The Role of Subsidy in Scholarly Communication

Scholarly communication is being disrupted. As I have argued elsewhere, open-access journals are a disruptive innovation as Clayton Christensen would use the term. But the Internet and related digital technologies open an opportunity for all forms of scholarly communication to be disrupted. These disruptive innovations will make the vehicles for communicating scholarship faster, easier, and cheaper. Though it is not clear which business models will support these innovative ventures, it is clear that many of the established scholarly communication players are becoming obsolete—or, at a minimum, their roles are diminishing. As this change plays out, established institutions and firms will battle to preserve their roles and also the dollars they extract from the system while new entrants will struggle to find the resources they need even if the products and services they offer are superior.

Without a clear understanding of the nature of scholarly communication, we will not be able to create the new tools and new economic models necessary to adapt to the radical changes in technology. Those of us who hope to shape what scholarly communication will become need to understand that scholarly communication, like the larger research enterprise, is a public good and that, as such, it requires subsidy to maximize its benefit. Subsidy exists in the established system, but we often do not see it because the channels the subsidy travels are long-standing and familiar. As we consider new mechanisms for scholarly communication, we need to look carefully at the established system. We need to follow the money and see where it goes, determine the value provided by those who take the subsidy, and decide whether there are cheaper or better means for providing that value. Changing how this subsidy is channeled will be one of the most important moves we can make in creating new business models for the distribution of scholarly content.

Once we understand that it is subsidy that drives the economies of scholarly communication, several things become clear:

1. The subsidy exists because we all provide it. It is a community resource. Our institutions, mostly governments and foundations, collect the subsidy and redistribute it in ways that attempt to maximize a benefit that would not otherwise be maximized. Those who argue the inappropriateness of governments insisting on public access or openness are missing this point. It is quite reasonable for governments—and other institutions that manage common resources, like universities and foundations—to establish the means by which the subsidy they provide is channeled. Although the established system of scholarly communication uses some market mechanisms, the subsidy is not provided to maintain private commercial enterprises. Rather, it is provided to make research results available as easily and as broadly as possible.

2. As we change the system, we need to both reduce exploitation by those who would extract monopolistic rents from it and eliminate those parts that are inefficient. We need to restrict greed and outdated, ineffective practice. The established mechanisms of scholarly communication have some of each, and we must work to eliminate both.

3. The way in which subsidy is used creates incentives for the various participants in the scholarly communication process. As we redesign the system and rechannel the subsidy, we must create incentives that will motivate scholars to create and disseminate their work in ways that ensure it has the largest possible societal impact at the least cost.

In the established scholarly communications system, the majority of the subsidy flows from governments and foundations to college and university libraries and from libraries to publishers. There are other contributors to the system, but most of the money flows through this channel. In a paper-based system, this was a good arrangement, at least until some publishers realized that their journals were monopoly goods and that they could extract excessive monopoly rents from libraries. In some cases, these publishers were scholarly societies that used this excess subsidy to lessen membership dues and enhance their programs—a practice that, it could be argued, contributed to the scholarly enterprise. In other cases, the publishers were for-profit corporations, and the subsidy they extracted as excess monopolistic rents was paid to shareholders outside the scholarly ecosystem. It is less clear that this was an appropriate use of the subsidy. Regardless of the motive, the result was subsidy being pulled out of the system.

The paper-based system was also expensive and contained numerous inefficiencies, many of which persist. Much of the subsidy went to running libraries. Managing paper is not easy or cheap, and since library size contributed to institutional status, research libraries had little incentive to collaborate to create a well-coordinated system. In today’s largely digital world, these legacy practices are an increasingly unaffordable overhead in the system.

Although there is significant concern about how to sustain open access and how to preserve monographic publishing in the face of declining sales for academic books, the simple fact is that the money exists. There is sufficient subsidy in the system. The challenge is in moving the subsidy around. First, the
also argue that hybrid open access, which doesn’t change the business model, is not an efficient long-term solution. It is certainly the case that the article-processing fee model has spawned some bottom-feeders. Finally, digitizing specialized scholarly books and selling them in large blocks, as was done with the University Press Content Consortium (UPCC) on Project MUSE (http://muse.jhu.edu/about/UPCC.html), appears to be a limited success at best.

Librarians, publishers, and scholars face many challenges as the scholarly communication system is reshaped, but one fact should provide hope: lack of money is not the problem. The money to do what is required exists in the system. The disruptive new systems will be cheaper than what we have today, which is based on practices and institutions designed around paper, printing, and the post office. The problem is that all of this money is committed to the old system. Libraries continue to build large book collections and subscribe to as many journals as possible. Even as research libraries profess to hate the “big deal” with large commercial journal publishers, there were more such deals in 2012 than there were in 2006.

The challenge is to abandon what we have done in the past and commit to the future. Our legacy practices all have opportunity costs, and the opportunity we are forgoing is the possibility of devising a faster, cheaper, and easier scholarly communication system. If we can clearly see what is at stake and realize the community costs, and the opportunity we are forgoing is the possibility of devising a faster, cheaper, and easier scholarly communication system. If we can clearly see what is at stake and realize the considerable resources that are at our disposal, we will find ways to create the future.

Notes
3. PLOS expenditures, as reported on its 2011 financial disclosure form (IRS Form 990, http://www.plos.org/wp-content/uploads/2012/10/2011-Public-Disclosure.pdf), were $18.3 million, and it published 16,263 articles in 2011, for a per-article cost of $1,128. (Article count based on a date search of the PLOS website.)

David W. Lewis (dlewis@iupui.edu) is Dean of the IUPUI (Indiana University–Purdue University Indianapolis) University Library.