



## October 1998 Membership Meeting Confronting the Challenges of the Digital Era

### **Moving With Dispatch to Resolve the Scholarly Communication Crisis: From Here to NEAR**

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I begin with a disclaimer; this topic has occupied a significant part of my attention for only two years. Having just read the marvelous new book on this problem, *The Mirage of Continuity: Reconfiguring Academic Information Resources for the 21st Century*, edited by Brian Hawkins and Patricia Battin, I acknowledge those who have had this problem on their radar screens for a decade and understand it in extraordinary detail.

My perspective is that of the provost of a research university. We place high value on the library because of the obligation to preserve knowledge for the future and because of the instrumental value the library has both in educating our students and in making possible our contribution to the production of new knowledge through research.

As a provost I have to stretch our budget to address many needs. The library has not fared well over the last decade, even though it has maintained its share of the university budget. That constant budget share has permitted the library to purchase a declining proportion of the scholarship that has been produced. In fact, in order to purchase the same proportion of published serials and monographs we purchased a decade ago, our acquisitions budget would have had to have increased by 250%. Instead, our university budget and library acquisitions budget has increased only about 50%. I do not know of any university with sufficient increases in its budget over the past decade to hold constant the proportion of the world's scholarship purchased by its libraries. More narrowly, I do not know of any university that in the past decade had increases in its acquisitions budget sufficient to buy even the same number of serials and monographs it bought a decade ago, much less keep up with the tide of new scholarship.

I became actively involved in the scholarly communication crisis because the KU faculty became alarmed by the annual notice that some serials would have to be canceled and because fewer of their requests to purchase new serials and monographs were granted. Faculty alarm grew as lack of access began to limit their ability to access published research and even to assign readings to graduate students. We responded as you did, with some increased funding, increased interlibrary loan activity, cooperative buying ventures, use of electronic document delivery, etc. But these responses were palliatives, not solutions. Access to scholarly communication is being limited by the explosion in cost and increases in sources available.

The natural reaction to such limitations on our campus was for some faculty to blame the librarians. Of course, faculty soon saw past this for they knew that if the library had enough resources it would accommodate their requests. So the focus quickly shifted to "blame the Provost." After a few years of the librarians work to explain the issues and my speaking on a piecemeal basis about the nature of the problem, I chose to discuss it in our fall 1997 opening faculty convocation. Key to any success was defining the problem confronting us. It is not "the library problem" or "the Provost's problem," but "the scholarly communication problem." The address was effective. KU faculty are now generally aware that extraordinary costs of scholarly communication must be controlled and new vehicles must be created to gain access to and preserve the burgeoning volume of available scholarship if we are to maintain access to important scholarly information.

Having said that, I must admit that I did not deliver a panacea. I merely helped faculty understand the parameters of the problem and suggested some efforts they could take individually as well as through their scholarly organizations to keep the problem from growing worse.

It is time we do focus on panaceas, for this crisis is growing to the point that scholarship and education will be damaged significantly if we do nothing.

I shall limit my remarks about a solution to the scholarly journals portion of the problem. While scholarly journals are not all of the problem, they are the most acute part of it. ARL statistics show that the unit cost of scholarly journals climbed 169% from 1986 to 1997, while monographs went up 62% and the CPI went up 46%. Surely a cost increase nearly quadruple that of the general level of prices warrants our attention.

If we are to keep scholarship available in our libraries we must assert that, at some point in time, all of it must become part of the public domain. We must then establish a way to make that material permanently accessible to scholars and the public in a useful fashion.

I no longer believe solutions that fail to deal with the ultimate ownership of scholarly communication, i.e. copyright, are viable. I have reached this conclusion because I believe in the market. What the market is telling us now is that the scholarship published in many academic journals has real economic value. While it is fashionable to characterize all scholarly journal articles as "seldom read" and "of primary value only in negotiating the academic credentialing game," the truth is far different.

Some commercial publishers of academic journals in science, technology, medicine, and, lately, the social sciences, have demonstrated the economic value of scholarly journals by raising their prices at rates far in excess of the cost of producing them. We know they raised prices faster than costs because this area of publishing has become extraordinarily profitable. Our individual efforts to combat these cost increases by canceling those journals that were inordinately expensive on a per use basis has not affected their profitability. This is further evidence that scholarly journals contain something of real economic value. Even if the rates of increase in prices do finally decline, this does not show that publishers have ceased to exploit the value of journal contents. Even monopolists do not forever raise prices at a higher rate than do competitive producers. The difference between competitively organized markets and those that tend toward monopoly is the level of prices and volume of product produced, not the continuing rate of increase in prices. What we need to make scholarly communication affordable is a reduction in price back to competitive levels, not a reduction in the rate of price increase.

I would be more sanguine about solutions other than those that deal with copyright ownership if I believed that many non-profit scholarly associations would continue to ignore the market worth of the material contained in their journals. Recent evidence is that they are cognizant of the worth of scholarship and are beginning to exploit it. The data I present in support of this view is for journals purchased by the University of Kansas Libraries. I consider this data representative of other ARL libraries because we have an extensive journal collection and past unit acquisitions cost increases have mirrored those averages published by ARL for all member libraries. At KU, from 1994 to 1998 the unit cost of journals published by not-for-profit publishers went up by 34.16%. While this is sharply lower than the 56.63% increase of the for-profit published journals in our collection in this same period, it is dramatically higher—three times higher—than the 10.58% increase in the U.S. Consumer Price Index for this same time period.

From these data I hypothesize that some non-profit scholarly societies have learned that they have something of great value to sell and are beginning rapidly to convert that value into greater financial support for their societies. I take little comfort in the fact that they have not yet gone so far as their profit-making brethren. I fear that if society members were now faced with the choice of raising dues or paring back their organization's human and physical infrastructure in order to make scholarly material more accessible to scholars, that they would choose to leave journal prices high.

Indeed, it is because of the demonstrated economic worth of material contained in many scholarly journals that I do not subscribe to the popular notion that a cure for the scholarly communication problem is for universities to cease evaluating scholarship by counting a faculty member's publications. In addition to overlooking the reality that quality universities do not evaluate quality "by the pound," such a notion ignores the fact that universities are not the only entities who profit from the research results contained in scholarly journals. Great universities must be about encouraging the generation of knowledge through research and the spread of that knowledge through publication. Any institution that evaluates a faculty member on volume of publication without considering the quality of the work does not deserve to be considered a university. Thus, I vigorously reject the notion that in an expanding age of knowledge, reduction of the quantity of scholarship published is a viable solution.

Even if we were to somehow reduce the rate of increase in prices of existing journals, the birth rate of new journals is so high that we still could not afford to buy even a large number of them. While many new journals do not merit acquisition, others are of high quality and constitute the sole access to scholarship in some very narrowly defined academic fields. Failure to add the latter journals to the collection will cause specialized scholars and their students to lose timely contact with their most important scholarship. A viable solution must deal with both the problem of price increases for existing journals and the rapidly expanding number of new journals.

## **THE PROPOSAL:**

My proposal is simple: We must find a way of requiring that when a manuscript prepared by a U.S. faculty member is accepted for publication by a scholarly journal, a portion of the copyright of that manuscript be retained for inclusion in a single, publicly accessible repository, after a lag following publication in the journal. While the devil is in the details, the details are not important to the principle of my proposal. Moderate alteration of the

details I will describe would still leave my proposal a viable solution to the problem we face.

At present, essentially all scholarly journals require that all rights to copyright pass from the author to the journal when a manuscript is accepted for publication. In this proposal, only the exclusive right to journal publication of the manuscript would pass to the journal. The author would retain the right to have the manuscript included in the National Electronic Article Repository (NEAR) ninety days after it appears in the journal. By federal law, by funding agency stipulation or by contractual agreement with the University employer, the faculty member's published article would be transmitted to NEAR upon its publication. NEAR would index manuscripts by author, title, subject and the name of the journal in which they appeared. (The electronic form would be searchable on many more dimensions.) NEAR would see to it that articles are permanently archived, thereby assigning responsibility for the solution to another problem brought to us by the electronic age. NEAR could be funded by universities through "page charges" per article included, by federal appropriation, by a small charge levied on each user upon accessing articles or by a combination of these methods.

I do not expect that this plan will generate substantial opposition from faculty members as it guarantees them access to all scholarship published by U.S. faculty members wherever they happen to be located or employed. The proposal by its universality addresses the fear now extant that any attempt by faculty members to withhold any part of the copyright will lead journals to reject manuscripts. If the requirement to withhold a portion of the copyright for purposes of having it included in NEAR were ubiquitous in U.S. universities, no journal, domestic or foreign in origin, would cut itself off from the possibility of publishing all work arising from U.S. faculty. Thus no U.S. faculty members would need fear that their manuscripts would be rejected because of partial copyright retention.

Of course much scholarship is generated outside of the academy and by scholars abroad. If journals find that the work of U.S. university authors must appear in NEAR, surely they would find little reason to oppose inclusion of all their articles in NEAR. The current U.S. Government requirement that only a portion of copyright of articles authored by its employees be surrendered surely would quickly be modified to require inclusion of such articles in NEAR. Employees of private firms commonly must receive clearance from their employer before they publish an article based on their work. It would seem reasonable that once one decides that something a firm paid to produce can be published, granting wider exposure by including the article in NEAR would be acceptable. Thus, it is reasonable to expect that work published in U.S. journals by international scholars or by government or private scientists would be included in NEAR.

Journals now generally have exclusive ownership of the copyright to manuscripts they publish nearly into infinity. Under my proposal, this exclusive ownership right would be truncated to a period of 90 days. While 90 days is arbitrary, in my view, it is enough time to leave sufficient value with the journals. Journal subscribers will continue to pay for more timely access to information. But free or low cost access after 90 days would surely depress the extraordinarily high prices now charged by some journals and curb the publishers' ability to increase those prices seemingly without limits. Since all scholarly journal articles would pass into the public domain in 90 days, individuals, libraries, agencies and businesses would choose to subscribe only to those journals where timely access justified the cost. I suspect that with reasonable pricing most journals would pass this test. Similarly, new journals would be free to spring up, but their impact on library costs would be tempered by the reality that the material they contain would be in NEAR 90 days after publication.

In response to proposals that bear some of the elements of this one (for example, see Bachrach et al. in *Science* 281 [Sept. 4, 1998]: 1458), scholarly journals often proclaim that they add value through their refereeing, editing, printing, etc., and therefore deserve to reap the fruits of their efforts by retaining exclusive rights to articles. I do not deny that journals add value. Furthermore, I believe that any solution that attempts to eliminate journals would do scholarly communication a great disservice. In my field, the title *American Economic Review* tells the reader a great deal about the quality of the articles within. In an age with more information available than time to read it, every screening aid of this nature is valuable. What I do deny is that journals are entitled to all the value of an article. What they are entitled to is the value that their refereeing, editorial and publishing processes added. As I illustrated above, both for-profit and not-for-profit publishers are raising prices far more rapidly than their costs are increasing in the effort to gain all the economic value in the articles that they publish, not just the value added.

Without universities that pay the salaries and contribute the space, supplies and equipment to scholars, much less new knowledge would be generated. Universities receive the funds to make expanded knowledge creation possible from all levels of government, and from foundations, private contracts and tuition paid by students. The majority of the value added by universities comes from these sources and it is time that an appropriate portion of this value be claimed on their behalf to ensure future creation and transmission of knowledge. This proposal returns the appropriate proportion to universities while allowing others who have marginally added value to be compensated for doing so.

How do we get from here to NEAR? An easy solution would be the passage of a federal law requiring that the work published in scholarly journals by U.S. university faculty members be deposited in NEAR within 90 days of the date of its publication. A variant would be to require that all work arising out of federally funded research subsequently published in a scholarly journal be deposited in NEAR. I would welcome the former and cannot envision any serious political opposition to the latter. NEAR, of course, would have to be created by the same legislation. Federal agencies, as a condition of research grants and contracts, could also require deposit of resulting articles in NEAR.

Alternatively, an organization like ARL, AAU, NASULGC, the Library of Congress or a private foundation might establish NEAR. Then, university by university, we would have to pass copyright ownership policies that require deposit of journal articles in NEAR. We in Kansas are moving in this direction in the hopes that such a vehicle will soon be created. The intellectual property policy that will be considered by the Kansas Board of Regents in October and November includes the following<sup>1</sup>:

Upon the establishment of national governmental or nonprofit entities whose purpose is to maintain in an electronically accessible manner a publicly available copy of academic manuscripts, the Kansas Board of Regents will review each entity and upon determination that providing the manuscripts will not jeopardize the publication of articles or infringe on academic freedom, require the creator(s) to provide the appropriate entity a limited license for the use of each manuscript.

I add this proposal to those already on the table. There is room for multiple approaches. Separation of review from publication is compatible with this proposal and the experiment with that concept should continue. The very admirable SPARC project of ARL has the possibility of quickly addressing cost problems in specific areas and also deserves support.

But any proposal that does not guarantee the ultimate right of the academy to inexpensive and open access to the scholarly communication it generates will not solve our problem. We must deal with the thorny problem of copyright ownership. I believe I have outlined a proposal that does so while protecting the legitimate rights of all who make scholarship possible.

Please evaluate this proposal and either help perfect or reject it.

Finally, let me thank ARL for its constant effort to draw attention to this problem and for helping to shape solutions.

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### Endnotes

<sup>1</sup> This policy was approved in November 1998; see <http://www.ukans.edu/~kbor/intelrev.html> for the full policy.

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