

Copyright Contradictions in Scholarly Publishing

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Abstract

This paper examines contradictions in how copyright works with the publishing of scholarly journals. These contradictions have to do with the protection of the authors' interest and have become apparent with the rise of open access publishing as an alternative to the traditional commercial model of selling journal subscriptions. Authors may well be better served, as may the public which supports research, by open access journals because of its wider readership and early indications of greater scholarly impact. This paper reviews the specifics of publishers' contracts with editors and authors, as well as the larger spirit of copyright law in seeking to help scholars to better understand the consequences the choices they make between commercial and open access publishing models for the future of academic knowledge.

"An old tradition and a new technology have converged to make possible an unprecedented public good. The old tradition is the willingness of scientists and scholars to publish the fruits of their research in scholarly journals without payment, for the sake of inquiry and knowledge. The new technology is the internet. The public good they make possible is the world-wide electronic distribution of the peer-reviewed journal literature and completely free and unrestricted access to it by all scientists, scholars, teachers, students, and other curious minds. Removing access barriers to this literature will accelerate research, enrich education, share the learning of the rich with the poor and the poor with the rich, make this literature as useful as it can be, and lay the foundation for uniting humanity in a common intellectual conversation and quest for knowledge." (From the Budapest Open Access Initiative Web site at <http://www.soros.org/openaccess/>).

Introduction

At this point, online scholarly publishing is pursuing two economic models - commercial and open access. The commercial model provides access through subscription and pay-per-view systems, with abstracts or at least titles available publicly. The open access model, the spirit of which is well captured in the epigraph, permits the free reading of full-text articles online, whether immediately on publication or some time after. The commercial model brings the economics of print culture into the world of the Internet, and it currently dominates online scholarly publishing, whether through corporate conglomerates like Reed Elsevier, or through non-profit scholarly societies and university presses. Open access is clearly a child of the Internet, an upstart that takes advantage of this new technology to reduce publishing costs, while shifting those reduced costs from readers to institutions, authors and others with an interest in the circulation of knowledge¹.

Although we are but a decade into scholarly publishing on the Internet, it seems clear that what comes of this contest between these two models - commercial and open access - will determine the future of scholarly publishing for some time. And while I cannot predict how this contest will resolve itself, I have been struck in exploring the case for open access by how the very principles of copyright law, oddly enough, appear to be on its side. While battles aplenty are brewing around fitting copyright to this new Internet Age, scholarly publishing has not been a major focus, even among the scholars active in the discussion of copyright amendments and extensions².

Yet scholars - whether as authors, journal editors, editorial board members, or scholarly society executive - now face critical decisions over the utilization of this new publishing medium to further scholarship, and copyright provides one way of focusing the issues at hand. Copyright law is intended to

¹ William Y. Arms hails open access as a "marvel of the World Wide Web" and a "permanent economic model" in scholarly publishing (Arms, 2000). He draws an economic analogy between information on the Internet and the broadcasting of television programming, sponsored by advertising, external agencies, subscription, and pay-per-view (2000). For examples of open access journals, see BioMed Central (<http://biomedcentral.com>) and Electronic Journals in the Field of Education (<http://aera-cr.ed.asu.edu/links.html>) among open access databases or indexes, see PubMed (<http://www.ncbi.nlm.nih.gov/entrez>) and NEC ResearchIndex (<http://citeseer.nj.nec.com/cs>).

² For this larger struggle, on the side of the public domain, see Vaidhyanathan, (2002) on the threats to fair use, as well as the Creative Commons (<http://www.creativecommons.org>), Center for the Public Domain (<http://www.centerforthepublicdomain.org>), and Public Knowledge (<http://www.publicknowledge.org>).

protect the interests of both creator and public, and that principle should bear on decisions that are made about adopting the commercial or open access publishing models in moving more and more scholarly work online. It no longer makes sense, if it ever did, for researchers to transfer the copyright for their writing to journal publishers in exchange for its publication. The Internet offers a choice among the political economies of knowledge, and scholars have now to reckon on what they owe the public and themselves, in deciding the future of academic knowledge.

Now, this concern over the public-versus-private status of university researchers' work is not new. At least as far back as the 1940s, researchers were called to account for this common tendency to "turn the results of publicly funded research over to some private corporation on an exclusive, monopoly basis" as Horace Gray put it at the time with regard to patents, saying it amounted "to public taxation for private privilege"³. In a 1942 essay on science and democratic social structure, the sociologist of science Robert Merton pointed to how "'communism,' in the non-technical and extended sense of common ownership of goods" was integral to the scientific ethos, along with universalism, disinterestedness, and organized skepticism⁴. He later wrote of how "only by publishing their work can scientists make their contribution (as the telling word has it) and only when it thus becomes part of the public domain of science can they truly lay claim to it as theirs"⁵. And while once going public was simply to publish in a journal or book, new publishing technologies have complicated the very nature of the "public domain of science" and "the status of scientific knowledge as common property," to use another of Merton's expressions⁶.

More recently, the U. S. Fifth Circuit Court ruled in *Miller v. University Studios* (1981) against the copyrighting of research results: "The valuable distinction in copyright law between fact and expression cannot be maintained if research is held to be copyrightable... [T]o hold that research is copyrightable is no more or not less than to hold that the facts discovered as a result of research are entitled to copyright protection"⁷. The American Association for the Advancement of Science points to how this information age "challenges the traditional balance between public and private rights"⁸. It acknowledges the uncertainties created by new legal infrastructures, while recommending that

³ Cited by McSherry, 2001, p. 148.

⁴ Merton, 1968, p. 610.

⁵ Merton, 1979, p. 10, original emphasis.

⁶ Merton, 1968, p. 611.

⁷ Cited by McSherry, 2001, p. 204.

⁸ Frankel, 2002, p. 12.

scientists seek publishing arrangements that "actively foster the public interest in promoting access to and broad use of scientific information"⁹.

To better understand how that traditional balance between public and private rights may have been disturbed by online publishing, I conducted an informal survey of five former editors who have worked with major corporate scholarly publishers such as Elsevier, Springer, Kluwer, and Wiley, before going on to do editorial work in the public sector of academic publishing. While hardly an unbiased sample of editors, they did make it clear that there is no standard relationship between editor and publisher, but that a number of common principles apply, largely around transfer of ownership, that point to how distorted the relationship has become around the original intent of copyright law.

The Publisher's Contract

Among the inconsistencies, the editors' remuneration ranged from a free subscription to the journal to what one editor identified as, for 1991, "a nontrivial amount of \$9,500" that was to his initial surprise paid to him annually. Where one publisher did proof-reading and offered to support copy-editing costs - the editor opted to do it himself, as he felt he had the scientific background to do a better job - another publisher did neither copyediting nor proof-reading, but managed to, in the editor's opinion, "typically introduce typos rather than removing them." The result in that case was that some authors insisted on submitting their copy camera-ready in LaTeX rather than risk having them typeset. These former editors also explained the choices made by themselves and others in terms of ignorance and vanity - "it is hard to refuse a board position with a prestigious journal," as one put it - with another crediting the Association of Research Libraries for beginning to educate faculty on the consequences of their decisions. Yet another mentioned "the huge cost of breaking away" from the established publishers, which included rebuilding subscription bases and the loss of inclusion in the Science Citation Index.

One editor explained how scholarly societies, even without turning their journals over to commercial publishers, were still taking advantage of the subscription price increases set by those publishers by raising their prices while still keeping them well below the corporate figures. As one editor put it, with the journals producing a half-million dollar surplus for his scholarly society to work

⁹ Frankel, 2002, pp. 12, 24.

with, it was hard to imagine the society opting for a less-profitable model of academic publishing: "If it doesn't have a revenue model, it's a non-starter." I am considering elsewhere (Willinsky, 2002) why such societies clearly need to consider how electronic access through the library will make individual subscriptions and the membership-incentive of free or reduced subscription rates no longer viable.

In reviewing one of the publisher's contracts with its editor, what becomes immediately apparent is that securing copyright control over the journal and its contents is the publisher's principal aim. For example, with one publisher providing \$16,000 per year to the editor to cover office expenses only - they had told the editor that any payment directly to the editor or the reviewers would taint the process - the publisher made it clear that this was "in consideration for," as the editor put it, his services as well as for the transfer of copyright for all materials in the journal. The turning over of copyright was thus not to be misconstrued as a gift or otherwise considered potentially non-binding or contestable. More than that, in the case of at least one publisher's contract, the author is placed in the odd position of agreeing that their scholarship is "work-made-for-hire," or as the contract puts it:

The Journal and all material contained therein and the work product of the Editor and the Editor's staff produced hereunder shall constitute a 'work-made-for-hire' under the U.S. Copyright Act and all rights comprised therein shall automatically, upon creation, vest in and thereafter be solely owned by the Publisher. To the extent, if any, that the Journal and/or any Contribution or other material contained therein do not qualify as a 'work-made-for-hire' or copyright or other proprietary rights thereto might otherwise vest in the Editor, the Editor hereby grants, assigns and transfers all such rights exclusively and in perpetuity to the Publisher, in all languages and formats, in all media of expression now known or later developed, throughout the world.

What this particular publisher's contract suggests, with its "work-made-for-hire" clause, and what appears to be the case with academic publishers generally, is that commercial scholarly publishing is as much about ensuring long-term asset management as it is about providing service to the academic community. More than that, in a reversal of what otherwise would seem the case, the author is being strangely cast as providing a hired service to the publisher, rather than the other way around. As things stand, the publisher is assumed to have paid for this work-made-for-hire, by seeing the manuscript through to

publication, and thus has the right to then sell, or rather rent (as it retains ownership) the work back to the authors' employers, namely the universities and their libraries, and colleagues. Now this transaction, however contractually contorted to ensure the legitimacy of the copyright transfer, does ultimately benefit the author and the university, as well as the publisher. Yet whether this route represents the researcher's best interests, protecting the system of financial incentives that drive the creation of this public good, is worth considering in more detail.

For example, the publisher's contract contravenes - or is aimed at taking advantage of - what is known as the "teacher exception" or "academic exception" that allows scholars to retain copyright. The work-made-for-hire rule gives ownership to the employer for, as the U.S. Copyright Act puts it, "a work prepared by an employee within the scope of his or her employment"¹⁰. Under this exception, scholars are allowed to retain the copyright for their research, rather than having to turn it over to their employers, as they would at IBM or General Motors, under the work-made-for-hire rule. This right is basic to the "disinterested inquiry" associated with academic freedom. It recognizes that the scholar's independence and creativity as directed toward a higher, public good, rather than as directly necessary for the financial well-being of the institution employing the researcher.

That researchers are assumed to possess exclusive copyright ownership over a manuscript in a way that they do not over a patent developed at a university - in which the university will typically make a claim, after helping establish it - has to do with how a patent protects a process or device, requiring considerable investment to realize, rather than protecting the exact expression of an idea whose value lies in and of itself¹¹. (Of course, it also has to do with

¹⁰ 17 U.S.C. § 101. Also see Frankel (2002, p. 14) on the "teacher exception" upheld most recently by *Hays v. Sony Corp. of America*, 847 F.2d 412 (7th Cir. 1988); and, McSherry (2001, pp. 101-143) on the similar "academic exception".

¹¹ Christopher Kelty: "Where scientists once raced each other to publish data they now race to patent it" (2001, p. 8). American universities were given the right to own patents resulting from federally sponsored research patents by the Bayh-Dole Act of 1980 (as long as federal government access is not restricted). Patents cover human creations that are novel, useful, and non-obvious, and rather than being limited to the expression of an idea, McSherry explains how patent infringement covers devices that perform an equivalent function (2001, p. 170). Their intention is to reveal best practices to the public, while protecting the property rights of the creator, although McSherry points out that "part of the invention, intentionally or not, will remain 'secret'" (p. 175). In 2000, U.S. universities received \$1 billion in royalties, and filed for 8,534 U.S. patents. Royalties are up 40 percent over 1999, if only because it included payments for patent-infringement lawsuits, as in the case of Genentech's payment of \$200 million to the University of California at San Francisco (Blumensty, 2002). This is the "second academic

financial potential of patent versus copyright.) In the case of the scholarly manuscript, what the courts have upheld in the name of academic freedom - the right of the author to retain control over their scholarship - the authors can't wait to give away to the publisher, "in all media of expression now known or later developed, throughout the world." This ominous phrase points to how the new publishing technologies only add to the significance of this ownership transfer, as online journal archives accessed through the publisher have become a revenue source through pay-per-view transaction systems, and archives licensing.

This transfer of ownership has become a basic tenet of publication among corporate and non-profit publishers adhering to this commercial model of scholarly publishing. Why the publisher requires the complete transfer of ownership is not at all clear, when what is at issue for the journal is first publication rights. With this journal, for example, the author retains copyright, granting the only the publication right or license which "allows First Monday to publish a manuscript in a given issue," as its Web site puts it. Now, this may seem simply a matter of choosing between two terms for the same principle, whether copyright or publication right. But copyright asserts more than ownership, in a financial sense; it represents a moral claim over the work. It asserts the scholar's continuing interests in furthering and protecting this public good by granting only such rights to it as will ensure its publication¹².

The publisher's insistence on copyright transfer represents the business principle of maximizing the exclusivity of one's legal control over one's assets. Yet this principle leads to its own copyright contradictions for the publisher. Reed Elsevier, for example, allows that "authors can share their articles with colleagues, post them on campus networks and use them electronically for courses. There is neither a charge to authors nor a need to ask permission for these uses"¹³. It would be nice to think that under these retained rights, which are common enough in scholarly publishing, authors could post their work on self-indexing "campus networks" that amounted to a distributed database system of open access research.

Multiple points of access to research is already a reality, in effect, through individual faculty members' Web sites as well as through Eprint services, such as aXiv.org. And it may yet lead to a copyright infringement test case, if it is seen to

revolution" that advances the idea from the advancement of knowledge to the capitalization of knowledge (Etkowitz et al., 1998).

¹² I owe this point to Henry Hardy who has decried the lack of concern over this distinction in a letter to the Times Literary Supplement (29 March 2002), p. 17.

¹³ Elsevier Science at

http://www.elsevier.nl/homepage/authors/?main=/homepage/about/ita/why_contd.shtml.

undermine Elsevier's core business. So when Elsevier claims that authors who publish with it "have wide rights to use their works to support their research and teaching," it is only because many scientists have yet to see that furthering the open and global exchange of knowledge would greatly support the very spirit of their research and teaching. This is not about advocating forms of anti-capitalist anarchy on the level of Abbie Hoffman's Steal this Book idea or the friendly exchange economy of other people's music through the likes of Napster. It is about scholars weighing the advantages, for the work they do and the ideals they hold, of two economic models that have taken root with Internet publishing.

The publishers' insistence on copyright transfer also undermines the commercial model's claim to be providing authors with a necessary service. In fact, publishers would be more accurately described as publishing work they have acquired at no cost¹⁴. With print, the concern with copyright culture, offering the publisher ownership of a work in exchange for its publication and distribution, may have been the only way for a research paper to reach the broad public marketplace for ideas. Online open access publishing demonstrates, however, that the commercial model is no longer the only way to circulate research. More than that, open access publishing's ability to serve a wider readership means that it is likely to further the author's interests, as well as those of the larger field of inquiry, than commercial models.

The Spirit of the Law

To better understand how the transfer of ownership to academic publisher contradicts the very spirit of a copyright law, consider the relevant clause in the U.S. Constitution which grants Congress the power: "To promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries"¹⁵. The clause is intended to protect the financial incentives for authors and inventors to continue their creative work, while also ensuring that the public domain is preserved by limiting the exclusivity of that right. It suggests that authors and inventors, or scholars and researchers, in this case, need to assess whether their exclusive right

¹⁴ Some publishers do contract with scholarly societies to publish their journals. Bergstrom (2001) uses the example of Blackwell, which publishes its own journals as well as providing a publishing service for scholarly societies. *Econometrica*, for example, is wholly owned by the Econometric Society, and at six issues a year costs \$267 for libraries, with individual membership and subscriptions at \$59.00. This was in line with the economic journals I sampled at Blackwell.

¹⁵ U.S. Constitution. art. I, § 8, cl. 8.

to their respective writings and discoveries has been protected, in terms of ensuring a strong financial incentive, when comparing the options posed by the commercial and open access models of publishing. My claim would be that those who choose to publish with commercial publishers are, in effect, working against their own best interests both financially, given the peculiar academic incentive system, and professionally, in terms of a greater public good. They are not only selecting a system that reduces public access to knowledge, they may be choosing one that undermines the level of recognition they receive, with such recognition having financial value through promotion, merit pay, and job opportunities.

Certainly, many very prestigious journals adhere to the commercial model, and appearing in such journals does one's career a world of good. But this prestige is closely associated with the journal's editors and authors, with its rejection rates and citation levels, none of which is dependent on the additional financial resources of the commercial model. All things being equal, a better choice for authors, from a copyright perspective, is open access. The question of when things will be equal between the commercial model, which now dominates scholarly publishing, and the open access model is matter of leading editors and authors being persuaded that the open access model better serves their own scholarly interests, as well as those of the intellectual enterprise more generally.

It may seem obvious that open access materials are read, or at least accessed, more often than proprietary items. But it might also seem obvious that anything that is free is bound to be of less value to people. According to at least one study, this is not the case with open access publishing. In a comparison of open-access conference papers and their print equivalent, Steven Lawrence (2001) analyzed some 110,000 peer-reviewed computer science papers. This is a field, Lawrence points out, where conference papers are as highly regarded as journal articles, with acceptance rates often below 10 percent. His work with the open access citation indexing service, ResearchIndex (Lawrence et al., 1999) has enabled him to identify over a million research articles that are freely available on the Web: "Some journals and conferences provide free access online, others allow authors to post articles on the web, and others allow authors to purchase the right to post their articles on the web." His comparison of which articles are cited more often, when comparing the medium of publication, strongly suggests the advantages for authors making their work available online: "When considering articles within each year, and averaging across all years from 1990 to 2000, we find that online articles are cited 4.5 times more often than offline articles." Although computer scientists are as likely as other researchers to have access through their libraries to a wide range of print and electronic versions of commercially available research, the very ease of access and what he calls

"improved visibility" would seem to work to the author's advantage. Of course, the studies we now need will compare those open access papers to those in proprietary databases, such as the one run by Association of Computing Machinery.

Although non-profit publishers, such as scholarly societies and university presses, also insist in most cases on authors transferring copyright ownership to them, when compared to commercial publishers, they lend further support to the contention that the financial status, including the cost, of the publication, does not relate to academic prestige or recognition (which are critical to the financial incentive of researchers). The economist Theodore Bergstrom has established that the six most cited journals in economics, according to the ISI Social Sciences Citation Index, are owned by non-profit scholarly societies (Bergstrom, 2001). The economic journals owned by commercial publishers held only five places within the top 20 cited journals, while their average subscription fee was \$1,660 compared to \$180 for non-profits in the year of his study.

Given that open access papers are cited more often than print papers, and more generally, that the amount of money involved in publishing is not related to the financial incentives of researchers and scholars, the rights which copyright are meant to protect in the case of scholarly publishing, for the benefit of authors and public, would seem better served by the open access model, or so the first preliminary signs seem to indicate. If that is the case, then the contradiction is compounded as commercial publishing continues to increase its hold over the economic journal market. Bergstrom found that in 1960, the 300 economic journals of the time were almost entirely non-profit, while by 1980, half of the then 120 journals were published by commercial concerns, and by 2000, that proportion had risen to two-thirds of the 300 journals¹⁶. This move to the corporate publisher is unlikely to improve the quality or reputation of their publications, judging by the status marker of the citation, to publish with commercial publication. The resulting higher prices could well reduce the size of the audience as well as decrease the holdings of the libraries used by their members. It does not support the organization's more altruistic interests of supporting scholarship's contribution to the public good. It also virtually precludes a move to open access publishing, which is still very much a viable option for non-profits.

¹⁶ Bergstrom, 2001, pp. 9-10; this would also appear to be the tendency in other fields, judging by how 10 of Elsevier's 13 new acquisitions and launches in 2001 were drawn from scholarly societies, while 10 of the 35 new titles Sage Publications for 2002 represented "society contracts" (according to their respective promotional materials on their Web sites).

Now to be fair, commercial publishers offer a high degree of professionalism in their approach to management, and to publishing both in print and online. They are acquiring a growing clout with libraries through their bundling of journals and this enables new titles or those with very small subscription levels, to find an assured place in major research libraries (McCabe, 2002). They are investing heavily in sophisticated electronic journal systems, with such beneficial features as reference linking. Still, the corporate publishers' very accumulation of titles has raised serious monopoly and antitrust questions, according to the analysis of economist and former employee of the U.S. Justice Department's Antitrust Division, Mark C. McCabe, which could also run contrary to the Copyright Act's balance of author and public rights (McCabe, 2002).

An analogy worth considering on this issue of public rights can be found in the Freedom of Information Act (FOIA). The university, even the public university, is not covered by this Act, which is restricted to "government agencies," and yet a good deal of scholarly work is supported by public money, whether through federally awarded grants or salaries from public institutions. This suggests that the resulting research might be subject to an FOIA appeal, perhaps by scientists at smaller schools without access to the appropriate journal or by companies that cannot otherwise afford reasonable access to the journal¹⁷. This is not a challenge to author's copyright, which covers the very expression of the ideas, but a challenge to the democratic openness to public resources. The FOIA analogy comes close to applying to the federal agency, the National Library of Medicine which runs PubMed. This open access online index for health sciences currently provides "link-out" access to the full-text of 2,637 journals, from Abdominal Imaging to Zygote. Some of these journals are free and some require subscriptions or pay-per-view. So a doctor or a patient searching for information may find some studies are free and others cost perhaps \$10.00 for 24 hours of access. This is more than a user fee or cost recovery system, which can apply with the FOIA - as the publishers charging this pay-per-view fee are for-profits, seeking an additional revenue stream through this free referral system provided by the government.

While readers can tell if a study has been federally funded by buying access to it, they may still wonder how PubMed has ended up acting as an unremunerated referral service for some academic publishers, increasing the publishers' revenue because they have refused to make their work freely

¹⁷ Freedom of information may be accompanied by a fee, depending on the use to which it is to be put, with educational uses usually held only to duplication costs.

available in the way that, for example, the British Medical Journal does. And when Reed Elsevier, the world's largest commercial publisher of academic journals, refuses to allow free access to its journals through PubMed, it protects the revenue rights of its ownership, even as it could arguably be said to cause authors financial harm - dependent on their recognition and citation - by reducing their online visibility (Kiernan, 1999). By offering this public service, PubMed has inadvertently reinforced the value of the copyright retention by the publishers while again working against the author's best interests - whether as scientist or humanitarian - in relation to what could be achieved through open access publication. So one might ask if this open and closed pattern of access to scientific research does as much "To promote the Progress of Science and useful Arts," in return to the constitutional spirit of copyright. The American Association for the Advancement of Science, for example, holds that "Federal agencies that fund research should recommend (or even require) as a condition of funding that the copyrights of articles or other works describing research that has been supported by those agencies remain with the author" (Bachrach et al., 1998).

This transfer of copyright ownership without financial compensation distinguishes scholarly publishing. It sets scholarship apart from the commissioned article, journalism, or the royalty contract of book publishing. What this commercial version of scholarly publishing may resemble came to me one day at lunch, after my son relayed to me a story he'd been told about how the fine print in Hotmail had allowed Microsoft to make a copyright claim to a movie script that had been sent as an attachment through its free e-mail system. After explaining to him, as only a father can, that this was surely an urban myth, I realized that what struck me as patently absurd in the case of Hotmail was not all that different from academic publishers staking a copyright claim to the work of scholars in exchange for publishing it¹⁸. The e-mail service is intended to

¹⁸ What Microsoft does say is: "Microsoft does not claim ownership of the materials you provide to Microsoft (including feedback and suggestions) or post, upload, input or submit to any MSN Site/Service or its associated services for review by the general public, or by the members of any public or private community, (each a "Submission" and collectively "Submissions"). However, by posting, uploading, inputting, providing or submitting ("Posting") your Submission you are granting Microsoft, its affiliated companies and necessary sublicensees permission to use your Submission in connection with the operation of their Internet businesses (including, without limitation, all MSN Sites/Services), including, without limitation, the license rights to: copy, distribute, transmit, publicly display, publicly perform, reproduce, edit, translate and reformat your Submission; to publish your name in connection with your Submission; and the right to sublicense such rights to any supplier of a MSN Site/Service" (<http://privacy.msn.com/tou/>). Also "It is MSN Hotmail's policy to respect the privacy of its users" (<http://www.hotmail.com>).

attract users - by offering formatting, spell-checking, addressing, delivery services - so that advertising can be sold. The journal prepares research papers for sale to libraries and individuals. Both continue to invest in the technology to improve their service, and yet neither should require a copyright claim over the work they convey, as the value of the content, in the case of the scholarly paper, comes out of the collective work of the researchers, reviewers, and editors who labor to further a public good.

Conclusion

Scholars do not share the same copyright interests as commercial academic publishers. The financial incentive for the scholars lies in the cash value of recognition and reputation, which translates into salary increases, promotions, merit bonuses, paid speaking engagements, consulting contracts, more lucrative job offers, and counter-offer retention packages. The financial value of this recognition is also realized through the research grants and awards which provide their own form of financial independence for scholars. The principal copyright (and financial) interest of researchers is to ensure that their work is properly credited when reproduced or cited, and that it is reproduced and cited as often as possible for as wide a readership as possible. Copyright protects this critical element of recognition for the author against plagiarism and other false claims to authorship.

The economic interests of faculty are not furthered by preventing illegal copies of their publication. Just the opposite. Studies of "what authors want" within the academic community speak of the author's over-riding interest in journals with the widest possible audience, while keeping an eye on its level of prestige and its inclusion in the major indexes, which are further ways of extending readership (Swan and Brown, 1999). Copyright did not prove a particular concern to scholars, in the Swan and Brown study, just as a survey conducted by the Association of Learned and Scholarly Publishers found that researchers felt it important to have free access to scholarly journals in the future (ALPSP, 2002).

From their side of the coin, the interests of the commercial publishers lie in restricting access to scholarship, with technologies such as pay-per-view offering even greater control than provided by print. In the case of academic journals, the reputation of the editors, editorial board, reviewers, and authors is critical to securing library and individual subscriptions, restricting access to their work is a financial necessity in a way that it simply is not for the authors. Journal publishers have not made their contributing authors financial partners, in any

way, in the publishing economy. (The royalties paid to the author of a scholarly book set it apart from the journal.) It is not surprising, then, that the copyright interests of author and publisher stand in contradiction to each other in the case of the academic journal.

When there was but one way to make research public and widely accessible, then there could be little argument against readers and libraries bearing the publishing costs of print. Nor was there reason then for researchers to be concerned about turning the ownership of their work over to the publishers. What was one going to do, turn around and distribute the work to the world for free? And in this world of print, the journal existed within its own separate economy of scholarly society and local printers for the longest time. The considerable growth of commercial investment in scholarly communication largely took place after World War Two, in response to the very blossoming of scholarly activity that resulted from the growth of funded research. Now, this commercialization has driven scholarly publishing to the point where "the current system of scholarly publishing has become too costly for the academic community to sustain," according to the Association of American Universities and the Association of Research Libraries (ARL, 2000).

With the emergence of a new publishing medium, enterprising researchers and others have introduced a second economic model - open access - into scholarly publishing. This model invites and supports a wider readership, on a far more global basis, and is far more in accord with the copyright interests of researchers and those who would back such scholarly and scientific activities. In the immediate years ahead, researchers, journal editors, editorial boards, and scholarly societies will make choices over whether to pursue one or the other of these two economic models for scholarly publishing - commercial or open access. The results of these choices will have everything to do with the future of academic work, in its ease and organization of access, its global reach and public presence, its claims and support as a public good. For my part, I would ask that they give some thought to the current state of copyright contradiction in scholarly publishing, as they find ways to pursue their interests as scholars and researchers through this new medium.

References

- Arms, W.Y. (March 2000). Economic Models for Open Access Publishing. *iMP*. Available at http://www.cisp.org/imp/march_2000/03_00arms.htm.
- Association of Learned and Scholarly Publishing (ALPSP) (2002). Authors and Electronic Publishing - ALPSP study. *Scholarly Communication Report*, 6(4), 6.

- Association of Research Libraries (ARL), 2000. *Principles for emerging systems of scholarly publishing*. Available at <http://www.arl.org/scomm/tempe.html>.
- Bachrach, S., Berry, R.S., Blume, M., von Foerster, T., Fowler, A., Ginsparg, P., Heller, S., Kestner, N., Odlyzko, A., Okerson, A., Wigington, R., Moffat, A. (4 September 1998). Who Should Own Scientific Papers? *Science*, 281(5382), 1459-16. Available at <http://www.sciencemag.org/cgi/content/full/281/5382/1459>.
- Bergstrom, T.C. (2001). Free Labor for Costly Journals. *Journal of Economic Perspectives*, 15 (4), 183-198.
- Blumensty, G. (5 March 2002). Value of University Licenses on Patents Exceeded \$1-Billion in 2000, Survey Finds. *Chronicle of Higher Education*.
- Etzkowitz, H., Webster, A., Healey, P. (1998). *Capitalizing Knowledge: New Intersections of Industry and Academia*. Albany: State University of New York Press.
- Frankel, M.S. (2002). *Seizing the Moment: Scientists' Authorship Rights in the Digital Age. Report of a study by the American Association for the Advancement of Science*. Washington, D.C.: AAAS. Available at <http://www.aaas.org/spp/sfrrl/projects/epub/epub.htm>.
- Kelty, C. (2001). Free Software/Free Science. *First Monday*, 6 (12). Available at http://www.firstmonday.org/issues/issue6_12/kelty/index.html.
- Kiernan, V. (03 December 1999). Open Archives' Project Promises Alternative to Costly Journals. *Chronicle of Higher Education*.
- Lawrence, S. (2001). Online or Invisible? *Nature*, 411 (6837), 521. Available at <http://www.neci.nec.com/~lawrence/papers/online-nature01/>.
- Lawrence, S., Giles, C.L., Bollacker, K. (1999). Digital libraries and Autonomous Citation Indexing. *IEEE Computer*, 32 (6), 67-71. Available at <http://www.neci.nec.com/~lawrence/papers/aci-computer98/aci-computer99.html>.
- McCabe, M.J. (2002). Journal Pricing and Mergers: A Portfolio Approach. *American Economic Review*, 92 (1), 259-269.
- McSherry, C. (2001). Who Owns Academic Work? *Battling for Control of Intellectual Property*. Cambridge, Mass.: Harvard University Press.
- Merton, R. (1979). Forward. In: Garfield, E. *Citation Indexing: Its Theory and Application in Science, Technology, and Humanities*. New York, Wiley. Available at <http://www.garfield.library.upenn.edu/cifwd.html>.
- Merton, R. (1968). Science and Democratic Social Structure. In: *Social Theory and Social Structure*. Third edition. New York: Free Press.
- Swan, A., Brown, S. (1999). What Authors Want: Report of the ALPSP Research Study on the Motivations and Concerns of Contributors to Learned Journals. *Learned Publishing*, 12 (2), 74.

Vaidhyanathan, S. (02 August 2002). Copyright as Cudgel. *Chronicle of Higher Education*.

Willinsky, J. (2002). *Scholarly Associations and the Economic Viability of Open Access Publishing*. Unpublished paper, Vancouver: University of British Columbia. Available at

<http://research2.csci.educ.ubc.ca/workingpapers/association.pdf>.