

## Where are Journals Headed?

### Why we should worry about author-pay

People often ask me what I think will happen to journals. I'm a mathematician, but I know I won't find the answer there. Mathematics journals account for roughly 5% of scholarly journals<sup>1</sup>-- journals in the biological and medical sciences account for about 50%! And this has consequences: At nearly every meeting about journals, biomedical journals dominate the discussion.

The business model adopted by biomedical journals will most likely be the model adopted by all others because biomedical journals not only dominate numbers but revenues as well. Customers (in this case, institutional libraries) don't like to deal with multiple business models. They don't easily divide budgets into new pieces (say, subscriptions versus page charges), and they don't like making complicated purchasing decisions. Dominant products and services usually shape those of lesser importance, and biomedical journals are clearly dominant.

The real question is therefore where are biomedical journals headed, and the answer seems obvious: They are moving towards an open access, author-pay model -- one in which journal content is available at no charge to everyone, but authors pay a fee prior to publication. To many biomedical scientists, this feels like the right model. The purpose of publishing a biomedical paper is to make the results available now, not to preserve them for the future. The focus is on immediacy. Paying a "posting-fee" makes sense, and since most biomedical research is supported by grants (often large ones), a relatively small posting-fee is easily absorbed in the grant. This is the model underlying experiments such as the Public Library of Science, and it is the model implicitly promoted by the National Institutes of Health in the U.S., as well as by various biomedical organizations throughout the world. It is the logical successor to the subscription model when papers are made freely available after only a six month embargo.

Should we worry that all scholarly journals may follow a course dictated by one discipline's need for immediacy and availability of ample grant funds? Some open access proponents claim not. Everyone wins, they say, because not only do we gain universal access but, if the posting-fee is only the cost-of-posting, we will also save money -- lots of it. As for the lack of grants, institutional budgets will merely shift from subscriptions to "page-charges" (that is, author fees), so that even those without grant funds will be able to publish their research. It's simple, they say, a model that benefits all.

But there are good reasons to worry about this sanguine view of the new model for journals.

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<sup>1</sup> These percentages are derived from data in the Genamics JournalSeek database. See <http://journalseek.net/information.htm> .

(i) In areas where most research is not grant supported, universities and colleges will have to pay author-fees by reallocating money from libraries (subscriptions) to other parts of the institution (departments? divisions?) that need the funds. But reallocating money is never a simple process. Will those who pay author fees from grants (biomedical sciences) be willing to give their library budgets to those who cannot (say, the humanities)? I suspect not. Will administrators look for ways to save money by shifting funds to other uses? Long experience suggests they will. Will departments with prestigious faculties demand more of the funds than those with less prestigious? Of course they will, and this will exaggerate differences throughout the university. Various constituencies will vie for funds, with inevitable winners and losers. Perhaps that's not bad, but it's surely not "simple".

(ii) The change in who makes decisions will change the market; this is basic economics. In the subscription model, users and librarians make decisions; in the author-pay model, authors and publishers make them. To succeed in the subscription model, a journal must secure enough subscriptions by convincing users and librarians that it has intellectual value. To succeed in the author-pay model, a journal must convince enough authors to submit papers and then it must accept enough of them to make money. Price will vie with prestige. The most prestigious journals will charge more and will attract authors who can pay the cost (grants will help). The less prestigious journals will discount their price in order to attract more authors and will increase the acceptance rate. Some institutions may demand that scholars use less expensive journals; others will demand that their faculty publish only in expensive ones. The result will be a distorted and ugly market, driven by some of the same forces that drive vanity publishing. This is what happens when a market is driven by producers instead of consumers.

(iii) The author-pay model emphasizes immediacy. All money exchanges hands *before* the article appears when the author pays a "posting-fee". After a short period of time, the material in the journal has no monetary value to the publisher, other than to attract more authors. This is a subtle but profound change from the subscription model. Because anyone can post articles on the web, unscrupulous publishers will take advantage of this short-term view by accepting marginal papers (or just plain junk) into newly created journals in order to make easy cash. Those who think scholars will not publish in such "instant journals" have not looked at current marginal publishers (who are kept in check only because they have to convince someone to buy their publications). Almost surely, more papers will be published in such a system.

(iv) The large commercial publishers will thrive in this new model. In fact, all large commercial publishers already have units devoted to open access publishing and are (quietly) pushing the author-pay model. Why? They will now produce a product for which they get paid by the supplier, in advance, without risk, and with lower overhead (because they don't have to sell subscriptions). And because the large publishers are diversified, they can take advantage of a changing environment. Small journal publishers in areas that have no grants to pay author fees will quickly go under; large publishers will expand into areas that are most lucrative. Large commercial publishers will end up with

less competition in a market that is more easily manipulated -- a market they will dominate even more than now. Of course they are pushing the author-pay model!

The fundamental problem for journals is simple – we pay too much for them! It's not access (which has never been better). It's not our business model (which is shared responsibility). It's not *how* we pay but rather how *much* we pay!

Many proponents of the author-pay model think we can solve this problem by switching to a new business model. Some have faith that publishers can be persuaded to set author fees only slightly higher than publication costs. But publishers who have profited from subscriptions in the past will certainly expect to profit from author fees in the future. (I can assure you that commercial publishers have this expectation.) Others believe they can run inexpensive author-pay journals themselves to compete with established journals, miraculously succeeding with upstart author-pay journals where upstart subscription-based journals have failed in the past. But there is no basis for this optimism. Indeed, since we will likely publish far more than ever before, we will likely spend far more as well. And here's the largest worry about the author-pay model: It does not solve the fundamental problem of journals -- this model makes it worse!

We are therefore heading in the wrong direction. Scholarly journals are sick and they need attention. But instead of following a regimen of reasoned and disciplined remedies - - instead of driving down prices by the steady, concerted actions of authors, editors, and librarians -- we are bleeding the patient with open access models, trusting in miracles (that university administrators will shift funds from those with research funds to those without), and praying that publishers will repent their ways.

It is ironic that those leading us down this path of folk remedies and faith healing come from the biomedical sciences.

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