

Midnight in the Garden of Good and Evil?¹

Academic Publishing, Copyright, and other Miasmas

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Introduction

The purpose of this conference is to explore ways in which the information-provision roles of universities, their faculty, and their libraries are changing. Within that theme, we are here to explore how academia should best manage its creative output in these complex and pivotal times, times during which the very mission, vitality, and future of higher education are being probed. Because creating, managing, and providing academic information comprises a very large elephant indeed, with many different interests groping at it, I can only present -- all too briefly -- my own, librarian-centric views, as a small taste of a book I would one day like to write. Like any good lawyer, I will be quick to point out these are not the views of any past or current employers, but purely my own.

In sum, when faced with apparently serious threats (described below) to their information futures, at least some members of U.S. research universities have asserted that it is time to act and to secure greater control over their information destinies. In this paper, I will summarize the numerous initiatives that have been proposed within and close to academia to address a set of complex problems.² These initiatives have been of the following types, all underpinned by the promise and testing of powerful electronic technologies for scholarly and scientific communication:

1. Problem/analysis projects.
2. Solution through electronic projects and demonstrations.
3. Solution through changing approaches to copyright and intellectual property.
4. Solution via marketplace buying strategies.

Then I will discuss why, after numerous reports and proposals, seemingly little structural change has occurred has occurred within academic publishing - or, more to the point, why the specific high-visibility national initiatives herein identified have not ripened very well. And I will suggest some of the directions that show promise.

The Place of Copyright in Academia

The U.S. Constitution makes express mention of copyright -- intended "to promote the progress of science and the useful arts" -- among the legislative powers of the Congress. Because copyright law both creates a category of "intellectual property" and offers statutory regulation of the competing interests of rights-holders and readers, management of copyright in the academic community has become a flashpoint of disagreement when more complex issues in scholarly communication arise. Typically, copyright is seen as either obstacle, solution, or both. Some re-allocation of rights, forced either by statute or by concerted action of interested parties, is regularly ventilated as the most effective way to redress imbalances perceived to threaten the overall harmony of the world's system of scholarly communication. To talk about copyright, it is necessary to talk about the wider context of these debates, but I will return to some explicit remarks about copyright law at the close.

The Information or "Serials" Crisis

In the mid 80s it became fashionable -- and appropriate -- for librarians and academic institutions to speak of the "serials crisis",³ which was manifested simultaneously through:

- Rapidly increasing numbers of scholarly journals, particularly in science, technology, and medicine (STM);
- Rapid growth in the size of those journals;
- Prices of those titles skyrocketing annually far beyond the Consumer Price Index and the ability of any of those institutions to keep up with the prices; and: therefore
- Numerous serials cancellations, particularly in STM journals.

This serials crisis in turn made itself felt as a publishers' crisis in which:

- Publishers of STM journals offset cancellations in part by charging higher prices for the subscriptions and subscribers that remained;
- Academic library budgets skewed toward STM and away from other fields.
- Other publishers, such as those of scholarly books, experienced a decline in their academic library sales;
- There was a rapid rise in interlibrary loan and document delivery services;⁴

And all those developments, in turn, have led observers to certain assertions, each with some element of truth to it. I believe only the last one of the four, and believe it poses immensely serious concerns though not ones at the center of this conference.

- Librarians are undermining the publishers' lawful income through use of alternative delivery methods such as Interlibrary Loan (ILL) in which no specific income derives to the publishers.
- Libraries' use of alternatives such as ILL undermine the basic societal values of copyright.
- Today's academic library users are not as well served as in the good old days, because information is not as readily accessible to them as it was 10 or 20 years ago.
- The Library role as the perpetual archiver of knowledge, for the good of society, is becoming rapidly endangered.

For a few years it seemed that the "crisis" ought to abate, because market forces would either moderate prices or publishers' offerings, but in fact neither of those things has happened. Like a tasty European cheese, the crisis has ripened, and over the past 10 years it has achieved chronic status. Again, several important factors have contributed to today's ripeness:

- The publishing industry, or at least the STM and other robust segments of it, continue to technologize and transform their operations. Their investment is not trivial and their pricing seeks to recoup at least some of the costs of such investments.
- At the same time, libraries and universities have ramped up their technology investments, making for a far better, but also of necessity (at least at this early stage) more expensive information infrastructure.
- The STM and scholarly journals market that exists is in many ways an imperfect one; its consumers, therefore, do not respond in a seemingly rational fashion to price increases (i.e., stop purchasing information when the price exceeds a certain amount). Each title or database is unique and few of the journals or articles can be secured reliably from multiple sources.
- Academic positions are highly competitive; scientists and scholars need reputable publication outlets to support their bids for tenure, grants, and other rewards, even in a technological environment that easily allows them to self-publish.

Calls to Action in the U.S. Higher Education Scene ⁵

Modern organizations seem sometimes to thrive on crisis and response to crisis. There have been repeated efforts among American academic communities to bring heightened awareness to bear on measures designed to mitigate or eliminate some of the pressing elements of the crisis. I sketch some of this history to show the resilience this particular crisis is displaying. The list here is not comprehensive, and it expressly excludes the galaxy of

conferences, colloquia, and symposia that have been organized specifically to discuss the issues under review here without a specific brief to turn discussion into action. What is striking is the consistency with which a complex of issues involving academic principle, academic sociology, and business economics are brought back to copyright -- its nuances, its management, and its possible modification -- as the focus of discussion.

I. ARL Serials Prices Project, 1989 ⁶

In Spring 1988, the Association of Research Libraries ⁷ commissioned two consulting reports to assist its members in identifying factors underlying rising serials prices and to suggest possible remedies. The first report reviewed price and page data from four major commercial publishers over 15 years' time against estimated publishers' costs. The consultants reported that from 1973-87, these (commercial "for-profit" STM) publishers' profits increased significantly more rapidly than the consumer price index, asserting that cost increases do not justify the price increases paid by research libraries.

The second report identified multiple factors contributing to the crisis, including publishers' pricing practices; exchange rate fluctuations; significant growth in volume of published research; intense academic competition for promotion, tenure, and grants; market dominance of science, technology, and medical (STM) publishing by a comparative few commercial companies; and the monopoly-like characteristics of scientific publishing.

The second report proposed, and in its May 1989 Spring Meeting the ARL membership affirmed, certain aggressive recommendations:

- ARL should lead efforts with numerous academic, not for profit stakeholders, to communicate the nature of the crisis and the actions needed to address it.
- ARL should work to introduce greater competition into the journals marketplace.
- ARL should partner with scholarly groups to examine the scholarly publishing process and find ways to manage the explosion in research and knowledge, with particular focus on new-tech ways of information distribution.

Observe that the above two reports in no way identified copyright or intellectual property as either problems or solutions to any of the identified concerns. That was yet to come. The ARL established a Senior Program Officer position and an Office of Scholarly Communications to facilitate the initiatives enumerated above.

II. Consortium for Electronic Publishing (CEP) ⁸

In 1992, as an outcome of ongoing discussion with several other not-for-profit groups (including the Association of American University Presses and the American Mathematical Society) the ARL scholarly communications program developed and presented to the ARL Board the vision of a central, dedicated consortium with a clear charter to make electronic publishing work. Such a group would create and make available to all members of its broad-based community of presses, societies, and libraries, a set of standard working systems suitable for operation, electronic publishing, particularly on the networks. Commercial publishers would benefit from the developments achieved by such a group through the development of a large, new standardized market.

One unique benefit of a broadly-based not-for-profit consortial approach to electronic publishing was that it could work toward a set of common technical systems and standards, widely available to all members. The document stated prophetically, "Such acceptance would greatly accelerate the acceptance of the new mode of networked publishing. The specific needs of the research and not-for-profit community are currently well in advance of the capabilities and investments of commercial publishers. Waiting for the development of systems by the commercial publishing world fritters away opportunities now available to the not-for-profit community, and might never produce satisfactory results." Once again, note that none of these goals specifically mentioned copyright issues, though these would have indubitably been encountered once the CEP began its work, had it done so. We were aware that would happen but believed copyright and IP management matters raised by the work of such a consortium would need to be organically tackled rather than abstractly approached in advance.

The CEP's facilitating and enabling objectives were stated as:

- To provide mutual support, development, and growth in scholarly electronic communication and publishing. This will be accomplished by pooling the expertise and resources of CEP members to develop operational electronic publishing systems for their common benefit.
- To build on the efforts of specific organizations that have undertaken networked publishing development and to leverage those efforts for the good of many organizations, in a practical and cost-effective manner.
- To provide specific, targeted, and specialized consulting services to individual members or groups of its members.
- To develop and license new solutions, train staff, and install and start-up new applications, with the object of sharing in the cost of systems development and ongoing maintenance.
- To provide a central advocacy and "space" for electronic publishing, through planned educational programs, meetings, training, marketing, and seminars.

The proposal included a business plan and a rollout schedule. From five years' hindsight, its goals of broadly-based participation and introduction of new technologies to numerous stakeholders with interests in scholarly publishing, seemed most appropriate for the time and could have resulted in a more coherent electronic academia-influenced information world for the late 90s than exists today. The proposal did not advance to fruition, in part because it was "early days" for electronic publishing and the proposed partners had no history of working together on substantive projects with (what seemed at the time to be) significant budgets coming from diverse sources. The ARL members were concerned about starting a new organization and about taking the funding from their own already strained resources.

III. The Andrew W. Mellon Foundation Study ⁹

In 1989, the well-known American philanthropic organization, The Andrew W. Mellon Foundation (its President, William G. Bowen, is an economist with passionate interests in the relationships between economics, libraries, and technology)¹⁰ began a study of the economics of research libraries, a study that addressed both (1) the scholarly publication explosion and the rapid escalation of prices for these materials and (2) the rise of information technologies that make it possible to revolutionize the way in which libraries do their business. In addition to deepening some of the findings in the ARL reports above, the Mellon study, published in late 1992 and distributed widely throughout higher education and related communities in 1993, observed the following important structural points, for the first time calling attention to copyright as one of these:

- Scholarly publishing is coupled with academic prestige, a combination that encourages a strong conservatism and reluctance to make institutional changes.
- The potential distribution of electronic texts is immense and costs are uncertain.
- Traditional roles will undergo transformation.
- Adaptation of current copyright practices to the new electronic environments will be complex.

As a followup, the Foundation launched a focused and disciplined effort to map the current electronic scholarly communications landscape. It aggressively offers program grants designed to support and track sample electronic publishing initiatives in American academia -- interestingly emphasizing, but not limited to, the humanities -- and in spring 1997 conducted a conference in Atlanta that brought together grantees and others to discuss the lessons learned so far.¹¹

IV. AAU/ARL Task Forces ¹²

In 1992, the Association of American Universities ¹³ and the ARL joined to explore how research universities ought to address the major issues described in the ARL and Mellon reports, as well as to take a leading role in the high-tech information environment beginning to take shape. In the set of final reports, the notions of intellectual property management and ownership were tackled head-on.

The AAU presidents who comprised the Steering Committee of what became the initiative's Phase I established three task forces to describe current conditions and identify action strategies: (1) Foreign Acquisitions, (2) Scientific and Technological Information, and (3) Intellectual Property. In spring of 1994, their reports were enthusiastically received by AAU and then ARL. The Foreign Acquisitions recommendations gradually took on a project life of their own, while the other two were combined into one for second-phase followup. In short, the recommendations of the IP Task Force, which harmonized in many ways with that of the STI Task Force, emphasized a new and different information ownership mode for members of academia and began to suggest ways in which this might be done.

The IP-centered recommendations derived from the notion of academic values: One of the primary functions of universities is to foster scholarship and research and disseminate it efficiently, cost effectively, and as widely as possible. After extensive deliberation, both broadly-based task forces independently concluded that current dissemination of many academic works was neither broad nor cost effective enough, and that the most significant barrier to wider dissemination (or perhaps more competition) is the routine and thoughtless transfer of copyright to publishers because of the [under informed or mistaken] views held by academics that (1) the full rights of ownership must be transferred with each work in order for a publisher to be able to formally publish that work; (2) that such publication is the most effective method of distribution; and (3) the needs of academic authors dovetail nicely with those of all publishers. In fact, the task forces were not in the least hostile toward the notion of formal publication of academic authors' works. What they observed, however, was that full, unbundled transfer of all creators' rights subsequently prevented members of academia from unrestrictedly re-using their works in the classroom or with colleagues and mounting them on their own web sites as they might choose to do. If academic authors chose to do such things (which come naturally to creators, after all), they might be chided or threatened by their prospective journal publisher and persuaded to remove the materials from the online environment. And if the University through, say, the Library, wished to make the works of their faculty available as a public service (as libraries are), that fact that academia no longer owned any rights to its creations made this impossible. Interestingly enough, it was the electronic environment that had brought many of these ownership and copyright transfer issues to the fore.

In short, the Intellectual Property Task Force Report made recommendations at several levels:

1. Fair use in an electronic environment, particularly as it relates to activities of teaching, learning, research, and scholarship, needs to be explored and affirmed.
2. Electronic scholarly publishing outlets need to be strengthened or created, in order to encourage competition.
3. Universities ought to recognize the different and complex interests that operate at various levels and strive to strategically reconcile them. To this end, the IP Task Force offered four possible scenarios (it was frankly not able to reach consensus on any one to proffer as a recommendation) which included the following, each one upping the ante of the scenario before:
 - i. Enhance current practices through such means as campus education about copyright and copyright transfers, encourage authors to behave "smart" in the copyrights they assign and to act in ways that "do no harm" to the institution and its mission.
 - ii. In addition to (i) above, encourage faculty to retain ownership of their creations and license them to producers, remaining free to reuse their works themselves, to make available within their own institutions, or by colleagues and readers elsewhere.
 - iii. Joint faculty/university ownership of copyrights. This scenario would take (i) and (ii) a step further, by affirming that for the common educational good, faculty and universities would share in ownership of academic creations.
 - iv. Joint faculty/consortium ownership of copyrights. This scenario imagined the creation of a large AAU publishing consortium into which faculty deposit their works

on a non-exclusive basis. The database is available to all who wish to use it, at modest cost, the cost of supporting the system. The faculty deposit on a non-exclusive basis, being free to have the works published elsewhere as well.

Possible objections to each scenario were anticipated both within the report and later raised by its readers. Faculty were skeptical that universities could behave in an altruistic and non-controlling manner with their creations. They were more likely to regard even the most high-priced publishers as their "friends" (after all, the editors-in-chief and editorial boards were their colleagues), than the universities' presidents, provosts, and deans. Appreciating the goals of the recommendations, some university presidents were nonetheless skeptical that universities could develop a competitive electronic publishing capacity for electronic publishing, particularly for STM. Most of all, the notion that universities might try to tell academics how they should treat their creations -- let alone suggest some form of ownership or co-ownership, was a dogfight waiting to happen. Any concept of changed ownership that give universities rights they did not have before, has to be carefully presented, discussed, and jointly agreed to. It was not clear that AAU presidents relished the possible downsides of such highly charged discussions, in which the "patent battles" of the 70s might be again be re-fought.

That said, in Phase II of the AAU/ARL Project (this time the steering committee included research library directors as well as presidents), a reconstituted IPTF was charged to develop a proposal for multi-player electronic publishing projects as a way of attempting publishing experiments on a shared basis. The hope was that successful testing of electronic publication would lead to proof of the concept that copyright ownership could be jointly shared or managed. In April of 1996, the ESP proposal (Electronic Scholarly Publishing) was presented to the AAU/ARL Steering Committee by IPTF II. ESP called upon each of the 60 AAU presidents to contribute \$30,000 toward a venture-capital fund which would fund meritorious and interesting new startups by academic players (university presses, societies, and/or libraries, faculty) to bring competitive e-journals to the academic marketplace. Deemed too late in timing and too small in scope, this proposal at the last moment failed to garner sufficient support from the Steering Committee and both (ESP and the AAU/ARL Steering Committee) faded from the scene.

V. IScAN (International Scholars Academic Network)

Following the demise of ESP, one of the AAU/ARL Steering Committee members, along with a small working group of ARL library directors, invested considerable time developing for the ARL Board a proposal more ambitious in scope than ESP might have been. Though it proposed a network rather than a project approach, it was not altogether clear and did not sufficiently distinguish itself from earlier proposals. Without a substantial constituency, it was overtaken by events of 1997, which included an AAU presidential focus on Big Picture matters such as Internet II, and national and international copyright/database legislation

VI. AAU Committee on Digital Networks and Intellectual Property

By early 1997, the AAU had re-defined its interests in the information arena, creating a new standing committee on Digital Networks and Intellectual Property. In addition to leadership by AAU presidents, the new committee includes some provosts, chief information officers, research library directors, and law professors. It is charged to focus on issues in the areas of networks, intellectual property, distance education, and legislative and regulatory policies. It is not clear in what proportion this Committee will concern itself with matters of intellectual property ownership on campuses vs. the national legislative arena. This Committee is paralleled in NASULGC (National Association of State Universities and Land-Grant Colleges, the higher education association that represents the interests of the so-called "land-grant" or chartered, state-funded universities),¹⁴ a group addressing interests not dissimilar to AAU and likewise seeking to speak with one voice. NASULGC has created a Presidential Advisory Group on Information Technology, which it has identified Intellectual Property as one of its key issues. The presidential membership of the two (AAU's 60 and NASULGC's approximately 190) overlaps to some extent. Anyhow, with these moves to "bigger issues," the focus on specific university copyright management matters has lost its sharpness.

VII. Other Simultaneous (Individual Institutions') Ongoing Actions and Initiatives

Throughout the 90s, university faculty and librarians within individual institutions also began to consider different kinds of management or ownership of faculty copyrights. Just as new technologies had caused the AAU task forces to view IP management in new and different ways, so new modes of publication and dissemination (using Internet, the World Wide Web, and email to foster and disseminate numerous online collaborative ventures, classroom teaching tools, numerous university-based e-journals, working papers, and successful disciplinary-based preprint servers) had helped to identify similar issues and potentials within specific institutions. For example:

- In July 1993, the Triangle Research Libraries Network's joint faculty/library committee developed a model copyright statement that encouraged faculty to retain their copyrights when publishing with organizations whose pricing practices would restrict widespread access to research results (i.e., commercial for profit publishers).¹⁵ Such retention would make it possible to distribute that information in alternative high-tech modes.
- In September 1994, a group of librarians, scholars, university press publishers, and technologists met at Columbia University to draw up recommendations for concerted action to base electronic publication more firmly on the academic campus, where presumably it would be more responsive to the academic and economic exigencies that libraries feel.¹⁶
- The CETUS Project (CUNY/SUNY/CSU systems) was begun in 1995 and in the past two years has released several discussion documents including one on the future role of libraries and, more to the point here, a document that explores options for university and faculty ownership.¹⁷ It advocates the unbundling of rights as part of a strategic approach to academic copyright management.
- In 1996/97, a small working group of faculty and university officers at Stanford developed a very short but incisive statement of principles to guide its activities in the copyright assignment arena. These include:
 - **Do No Harm to core missions of teaching, learning, research
 - **Protect for return on investment for both individuals and institution
 - **Incite and kindle entrepreneurship
 - **Constantly refresh knowledge base; i.e. continue to create and disseminate new knowledge.

According to the University Librarian, "The principles are very likely going to be the basis for some new policies at Stanford intended as much to improve the returns on Stanford's investments in its faculty, its programs, its facilities as much as to protect the institution from encroachment by others on its investments and their potential for return."¹⁸

- The CIC institutions (otherwise known as the Midwest's Big 10 -- after the college football league in which they compete) have over the last years organized a substantial library initiative whose goal is to treat the member's libraries, to the extent possible (shared online catalogs, wide delivery of documents, joint electronic licensing) as one. A representative group of the CIC institutions met in 1996 and recommended that working group be established to articulate a statement of principles and framework for developing comprehensive campus policies on intellectual property. This group reports to the Provosts of the CIC and has now begun its work.¹⁹
- Georgia Harper, Copyright Counsel for the University of Texas System advocates revisions of the Texas ownership policy to more effectively meet academic goals and to distinguish it from those of the entertainment industry. The work of this office and the information on this site have been exemplary in providing support for librarians, faculty, and users with respect to intellectual property policy on campus.²⁰
- Running in the background of all these formal conversations has been an informal ongoing "subversive conversation" carried out simultaneously in numerous Internet salons (discussion lists), spearheaded by a handful of key players, including Stevan Harnad (a psychologist and early/innovative electronic journal editor at the University of Southampton) and Paul Ginsparg (creator of the controversial and indispensable high-energy preprint archives at Los Alamos). In short, a large minority of academics, especially in the sciences, affirm that research results can be distributed quickly and freely through the e-waves, resulting in a "subversion" that will forever change the scientific information culture.²¹

All that said, though there have been and continue to be scattered, serious attempts to modify the way that academic creations are owned and transferred, the normal ownership policies in U.S. universities continues, as for some years, to affirm that: Faculty members create and own their own works, except where those works are specifically works-for-hire or significant university resources are used to create them. In that case, some defined form of shared ownership comes into play.²² There are signs, however, that academics and institutions are taking these discussions increasingly more seriously, even though there is not yet much to show for them. At the same time, the publishing community, upon examining its broad, value-added role in the information chain, takes a more relaxed stance about articles appearing simultaneously on personal web sites or preprint servers, as well as in their published journals.

The Most Recently Organized Proposals or Initiatives

VIII. De-coupling the Peer Review and Publishing Processes

First given significant air time and shape at the Cal Tech Scholarly Publishing Conference of March 1997, this initiative -- perhaps better called a suggestion, as it is looking for champions -- proposes that peer review of scholarly research can be separated from its eventual formal publication for archival purposes.²³ A number of the participants in that meeting, well aware of the revolutionizing effect of the Los Alamos National Laboratory preprint system created by Paul Ginsparg,²⁴ searched for ways to migrate its stunning success to other fields -- if not as a series of centralized disciplinary servers then as widely distributed web sites mounted by scholars at their own institutions. In order to be successful, such a "de-coupling" initiative would require a new model for academic credentialing and a way of funding the supporting system of both preprints and peer review, utilizing existing scholarly societies as the mechanism and university technology as the distribution mode. The academic 'seal of approval' could be affixed to an electronic version of a work held on an academic's own web site. Print publication would not be necessary for tenure and promotion review purposes.

IX. SPARC (Scholarly Publishing and Academic Resource Coalition)

This proposal from an energetic subset of the ARL membership seeks to create competition in the marketplace by encouraging organizations that share the values of the scholarly community to develop innovative publications that take full advantage of the new technologies. A proposal recently (October 1997) endorsed by the ARL Board, seeks to identify partners and collaborate with them, to develop and fund new publishing ventures, endorse new publications and information products, and recruit authors, editors, and advisory board members. The stated priority is to enter the journals marketplace in disciplines where the prices are highest and there is greatest need for alternative models of research communication.

X. Pew Round Table, November 13

On 13-14 November 1997, in Baltimore, Maryland, a "Pew Roundtable," sponsored by the Pew Charitable Trust and facilitated by Robert Zemsky of the University of Pennsylvania's Institute for Research in Higher Education, will bring together academic leaders under the aegis of the AAU and ARL once again to review the central issues of this crisis. Once again the conviction on which the conversation will be based is that copyright and the management of copyright offer leverage to affect a broad range of academic and social forces.

Meanwhile, Reality Intrudes

It can seem to those who hear this summary, as it does to some of us who have lived its history that nothing changes. But consider just this set of facts.

In 1991, when these discussions were in full swing, we edited and published for ARL the first directory of electronic scholarly journals ever produced.²⁵ In that slim volume, 110 e-journals and newsletters were identified. (That work is now in its 7th edition at ARL.) In 1993, impressed by the boom in such publishing, a colleague (Dave Rodgers at the American Mathematical Society) and I began the internet announcement list

NewJour, which daily publishes brief notices of new electronic journals, magazines, and newsletter. Two years later, in January 1995, the list archive contained 250 journals. As we meet today, less than three years later, the total of items in that archive [26](#) is passing 4700, and we know that we are still missing at least the 1100 -1200 on-line Elsevier journals -- for we depend on limited student labor and ourselves (after 11 p.m.!) to maintain the list and its archive, and we have simply been swamped by the flood -- not just of Elsevier titles but of Springer, Wiley, Blackwell Scientific, and many others. That means that there are now at least 7000 substantial e-serials in the world, and dozens more (it seems) appear daily. While we have spoken endlessly of the possibilities of e-publication, the reality has burst into life -- with all the attendant IP ambiguities and complexities.

The new electronic journal reality looks a lot like the old print reality in many disheartening ways. The commercially published journals libraries pay premium prices for in paper are increasingly available in e-form -- at a further premium. There are some exceptions to this development and some noble experiments, such as the one by the Optical Society of America bear watching, [27](#) but the overall trends are not cheering. This is not the place to recount in detail the consumer-proactive ways in which libraries are responding to new pricing and licensing modes, but I have written elsewhere on the strategy we have chosen at Yale, of negotiating aggressively, particularly within consortia of libraries, for fair and affordable licenses to use e-resources. [28](#) I point in this direction only to underscore that endless discussion of a crisis may seem endlessly repetitive, but when the landscape before which such discussion is played out changes so dramatically, we must reasonably pause to wonder at the disconnect between reality and our debates.

Common Threads

Reviewing this history, we indeed see that history repeats itself even over short stretches of time, or at least that there are common threads to many of these initiatives.

1. *The usual suspects.* Leaving aside the observation that many specific individuals play recurrent parts in these discussions, it is more significant that this essay has described a series of discussions in which essentially the same categories of participants, in roughly the same mix, appear over and over. Given the significance of the academic issues involved, it is first of all striking that relatively few faculty and fewer academic officers (deans, provosts, presidents) find these issues sufficiently riveting to compel their attendance and participation. At times, representatives of the publishing community are invited and attend, more nervously as they see their own economic practices directly discussed by outsiders. Publishers are the most variable set of participants at these tables: sometimes for-profit publishers are welcome, sometimes not; sometimes university press publishers find their interests at stake, often not.

The one group most consistently represented -- indeed, if I am not mistaken, never not present in strength in all these initiatives -- is the library community. Always present, often convening, librarians clearly have a stake in these issues far more sharply felt than other groups. There are three reasons for this pre-eminence. (1) First, librarians are middle-men, caught with limited resources between a near-infinite supply of information from publishers and a near-infinite demand for information from their users. It is librarians' necessary role to intervene and manage the reasonable use of these infinities. (2) Second, libraries have been the impartial acquirers, servicers, and archivers of information, funded by universities or the public as a commons. (3) Third, and we will return to this below, librarians know we live in a culture of technologies of disintermediation. Librarians have acute reason to think that their own roles may disappear or, what is in some ways worse, be reduced in status to functionaries. A move away from this relatively altruistic role and institution, without anything comparable to replace it, is an unacceptable prospect for society.

2. *Ritual behavior.* The IP and publishing initiatives here reviewed typically begin by identifying problems. The literature of "crisis" amply supplies material, and nothing is so familiar as the sudden zealotry of the academic or publisher who has just discovered what the rest of the participants in these gatherings have been discussing for years. Not infrequently, the most common next step is to short-circuit discussion by scapegoating. There is a large social science literature on the role of the scapegoat in the community; one cause for scapegoating is impatience. If there are problems then someone must be at fault and placing the blame can lead to solution. The

most commonly identified villains are the large commercial, for-profit publishers. The compliment is, of course, often returned by publishers who accuse librarians of undermining the economic stability of the system with theft palliated by the legal cover of "fair use" and Interlibrary Loan. Other villains can be: faculty/scientists who so badly need formal publication that they will transfer rights simply to be published in a journal of their choice without regard for after-consequences of such a transfer; or the academic rewards system, which drives authors to selfish acts; or librarians who do not cancel or behave as a real market.

Once the villains are identified, proposed solutions take one of two forms: raise the bridge or lower the river: either reduce the price of information (the preferred academic solution) or increase the funding for libraries (the preferred, and speciously generous, publishers' solution) in order to ensure access to information for users. In a way, both proposals are impractical (and to a sober observer suggest that resolution will happen in other ways), but that does not make them less attractive. On the academic side, in particular, there is a strong belief that electronic dissemination must reduce costs, if only academics and not businessmen control the process. That hypothesis has not been rigorously tested.

3. Copyright: if it isn't the problem, is it the solution? In the division of opinions, a standard repertoire of positions about copyright may be discerned. Academics and librarians fasten on the "fair use" principles of the US Copyright Act and struggle to use them to create sufficient flexibility and space in which to allow information freedom of movement in support of academic goals. As a second step, the same parties scrutinize with care the present institutional management of copyright, seeking acceptable changes that would bring benefits to academia. (The leitmotif of those conversations is the remark that universities pay to create information that faculty give away to publishers who sell it back to the universities at shockingly high prices.)

But on the other side of these tables, copyright is no less a prop and stay for the case that publishers make. They insist on the rights created by copyright law and argue for clearer statement of rights and more effective enforcement. If leakage could be stopped ("fair use" leakage, ILL leakage, photocopying leakage), their argument runs, a saner economic balance would be achieved.

Neither side is able to quantify the benefits that would arise from manipulation of copyright in its favor.

Boundaries of the Labyrinth

The recommendations that emerge from the sorts of ventures described above are various. Often the recommendations have included suggestions that specific new model publishing projects be undertaken. This was a bolder suggestion in 1992, when there were a handful of e-journals, than in 1997, when as we have seen the flood is upon us.

What is it that has kept academia trapped in the labyrinth, like the three men in a boat in the Hampton Court maze, expending so much effort, with so far little change to show for it? It may be that we have not yet asked the right questions and therefore our answers are flawed. For example:

- Is the need well defined? That is, are academics and scientists genuinely unable to secure access to research information that is important to them? Are serious researchers unable to find outlets for their work? If either of these questions were answered in the affirmative, we might reasonably expect to see more active researchers clamoring to join our discussions. We run the risk of struggling to solve a problem that does not precisely exist as we have defined it.
- Have we chosen the most effective strategies given the problem statement (to make information ubiquitous and more affordable)? Does changing the way in which faculty manage and assign their copyrights to publishers, provide the path to solution of problems identified above? Does changing the ownership mode from faculty to university or to a shared arrangement carry the solution to information access?
- Is it possible to change an entrenched kind of publishing culture? Established practices of publication, let alone copyright transfer, die hard. The rewards for scholarly publication (promotion, tenure, salary, better positions at other institutions, research grants -- to say nothing of advancing one's field of research and scholarship) are substantial and may effectively render researchers cautious in the face of change. On the

other hand, the publication outlets we know today, particularly in STM, have existed mostly since the 1960s, only 30+ years.

- Is appropriate concertment of action possible? Few real solutions to systemic problems can come from actions of individuals or individual institutions (although they can set a good example of leadership for the rest); multi-institutional synergy and cooperation are needed. The United States is a large country whose social, economic, and educational organization is deliberately pointed towards incoherent and unstructured, and therefore market-based, solutions. There is no central organization to advance action (AAU and ARL, for example, are voluntary associations). Universities are funded by states and by diverse sources of income such as tuitions, grants/contracts, private giving, corporate partnerships, etc. Private universities receive no direct state support and hence are immune to most forms of government incentive. It is difficult to generate a common will. (It may indeed be easier to generate such commonality of purpose in smaller countries or those with more centralized structures, or perhaps even in the European Community. America may need to follow, not lead, in this domain.)
- Are so-called "academic values" shared by all within academia? Just what are those values? University faculty and scientists identify primarily with their scholarly interests and societies and only secondarily with their universities, of whom they are suspicious. Attempts by deans or provosts to turn institutional patriotism into concerted action may founder if that patriotism is faintly felt.
- Is self-interest well defined? For example, the notion of Academic Freedom is deeply embedded in the fabric of US academia and there are fears that structural changes such as giving up or sharing of copyright ownership will lead to loss of academic freedom. Further, there are some disciplines in which faculty are acutely aware of the economic value of their work -- or at least believe in the prospective economic value of their work strongly enough to be reluctant to sign away even just the possibility of a large advance, substantial royalties, and commercial success.
- What is the "marketplace" doing as we continue our prolonged academic explorations and discussions? Continued consolidation of publishers, particularly the large conglomerates such as Reed-Elsevier (now adding Wolters Kluwer to its family), with emphasis on professional and scientific publishing, makes for tough competition. At the same time anti-competitive regulations, at least in the U.S., say that consumers cannot gang up on producers and agree to not buy their wares; no systematic, organized cancellations are possible for libraries.
- How high a priority is the "crisis" for senior university administrators such as presidents and regents? University leaders do not number information provision among their top priorities: they are preoccupied by such substantive and costly matters as capital infrastructure (buildings, maintenance), competition for the best students, attracting top faculty at affordable prices (for salaries, facilities, etc.), the costs and challenges of technology infrastructure, and even in the states the dizzying prospect of outright commercial competition (the for-profit University of Phoenix is gaining in success and visibility and is mentioned with increasing nervousness in some very august academic circles).²⁹
- Can universities act in an agile, entrepreneurial way vis a vis academic publishing? Universities are not generally set up to be entrepreneurial, though there are exceptions (Stanford's HighWire Press³⁰), and most are making or have made their capital-poor university presses self-sustaining. An organization that needs to support itself and has not the capital to undertake risky ventures will naturally stay with proven successes, even if the returns on those successes are dwindling. Tax laws, at least in the U.S. mitigate against risk-taking, money-generating ventures.

What Is To Be Done?

I suggest that my remarks here fall into two categories: historical observation of the progress of discussion and the lack of consequent action on the one hand, and my own interpretation of the causes on the other. Some solutions would directly copyright and intellectual property; others seek to change the mode of publication; and still others to influence the marketplace. If, as a long-standing regular participant in many of these discussions, I am guardedly skeptical about our prospects, I can at the same time try to outline some directions for success, and I believe in these:

1. *First, patience and persistence.* We have set out on a path and may be much closer to its beginning than we would like. If we truly believe in our academic institutions, their idealistic (though perhaps not universally agreed-upon) missions, and their advancement, then steadiness is important. A few years of relative immobility offer important opportunities for reflection and renewed analytical discussion, but they ought not be in themselves reason to surrender.

2. *Second, we have come to a point at which thinking about individual demonstration projects is probably losing its point.* Too many scaled-up undertakings are already proving their worth, loudly. Better that we learn as we observe closely the usage and the economics of the projects under way, both those in the academic community (the Mellon Foundation is doing this with a number of projects it supports and monitors) and those in the commercial environment. The boom in new journals (hundreds to thousands in a couple of years) may well be followed by a shakeout as publishers discover what is sustainable and what is not: in that moment, opportunity may well come for change. The most encouraging academic movements now in view are those that do not merely toy with the idea of action, but act themselves. Johns Hopkins University's Project MUSE has decisively changed the way one University Press deals with its journals.³¹ Stanford University's partnership between library and press, and the Library's venture supporting Highwire Press, has in a very short space of time made itself a serious force in journal publishing on the net. What both projects have in common is clear vision and the willingness to venture real resources in support of vision.

3. *Third, the real issue inside American academia is to call the question of intellectual property with the academic leadership of our institutions.* The responsibility still remains with librarians and other interested parties to take these issues into the wider forums of academic debate convincingly and boldly. If presidents and provosts take up these issues, then change can occur. But until and unless all the players in the dialog distill what we have learned from all our conversations in a way that compels the attention of our leaders, we will still be very limited in what we can achieve. One key way to gain and merit that attention is to work with technologists and administrators on campus to educate faculty better about copyright and its management, encouraging them to unbundle the rights they now mostly sign away, to retain as many as are expedient for their work and their institutions, and license publishers. The shift in pedagogy from traditional classroom to remote teaching, from traditional materials to multimedia, creates new issues in ownership of copyrights and the management of those. Those issues are the opportunity for opening a wider conversation.³²

4. *Fourth, academic and scientific publications are part of a changing marketplace.* Libraries are in fact joining together in consortia (and we now even have regular meetings in the States of a "Consortium of Consortia" to discuss common issues), to leverage their economic power and their influence with publishers in legal and responsible ways. Whereas the traditional mode for purchasing, say, a print journal, is for each library to engage in a single-title transaction with a publisher, a situation in which a publisher of multiple and particularly important journals holds every marketplace advantage. With the emergence of substantial electronic databases and journal collections, it has rapidly become the practice for publishers to negotiate with regional or state consortia. This path has three advantages: (1) It levels the marketplace playing field because the negotiators at the table both represent large-scale resources; (2) It avoids obsession with the so far intractable issues of changing universities; copyright management; and (3) It is an action mode; thus, it diminishes the time spent in scapegoat mode and increases the emphasis on publishers and librarians as possible partners and colleagues in a more equal buyer/seller relationship. The energetic consortial negotiations of today have also made possible significant user/copying rights in electronic licenses, rights not infrequently exceeding those offered by national copyright law.³³

The Progress of Science and the Useful Arts

In summary, the controversies that drive academics and publishers to think of copyright law as either obstacle or solution to their difficulties are complex and multidimensional. As is well known, in 1995, the US Government's "Lehman Commission" presented a set of so-called modest -- but as it turned out controversial and un-enactable -- recommendations for modification of the US Copyright Act of 1976.³⁴ My view is that it is a good thing that these recommendations have so far failed of enactment, and that is not because they were bad recommendations

(though flawed) but because the time was not and is not yet ripe for statutory intervention in our crises. Much thought needs to be given to just what a revised copyright law needs to do to embrace electronic information ownership and distribution.³⁵ For one thing, we know too little of the new electronic environment and how it will work, either technically or socially, to be sure that new enactments will be truly apposite. To take one example: there was much discussion surrounding the Lehman Report of the question of when an electronic "copy" is actually made. Many readers and discussants of the report took a quick and self-styled expert view about precisely when a copy of a WWW document is made. The disparity of views and the obsessiveness of the technical discussion that followed is a warning that statutory law was addressing matters at a level of detail unlikely to lead to good practice or good jurisprudence. To base new law on the imperfect technical knowledge of lawyers -- let alone lack of practical experience -- in a rapidly changing environment is a dangerous thing. Changes in network technology or in computer technology could well alter the facts on which such law would be based, alter them in unpredictable ways that could well leave us with new law and worse problems.

Bernt Hugenholtz astutely observes, "Paradoxically, most modern copyright laws have more problems in adapting to me new electronic media than their 'antiquated' counterparts. Traditional old-media exclusive rights and limitations are mostly defined in platform-independent ways. . . . By contrast, legislators attempting to keep up with current technological development are faced with narrowly defined, platform specific rights and limitations, that can note easily stretched to fit in the digital networked environment."³⁶ We run the risk of intensifying this problem by premature action.

But the real reason to think the Lehman recommendations premature is not technical but social. What strikes me most forcibly in reviewing this academic history is the way in which all parties assume that the various roles they now play in scholarly and scientific publishing will persist in a new environment in more or less similar form to today's. We all -- and I emphatically include librarians here -- believe in such persistence and fear the possibility of disruption. Hence, we assume that we know something about the future and urgently hope that our particular role can be enhanced or at least maintained in that future.

Frankly, it is unlikely that all our hopes can come true. Think of it this way: If today one takes a piece of intellectual property and stores it securely for later consultation, one acts in a way that a librarian would recognize as her own. If one takes a piece of intellectual property and disseminates it to a wide audience, one acts in a way that a publisher would recognize as her own. But if one take an HTML-based document and saves it to a specific location on a networked server, one am doing both things at once. Is one then librarian or publisher? Or rather, if we did not have the pre-existing categories "librarian" and "publisher" in mind, what would we call that dissemination-by-storage? We cannot answer that question today, but it is certain that such technical conundrums will lead to significant reallocation of social roles. Before we can begin the delicate business of statutory or large-scale social reallocation of legal and property rights, we must abide a while to see what happens in the broader reallocation of roles. This is in a way a recommendation that we let a kind of market play its part and refrain from attempting, on too little knowledge and with too little wisdom, to force the future to flatter our self-esteem.

If we think instead of the goals the U.S. Constitution adduces for giving authority to the management of intellectual property -- think instead of what genuinely promotes the progress of science and the useful arts, we may be able to think a little less of ourselves and our short-term agenda and see things we would otherwise miss.

The lesson I would draw from the history outlined here then is simple: we have failed of concerted action for good reasons. We will succeed, if we do, when we know our own minds better, and when reasonable concerted action is genuinely open to us. This does not mean that we face no crisis: far from it. It means that we do not yet have appropriate tools to influence it. This is a hard and unwelcome lesson in some ways, but we would be wise to accept it.

NOTES

1 *Midnight in the Garden of Good and Evil*, by John Berendt. This book has been on the best-seller lists in the United States for about 170 weeks in hard cover. In it, persistent mystery in a miasma of unpredictable conduct characterizes a tradition-bound community that might think itself immune to such goings-on.

2 "Scholarly Communication and the Need for Collective Action; An ARL Discussion Paper." October 1997. URL: <http://www.arl.org/scomm/discuss.html>

3 Ann Okerson, "Periodical Prices: A History and Discussion," *Advances in Serials Management*, Volume 1, November, 1986: 101-134. URL: <http://www.library.yale.edu/~okerson/pricing.html>

4 For numerous charts and data that document the service and buying trends in Association of Research Library institutions, see the annual publication *ARL Statistics*, Washington DC, Association of Research Libraries. The most recent in the series is 1995-96: pp. 5-14. Over the years, important analysis has been presented by Kendon Stubbs (ARL's Statistics and Measurement Consultant and partner, as well as Associate University Librarian, University of Virginia) and more recently by Kendon Stubbs and Martha Kyriellidou of the ARL. The Statistics are available also through an interactive WWW edition, with data back to 1992-93. Maintained and supported by the Social Sciences Data Center at the University of Virginia, this site offers access to the Statistics. See URL: <http://www.lib.virginia.edu/socsci/arl/text-arl/> for these data, and <http://www.arl.org/stats/Statistics/stat.html> for general information about the ARL Statistics and Measurement Program.

5 I am indebted to ARL's publications, its web server (<http://www.arl.org>), and my extensive files from 5.5 years its scholarly communications program officer. All these sources helped to reconstruct this history. Mary Case's (current Director of the Office of Scholarly Communications) recent summary (see Footnote #2) proved most helpful.

6 The Report of the ARL Serials Prices Project, Washington DC, Association of Research Libraries, May 1989, includes two contractor reports: Economic Consulting Services, Inc., "A study of Trends in Average Prices and Costs of Certain Serials Over Time; and Ann Okerson, "Of Making Many Books There is No End." The compilation also includes an overview and the membership's resolutions and recommendations for further action.

7 The Association of Research Libraries is a 121-member organization of the major research libraries in North America (U.S. and Canada). Its mission is to shape and influence the forces affecting the future of research libraries in the process of scholarly communication. For more information, see: <http://www.arl.org>

8 ARL. An unpublished document distributed to members, Spring 1992.

9 University Libraries and Scholarly Communication; a Study Prepared for the Andrew W. Mellon Foundation, Washington DC, Association of Research Libraries, November 1992. For an overview, see the "Synopsis" chapter by Ann Okerson. URL: <http://www.lib.virginia.edu/mellon/mellon.html>

10 For more information on The Andrew W. Mellon Foundation, see their home page: <http://www.mellon.org/>

11 *Scholarly Communication and Technology; Papers from The Conference*. Atlanta, Emory University, April 24-25, 1997. URL: <http://www.arl.org/scomm/scat/index.html>

12 Association of American Universities Research Libraries Project, in collaboration with the Association of Research Libraries. Reports of the AAU Task Forces, Washington DC, ARL, May 1994. URL: <http://www.arl.org/aau/Frontmatter.html>

13 For information about the AAU, see their web site. URL: .

14 For information about NASULGC, see their web site. URL: <http://www.whes.org/members/nasulgc.html>

15 "Model University Policy Regarding Faculty Publication in Scientific and Technical Scholarly Journals; A Background Paper and Review of the Issues." The Copyright Policy Task Force of the Triangle Research

Libraries Network. Durham, Raleigh and Chapel Hill, North Carolina, July 1993. URL: <http://ccat.sas.upenn.edu/jod/trln.html>

16 Agendas, reports from this meeting in the ARL files, as unpublished documents.

17 CETUS is the Consortium for Educational Technology in University Systems. For this particularly effective and comprehensive explication of the principles and practices involved in Ownership of Intellectual Property, see URL: <http://www.cetus.org/ownership.pdf>

18 Michael Keller, "Capitalizing on the Library Investment," A presentation on April 12 1996. Keller is University Librarian, Director of Academic Information Resources, and Publisher of the HighWire Press. URL: <http://www-sul.stanford.edu/staff/pubs/leverage.html>

19 "Conference on Collective Strategies in Approaching Copyright Issues Affecting CIC and Regent Institutions," Final report, August 25, 1996. URL: <http://NTX2.CSO.UIUC.edu/cic/ip/iowarpt.html>

20 For the introduction to this work see URL: <http://www.utsystem.edu/OGC/IntellectualProperty/>

21 Ann Okerson and James O'Donnell, eds., *Scholarly Journals at the Crossroads: A Subversive Proposal for Electronic Publishing; An Internet Discussion About Scientific and Scholarly Journals and Their Future*. Washington, DC, Association of Research Libraries, 1995.

22 I am grateful to the University of Pennsylvania's Center for Technology Transfer for their recent "Analysis of Peer Institutions' Copyright and Software Policies," Internal Document dated 8/16/96. Some widely available online copyright policies include: MIT. URL: <http://web.mit.edu:1962/tiserve.mit.edu/9000/23697.html> Stanford University. URL: <http://www-portfolio.stanford.edu/101242> University of Texas. URL: http://www.utsystem.edu/BOR/RegentsRules/2XII_.HTM

23 Charles E. Phelps, "The Future of Scholarly Communication: A Proposal for Change." May 30, 1997. An unpublished paper.

24 xxx.lanl.gov e-Print archive. URL: <http://xxx.lanl.gov/>

25 Ann Okerson, ed. *Directory of Electronic Journals, Newsletters and Academic Discussion Lists*, 1st edition. Washington DC, Association of Research Libraries, July 1991+

26 The NewJour web archive is updated daily. URL: <http://gort.ucsd.edu/newjour>

27 The OSA's experimental new e-title, *Optics Express*, will charge \$300-\$350 per submission from each author and make that journal available to all readers for free. URL: <http://www.osa.org>

28 See articles on licensing in Ann Okerson's home page. URL: <http://www.library.yale.edu/~okerson/alo.html>

29 James Traub, "The Next University: Drive-Thru U. Higher Education for People Who mean Business." *The New Yorker*, October 20&27, 1977: pp. 114-123. The article describes a relatively new but highly successful educational concept of the "para-university", focused pragmatically on training for jobs in business. Traub writes, "It has the operational core of higher education -- students, teachers, classrooms, exams, degree-granting programs -- without a campus life or even an intellectual life." Participants in this conference can take particular pleasure in the next sentence: "...the most recent issue of the university's only academic journal contained but a single academic article, about copyright law."

30 HighWire Press is the internet imprint of the Stanford University Libraries. URL: <http://highwire.stanford.edu/>

31 Information about the Johns Hopkins Press e-journals can be found at the Project Muse home page. URL: <http://muse.jhu.edu/muse.html>

32 An excellent discussion of these issues with lucid recommendations and discussion has been published by the Consortium for Educational Technology for University Systems (C.E.T.U.S.), a joint activity of the California State University, SUNY, and CUNY systems. URL: <http://www.cetus.org/ownership.pdf>

33 Ann Okerson, "The Transition to Electronic Content Licensing; the Institutional Context,; Paper presented at the Scholarly Communication and Technology Conference sponsored by The Andrew W. Mellon Foundation, Emory University, April 24-25, 1997. URL: <http://www.library.yale.edu/~okerson/mellon.html>

34 Bruce A. Lehman, The Report of the Working Group on Intellectual Property Rights. September 1995. This report can be found at URL: <http://www.uspto.gov/web/offices/com/doc/ipnii/>

35 Ann Okerson, "Who Owns Digital Works?" Scientific American, July 1996: 80-83. URL: <http://www.library.yale.edu/~okerson/alo.links.html#articles>

36 B. Hugenholtz, "Adapting Copyright to the Information Superhighway," The Future of Copyright in a Digital Environment (1996), ed. B. Hugenholtz, at p. 99.

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