- Provide full access to the articles after a period of time—six months, two years or five years. The period will differ by discipline, and should protect those who produce the journals while once again making it easier to traverse the literature.
- Grant authors greatly liberalized rights, to post or to use their articles for any legitimate scientific purpose. A consent-to-publish agreement is meant to guarantee that publisher *and* author have all the rights they need, now and in the future. It ought to protect the author as well as the publisher.
- Place all material in the public domain after 28 years! This may seem radical, but only because we have been conditioned by the entertainment industry. For hundreds of years, this was the standard for copyright. We could make it the standard again, at least for scholarly publishing.

These are all good experiments. They are already underway in a variety of settings, and they are tempting more and more publishers every day. But we are told these experiments are not necessary—there is a simple solution that will provide OA to all, pay for the costs of producing journals, sustain the system in the future, and solve *all* the problems of scholarly publishing ... if only we switch to the author-pays model.

But simplistic solutions to complicated problems are seldom right. I'm not Dopey ... and I don't believe it.

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## End Notes

1. Based on a debate at a meeting of the Society for Scholarly Publishing held in San Francisco, 4 June 2004. The topic of the debate was, 'In the long run, will free and open access to scholarly publications online benefit authors/researchers and the reading public?'
2. <http://www.soros.org/openaccess/read.shtml> (accessed June 2004).
3. <http://www.plos.org/faq.html> ; How will PLoS affect journals published by scientific societies? (accessed June 2004).
4. <http://www.newscientist.com/opinion/opinterview.jsp?id=ns24191> (accessed June 2004).
5. For an elaboration, see 'In defense of caution', which appeared in the *Journal of the Association of Learned and Professional Society Publishers*, <http://www.ams.org/ewing/Documents/Defense.pdf> .