The purpose of this report from Library Committee is to describe our understanding of the current and growing crisis in scholarly communication. The problem is one research librarians have been grappling with during the last 20 years or so. However, it is only recently that the situation at libraries, such as OSU, has deteriorated to the point of cutting huge portions of serial subscriptions. At large and small higher education institutions around the country, the general university community, faculty senates, and individual faculty researchers are beginning to recognize the gravity of the problem, and have begun to take action to address what has become a dysfunctional system of scholarly communication.

**The Serials Crisis**

The problem has to do with both the cost of journals and the fundamental control of information. The focus of this report is on the costs as well as the equally important question of control and ownership of scholarship.

Data collected by the Association of Research Libraries indicates that the cost for serials by research libraries, such as the OSU Libraries, increased 227% between 1986 and 2002. (In the same period, the consumer price index increased 57%.) These rising prices are driven primarily by journals dedicated to science, medicine, and technology. During the 1990s, such serials had annual price increases of about 12%, on average. OSU Libraries is typical of other research libraries. The 2002 spending on serials was three times that spent in 1986. The end result is a decline in the number of serial titles purchased and directly available for faculty and students use.

Studies have suggested that this rise in journal costs results from the increasing commercialization of science publishing. These commercially published journals are much more expensive than professional society, not-for-profit journals (although there are exceptions). Commercial publishing organizations are publishing seven times more journals than are professional associations (e.g., McCabe, 2000; also see Case, 2002), whereas 20 years ago there were many more society-owned journals than commercially-owned journals.

In the last 20 years, many not-for-profit journals, strapped for money, have been bought up by commercial publishers. Elsevier, the largest commercial publisher, owns approximately 1,400 journals. To bring this closer to home, the OSU Libraries subscribes to approximately 400 Elsevier journals at a total annual cost of $800,000. This represents 20% of the entire materials budget and 25% of the serials budget. The essential problem is that the rapidly rising cost of these journals is occurring in an economic context of flat or declining funding for research libraries.

These rising serial costs are out of control, and way beyond the consumer price index. Library budgets in general, and OSU in particular, have not had corresponding budget funding increases to match the increases in serial costs. It is unrealistic to expect the OSU Libraries budget to increase significantly in the near future. However, although we would all like to see a more robust funding level for the OSU Libraries, the root problem here is not library funding. Even if library funding were increased dramatically, the serial crisis would still be with us.

The immediate and obvious strategy for this serials crisis is to cancel journals; perhaps cut the most expensive and lowest use journals. Research libraries everywhere are engaging in the painful process of terminating subscriptions to large numbers of serials. In the 1990s,
the University of Wisconsin library cut more than 7,000 subscriptions to academic journals. In the last five years, the OSU Libraries (with a much smaller collection than Wisconsin) has cut approximately 1,500 journals. And the cuts go on and on.

However, there is a consensus in the research library community that canceling large numbers of journals and buying fewer monographs are reactive, superficial, and short-term solutions to this problem. In fact, buying fewer serials only intensifies the problem for researchers and publishers. Scholars find it harder to find articles they need in their library collections, and publishers simply raise the prices of surviving journals to offset the loss of revenue from eliminated journals (Branin and Case, 1998).

Given the growing crisis in serial subscriptions and dissemination of faculty scholarship, the OSU Libraries has responded through a variety of avenues—with the goal of providing faculty and students with the best information in the most efficient format. For example, membership in consortia such as Orbis/Cascades and the Greater Western Library Alliance have enabled the OSU Libraries to join others in negotiating better pricing agreements as well as increasing access to monographs and document delivery of journal articles. Membership in the Center for Research Libraries gives OSU faculty and students access to those more obscure but critical publications that the OSU Libraries would simply be unable to purchase. A recently concluded agreement with the University of Oregon's Knight Library will not only improve delivery of journal articles between schools but will also establish a protocol whereby the two libraries will reach an agreement on shared journal collections and retention. On the national level, OSU Libraries is a full participant of SPARC (Scholarly Publishing and Academic Resources Coalition) and a support of the Budapest Open Access principals.

Finally, there is another, broader question energizing resistance to the current business model of scholarly communication; namely the control, ownership, and sharing of information. In the current system, researchers are usually supported by their universities or through public money of some kind, such as federal grants. With this taxpayer support, faculty conduct the research and write their results for publication. Researchers submit their work to publishers, who accept, edit, package and disseminate the articles in their journals. Most publishers request that the author give them copyright ownership. Publishers then turn around and sell back to the scholars and universities the research paid for by public sector funding agencies. Throughout the process, the publishers, increasingly the commercial companies, are "in control of the (process), with the ownership of scholarship and with the right to sell it as a commodity" (Branin & Case, 1998).

**Resistance and Alternatives**
Resistance to the increasing domination of commercial publishers, the excessively high costs, along with a loss of control over our scholarship is happening and spreading throughout the country.

For example, biologists at the University of California, San Francisco called for a boycott of several popular *Cell* journals in response to the outrageous pricing of its publisher, Elsevier. Cornell University just cancelled 150 Elsevier journals and refused to accept a bundled deal (Reed, 2004). Several editorial boards of high status journals in the sciences have resigned, en masse, in protest to the escalating cost of their journals. There is the well-known story of University of Arizona professor Michael Rosenzweig, who in 1984 started a biology journal, *Evolutionary Ecology*, with a small English publisher, Chapman Hill. The journal changed hands several times, and it finally ended up in the hands of publishing conglomerate, Wolters Kluwer. By the late 1990s, the cost of the journal for libraries had risen from $100 to $800 and so infuriated Rosenzweig and his editorial board that they
resigned. They proceeded to start up an on-line and affordable journal, *Evolutionary Ecology Research*, at one-third the cost of *Evolutionary Ecology*.

In the United States, many universities have been taking proactive actions to address the growing problem. Some have totally severed "big deal" contracts with commercial publishers like Elsevier, while others have passed faculty senate resolutions calling for the overhaul of the culture and business of scholarly communication. In the last year, the following universities in the United States have taken some action in response to this crisis: Duke University; University of California, Berkeley; University of California, Santa Cruz; University of California, San Francisco; Harvard University; Cornell University; University of California, Los Angeles; North Carolina State University; University of North Carolina; University of Connecticut; Stanford University; University of Maryland; and Indiana University.

Leading librarians and scholars around the country have begun advocating what many believe must be a radical restructuring of the system. Selected commentary from these individuals follows:

*...the goal is not to simply "negotiate more effectively with Elsevier" (but instead) "to change the fundamental nature of scholarly communication in the journal industry."* — Michael Keller, Stanford University Librarian

*"The subscription model where the library pays is beginning to break down."* — Carol Tenopir, Professor of Information Sciences, University of Tennessee

*"...Recognizing that the increasing control by large commercial publishers over the publication and distribution of the faculty's scholarship and research threatens to undermine core academic values promoting broad and rapid dissemination of new knowledge and unrestricted access to the results of scholarship and research, the University Faculty Senate encourages the library and the faculty vigorously to explore and support alternatives to commercial venues for scholarly communication."* — Resolution adopted by the Cornell University Faculty Senate, December 2003.

*"This is not a serials crisis, but rather a broader crisis in scholarly communication.... The current method of scholarly information exchange is not sustainable...."* — Ross Atkinson, Collections Librarian, Cornell University

*(Once we have the beginnings of an open access system in place) "then we have to proselytize and educate academics. Foment freedom! I must tell you that academics have no idea what's going on. They do not know what libraries are going through just now. They have no sense of what a publisher does or how inexpensive it is to do it. They don't even know about their own rights and privileges. When it comes to publishing, they are an uninformed herd, fed, milked and slaughtered at will. And happy to be of service."* — Michael Rosenzweig, Editor, *Evolutionary Ecology Research*, and Professor, University of Arizona

Some commentators argue that we should work within the existing paradigm of a subscription-based system, by continuing to negotiate lower prices with publishers and to continue to form consortia and shared collections with other libraries. However, most librarians and involved scholars argue for a more fundamental change, a real paradigm change, to an open access system of on-line journals that charge no subscription fees. Reflecting an open access, free to users approach, there are an increasing number of major
initiatives to establish a new paradigm in academic publishing.

Such initiatives include:

**SPARC, Scholarly Publishing and Academic Resources Coalition** is an initiative of the Association of Research Libraries. SPARC has helped in the development of new on-line journals that compete with established commercially published journals. There are currently around 300 on-line journals that are associated with SPARC. The OSU Libraries is a member of the coalition.

**BioMed Central** is a group that offers access to over one hundred biomedical journals.

**The Public Library of Science** (PLoS) is a grassroots movement led by a large group of scientists, notably Howard Varmus. Dr. Varmus also established PubMedCentral, the first free on-line library that gathers and catalogues published biomedical research. OSU Libraries is a member.

**ArXiv** is an e-print service in the fields of physics, mathematics, non-linear science, computer science, and quantitative biology. The contents of arXiv conform to Cornell University academic standards. ArXiv is owned, operated, and funded by Cornell University. (Note: Cornell is both a public and private university.) ArXiv is also partially funded by the National Science Foundation.

**Stanford's Highwire Press** is the largest on-line archive of free life sciences articles in the world. Currently, Highwire Press has about 400 journals, and OSU Libraries subscribes to this press.

**The Budapest Open Access Initiative** has been signed by a growing number of individuals and organizations from around the world that represent researchers, universities, laboratories, libraries, foundations, journals, publishers, learned societies, and kindred open-access initiatives. They invite signatures, support, and participation of the entire world scientific and scholarly community.

In addition to the above consortia, there are individual, free, peer-reviewed on-line journals. One example is **Ecology and Society** (formerly Conservation Ecology) at [http://www.ecologyandsociety.org/Journal/](http://www.ecologyandsociety.org/Journal/).

**Proposal to Establish a Library Task Force**

The Faculty Senate Library Committee believes that the current system of scholarly communication is dysfunctional and ultimately unsustainable. Therefore, the Library Committee proposes the establishment of a task force to facilitate the University’s examination of this issue. It is proposed that the task force be comprised of an individual from the OSU Libraries staff, an individual from the Library Committee, and one individual each from Liberal Arts and Science and two-three individuals from the other colleges. It is also proposed that the task force have a one-year charge to do the following:

1. engage in studying the existing problems associated with scholarly publication (including data and statistics), and with emerging alternative paradigms;
2. educate the University community about this issue;
3. work collaboratively with the OSU Libraries to analyze and propose alternative publication methods for both scholarly periodicals and monographs;
4. consider strategies to evaluate alternative modes of publication relevant to promotion and tenure; and
5. report its work and recommendations to the Faculty Senate at the end of the 2004-05 academic year.

References:


