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## Library budgets, open access, and the future scholarly communication

## Transformations in academic publishing

An important political battle is playing out in Washington that pits the interests of traditional publishing against the emerging model of open access. The Association of American Publishers has created an advocacy group Partnership for Research Integrity in Science and Medicine (PRISM), which argues that open access will undo peer review and that government mandates are akin to censorship. As the Association of Research Libraries argues in response, This effort is clearly aimed at preserving established publishing conventions and the revenues of established publishers.

The results of this battle will have important consequences for research and for the academy, but in some ways it masks a fundamental transformation in scholarly communication that is inevitable.

The truth is that established publishing conventions and the revenues generated from them cannot be preserved. Nor should they be. Universities and their libraries have danced around this issue for at least the last decade and it is now time to be frank about what the future holds for scholarly communication and how academic libraries will spend the money they devote to collections.

## **Fact one**

We need to begin with a fundamental fact the cost of scholarly journals has increased at 10 percent per year for the last three decades. This is over six times the rate of general in ation and over two-and-a-half times the rate of increase of the cost of health care. Between 1975 and 2005 the average cost of journals in chemistry and physics rose from \$76.84 to \$1,879.56. In the same period, the cost of a

gallon of unleaded regular gasoline rose from 55 cents to \$1.82. If the gallon of gas had increased in price at the same rate as chemistry and physics journals over this period it would have reached \$12.43 in 2005, and would be over \$14.50 today.

Despite these price increases most academic libraries have continued to purchase as many scholarly journals as they possibly could and have decreased their book purchasing to do so. It is now time to ask simply: Why are we doing this? For what other product would we put up with price increases at this level?

My view is that the time has come to simply stop. But even if libraries wished to continue purchasing journals as they have in the past, they will not be able to do so. The money is simply not there. According to Center for the Study of Education Policy at Illinois State University, state tax support for higher education increased not quite 55 percent in the ten-year period from 1997 to 2007. This is twice the rate of general in ation, but less than half the rate of increase of journal prices. Tuition increases are being limited because of political pressures. The ability of colleges and universities to increase revenues has been, and likely will continue to be, constrained. Even when the money does get to campus, libraries must compete with a variety of needs ranging from the increases in the cost of utilities to the need to increase scholarships and to provide support for large numbers of new students. I think it is safe to predict that for

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the foreseeable future few academic libraries will nd their collections budgets increasing at much over the general rate of in ation, well below what is required to maintain current collecting patterns.

Some journal publishers will lose income and some may suffer economic hardship as a result of library s inability to keep up with price increases, but if publishers cannot provide a superior product at a cheaper price, then that is what should happen in the competitive market. If the cost of any other product had risen at this rate, we would have long ago found a cheaper substitute. Unfortunately, in the past there has been no good substitute for subscription-based scholarly journals. Now, fortunately, there is: open access.

## **Fact two**

This brings us to the second fundamental fact with the advent of the Internet, the Web, and associated technologies there have been two transformations of scholarly communication. The rst, which is well understood, is the conversion from print on paper to electronic versions of journals and books. While many are still uncertain about the value of electronic books, there is nearly universal agreement that electronic journals are a much better way of delivering journal articles than paper journals housed in libraries. This is the doing the same thing better phase of the application of the technology. And we are paying the same. The move from paper to electronic journals has not markedly changed the prices libraries pay to publishers. The second transformation the doing the new and better thing phase of the application of Internet technology will be delivering journal articles through a variety of open access publishing models that will make the products of scholarly research freely and easily available to anyone with a Web connection. This will enlighten those outside the academy, enhance teaching and learning, and quicken the pace of discovery.

Exactly how these developments will unfold is not yet clear, but I am convinced that one piece of the puzzle will be that academic libraries will commit to curate open access digital content that is important to their campuses. What does curating content entail? There are at least three things academic libraries should do:

- 1. Digitize special collections, archives, and other unique material. Most academic libraries are doing this already and the result is the open and easy availability of much important content that has in the past been available only to those who could travel to distant libraries and archives.
- 2. Establish repositories to provide access to and archive the digital documents and data that result from the research done on or of importance to the campus. The most obvious place to begin is theses and dissertations. There has been an ongoing debate concerning the merits of institutional versus disciplinary repositories that tends to cloud the real issue, which is that universities need to support repositories of both types.
- 3. Provide the infrastructure for open access publishing, particularly of journals. This should include hardware and software for access and long-term preservation, and staff to support the process. This is best done in conjunction with university presses, but if necessary it can proceed without them. For smaller institutions, working collaboratively may be required.

While there is sometime external funding available for digital projects, it is important that the curation of digital content be base funded. Libraries are in the business of keeping materials for the long term and this cannot be done on soft money. In the future, supporting the full variety of open access projects will be a major part of what academic libraries will do. They will pay for this effort at least in part by purchasing less published material. I do not expect this to be an abrupt change, rather over the next ten to fteen years libraries will end up spending about the same amount of money, in real dollars, as they do today to purchase published content. But because of increasing costs, this will mean a slow but continuous decline in the amount of published material purchased.

I would suggest that academic libraries need to declare their intent to follow this

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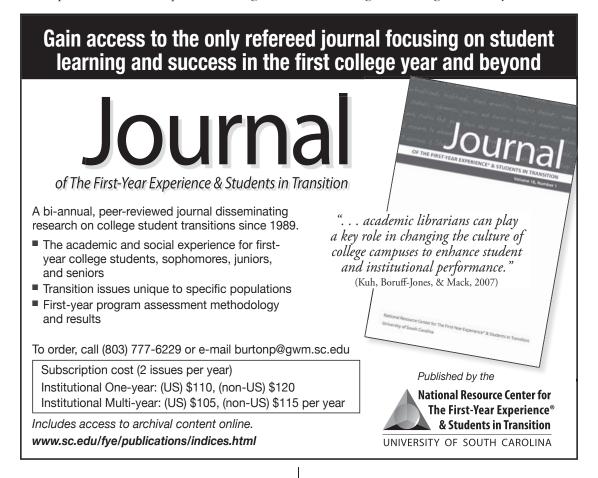
strategy. By doing so, publishers and those on campus can prepare for the inevitable transition. I would propose a simple budget strategy something like the following:

- 1. Assume the library collections budget will rise at no more than the rate of in ation (as measured by the Consumer Price Index).
- 2. Subtract 1 to 2 percent of the collections budget every year to add to the curation fund. This would slowly build this part of the budget.
- 3. Reserve the current percentage of the library's collection budget that is allocated for books and use it to purchase both print and electronic books. In most academic libraries this will be 15 to 20 percent of the collections budget. There are few currently available open access alternatives for books, and while this may change, for now we need to preserve our collecting in this area
- 4. For the near term, databases will need to be maintained at about their current level, but one can foresee that Google Scholar will replace some subscription indexing and

abstracting services in the not too distant future.

5. Spend the remaining portion of the collections budget on journals recognizing that this will be a constant or slightly declining amount each year and that given the 8 to 12 percent rate of increase in the cost of scholarly journals, journals will have to be cut from the collection on a regular and continuing basis. While this will be painful, we can expect that over time open access alternatives to the titles we are forced to cut will emerge.

The central truth for libraries and the campuses they support is that scholarly communication based on subscription journals is no longer affordable and that better and more economical alternatives are at hand. There will inevitably be very dif cult campus conversations that will be required to sell and implement such a budget strategy, but there is no real alternative. The question for librarians, faculty, and administrators is do we wish to plan for and invest in the future, or hold on desperately to the past? The decision is ours, but change is coming either way.



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