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Libraries as Publishers: Increasing Access to Scholarly Literature

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Introduction

Access to information is often discussed in terms of public policy and civil liberties: how do laws or government programs restrict or encourage the flow of information in society, and how can concerned citizens press for more equitable access to information by those outside power. We must not, however, underestimate the role that economic barriers play in restricting access to information. The recent ossification of the international copyright regime and consolidation of the scholarly publishing industry are making the economic access problem even more acute. We will discuss the situation with copyright and the publishing industry and then examine initiatives to intervene in the scholarly communication system, discussing publishers' responses and the role that libraries play. As institutions whose mission is to provide free access to information to all users, libraries need to facilitate the creation and dissemination of information if the market does not do so in a cost-effective way.

Economic barriers to access

Ossification of the international copyright regime

Copyright is a government-sanctioned monopoly giving a person the exclusive right¹ to make reproductions and translations of a work and to grant licenses or permission to others to do the same. While originally meant as a privilege only for the creator of the work or idea, a system of *intellectual property* has evolved by which this right can be transferred like any other form of property. By considering copyright a property, we accept that that the copyrighted information belongs to someone and can be bought and sold like any other commodity, of which by definition there is a finite supply. However, unlike other commodities, information itself is not scarce. There are marginal costs in producing media for the information and in transmitting it, but these continue to decrease as computer storage and bandwidth become less expensive, much as the cost of book printing and distribution has decreased over time. The system of copyright has ossified the status of information as a commodity by enforcing scarcity in what can be reproduced endlessly with almost no marginal cost.²

The commodification of information that began in the West decades ago is being spread to the developing world through international trade agreements, which force signatories to extend intellectual property rights to meet Western standards. While the Berne Convention³ allows developing countries extra rights for reproducing copyrighted works, these privileges are essentially nullified for World Trade Organization (WTO) members by the TRIPS Agreement,⁴ which forces developing and least-developed member states to have fully compliant intellectual property systems by 2000 and 2006, respectively. Recent attention has focused on international pressure in other forms of intellectual property—for example, the patenting of drugs and plants by major Western pharmaceutical and agriculture firms, thereby putting them out of reach for people in poor countries who cannot afford to purchase or license these goods. While the seriousness of this injustice to the Third World cannot be overstated, the economic barrier to information created by copyright, although not a life-or-death situation, also hinders the development of Third World countries. In the developing world, students, researchers, policy makers, and anyone else who relies on information in their work are at a competitive disadvantage to their Western peers simply based on the availability of scholarly information. While the publishing industry has established schemes for giving free or discounted access

Note: All URLs were verified on March 1, 2005.

¹ There are limits to the exclusive right of the copyright holder, allowing others to use the work, or portions of it, without permission, compensation, or both, under certain conditions. For an overview of these, see Stephen M. Stewart, *International Copyright and Neighbouring Rights*, 2d ed. (London: Butterworths, 1989), 79-81.

² See, for example, Dan Schiller, "How to Think About Information", in *The Political Economy of Information* (Vincent Mosco and Janet Wasco, eds.), Madison, Wisc.: University of Wisconsin Press, 1988, pp. 27-43.

³ "Berne Convention for the Protection of Literary and Artistic Works," http://www.wipo.int/treaties/en/ip/berne/trtdocs_wo001.html.

⁴ World Trade Organization, "Trade-Related Aspects of International Property Rights," http://www.wto.org/english/docs_e/legal_e/27-trips_01_e.htm.

to certain journals to least developed countries,⁵ the access is not full and does not include developing countries with significant government research funding.⁶ OECD members plus a handful of other nations have signed a resolution on access to publicly funded research,⁷ but national legislation implementing the resolution is encountering opposition from publishers.⁸ Furthermore, a significant amount of research occurs without public funding and would not be covered the OECD resolution. More recently, the Access to Knowledge (a2k) Treaty⁹ has been proposed but is far from realization.

Consolidation of the scholarly publishing industry

Scholarly publishing is peculiar among markets because it has inelastic demand and high barriers to entry due to the strong prestige of established brands (titles and imprints)¹⁰ and because most users are sheltered from the product's cost (which is usually born by a library). The past few decades have seen an expansion of the role of commercial publishers in scholarly publishing.¹¹ While the number of journals—and articles in each journal—has greatly expanded, the market has consolidated. The average cost of scholarly publications has outpaced price indexes, with large profit margins for commercial publishers.¹² While the industry argues that consolidation itself is not to blame for the rising cost of scholarly literature, many blame publishers for becoming uncompetitive or even monopolistic¹³ by relying on brand prestige and the deep pockets of higher education.

Intervention in the market and publishers' responses

Increasingly rigid copyright legislation and the concentration of the publishing market have made unequal access to scholarly information a more acute problem. However, the diminishing cost of computer storage and bandwidth lowers the barrier of entry to the market, increasing access to the means of distribution for scholarly literature. If consumers and users of scholarly information feel the market is not performing adequately because it charges too much for the product or requires contributors to turn over too many legal rights, they are now well-positioned to enter the market themselves by disseminating information electronically. Indeed, consumers and users—libraries,

⁵ The two main initiatives are the Health InterNetwork Access to Research Initiative (HINARI) from the World Health Organization (WHO) (<http://www.healthinternetwork.org/>), and Access to Global Online Research in Agriculture (AGORA) from the Food and Agriculture Organization (FAO) of the United Nations (<http://www.aginternetwork.org/en/>).

⁶ Jonathan A. Weitzman, "(Mis)Leading Open Access Myths: Myth #7," <http://www.biomedcentral.com/openaccess/inquiry/myths/?myth=poorcountries>.

⁷ Organisation for Economic Co-operation and Development, "Science, Technology and Innovation for the 21st Century. Meeting of the OECD Committee for Scientific and Technological Policy at Ministerial Level, 29-30 January 2004 - Final Communiqué," http://www.oecd.org/document/0,2340,en_2649_34487_25998799_1_1_1_1,00.html.

⁸ "The UK Government Responds to the Gibson Committee Report," <http://www.earlham.edu/~peters/fos/newsletter/12-02-04.htm#uk>; "Comments on the Weakening of the NIH Public-Access Policy," <http://www.earlham.edu/~peters/fos/newsletter/02-02-05.htm#nih>.

⁹ See Peter Suber, "SPARC Open Access Newsletter" 82, <http://www.earlham.edu/~peters/fos/newsletter/02-02-05.htm>, and "More on the Access to Knowledge (a2k) Treaty," http://www.earlham.edu/~peters/fos/2005_02_20_fosblogarchive.html#a110929856184286424.

¹⁰ Bas Savenije, "The SPARC Initiative: a Catalyst for Change," <http://www.library.uu.nl/staff/savenije/publicaties/ticer2004.htm>.

¹¹ "Scholars Under Siege," *Create Change*, <http://www.createchange.org/librarians/issues/silent.html#HowHere>.

¹² See, for example, Bas Savenije, "The SPARC Initiative: a Catalyst for Change," <http://www.library.uu.nl/staff/savenije/publicaties/ticer2004.htm>. For more recent data, see Association of Research Libraries, "ARL Statistics," <http://www.arl.org/stats/arlstat/>. Also see "Issues in Scholarly Communication" from the ARL Office of Scholarly Communication, <http://www.arl.org/scomm/>.

¹³ See the recent symposium *Antitrust Issues in Scholarly and Legal Publishing*, <http://www.informationaccess.org/ats/symposium.html>.

learned societies, institutions, and individual scholars—have pioneered new models for scholarly communication over the past approximately fifteen years.¹⁴

Most of these initiatives fall under the rubric of *open access* (OA). As clearly summarized in Peter Suber's "Open Access Overview,"¹⁵ open access literature is generally "digital, online, free of charge, and free of most copyright and licensing restrictions." It can be funded by institutional support, grant money, donations, author fees, or a combination. The "author pays" business model is perhaps the most controversial aspect of open access publication and has gained the most attention. Skeptics say that it will inevitably lead to vanity presses and make it harder for scholars with less research funding to get their scholarship published, while advocates argue that peer review can be properly implemented under the author-pays model and that there should be a sliding scale for author fees. Some open access initiatives dispense with peer review entirely but usually replace it with another method of limiting submissions based on credentials. Such *archives* or *repositories* of preprints and postprints can provide access to material found in journals as well as to gray literature. The first such archives were scholar-initiated and discipline-based, but institutional repositories are gaining in popularity.¹⁶

Not all new publishing initiatives meet the criteria of open access. For example, the ACLS History E-Book Project¹⁷ is a subscription-based service run by a learned society that takes advantage of the electronic medium and network dissemination to reach wider audiences than through print media. The Berkeley Electronic Press¹⁸ is a commercial operation that uses the Internet for faster peer review and publication of scholarship. While the content is not freely available, these and other such operations have in mind increased and more efficient access to scholarly information, just as open-access publications and repositories do.

To their credit, commercial and university presses have experimented with new media, in keeping with user demands for more convenient access to information, and with new business models, in response to charges of market abuse and the growing threat of non-commercial distribution systems for scholarly literature. While most every publisher provides an electronic version of their content (available by subscription), many have also experimented with online-only publications. A few, like the Electronic Imprint of the University of Virginia Press,¹⁹ are taking advantage of new media to produce innovative new forms of scholarship. As for open access from publishers, two Oxford University Press journals are currently experimenting with open access,²⁰ and Springer has an open-access component to one journal as well.²¹ Furthermore, Springer and Blackwell give all authors the option of paying a fee to ensure open access to their articles.²² Many publishers now allow authors a limited right to self-archive their articles or deposit them in a repository, which is an improvement over a few years ago.²³ Furthermore, projects like Elsevier's Scirus²⁴ allow users to simultaneously search proprietary and freely available content.

¹⁴ See Peter Suber, "Timeline of the Open Access Movement," <http://www.earlham.edu/~peters/fos/timeline.htm>. This timeline includes events relating to electronic scholarly communication in general.

¹⁵ <http://www.earlham.edu/~peters/fos/overview.htm>.

¹⁶ A registry of institutional and disciplinary repositories is the *Institutional Archives Registry*, <http://archives.eprints.org/>.

¹⁷ *ACLS History E-Book Project*, <http://www.historyebook.org/>.

¹⁸ *Berkeley Electronic Press*, <http://www.bepress.com/>.

¹⁹ *Electronic Imprint at the University of Virginia Press*, <http://www.ei.virginia.edu/>.

²⁰ "Evidence-based Complementary and Alternative Medicine: [About the Journal]," <http://www3.oup.co.uk/jnls/list/ecam/scope.html>; "Nucleic Acids Research: NAR's Open Access Experiment," <http://www3.oup.co.uk/nar/special/14/default.html>.

²¹ "EPJA Direct: Reasons to Publish Here,"

<http://www.springeronline.com/sgw/cda/frontpage/0,10735,5-40211-0-0-0,00.html>;

²² Springer, "Springer Open Choice," <http://www.springeronline.com/sgw/cda/frontpage/0,11855,4-40359-0-0-0,00.html>; Blackwell Publishing, "About Online Open,"

<http://www.blackwellpublishing.com/static/onlineopen.asp?site=1>.

²³ See *SHERPA*, <http://www.sherpa.ac.uk/> and *RomeoSoton: Self-Archiving Policy by Journal*,

<http://romeo.eprints.org/>.

²⁴ *Scirus*, <http://www.scirus.com/srsapp/>.

In short, non-traditional scholarly communication using electronic media and new economic models is increasingly gaining traction.²⁵ In fact, two studies on *cyberinfrastructure*²⁶ have been commissioned in the US, investigating scholars' needs for creating and analyzing information in digital form that go beyond the traditional bibliographic tools and information lifecycle.²⁷

Why should libraries get involved?

With this rapid evolution of scholarly information dissemination systems, there is no reason for libraries to stand aside while others struggle to establish more effective methods of distributing scholarship, especially when the cost of scholarly literature continues to rise so quickly. While a few libraries have their own publishing houses, these are limited in scope and operate much as any other commercial or university press. University presses, in fact, are the main way that universities have intervened in scholarly communication, but they generally use the same economic model as commercial publishers, relying on copyright to ensure revenue. A few universities have set up electronic publishing operations—separate from university presses but often in relation to the university library—with the specific intent of intervening in the market and fostering new models of communication.²⁸

As institutions that strive to provide equal access to information for all users, libraries traditionally acquire content from publishers and make it freely available. While there are many characterizations of the *information lifecycle*,²⁹ the traditional model expects that discrete, polished, published documents (possibly in electronic form) are acquired, organized, and made accessible by libraries. Users consult published documents, using them to generate new scholarship. Reality, however, is quickly changing. Instead of a single idealized cycle, we increasingly have a jumble of interlocking cycles and iterative processes.³⁰

Therefore, when intervening in the market, libraries need to think beyond merely imitating traditional publishers, instead considering ways to make scholarly communication more efficient by using computer technology. Web technology allows for exciting possibilities including collaborative creation of content, a blurred distinction between creators and users, and greater and more targeted access to and publicity of scholarly information. Central computing services at universities, for example, have long provided email accounts, computer software, and Web space, which facilitate scholarship in their own way, but others parts of the university can take initiative to develop more innovative services for the academic community. Libraries, learned societies, and scholars can foster all aspects of the information lifecycle by creating and making available digital tools for users.

²⁵ See Arnold Hirshon, "A Diamond in the Rough: Divining the Future of E-Content," *EDUCASE Review*, vol. 40, no. 1 (January/February 2005): 34-44, <http://www.educause.edu/apps/er/erm05/erm0512.asp>; "Recent News and Issues" from the University of California Office of Scholarly Communication, <http://osc.universityofcalifornia.edu/news/>. On the open access model in particular, see Lee Van Orsdel and Kathleen Born, "Periodicals Price Survey 2004: Closing in on Open Access," *Library Journal* (April 15, 2004), <http://www.libraryjournal.com/index.asp?layout=articleArchive&articleid=CA408358>.

²⁶ See "What is Cyberinfrastructure?," http://www.acls.org/cyberinfrastructure/cyber_what_is.htm.

²⁷ "Revolutionizing Science and Engineering through Cyberinfrastructure: Report of the National Science Foundation Blue-Ribbon Advisory Panel on Cyberinfrastructure," http://www.communitytechnology.org/nsf_ci_report/; "Commission on Cyberinfrastructure for the Humanities and Social Sciences," <http://www.acls.org/cyberinfrastructure/cyber.htm>.

²⁸ These include the Scholarly Publishing Office (SPO) at the University of Michigan University Library (<http://spo.umdl.umich.edu/>), eScholarship at the California Digital Library (<http://www.cdlib.org/programs/escholarship.html>), the Electronic Publishing Initiative at Columbia (EPIC) (<http://www.epic.columbia.edu/>), and Project Euclid (<http://projecteuclid.org>).

²⁹ See, for example, Philip Doty, "The Information Lifecycle," http://www.ischool.utexas.edu/~l38613dw/website_spring_03/readings/infolifecycle.html; Jim Frew, "The Scientific Information Life Cycle," http://essw.bren.ucsb.edu/~frew/courses/ESM_261/lectures/Scientific_Information_Life_Cycle/all.html; Ray R. Larson, "Organizing Information: Metadata and Controlled Vocabularies," <http://sims.berkeley.edu/~ray/Affiliates98/>. Also see Jim Parrot, "Flow of Scientific Information," http://www.lib.uwaterloo.ca/usered/grad/researchskills/flow_of_info.html; "The Scientific Publication Cycle," <http://www.lib.washington.edu/subject/environment/imt220/pubcycle.jpg>.

³⁰ For this observation I am indebted to Wendell Piez.

University libraries are often involved in establishing institutional repositories of scholarly output, and so far at least one university library has set up a blog service for members of the university community.³¹ Institutions are increasingly adopting policies of encouraging, or most recently even requiring, faculty to deposit their scholarly output in such repositories.³² Work is ongoing in developing course management software that integrates into other tools and computing systems.³³ Institutions should consider providing *wikis*³⁴ and even *content management systems*³⁵—with user training—to allow for more collaborative scholarship and efficient information management.

The scholarly communication system is much larger than even the largest libraries, so any effort made to foster more efficient scholarly communication will have minimal immediate impact. However, any such investment helps academic users as a whole, not specifically those served by a particular library. By “thinking globally but acting locally,” small investments in the system of scholarly communication will bring a small benefit to all users, and when put together, these small investments have the potential to create a more sustainable and open system of scholarly communication, maximizing access to information.

Further reading

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³¹ *UThink: Blogs at the University Libraries*, <http://blog.lib.umn.edu/>.

³² Peter Suber, “SPARC Open Access Newsletter, Issue #81,” <http://www.earlham.edu/~peters/fos/newsletter/01-02-05.htm>.

³³ See, for example, the *Sakai Project*, <http://www.sakaiproject.org/>.

³⁴ For a definition, see *Wikipedia*, s.v. “Wiki,” <http://en.wikipedia.org/wiki/Wiki>.

³⁵ For a definition, see *Wikipedia*, s.v. “Content management system,” http://en.wikipedia.org/wiki/Content_management_system.