
Scholarly Publication and Copyright in Networked Electronic Publishing

LAURA N. GASAWAY

ABSTRACT

THE PUBLICATION OF SCHOLARLY WORKS in a networked electronic environment presents many opportunities for solving some of the problems that currently exist in the print world. At the same time, copyright law, a form of legal protection developed primarily for printed works, has been used to create stumbling blocks both for faculty authors and their institutions. This has occurred because publishers have required a transfer of copyright to the publisher as a quid pro quo for getting the work published. New models of copyright ownership and management can be developed for electronic publishing of scholarly works and research results that will provide greater control to the faculty author, ease the distribution and permissions process for the use of copyrighted works in teaching and research, and ultimately will reduce costs to universities which currently must repurchase faculty-produced works from commercial publishers.

INTRODUCTION

By circumventing traditional printed format, the publication of scholarly works only in electronic form presents unique opportunities for scholars and their institutions, but it also raises a number of important copyright law questions. The word "published" generally has meant to produce printed copies of works and to distribute them publicly through bookstores and libraries. The act of publication encompasses the rights of reproduction and distribution (Copyright Act,

1988), and authors have the right of first publication under U.S. copyright law (*Harper & Row v. Nation Enterprises*, 1985, p. 555). For years the only outlet for scholarly works was traditional book publishing, now increasingly centralized in the hands of a small number of publishers or, for shorter works, publication in a scholarly journal distributed through subscription sales to individuals and libraries. Such articles are produced primarily by university faculty members and by corporate researchers. The discussion and suggestions in this article relate to faculty authors and their universities.

Until approximately twenty years ago, scholarly journal publication was handled primarily by scholarly societies whose interests were coextensive with those of faculty authors. These societies provided peer reviewing for articles submitted, editorial services and the like, in addition to the publication and distribution of journals to society members. Members paid annual dues to the society, and a subscription to the journal was provided as a benefit of membership. Subscriptions were also marketed to academic research libraries, corporate and other special libraries, as well as to research facilities. Even so, for most journals many more copies were distributed to members than were sold to outside subscribers. The income from the sale of subscriptions often was used to underwrite other activities of the society.

Scholarly societies had little interest in taking the entire copyright from the author since their primary emphasis in publishing journals was the distribution of research data for and to their members. Thus, faculty authors were free to reuse their works later as book chapters, to update articles for republication, to reproduce them for distribution to the faculty member's own classes, and to make copies available to their colleagues upon request. In fact, faculty authors often gave permission to their academic peers to make multiple copies for classroom and other educational purposes. Neither the faculty members nor the scholarly society expected royalty or licensing income from the distribution of copies of articles, although some societies did anticipate income from the journal through subscription sales.

As the costs of producing, printing, and distributing journals increased, many scholarly societies recognized that sale or transfer of their journal publications to commercial publishers would be in the best interest of the society and its members. Thus, many such publications became commercial journals. Commercial publishers now manage the peer review, editorial, and other processes necessary to produce journals. The interests of the generator of the articles (authors) and the publisher are no longer the same. The commercial publisher focuses on maximizing profits and returns on investment and not on faculty authors' interests in broad free—or very low cost—

distribution of research results to members and the scholarly community. The change to commercial publishing has meant a tremendous increase in journal subscription rates, often bearing little relation to the cost of producing a journal (Association of American Universities, 1994). Further, commercial publishers have vigorously pursued licensing arrangements to secure additional income from photocopying and other reproductions of journal articles. Sadly, even many professional societies that continue to publish scholarly journals have begun to follow the commercial model (see *American Geophysical Union v. Texaco*, 1994) and may no longer support the best interests of the faculty author and the academic scholarly community they represent.

University faculty create copyrighted works and members of the university community use copyrighted materials to prepare for teaching and for research purposes; faculty assign copyrighted works to be read by students; and faculty-produced copyrighted works are reproduced for library reserves and in coursepacks. Additionally, universities also are engaged in the dissemination of research results and many publish copyrighted books and articles through their university presses. Clearly, life in an academic institution is intertwined with copyright (Association of American Universities, 1994, pp. 116-17).

Against this backdrop, it is natural to consider alternative publication and distribution methods, especially since academic authors currently receive little or no compensation for assigning their rights in an article to a publisher. In fact, in some disciplines, authors even must pay page charges in order to get a work published. University libraries are faced with repurchasing the scholarly articles of their own faculty authors, often at greatly inflated prices. The increase in the number of scholarly journals published, escalating prices, the declining value of the dollar on international markets, and static budgets in research libraries mean that few new journal titles are added to library collections, and many subscriptions have been cancelled in research libraries throughout the country. Thus, academic institutions are reexamining the current situation and considering whether universities themselves might become publishers by offering the scholarly contributions of their faculty authors electronically in a networked environment. In the alternative, there may be ways of enhancing the current publication situation better to facilitate the interests of the academic community and faculty authors even when articles are commercially published.

Regardless of whether a work is published in print by a commercial publisher or by a university press, or whether it is published electronically by a commercial publisher, university, or even directly by a scholarly author, a number of copyright issues must be considered.

COPYRIGHT BASICS

In the United States, copyright is available only for original works of authorship (Copyright Act, 17 U.S.C., § 102(a) [1988]) which fall

into one of eight statutory classes: literary works; musical works; dramatic works; pantomimes and choreographic works; pictorial, sculptural, and graphic works; motion pictures and other audiovisual works; sound recordings; and architectural works (Copyright Act, 17 U.S.C., § 102(a) [1988]). Scholarly works today are almost all literary works; however, in the future, scholarship increasingly is likely to embrace other types of works and multimedia as well. The Copyright Act defines "literary work" as "works other than audiovisual works, expressed in words, numbers, or other verbal or numerical symbols or indicia, regardless of the nature of the material objects, such as books, periodicals, manuscripts, phonorecords, film, tapes, disks, or cards, in which they are embodied" (Copyright Act, 17 U.S.C., § 101 [1988]). According to the copyright law's definition, a scholarly article stored in electronic format is a literary work. For purposes of this article, literary work is used as the prototype for all faculty-generated works, assuming that the primary type of material that might be distributed in a networked electronic environment is the article.

Rights Needed for Publication

One who authors a literary work receives a bundle of five rights: reproduction, distribution, adaptation, public performance, and the right to display the work publicly (Copyright Act, 17 U.S.C., § 106 [1988]). The rights of reproduction and distribution are the critical rights needed for publication regardless of how that publication occurs. The Copyright Act defines the term "publication" as:

[T]he distribution of copies or phonorecords of a work to the public by sale or other transfer of ownership, or by rental, lease or lending. The offering to distribute copies or phonorecords to a group of persons for purposes of further distribution, public performance, or public display, constitutes publication (Copyright Act, 17 U.S.C., § 101 [1988]).

Most librarians and other scholars have assumed that making works available in electronic format was a form of publication. The legislative history of the Copyright Act is not so clear on this point, however, and states that unless material objects change hands, there is no publication regardless of the number of people who are exposed to the work (U. S. H. R. Rep. No. 1476, [1976]). To deal with this problem, the Preliminary Draft of the Report of the Working Group on Intellectual Property Rights (known as the Green Paper) recommends that the definition of the term "publication" be rewritten to encompass the concept of distribution by transmission (*Intellectual Property and the National Information Infrastructure*, 1994, pp. 123-24). This would clarify the matter by amending the Act's definition of "publication" no longer to require that a material object change hands.

Neither the Green Paper's recommended statutory amendment nor the generally held view that distribution via an electronic network constitutes publication deals with the concept of unintended publication. An unscrupulous third party certainly could distribute a faculty author's article through transmission. Actually, this is no different from the current situation where such third party could publish a print version of another author's work without his or her permission. Just as in the print world, this could be handled by reserving to the author the right of first publication, a right recognized in the United States in *Harper & Row v. Nation Enterprises* (1985, p. 569). If the author accidentally distributed the work through an electronic network, he or she still owns the rights and can determine whether the work is thus published. If a third party distributes a faculty member's work without permission, not only does the faculty author have an infringement action against the illicit dissemination but, since the author has not given permission for the distribution, the work is not then published through the transmission.

In order to publish a work, the publisher—whether a scholarly society, a university press, or a commercial publisher must—at a minimum, have the reproduction and distribution rights assigned to it by the author. Authors are required to transfer these rights to the publisher as a condition precedent to getting the article published. Transfers must be in writing (Copyright Act, 17 U.S.C., § 204(a) [1988]), and the author may transfer the total reproduction and distribution rights in the work in whatever format (print, CD-ROM, or electronic), or the author may limit the transfer to a particular format. In other words, the author can transfer only the print rights and retain the rights for electronic publication. The transfer of the reproduction and distribution rights also might be limited by the number of copies reproduced and distributed or by the length of time the transfer endures (such as for ten years), after which time the rights revert to the author.

Oddly, most commercial publishers not only require a total transfer of the reproduction and distribution rights, but they frequently require the scholarly author to transfer the entire copyright, including rights that the publisher does not need in order to accomplish its publication goals. Consider a faculty-produced article that reports an anthropological study of a particular Indonesian people. By assigning the entire copyright to the publisher, the author has given the publisher the right to reproduce and distribute the work in print, on CD-ROM, or in an electronic database. Further, the faculty author has lost the rights to do the following without permission from the publisher:

1. incorporate the article as a chapter in a later book;
2. update the article and produce a new "edition" that reflects later research results;
3. license the movie rights (an unlikely development, but certainly possible especially in fields such as history, literature, ethnography, and the like);
4. reproduce copies for distribution to the author's own classes or incorporate the work into coursepacks;
5. grant permission to other faculty members to reproduce the article for distribution to classes or for incorporation into coursepacks at the author's own institution or throughout higher education;
6. reproduce copies for distribution to colleagues at conferences; and
7. supply copies to peers simply upon request.

If the author has transferred all rights to the publisher, then he or she must contact the publisher to seek permission even to reproduce and distribute the work to the faculty author's own classes or to adapt the work (such as through a new edition). Although most publishers have permissions departments, publishers' responses, even to their own authors, vary considerably both in the scope of permission they are likely to grant to the author and in how long it takes them to respond to the author's request. Some are quite responsive and answer almost immediately while others take weeks to reply to the author. As a general rule, publishers are more responsive to requests from their authors than they are to other faculty members who seek permission to reproduce and distribute an article to their classes.

Other Rights

Commercial publishers, many society publishers, and even some university presses have simply taken more rights from the authors than were needed in order to publish the work. While copyright certainly exists in order to promote learning as well as to reward authors (*Fogerty v. Fantasy, Inc.*, 1994, pp. 1023, 1029), rewards to scholarly authors have not been economic but rather have been in the form of increasing the author's reputation and status such as by being awarded tenure. These rewards are not related to the transfer of the copyright, however, but rather accrue from the production and publication of the work itself. It is the university that awards tenure to scholarly authors based, in part, on their research and publication records. Reputational rewards come from the approval of one's peers. This is not to denigrate the role that publication in scholarly journals plays in the rewards system, however, the reward is not a quid pro quo for the transfer of the copyright. Currently, publishers reap the rewards that copyright and the U.S. Constitution envisioned as going to authors.

Notice of Copyright

Likewise, even though copyright notice is no longer required under U.S. law (Copyright Act, 17 U.S.C., § 401(a) [1988]), authors who choose to publish electronically should continue to include a notice with each article. The notice consists of: the ©, the word "copyright," or the abbreviation "copr.," the name of the copyright holder; and the year of first publication (Copyright Act, 17 U.S.C., § 401(a) [1988]). Inclusion of the copyright notice entitles the owner to certain benefits such as the right to bring suit against infringers in federal court (Copyright Act, 17 U.S.C., § 401(b) [1988]), recover statutory damages for infringement, and to recover attorneys' fees (Copyright Act, 17 U.S.C., § 412 [1988]). Although these benefits are extremely important, there is another reason to include notice of copyright on works distributed in a networked electronic environment. The notice alerts good faith users that someone claims rights in the work. While a notice of copyright will not stop the unscrupulous, fortunately, most users of scholarly works use them in good faith. Thus, including the notice assists the user of the work as well as the copyright holder.

Along with the notice of copyright which the author should place on the work, the author may include any grant of rights to reproduce and distribute the article. For example, the author may grant blanket permission for reproduction for educational and research purposes which will avoid the necessity for such users to contact the author directly for permission. The author might elect to be more selective and permit reproduction and distribution only for nonprofit educational uses. On the other hand, he or she might choose to grant broad rights to all scholarly users whether in the for-profit sector or within academia. The breadth of the grant would depend on the author. Across-the-board permission relieves the faculty author from having to respond to so many individual requests to use a work. While not all potential uses are covered in the grant as described, the bulk of requests surely would be for the right to reproduce and distribute multiple copies for educational purposes, so the necessity for scholarly authors to respond to requests is greatly reduced.

ELECTRONIC PUBLISHING AND COPYRIGHT

Publication in electronic format rather than in print in no way changes the underlying copyright issues. Such publication may, however, present opportunities for avoiding some of the pitfalls to authors and thus to their universities or other employers. New models of copyright ownership are possible and may reduce the cost to university libraries for repurchasing scholarly works produced by their faculty and staff.

Electronic publication also presents possibilities for uncontrolled reproduction and distribution of works since users of articles from electronic sources can download and further distribute them. While greatly feared by commercial publishers, widespread distribution and use of faculty authors' scholarly works is exactly what they desire. So, traditional publishers and scholarly authors have different goals for electronic publication of faculty-created works.

Ownership of Copyright

The same questions of copyright ownership remain in the electronic environment as exist for print publications. If a university is the publisher, it cannot perform the necessary steps to publish the work electronically without some transfer of the reproduction and distribution rights from the author. These rights might be shared jointly by the university and the faculty member but, in order to publish, the publisher must have these rights assigned to it. Certainly, all other rights, such as the right to prepare derivative works, can and should be left with the author.

Authors may be tempted to make their works available electronically and dedicate them to the public. This is not a wise course of action, however. What most scholarly authors seek is wide (and perhaps even unlimited) distribution of their works. Most faculty authors probably would choose for this distribution to be free of charge since they currently receive virtually no income from their efforts in producing journal articles. By placing scholarly articles in the public domain, however, the opposite effect can occur. The author has relinquished all rights, and someone else can begin selling the work, charging whatever the market will bear, and the author has no right to control the work. A better course for the author is to publish the work and retain the copyright. He or she may include with the article a statement that the copyright holder grants to educational and research users the right to make single copies for research, scholarship, and other fair use purposes plus the right to make multiple copies for classroom use. This latter grant might be limited to nonprofit educational institutions, but it need not be so. An author may also want all of the greater research community, whether for-profit or not-for-profit, to have unfettered access to the work and the right to use it for educational and research purposes. However, it is and should be the author's choice.

Fair Use

Regardless of who owns the copyright or what rights the author grants to users, fair use will continue to be a major concern. Fair use will exist in the electronic environment as it does for printed works.

The Green Paper states that “it is critical that researchers, students and other members of the public have on-line equivalent to their current opportunities off-line to browse through copyrighted works in their schools and public libraries” (*Intellectual Property and the National Information Infrastructure*, 1994, p. 133).

Fair use is both a defense to copyright infringement and a limitation on the exclusive rights of the copyright holder. It is a privilege in one other than the owner to exercise one of the exclusive rights in a manner which ordinarily would be copyright infringement but which is excused because of the existence of certain factors. Based on nearly 200 years of judicial doctrine, fair use now has been incorporated into the copyright statute. Section 107 of the Act states that “fair use of a copyrighted work...for purposes such as criticism, comment, news reporting, teaching (including multiple copies for classroom use), scholarship or research, is not an infringement of copyright.” The statute then states that, in any particular case, certain factors are to be considered in determining whether a use is fair. Although other factors also may be considered, the statute lists four considerations as illustrative, and frequently courts use only these four.

1. the purpose and character of the use,
2. the nature of the copyrighted work,
3. the amount and substantiality of the portion used in comparison to the work as a whole, and
4. market effect (Copyright Act, 17 U.S.C., § 107 [1988]).

The purpose and character of the use examines such issues as whether the use is for scholarship or for commercial gain. The commercial nature of a use, however, does not automatically mean that a use is not fair (*Campbell v. Acuff-Rose Music, Inc.*, 114 S.Ct. 1164, 1177-79 [1994]). On the other hand, nonprofit educational uses are more likely to be found to be fair use than are commercial ones. The nature of the copyrighted work focuses on the work itself. The legislative history includes statements that indicate some works have no fair use rights such as standardized tests, workbooks, answer sheets, and the like (S. Rep. No. 473 [1975]. Reprinted in 13 Omnibus Copyright Revision Legislative History 117, 1977). Further, factual works, such as scientific and other scholarly articles, have greater fair use rights attached to them (Patterson & Lindberg, 1991, p. 210). The amount and substantiality factor looks at how much of the copyrighted work was copied. This is both a quantitative and a qualitative test, and courts measure percentages, and count words and bars of music. Reproducing even a small portion of a work can still be problematic if the “heart” of the work is taken (*Harper & Row Publishers, Inc. v. Nation Enterprises*, 1985, 569).

The final factor is the effect on the market for or value of the work. Thus, the economic interests of the copyright owner and any existing or potential markets for the work is critical. In fact, market effect has been held to be the most important test (*Harper & Row Publishers, Inc. v. Nation Enterprises*, 1985, 566). Courts also seem to focus on the existence of licensing agreements (such as through the Copyright Clearance Center) as a market (*American Geophysical Union v. Texaco, Inc.*, 1994, pp. 897-99).

So, if a user of a copyrighted work on a network claimed fair use, courts would apply the above four factors to decide the issue. The metes and bounds of fair use in the electronic environment are less clear than in the existing print world. At the present time, under the auspices of the National Information Infrastructure (NII) Working Group on Intellectual Property, a series of conferences on fair use in the electronic environment are being held with representatives of library, media, and education associations; authors groups; publishers; and computer software groups to examine fair use. The ultimate goal is to develop guidelines similar to the guidelines for library and classroom use of printed works and music (chaired by C. A. Meyer, U.S. Patent and Trademark Office, the series of fair use conferences began in October 1993 and will continue for several months. The author is a participant representing the Association of American Universities).

Faculty authors who publish their works via university managed electronic networks can answer many of the fair use questions through a blanket grant of rights for all educational uses including multiple copies for classroom use, library reserves, and the like. Even with such a blanket grant, however, there will still be fair use questions from users in the for-profit sector but whose purposes are education and research. Likewise, users in nonprofit institutions might seek to make a commercial use of an author's work and will need to contact him or her for permission. Thus, fair use will continue to be an issue of importance even with electronic publication.

First Sale Doctrine

Another important limitation on the exclusive rights of the copyright owner is the first sale doctrine. The doctrine, embodied in the statute, says that after the first sale of a copy of the copyrighted work, no more royalties are due to the copyright owner (Copyright Act, 17 U.S.C., § 109(a) [1988]). The doctrine limits the control a copyright holder can have on subsequent sales of a work. It also means that the lawful owner of a copy of a work may dispose of that copy in any way, such as through sale, gift, loan, etc. Until 1984, the first sale doctrine was absolute, but it was amended in that year for phonorecords of sound recordings (Copyright Act, 17 U.S.C., § 109[b][1][A] [1988])

and now has been amended for computer software (Copyright Act, 17 U.S.C., § 109[b][2][A] [Supp. 3] [1991]). These changes were made because of the ease with which the works can be reproduced far more inexpensively than an original copy can be purchased. Moreover, such copies suffer little denigration of quality (Corsello, 1991, p. 192).

The Green Paper posits that the first sale model, in which the owner of that copy transfers the copy to someone else, should not apply to distribution of works via transmission. The reason for this position is that with the current technology, in the electronic environment, both a reproduction of the work and a distribution of the reproduction occurs. The problem, according to the Working Group, is that, with a transmission, the owner of a copy does not dispose of the possession of that copy. Thus, the Working Group recommends an amendment to the statute which would make it clear that the first sale doctrine does not apply to the transmission (*Intellectual Property and the National Information Infrastructure*, 1994, pp. 124-25). This recommendation has been particularly controversial among members of the library community who have responded that there are instances when the owner of an electronic copy of a work may transfer possession entirely without retaining a copy (Letter of the American Association of Law Libraries, September 7, 1994).

Publication in electronic format also presents opportunities to address the problems that exist in the current scholarly communications system and creates a new environment that supports not only the creator of scholarly works but also the users of those works. Two important recent projects have dealt with these issues over the past few years.

PROJECTS CONCERNING UNIVERSITY AUTHORS AND COPYRIGHT

The Triangle Research Libraries Network (TRLN) project, under a grant from the Council on Library Resources, began work on a model for faculty ownership of copyright beginning in 1991 (Triangle Research Libraries Network, 1994, p. v). The following year, discussions between the Association of American Universities (AAU) and the Association of Research Libraries (ARL) ensued, and the second project was initiated to examine the intellectual property rights in the electronic age. The result was the development of four models and a recommendation for further exploration by universities (Association of American Universities, 1994, p. 113).

TRLN Model Copyright Policy

The Triangle Research Libraries Network, a long existent library consortium of the academic research libraries at Duke University, North Carolina State University, and the University of North Carolina-Chapel Hill (in 1994, a fourth institution became a member of

TRLN, North Carolina Central University in Durham), received a \$100,000 planning and policy analysis grant from the Council on Library Resources in 1990. The primary purpose of the grant was to examine policy and service issues related to the development of cooperative information resources in the sciences and to analyze criteria for selecting shared resources. Other purposes were to recommend organizational means for ensuring that TRLN constituencies could have effective input into the operation of cooperative information programs; to investigate funding strategies for shared resources; and to recommend a general planning and policy framework for the pursuit of collaborative information resource development. The first major initiative under the grant was a symposium and planning retreat held in Chapel Hill in mid-1991 for 100 faculty members, librarians, and administrators (Triangle Research Libraries Network, 1994, p. 1). In the course of the symposium, quite unexpectedly, concerns about copyright and publisher impediments to the wide sharing of scholarly articles and research results in the sciences were identified as the single most important issue (Triangle Research Libraries Network, 1994, p. 23).

The TRLN model copyright policy recognizes the centralization of the publishing of scholarly scientific and technical articles into a few European-based commercial publishing conglomerates. The problem with the current system is "incompatibility between the noneconomic goals of academic researchers and the largely economic goals of commercial and even some not-for-profit publishers" (Triangle Research Libraries Network, 1994, Appendix L, p. iii). Moreover, copyright practices in scholarly publishing exacerbate the problem. By assigning the entire copyright to commercial publishers, authors give away the ability to control any of the conditions under which their scholarly articles are disseminated. An important initial step toward controlling spiraling scientific and technical journal costs is to return control to scholarly authors and their universities (Triangle Research Libraries Network, 1994, Appendix L, p. iv). As stated by Bennett and Matheson (1992), only the copyright owner can decide whether scholarly journal articles are to be treated as knowledge to be shared among members of the research community or to be sold for a profit (pp. B1-B2).

Beginning in November 1991, a ten-member task force was appointed to examine copyright as it affects the dissemination of scholarly information and to develop a model copyright policy which outlines the conditions under which faculty authors would or would not transfer copyright to publishers. The Task Force was comprised of faculty, librarians, and university press administrators. As the group proceeded with its task, it became clear that the most effective action

would be to educate faculty, administrators, and scholarly publishers about the problems with the current system of scholarly communications and about copyright law. The consequences that transfer of the copyright has on universities and their libraries also should be included in any educational effort (Triangle Research Libraries Network, 1994, p. 23).

Upon adoption of the model policy, universities commit to work to strengthen existing "publishing enterprises (of scholarly societies) whose journal subscription prices are rationally related to the actual costs of journal publication" (Triangle Research Libraries Network, 1994, Appendix L, p. 1). The policy asks university faculty to publish scientific and technical articles in journals supported by universities, scholarly organizations, and other associations that support the idea of distribution of research results at reasonable costs. Where it is not possible for authors to publish their articles with such publishers, faculty are asked to use a model "Authorization to Publish" form which ensures that control of the copyright in the work remains in the academic community rather than with a commercial publisher. The "Authorization to Publish" requires that the first page of the article (whether published in print or electronically) contains a statement that copyright remains with the author. All the author transfers to the publisher is the right to reproduce the article and distribute it in the journal. Further, the statement must give permission for the "non-commercial reproduction of the article for educational or research purposes" (Triangle Research Libraries Network, 1994, Appendix L, pp. 1-2). This relieves the faculty author from dealing with requests for permission to reproduce the work for distribution to classes and for retention of copies on library reserves without regard to the number of class terms the work remains on reserve. The faculty author also could give blanket permission for inclusion of the work in coursepacks or license the publisher to handle coursepack permissions for an agreed-upon reasonable rate (Triangle Research Libraries Network, 1994, Appendix L, p. 2).

The policy also contains guidelines which provide guidance to authors to assist them in selecting an appropriate publisher and in negotiating copyright and license agreements. The purpose of the advice is to ensure the widest possible dissemination of scholarship and research results at reasonable costs, something most scholarly authors favor. One guideline states: "Publication via national or international public online computer networks is encouraged when this alternative is available" (Triangle Research Libraries Network, 1994, Appendix L, p. 4). At the same time, faculty authors and their universities assume certain responsibilities by refusing to assign the entire copyright to publishers such as:

1. to seek not only the most prestigious journals for publication of faculty-produced scholarly articles, but also to consider journal publishers that will assure wide availability of the article at reasonable cost;
2. to learn more about U.S. copyright law, the current system of scholarly communication and the role copyright plays in this system;
3. to participate actively in debate at all levels on changes needed in the scholarly communications system;
4. to support the efforts of university presses and other campus agencies to create new outlets for the dissemination of scholarly articles and research results; and
5. to respond in a timely fashion to permission requests to resell articles commercially (noncommercial reproduction would be permitted automatically via the statement required on the first page of the article) (Triangle Research Libraries Network, 1994, Appendix L, pp. 4-5).

The TRLN Copyright Policy Task Force continues to promote debate on the problems it identified and the model policy as a solution. A number of efforts to distribute and discuss the policy have included presentations to regional and national meetings of scholarly and professional associations (Triangle Research Libraries Network, 1994, pp. 25-26). The task force further agreed to seek funding through the AAU and ARL to test the model (Triangle Research Libraries Network, 1994, p. 23).

AAU/ARL Project

The Research Libraries Project was commissioned by the Association of American Universities in partnership with the Association of Research Libraries (ARL) in late 1992. The associations created a Task Force on Intellectual Property Rights in an Electronic Environment with fourteen members including university administrators, librarians, and faculty (Association of American Universities, 1994, p. 13).

The task force was charged to examine, from a university perspective, the emerging possibilities for creation and dissemination of electronically based information. From this examination, it was anticipated that proposals for new methods to collect and disseminate research and scholarship would be developed and opportunities available through a collective university response would be identified (Association of American Universities, 1994, p. 107).

Some attention was given to the problems posed for faculty-created works by the current copyright ownership scheme and publishers' practices. At the same time, the concept of fair use is being eroded by university responses to litigation or the threats of litigation from

publishers and by limitations imposed by academic institutions due to fear of exposure to liability (AAU Task Force early discussions. See Association of American Universities, 1994 for the final report). Although the focus was on the electronic environment, the task force recognized that the current electronic world is paradoxical; many publications still are produced in print form, some exist both in print and in electronic formats, while others are available only electronically (Association of American Universities, 1994).

The task force considered whether a change in the Copyright Act might be the ideal solution. After considerable debate, it was determined that proposing amendments to the law was not the best or perhaps even a desirable solution given the nature of the political process and the strength of lobbying groups that represent copyright owners. Thus, the task force turned to the academy itself to see what changes it could propose in the current system of scholarly publications which require that copyrights be transferred from the author to the publisher.

After initial discussions, the group identified various models or scenarios for changing copyright ownership and management. The six models include an enhancement of current practices, faculty ownership, joint faculty/university ownership, university ownership, ownership by a consortia, and joint faculty/consortia ownership. The following issues were examined for each model:

1. What works should be covered?
2. Who is entitled to decide whether to transfer ownership?
3. What rights should be assigned to publishers, should there be date limitations on rights granted to publishers, and the like?
4. Whether the university would be entitled to recover production costs for extraordinary expenses incurred to produce the work (such as for the use of research equipment, video production staff and equipment, and computer programming)?
5. Would the model best be facilitated by revenue sharing for royalties received?
6. What access to the copyrighted work within the university would be guaranteed (for use in coursepacks, library reserves, and for class handouts)?
7. Should access to other universities and educational users be ensured?
8. Would access to industry and other researchers be provided?
9. Who will have reuse rights to permit incorporation of the work into later works, preparation of new editions, and other updates, etc.?
10. Would there be any alteration of tenure and promotion policies needed to encompass nontraditional publishing and service on association editorial boards?

11. Would the university need to provide copyright-related support services to faculty authors?

Figure 1 highlights the issues and problems with the various models.

After considering the pros and cons of these six models, the task force produced written scenarios for the four models for change deemed to hold the most promise. These four models are not mutually exclusive. For example, the first two differ only in degree but not in philosophy; the third and fourth embrace the idea of sharing the ownership with another entity, either with the university itself or a consortium. The ultimate purpose of that sharing is to establish the institutional owner as guarantor of wide electronic access, archiving, and use of the materials. In the majority of university copyright policies, faculty members own the works they create. None of the scenarios pursues the possibility of faculty-created works being considered works-for-hire. Not only were members of the task force divided over whether sole university ownership was desirable, but it was viewed as so contentious as to be unworthy of further consideration.

1. *The Current Enhanced Model* does not tamper with present copyright ownership arrangements. Instead, it advocates that all university employees be educated about copyright law and the consequences of copyright assignment or transfer to both the creator and to the university. Individual university members of the AAU would mount strong education programs for campus information, discussion, involvement and support.

Representatives of university presses and society publishers whose officers are employed at AAU universities would enter into discussions with faculty to consider language acceptable for copyright transfers, licenses, and other contracts. The negotiated outcomes would attempt to balance the needs of authors, members of the university community, and publishers. Universities and their faculty also would consider what incentives could be offered to persuade researchers and scholars to publish in lower-priced journals and to develop alternative publishing vehicles (Association of American Universities, 1994, pp. 135-36).

2. *The Faculty Ownership Model* also does not change copyright ownership; faculty members continue to own copyright in the works they create. The major difference is that faculty retain the rights to the work and do not assign the copyright to the publisher as is currently required by many commercial and association publishers. By retaining the copyright, it is the individual faculty member who determines whether to grant blanket permission for educational uses, inclusion in coursepacks, and the like. Faculty authors transfer to the publisher only the rights necessary for reproduction and distribution of the work in that particular publication. All other rights are retained by the faculty member.

For this model, the task force used the TRLN Model Copyright Policy and was grateful for the work done by TRLN in this area. This model assumes that faculty members will be encouraged both by their universities and by their own self interest to place their works for publication with quality publishers whose prices are not the highest in the discipline. To make this model function effectively, some central medium for registering works, managing faculty copyrights, and granting permissions for use to others must be developed and maintained by the university (Association of American Universities, 1994, pp. 137-38).

3. *The Joint Faculty/University Ownership Model* envisions shared ownership between the faculty member and the university. The model excludes royalty-producing works such as textbooks and creative works, including plays, novels, paintings, musical compositions, etc. The university and/or faculty author would determine what rights to transfer to the publisher and whether to license certain uses. Thus, control is not transferred automatically to publishers. The work then is available for in-university use and the co-owners determine whether to make the work available with or without charge to other universities. In order to implement this model, however, new employment contracts likely would be required to specify this new joint ownership arrangement.

As a co-owner of the work, the university absorbs all costs of production of the copyrighted work. The university then has an interest in determining where articles are submitted for publication in order to achieve the goals of cost reduction to the university and increased availability in alternate formats.

4. *The Joint Faculty/Consortium Ownership Model* focuses on an information network maintained by the academic community that encourages the widest possible dissemination of scholarly works at the lowest possible cost to the university, which is a member of an established consortium. This model requires experimentation with electronic publishing and new models for cost recovery. There are natural vehicles for this move such as the CIC (the Big Ten plus Chicago) which already has an electronic infrastructure. Such networks are well positioned to work cooperatively with university presses and professional societies in establishing and encouraging electronic journals.

This scenario establishes the principle that universities have a long-term interest in the ownership of scholarly works produced by their faculty and encourages faculty authors to publish electronically through their consortium. The joint faculty/consortium model likely has the highest start-up cost of any of the models, but it may encourage the most innovation and experimentation in alternative methods of publication and management of copyrights (Association of American Universities, 1994, pp. 141-42).

The task force report was submitted to the AAU presidents in April 1994. The report recommends further study in several areas

FIGURE 1. COMPARISON OF MODELS

	<i>Enlightened Status Quo</i>	<i>Faculty</i>	<i>Joint Ownership</i>	<i>University</i>	<i>Consortia</i>	<i>Joint Faculty/Consortia Ownership</i>
Works covered	All produced	All produced	All produced within scope of employment	All produced within scope of employment	All produced within scope of employment	All produced within scope of employment
Transfer of ownership	None	None	Faculty transfers predetermined percentage to university worked out by prior agreement	Faculty automatically assigns all rights	Faculty automatically transfers all or some rights	Faculty transfers predetermined percentage to consortia
Licensing rights to publishers/date limitations	Faculty determines where to publish; publisher owns copyright & makes all other decisions about licensing, etc.	Faculty determine whether to license, where to publish, joint decision	Standard agreement needed about who decides or if publish/license/terms to seek	University determines whether to publish/license/terms to seek	Consortia determines whether to publish/license/terms to seek	Standard agreement about who decides or if joint decision
Cost for production of work (use of research equipment, manuscript preparation, etc.)	May include reimbursement agreement for extraordinary expenses incurred by university if royalties received	May include reimbursement agreement for extraordinary expenses incurred by university if royalties received	University bears costs in exchange for part ownership	University bears costs	University or consortia costs	University or consortia bears costs
Revenue sharing	None	None	Shared percentage to be determined by standard agreement when work produced	University receives all revenue—could agree to share with faculty	Consortia receives all revenue as management fee	Shared percentage to be determined by standard agreement when work produced

Access within university	Publisher determines	Guaranteed to university by faculty author plus other members & students	Guaranteed to faculty author plus other faculty members & students	Guaranteed to faculty author plus other faculty members & students	Guaranteed to faculty author plus other faculty members & students	Guaranteed to faculty author plus other faculty members & students
Access to other universities & educational users	Publisher's choice	University can encourage but faculty choice	Joint choice but strongly encouraged	University choice	Guaranteed to consortia members	Guaranteed to consortia members
Access to industry & other research users	Publisher's choice	Faculty member choice	Joint choice	University choice	Consortia choice	Joint choice
Faculty retention of reuse rights	Publisher's choice, but faculty member should insist on right to reuse	Yes	Granted back to faculty			
Alteration of tenure & promotion policies to encompass nontraditional publishing, service on association editorial boards	Desirable	Desirable	Yes, in exchange for part ownership	Yes, in exchange for ownership	Desirable	Desirable
University support services	Desirable	Yes	Yes	Yes	Provided by consortia, not individual universities	Provided by consortia, not individual universities

and encourages universities to experiment with the various models. All models will require significant educational efforts. The report envisions a greater role for university presses, including an active role in scientific journal publishing—especially in electronic form. Further, universities will need to provide an officer to assist faculty and other university authors with assignment of copyrights, publishing contracts, licenses, and related matters. This officer easily could be someone within the university press. These new roles for the press will require treating presses as programmatic partners with libraries and academic computing centers. Also, it likely will demand a reversal of the trend that requires university presses to function as stand-alone cost-recovery centers (Association of American Universities, 1994, p. 143).

Issues relating to the pressure on faculty to publish, tenure, and rewards must be addressed in light of the move to electronic publishing and the proposed changes in copyright ownership and management. The task force did not see any inherent conflict with the principles of academic freedom but rather greater university involvement in the management of copyright to the benefit of the university and its faculty scholars. The American Association of University Professors is poised to deal with problems should a research university overstep its bounds and try to suppress publication of a faculty member's work because of disagreement with its conclusions, tone, or methodology (Association of American Universities, 1994, p. 147).

The AAU presidents plan to continue the project in order to build campus consensus and involve other academic organizations. More study is needed to develop consensus on what constitutes fair use in the electronic environment. Feasibility studies are needed for creating and maintaining competitive electronic publishing outlets such as through strengthening university presses (Association of American Universities, 1994, pp. 152-53). Further, individual universities are volunteering to work on copyright policies that test one of the models; the policies might then serve as a guide to other universities.

CONCLUSION

Copyright issues should not stifle creativity and experimentation with scholarly publishing in an electronic networked environment. Nor should the economic interests of publishers be escalated through licensing and pay-for-access systems to the point of excluding fair use. Publication of scholarly works through university-managed networks promises to offer innovative solutions and restore the balance between the rights of authors and publishers and to emphasize the non-economic goals of faculty authors. The proposed solutions attack the primary problem of a scholar's lack of control over his or her scholarly works, but none of the models has been tested.

As such experimentation occurs, many questions remain and must be addressed.

1. Will faculty retention of copyright mean that they are unable to publish their scholarly works other than with a university?
2. If this is the case, will this be detrimental to the individual faculty author or can universities offer sufficient incentives to encourage such publication?
3. Will the loss of prestige currently enjoyed by scholarly journals be transferrable to electronic databases? If not, will it be possible to convince faculty authors that it is in their best interest to publish through such outlets?
4. If the copyright is held jointly by the faculty and the university or a consortium, what happens when the scholarly author leaves the university and wants to exercise copyright termination rights?
5. For works published electronically and made available in a networked environment, how will universities ensure the integrity of the work? How can authors be protected against unauthorized adaptation of a work?
6. Will universities be able to make available the technical staff to assist authors who are unfamiliar with computer technology if their work is to be published in this format?
7. How will universities be able to support and manage databases they create to distribute faculty-produced works?
8. How can universities fund the necessary copyright management staff that will be needed? Will funds be freed by cancellation of expensive and no longer needed journal subscriptions, or can other sources of funding be found?
9. Can universities orchestrate needed changes in their tenure and promotion standards to embrace electronic publishing for their faculty scholars?
10. Assuming that the integrity of the article can be ensured by the university, will faculty authors be concerned about misuse of the work? If so, what mechanisms can be developed to alleviate any potential problems?

These issues must be addressed in addition to those copyright problems raised by this article. This article merely scratches the surface of the scope of issues regarding copyright that must be addressed if scholarly publication in electronic format and distribution through networks is to become a standard means for the distribution of scholarly articles. Such publication already is occurring and answers must be found if faculty authors are to be encouraged to publish their scholarly works electronically.

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