

Machine Reproduction— Photocopying

The National Commission on New Technological Uses of Copyrighted Works was created by Congress, in part, to assist it in resolving a problem that had proven especially difficult in the revision of the 1909 Copyright Act: drawing a proper balance between the rights of copyright owners, whose works were easily reproduced through the use of advanced reproduction technologies, and the general interests and needs of members of the public, who more and more were relying on photocopying as an important auxiliary form of access to copyrighted works. According to the legislation that authorized its establishment, the Commission was required

to study and compile data on:

(1) the reproduction and use of copyrighted works of authorship . . .

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(B) by various forms of machine reproduction, not including reproduction by or at the request of instructors for use in face-to-face teaching activities.¹⁹¹

The Commission was also charged with making recommendations "as to such changes in copyright law or procedures that may be necessary to assure . . . access to copyrighted works, and to provide recognition of the rights of copyright owners."¹⁹²

Because Congress was actively considering

¹⁹¹ P.L. 93-573 § 201(b), 93d Cong., 2d sess., 1974. See Appendix B. The term *machine reproduction* in its mandate was recognized as being susceptible to various interpretations. The Commission's legislative history has clear indications that Congress had contemplated a study of photocopying and related methods of reproduction—rather than videotape reproduction and other emerging technologies—when it created the Commission. Accordingly, the Commission determined to concentrate its efforts on photoduplication and closely related means of reproduction.

¹⁹² *Ibid.*, § 201(c).

photocopying in connection with the general revision bill at the time the Commission began its deliberations, the Commissioners decided at their second meeting to defer hearing witnesses on photocopying issues until Congress finally agreed upon the provisions of the general revision bill directly related to that subject. Chairman Fuld, however, appointed three members of the Commission to prepare an initial report on the issues related to photocopying that was considered at the December 1975 meeting.

The Commission sponsored a number of studies to gather data on photocopying.¹⁹³ Funds were contributed for a study conducted by King Research, Inc., designed to provide data on how much photocopying of copyrighted works actually occurred in libraries throughout the country.¹⁹⁴ The Public Research Institute prepared a study that compared the costs of subscribing and storing periodicals with the costs of borrowing to fulfill patron requests.¹⁹⁵ The Indiana University Graduate Library School conducted a survey of publishers of periodical literature.¹⁹⁶

During the year in which these studies were conducted, the Commission heard testimony

¹⁹³ Summaries of these reports appear in Appendix H. Copies of the reports are available from the National Technical Information Service, Springfield, Virginia 22161.

¹⁹⁴ KING RESEARCH, INC., *LIBRARY PHOTOCOPYING IN THE UNITED STATES* (1977) PB 278 300; also available from the Superintendent of Documents, No. 052-003-00443-7. (Hereinafter cited as King study.)

¹⁹⁵ PALMOUR, BELLASSAI, and WIEDERKEHR, *COSTS OF OWNING, BORROWING AND DISPOSING OF PERIODICAL PUBLICATIONS* (1977) PB 274 821; hereinafter cited as Palmour study.

¹⁹⁶ FRY, WHITE, and JOHNSON, *SURVEY OF PUBLISHER PRACTICES AND CURRENT ATTITUDES ON AUTHORIZED JOURNAL ARTICLE COPYING AND LICENSING* (1977) PB 271 003; hereinafter cited as Fry/White/Johnson study.

from representatives of authors, publishers, libraries, government agencies, educators, and others concerning current and future photocopying practices and their views on whether the 1976 Act needed amendment. Also during that year, the Commission assisted representatives of publisher, author, librarian, and educator groups in formulating guidelines defining which interlibrary loan practices would comport with the provisions of section 108(g)(2) of the new copyright law prohibiting libraries from engaging in "systematic reproduction" of copyrighted works.¹⁹⁷

This report sets forth the Commission's recommendation to Congress for legislative action and its suggestions to the interested parties for possible adjustments in practices related to photocopying and document delivery. After presenting this recommendation and these suggestions, this report discusses the effect of the new copyright law on a broad range of photocopying practices and reviews the evidence that the Commission considered in reaching its conclusions.

Recommendations of the Commission

The Commission's investigations and the testimony it heard support the determination that, with one exception, the Commission need not recommend changes in the provisions of the Copyright Act of 1976 affecting photocopying. The one exception deals with photocopying by organizations that are in the business of making copies. The Commission also suggests certain matters that should be studied by the Register of Copyrights in preparing the first five-year report assessing how effectively the interests of copyright proprietors and users are balanced under the photocopying provisions of the new law. Also suggested are certain actions that could be taken voluntarily by other interested parties to facilitate access to copyrighted works in photocopy form within the framework of the Copyright Act of 1976.

¹⁹⁷ The CONTU guidelines are set out and discussed in this chapter.

Recommendation for Amending One Area of the 1976 Copyright Act

At present, no persuasive evidence exists that the provisions of the Copyright Act of 1976 affecting photocopying are inadequate to serve the dual purposes of copyright: to reward creators of and facilitate public access to works of authorship. There can be no directly applicable evidence without some experience with the new law, now only a few months in effect. The importance of this absence of experience is accentuated by the fact that (1) photocopying received much attention during the debates preceding enactment of the new law; (2) the legislative process has produced two statutory sections dealing with photocopying;¹⁹⁸ (3) representatives of publisher, author, and library groups have agreed on a set of formal guidelines interpreting how these statutory provisions apply to interlibrary lending;¹⁹⁹ and (4) both government and private organizations are adapting their photocopying activities to the requirements of the new law.

Developments that have taken place since the new law came into effect on January 1, 1978, strongly support a wait-and-see attitude toward recommending major changes in its photocopying provisions. The National Technical Information Service is offering a service to provide its thirteen thousand deposit account customers with photocopies of scientific, technical, and professional literature from several thousand domestic and foreign journals. The price of the service includes a copying fee for the copyright proprietor.²⁰⁰ The Copyright Clearance Center, Inc., has been developed through the joint efforts of the Authors League of America, Inc., and the Association of American Publishers, scientific societies and user organizations to provide a licensing and clearing mechanism for the photocopying of copyrighted periodical litera-

¹⁹⁸ 17 U.S.C. §§ 107 and 108, which appear, along with other selected sections of the 1976 Act, in Appendix J.

¹⁹⁹ See the discussion of Commission guidelines in this chapter.

²⁰⁰ The Institute for Scientific Information and University Microfilms described in this chapter have long offered similar services from their collections.

ture, initially encompassing primarily scientific and technical journals.²⁰¹ The National Commission on Libraries and Information Science has proposed the establishment of a nonprofit National Periodicals Center to provide the public with copies, including photocopies on demand, from a comprehensive collection of periodical literature.²⁰² The operation of all these services within the framework of the new law may affect the balance of interest between copyright proprietors and users desiring photocopies of copyrighted works. Discretion would seem to require that these services operate under the new law for a reasonable period of time before any modifications are suggested.

No significant evidence has been presented to the Commission to support an argument that major legislative changes are necessary at this time. There is no immediate, measurable crisis in the publication of periodical journal literature—which is, by all accounts, the segment of publishing most directly affected by photocopying. No persuasive evidence exists that journals for which there is significant demand are going out of business because of photocopying. Nor is there a reliable means of separating the effects of photocopying from those of the pressures of rising costs and limited demand on the viability of individual journal titles. On the other hand, there is no evidence that the payments requested and the procedure for obtaining authorization to make photocopies not permitted as fair use under section 107 of the act or as a specific exemption under section 108 will impose unacceptable burdens on individuals and organizations wishing to copy.

Furthermore, there has been no strong support for modifying the statutory provisions of the 1976 Act among those most directly affected by the regulation of photocopying; neither library groups, publisher and author interests, nor members of the general public have seriously urged the Commission to recommend legislative action at this time. Although the library associations and author and publisher associations considered the advisability of further defining some terms in section 108 and clarifying the application of fair use to photocopying, they

made no proposals to the Commission for legislative changes.²⁰³ Should such interest develop as a result of experiences gained from operating under the present provisions of the 1976 Act, nothing would prevent these groups, acting individually or in concert, from pursuing these concerns with the appropriate congressional committees. All of these considerations seem to counsel against major legislative action at present. Such action should await an assessment of the effects of the new law and private arrangements made in regard to its provisions.

The one area in which some legislative change is recommended in the 1976 Act concerns copying performed by commercial organizations in the business of making copies for profit. The 1976 Act and legislative history, including the educational copying, music copying,²⁰⁴ and CONTU interlibrary loan guidelines, provide extensive guidance to those educational institutions, libraries, and archives engaged in copying and to individuals requesting copies from such institutions. The statute requires that two warning notices be prescribed by the Register of Copyrights and posted in libraries and archives in which copying takes place. One regulation, promulgated pursuant to section 108(d), prescribes the form of copyright warning that is to appear on the order form for obtaining copies and at the place where these orders are accepted. The second regulation, promulgated pursuant to section 108(e), prescribes the form of the notice that is to appear on the order form and at the place where requests are made to copy entire copyrighted works or substantial parts thereof.²⁰⁵

Neither the statute, the two sets of regulations, nor the three guidelines provide particular guidance as to what may be copied by commercial organizations that make copies for customers or by individuals buying copying services from such organizations. The Commission suggests that Congress require the posting of a notice in commercial copying organizations, both to describe that copying which in most cases would not constitute fair use and to warn prospective customers of the liability they might in-

²⁰¹ See this chapter under Clearance Mechanism and directly above Periodical Centers in General.

²⁰² See this chapter under Possible Periodical Copying Centers.

²⁰³ Transcripts, CONTU Meetings Nos. 17 and 21.

²⁰⁴ House Report, *supra* note 1, pp. 68, 70.

²⁰⁵ See Appendix J for the texts of these subsections of section 108.

cur for copying in violation of the copyright law.

The proposed statutory amendment would retain the present language of section 107, renumbered as section 107(a), and a new section 107(b) as follows:

§ 107(b) For the purpose of this title, those who make or supply copies or phonorecords to customers on demand in the regular course of their commercial business activity are referred to as "commercial copiers." Commercial copiers shall be required to display prominently, at any location where orders for copies or phonorecords are solicited or accepted, a notice advising the public of restrictions on reproduction of copyrighted works created by this title. Displaying the notice does not in itself constitute a fair use defense for a commercial copier, but failure by a commercial copier to display the prescribed notice shall result in the denial to such commercial copier of fair use as a defense to any copyright infringement action arising from copying done in the absence of the notice, and a trebling of any monetary amounts awarded a copyright owner who prevails in a copyright infringement action against a commercial copier. Such notice shall read as follows:

Warning Concerning Copyright Restrictions

The copyright law of the United States (Title 17, United States Code) governs the making of reproductions of copyrighted works. If a work is protected by copyright, in most cases it is copyright infringement, even for purposes of private study, to reproduce more than one article or other contribution to a copyrighted collection or periodical, or more than a small part of any other copyrighted work, or to make at the same time or at different times, more than one copy of any such article, contribution or small part. Copying in violation of copyright may subject you to an action for money damages under the copyright law.

Recommendations Concerning the Five-Year Review of Photocopying Practices

A review procedure is prescribed in section 108(i) of the 1976 Act for assessing the adequacy of the new law with regard to photocopying and for recommending solutions to problems resulting from any inadequacy. The Register of Copyrights is to undertake a study and

report to Congress by January 1, 1983, and at five-year intervals thereafter, "setting forth the extent to which this section [108] has achieved the intended statutory balancing of the rights of creators, and the needs of users."²⁰⁶ Although section 108 primarily concerns photocopying by libraries and similar institutions, the language may be interpreted to enable the Register also to investigate the impact of photocopying performed by for-profit organizations and by individuals, either on publicly available coin-operated machines or through commercial copying services. The "intended statutory balancing of the rights of creators, and the needs of users," the sought-after statutory standard, may be attained only if all these activities are evaluated. The Register's report to Congress is to "describe any problems that may have arisen, and present legislative or other recommendations, if warranted."²⁰⁷ Preparation of such a report would require that the study undertaken look beyond photocopying by libraries to accomplish its statutory purpose.

Having commissioned research, conducted investigations, and heard numerous witnesses on the photocopying issues related to current practices in and out of libraries, the Commission believes it can make helpful recommendations to the Register on how the first five-year study should be conducted.

The research effort should attempt to determine the impact of copying fees on the health of the publishing industry, with special emphasis on the publication of scientific, technical, and medical journals. In particular, the study should attempt to determine: (1) whether the imposition of copying fees contributes to the viability of individual journal titles; (2) what impact, if any, the imposition of copying fees has on journal subscriptions and library acquisitions; and (3) what information concerning the use of individual journal titles and their contents is provided by the numbers of photocopies for which payments are made.

The Register of Copyrights should construe section 108(i) broadly and not confine the five-year studies to the provisions of section 108 relating to library photocopying. The Register should examine how the educational and music copying guidelines have worked out in practice,

²⁰⁶ 17 U.S.C. § 108(i).

²⁰⁷ *Ibid.*

and how the statute has operated with respect to organizations that are not educational institutions, libraries, or archives, including organizations performing copying for a fee. All these types of copying have a potential impact on the creation and distribution of copyrighted works.

The Register should begin immediately to plan and implement the collection of data necessary to complete the required study. The Commission recommends that the Register convene representatives of the interested organizations to ascertain problems that appear unresolved by the 1976 Act and receive their suggestions on the conduct of the first five-year study. If the parties and the Register can agree on these matters, the collection of data and the usefulness of the data assembled may be improved and costs of the study reduced.

The regular periodic surveys of public, academic, school, federal, and special libraries conducted by the National Center for Education Statistics (NCES) will include at the Commission's request survey questions to determine, for the years 1978 and 1979, the gross amount of photocopying taking place in the United States, broken down between periodicals and other copyrighted works and between copying for local use and for interlibrary loan. Similar data may be collected for 1980 and 1981. In addition, consideration should be given to collecting data in these NCES surveys from the records on copying for interlibrary loan that libraries are required to maintain under the CONTU guidelines. Also, the Register should obtain and publish data for the calendar years 1978, 1979, 1980, and 1981 on the operations of such organizations as the Copyright Clearance Center, Inc., National Technical Information Service, University Microfilms International, and the Institute for Scientific Information, which license or supply authorized photocopies of copyrighted works.

The Register should also consider updating the 1976 Fry/White study of the economics of libraries and scholarly journals and incorporating some of the features of the 1977 King study.²⁰⁸ The Fry/White study for the National

Science Foundation provides economic data concerning libraries and scholarly journal publishing in the period 1969-73. The King study measured the type and volume of library photocopying in 1976. A combination of the two, with some additional features designed to measure the impact of the specific photocopying provisions of the 1976 Act on libraries and journal publishing, repeated for the calendar year 1981, would provide a means of assessing the economic status of library and journal publishing for a thirteen-year period, the last four years of which would be after the effective date of the 1976 Copyright Act.

Recommendations to Publishers

Publishers, especially publishers of journals, in cooperation with the library community, the Copyright Office, and the Library of Congress, should exert every effort to facilitate the determination of the copyright status of both current and older issues of their publications. A large portion of periodical issues copyrighted under the provisions of the 1909 Act have not been renewed and are in the public domain. In addition, the Fry/White/Johnson study undertaken for the Commission showed that publishers of many scholarly journals are willing to permit libraries—especially nonprofit libraries—to photocopy beyond the limits established by sections 107 and 108 of the 1976 Act.²⁰⁹

Publishers might inform the public of the copyright status of journal issues in several ways. Journal publishers could display prominently the copyright notice if they wish to protect their copyright and could include information in their current issues concerning the copyright status of back issues. Whether or not published with a copyright notice, every journal issue could carry a statement of policy with respect to copying. For example, several of the journals published by the American Library Association carry the following statement:

All material in this journal subject to copyright by the American Library Association may be photocopied for the noncommercial purpose of scientific or educational advancement.

²⁰⁸ FRY and WHITE, PUBLISHERS AND LIBRARIES: A STUDY OF SCHOLARLY AND RESEARCH JOURNALS (1976); hereinafter referred to as Fry/White study. For the King study, see note 193, *supra*.

²⁰⁹ See note 231.

It would be helpful if the Register of Copyrights and the National Commission on Libraries and Information Science (NCLIS) would bring together representatives of journal publishers, authors, and library organizations to work out various forms of standard language providing the type of information suggested.

Every issue of a journal could display prominently a statement of participation (or non-participation) in copying clearance arrangements, such as the Copyright Clearance Center, Inc. (CCC), and could, in addition, indicate where and at what cost copies of articles or back issues may be obtained. If the publisher permits copying beyond that allowed by the 1976 Act, the publisher should also include that information in the statement.

Each issue of a journal should contain the International Standard Serial Number (ISSN) assigned by the Serial Records Division of the Library of Congress. This inclusion would facilitate the determination of the copyright status of periodical articles by computerized on-line systems.²¹⁰ Users of copyrighted works will also benefit if organizations that authorize copying for a stated fee, such as CCC, include in their catalogs information on the copyright status of older issues similar to that suggested for incorporation in each journal issue, and information concerning where and at what cost authorized copies may be obtained.²¹¹

Recommendations to Government Agencies

The Library of Congress, the Copyright Office, and NCLIS, in consultation with the library

²¹⁰ The Copyright Office registration form TX for periodical issues published after December 31, 1977, includes a place for the insertion of the International Standard Serial Number (ISSN). The U.S. Postal Service and the Library of Congress have agreed as a general rule to have the ISSN printed in each issue of second-class publications instead of the separate and different identification number now used by the Postal Service. 43 *Fed. Reg.* 29943.

²¹¹ The chairman of the Copyright Clearance Center, in a letter dated April 14, 1978, informed the Commission that the center intended to "request publishers for information on the copyright status of older journals, and include information received in catalogues to be published in the future."

associations, journal publishers, and library consortia, should explore the possibility of including in the Conservation of Serials project—a data base of information on serials, including the title, the publisher, ISSN—information concerning (1) the copyright status of journal issues, both current and older; (2) whether the publisher permits copying beyond that permitted by the statute; (3) whether the journal is in CCC or other clearance systems; and (4) what, if any, sources of authorized copies exist. The Library of Congress or any other organization planning to establish a nonprofit periodicals copying center should consider the discussion of such centers in this report.²¹²

Provisions of the 1976 Copyright Act Affecting Photocopying

Sections 107 and 108 of the Copyright Act of 1976 govern photocopying activities.²¹³ An understanding of these sections and their legislative history is necessary to analyze the needs of copyright proprietors and those who seek access to printed works by means of photocopying.

The 1976 Act deals with photocopying in four different ways:

1. Copying for teaching purposes is dealt with, not by specific statutory exemptions, but rather by a list of permissible practices held to be fair use under section 107. This is accomplished by means of the so-called educational guidelines, the "Agreement on Guidelines for Classroom Copying in Not-for-Profit Educational Institutions," which were negotiated by educational, author, and publisher organizations and accepted by the congressional committees.²¹⁴

²¹² See in this chapter the subsections Means of Obtaining Permission to Make Photocopies . . . through Periodical Centers in General.

²¹³ For the full text of these sections, see Appendix J, which also contains the text of two other provisions concerning photocopying: section 504(c)(2), relating to the possible remission of statutory damages for infringement by employees or agents of nonprofit educational institutions, libraries, or archives acting within the scope of their employment; and section 602(a)(3), relating to the importation of copies by nonprofit scholarly, educational, and religious organizations.

²¹⁴ House Report, *supra* note 1, pp. 68–70.

(They will not be dealt with here in any further detail because of the explicit exclusion from the jurisdiction of the Commission of copying done in connection with face-to-face teaching activities.)

2. Permissible copying of music for educational use is also covered in guidelines which were negotiated between music publishing organizations and organizations representing music users. The House Committee report sets forth these guidelines.²¹⁵

3. Specific exemptions for photocopying by libraries and archives are set forth in section 108 of the 1976 Act and are discussed in detail in the following sections of this chapter.

4. By implication, since they are the subject of no specific exemptions or guidelines, the following classes of copiers may engage in only fair use copying under the four general standards set forth in section 107 of the act: (a) individuals doing their own copying; (b) libraries and archives not qualifying for the privileges of section 108; and (c) organizations which are not libraries or archives, including profit organizations charging fees for copying.²¹⁶

Section 108 permits copying of most materials without authorization by libraries or archives for themselves and for their users in specified circumstances provided that: (1) the library or archives is open to the public or available to specialized researchers; (2) the reproduction or distribution includes a notice of copyright; and (3) the reproduction or distribution is made without any purpose of direct or indirect commercial advantage.²¹⁷ This third limitation is interpreted in the House report to mean that "direct or indirect commercial advantage" is an intention to profit directly from the sale of copies, rather than to profit from the use of the reproduced material in the business of the organization.²¹⁸

Libraries and archives qualifying for the privileges of section 108 are permitted to make copies for themselves (as opposed to making copies for their patrons or users) only in two

cases. Section 108(b) permits a library or archives to reproduce an unpublished work for purposes of preservation, security, or research use in another library if the copy or phonorecord is currently in the collections of the library or archives. Section 108(c) permits libraries and archives to reproduce damaged, deteriorated, lost, or stolen copies if, after a reasonable effort, an unused replacement cannot be obtained at a fair price.

Libraries and archives are given more extensive privileges of making copies for users both from their own collections and by securing copies from other sources. The principal privilege is conferred by section 108(d), which permits the making of not more than one copy of an article from a periodical, or other contribution to a copyrighted collection, or a small part of any other copyrighted work, for purposes of private study, scholarship, or research, provided that the library displays prominently at the place where orders are accepted and includes in its order forms the warning of copyright prescribed by regulation of the Register of Copyrights.

Libraries and archives also have the right under section 108(e) to make a copy for a user of an *entire* copyrighted work or a substantial part of it, or to secure a copy from another source, if (1) determination has been made that a copy cannot be obtained at a fair price; (2) the purpose of the requester is private study, scholarship, or research; and (3) the prescribed warning by the Register of Copyrights is displayed and included on the order form.

All of the rights to make copies that are enumerated in section 108 are limited by the prohibition in section 108(g) against "the related or concerted reproduction . . . of multiple copies . . . of the same material" and the "systematic reproduction or distribution" of periodical articles or other small portions of copyrighted works. This prohibition against systematic reproduction and distribution, however, is in turn limited by the proviso in section 108(g)(2), which states "[t]hat nothing in this clause prevents a library or archives from participating in interlibrary arrangements that do not have, as their purpose or effect, that the library or archives receiving such copies or phonorecords for distribution does so in such aggregate quantities as to substitute for a sub-

²¹⁵ Ibid., pp. 70-72.

²¹⁶ See Appendix J for the text of section 107.

²¹⁷ Section 108(h) excludes "a musical work, a pictorial, graphic or sculptural work, or a motion picture or other audiovisual work other than an audiovisual work dealing with news. . . ."

²¹⁸ House Report, *supra* note 1, p. 74.

scription to or purchase of such work." The aggregate quantities that constitute a substitution for a subscription or purchase of a work are defined in the CONTU guidelines, which are described in the next section.

CONTU Guidelines on Photocopying under Interlibrary Loan Arrangements

The CONTU guidelines were developed to assist librarians and copyright proprietors in understanding the amount of photocopying for use in interlibrary loan arrangements permitted under the copyright law. In the spring of 1976 there was realistic expectation that a new copyright law, under consideration for nearly twenty years, would be enacted during that session of Congress. It had become apparent that the House subcommittee was giving serious consideration to modifying the language concerning "systematic reproduction" by libraries in Section 108(g)(2) of the Senate-passed bill to permit photocopying under interlibrary arrangements, unless such arrangements resulted in the borrowing libraries obtaining "such aggregate quantities as to substitute for a subscription to or purchase of" copyrighted works.²¹⁹

The Commission discussed this proposed amendment to the Senate bill at its meeting on April 2, 1976. Pursuant to a request made at that meeting by the Register of Copyrights, serving in her ex officio role, the Commission agreed that it might aid the House and Senate subcommittees by offering its good offices in bringing the principal parties together to see whether agreement could be reached on a definition of "such aggregate quantities." This offer was accepted by the House and Senate subcommittees and the interested parties, and much of the summer of 1976 was spent by the Commission in working with the parties to secure agreement on "guidelines" interpreting what was to become the proviso in Section 108(g)(2) relating to "systematic reproduction" by libraries. The pertinent parts of that section, with the proviso added by the House emphasized, follow:

(g) The rights of reproduction and distribution

under this section extend to the isolated and unrelated reproduction or distribution of a single copy or phonorecord of the same material on separate occasions, but do not extend to cases where the library or archives, or its employee . . .

(2) engages in the systematic reproduction or distribution of single or multiple copies or phonorecords of material described in subsection (d): *Provided, That nothing in this clause prevents a library or archives from participating in interlibrary arrangements that do not have, as their purpose or effect, that the library or archives receiving such copies or phonorecords for distribution does so in such aggregate quantities as to substitute for a subscription to or purchase of such work.*

Before enactment of the new copyright law, the principal library, publisher, and author organizations agreed to the following detailed guidelines defining what "aggregate quantities" would constitute the "systematic reproduction" that would exceed the statutory limitations on a library's photocopying activities.

PHOTOCOPYING-INTERLIBRARY ARRANGEMENTS

Introduction

Subsection 108 (g)(2) of the bill deals, among other things, with limits on interlibrary arrangements for photocopying. It prohibits systematic photocopying of copyrighted materials but permits interlibrary arrangements "that do not have, as their purpose or effect, that the library or archives receiving such copies or phonorecords for distribution does so in such aggregate quantities as to substitute for a subscription to or purchase of such work."

The National Commission on New Technological Uses of Copyrighted Works offered its good offices to the House and Senate subcommittees in bringing the interested parties together to see if agreement could be reached on what a realistic definition would be of "such aggregate quantities." The Commission consulted with the parties and suggested the interpretation which follows, on which there has been substantial agreement by the principal library, publisher, and author organizations. The Commission considers the guidelines which follow to be a workable and fair interpretation of the intent of the proviso portion of subsection 108(g)(2).

These guidelines are intended to provide guidance in the application of section 108 to the most frequently encountered interlibrary case: a library's obtaining from another library, in lieu of interlibrary loan, copies of articles from relatively

²¹⁹ 94th Cong., 2d sess., 1975, S. Rept. 22.

recent issues of periodicals—those published within five years prior to the date of the request. The guidelines do not specify what aggregate quantity of copies of an article or articles published in a periodical, the issue date of which is more than five years prior to the date when the request for the copy thereof is made, constitutes a substitute for a subscription to such periodical. The meaning of the proviso to subsection 108(g)(2) in such case is left to future interpretation.

The point has been made that the present practice on interlibrary loans and use of photocopies in lieu of loans may be supplemented or even largely replaced by a system in which one or more agencies or institutions, public or private, exist for the specific purpose of providing a central source for photocopies. Of course, these guidelines would not apply to such a situation.

Guidelines for the Proviso of Subsection 108(g)(2)

1. As used in the proviso of subsection 108(g)(2), the words "... such aggregate quantities as to substitute for a subscription to or purchase of such work" shall mean:

(a) with respect to any given periodical (as opposed to any given issue of a periodical), filled requests of a library or archives (a "requesting entity") within any calendar year for a total of six or more copies of an article or articles published in such periodical within five years prior to the date of the request. These guidelines specifically shall not apply, directly or indirectly, to any request of a requesting entity for a copy or copies of an article or articles published in any issue of a periodical, the publication date of which is more than five years prior to the date when the request is made. These guidelines do not define the meaning, with respect to such a request, of "... such aggregate quantities as to substitute for a subscription to [such periodical]."

(b) With respect to any other material described in subsection 108(d), (including fiction and poetry), filled requests of a requesting entity within any calendar year for a total of six or more copies or phonorecords of or from any given work (including a collective work) during the entire period when such material shall be protected by copyright.

2. In the event that a requesting entity:

(a) shall have in force or shall have entered an order for a subscription to a periodical, or

(b) has within its collection, or shall have entered an order for, a copy or phonorecord of any other copyrighted work, material from either category of which it desires to obtain by copy from another library or archives (the

"supplying entity"), because the material to be copied is not reasonably available for use by the requesting entity itself, then the fulfillment of such request shall be treated as though the requesting entity made such copy from its own collection. A library or archives may request a copy or phonorecord from a supplying entity only under those circumstances where the requesting entity would have been able, under the other provisions of section 108, to supply such copy from materials in its own collection.

3. No request for a copy or phonorecord of any material to which these guidelines apply may be fulfilled by the supplying entity unless such request is accompanied by a representation by the requesting entity that the request was made in conformity with these guidelines.

4. The requesting entity shall maintain records of all requests made by it for copies or phonorecords of any materials to which these guidelines apply and shall maintain records of the fulfillment of such requests, which records shall be retained until the end of the third complete calendar year after the end of the calendar year in which the respective request shall have been made.

5. As part of the review provided for in subsection 108(i), these guidelines shall be reviewed not later than five years from the effective date of this bill.

These guidelines were accepted by the Conference Committee and were incorporated into its report on the new act.²²⁰ During the ensuing twenty months, both library and publisher organizations have reported considerable progress toward adapting their practices to conform with the CONTU guidelines.

The guidelines specifically leave the status of periodical articles more than five years old to future determination. Moreover, institutions set up for the specific purpose of supplying photocopies of copyrighted material are excluded from coverage of the guidelines.

Volume of Library Photocopying in 1976

Enactment of the 1976 Act was one prerequisite to the Commission's formulation of recommendations concerning photocopying. Another was access to data about the incidence of photo-

²²⁰ Conference Report, *supra* note 1, pp. 71-73.

copying and its impact, both real and perceived, on the activities of authors, publishers, and those seeking access to works of authorship. Two studies published in 1976 and 1977 provided most of the data that was utilized by the Commission for these purposes.

Comprehensive quantitative data on the photocopying of copyrighted materials in the United States is provided by the 1977 report of King Research, Inc.,²²¹ which was based primarily on sample surveys of photocopying conducted on supervised machines by public, academic, federal government, and special libraries.²²² Records of 130,000 interlibrary loan transactions in 1976 in the Minnesota Interlibrary Telecommunications Exchange (MINITEX), a network of libraries in Minnesota and surrounding states, supplemented the King Research survey sample.²²³ An advisory committee consisting of librarians, publishers, and government agency officials provided oversight for the project.

Although the study has furnished the most comprehensive body of data on photocopying ever assembled in the United States, it did not cover every kind of photocopying of copyrighted materials. It excluded, for example: (1) copying in public and nonpublic elementary and secondary school libraries; (2) copying for classroom use in nonprofit educational institutions at all levels—elementary, secondary, and higher—unless the copying was performed by the library of the institution; (3) copying on unsupervised machines (including coin-operated machines in libraries and elsewhere in organizations); (4) copying by government agencies other than in their libraries; (5) copying by organizations

other than libraries or in organizations in units other than the libraries, such as by business organizations without libraries or departments of educational institutions; and (6) copying by organizations selling copying services either as a major or incidental part of their operations, such as commercial photocopying services and "information brokers."²²⁴

The overall volume of items of copyrighted materials estimated to have been copied by the four types of libraries sampled in the King study are shown in Table 2.²²⁵

An estimated total of 53.9 million items from copyrighted materials was copied on supervised machines in the twenty-two thousand libraries in the universe sampled. Of this total, 70 percent was copied from serials, 24 percent from books, and 6 percent from other copyrighted materials. The task of estimating what amount of this volume of copyrighted materials would be exempted under sections 107 and 108 of the 1976 Act and what amount would require authorization to copy is complicated by the fact that the contract for the King study came into effect in July 1976, three months before the new Copyright Act was enacted and its detailed provisions on photocopying were known. The data gathered, therefore, may not correspond exactly with the activities defined in the act. Nevertheless, some rough estimates may be drawn for the types of libraries included in the survey. This analysis is undertaken in the following sections, broken down into the three types of transactions, and then broken down in each case by type of library.

Copying of Copyrighted U.S. Serials for Interlibrary Loan

The King sample survey collected more detailed data concerning copying for interlibrary loan arrangements than for any other cate-

²²¹ See note 194, *supra*. This study was conducted in 1976 and 1977 under contract with the National Commission on Libraries and Information Science (NCLIS), with additional financial support from the National Science Foundation and CONTU. Such a study was recommended in 1975 by the Conference on the Resolution of Copyright Issues, which consisted of representatives of producers and consumers of copyrighted materials under the joint chairmanship of Frederick Burkhardt, chairman of NCLIS, and Barbara Ringer, Register of Copyrights.

²²² Special libraries generally are libraries other than public, school, federal, or academic. Included would be libraries located in business corporations, trade associations, law firms, museums, hospitals, etc.

²²³ The MINITEX records constituted the only existing comprehensive data on interlibrary loan transactions for an entire year.

²²⁴ See this chapter under Secondary Suppliers of Authorized Copyright-Fee-Paid Copies.

²²⁵ The volumes of photocopying discussed in the following section may be significantly smaller than the estimated volumes which would have resulted from a more comprehensive survey covering the exemptions noted above. Such a survey would probably have been precluded by such factors as cost, available time, and lack of adequate statistical universes (mailing lists).

TABLE 2
PHOTOCOPYING IN LIBRARIES FROM ALL COPYRIGHTED MATERIALS
 Millions of Photocopied Items (one or several pages)

Type of Use					
Type of Library	Local Users ¹	Intrasystem Transactions ¹	Interlibrary Loan ¹	Total Copyrighted Materials	Copyright Status Unknown ¹
Public	13.7	7.2	3.2	24.1	11.0
Special	11.0	5.6	1.2	17.8	2.6
Academic	3.5	3.1	1.3	7.9	3.4
Federal	2.7	1.0	.4	4.1	.3
TOTAL	30.9	16.9	6.1	53.9	17.3

NOTE: Due to rounding off of numbers, rows and columns may not add exactly.

¹ King study, Tables 3.13, 3.15, 3.17, and 3.19.

gory.²²⁶ Its data were supplemented and reinforced by the data on the 130,000 actual transactions in the MINITEX system. Table 3 contains the King study figures on the total volume of copying of U.S. copyrighted serials for interlibrary loan and the alternative estimates of the volume of copying that would require authorization under section 108(g)(2) and the CONTU guidelines.²²⁷

The King study data suggest that from 505,000 to 1,925,000 of the items from U.S. serials photocopied for interlibrary loan in 1976 would have required authorization from the copyright proprietor, had the provisions of the 1976 Act been applicable.²²⁸ To this number, however, must be added some portion of the 1,200,000 copies made from copyrighted books, of the 600,000 photocopies made from other copyrighted materials, and of the copies of foreign serials and materials for which copyright status was not reported. Appropriate deductions

from all of these categories must be made to take into account copying for classroom use and replacement. A portion of that copying may be exempted from copyright liability under sections 107 and 108. These figures in turn should be reduced by the number of single-page photocopied items made for interlibrary loan, which likely fall under the definition of fair use.

Information on one-page and two-page items is available in the King study only for periodicals and other serials and not for books or other copyrighted material. That information indicates that 16 percent of the filled requests were for one page. If 16 percent is deducted from the figures in columns 3 and 4 of Table 3, the number of copies of domestic serial items photocopied for interlibrary loan and requiring authorization would be reduced to 420,000 copies for articles less than six years old and 1,621,000 copies of articles, irrespective of age.

Photocopies Made for Local Use

Copying for local use as defined in the King study includes copying by public library borrowers, students and faculty of colleges and universities, and employees of libraries and the institutions in which they are located, including corporate employees. The number of copies for local use will also include those permitted under the fair use provisions of section 107, which permit the making of one copy of an article or a small portion of other works for purposes of private study, scholarship, or research, as well as those permitted under the provisions of section 108(d). The King study provides no

²²⁶ The definition of a serial used in the King study, *supra* note 194, p. ix, is: "A publication issued in successive parts bearing numerical or chronological designations, which is intended to be continued indefinitely and which may be identified by an ISSN (International Standard Serial Number). Serials include periodicals, newspapers, and the journals, memoirs, proceedings, transactions, etc., of societies. Serials are subject to subscription prices paid in advance. (This eliminates publications that appear annually or less frequently.)"

²²⁷ The King study provides no similar breakdown for books or other copyrighted materials, nor for serials not published in the United States.

²²⁸ The total figure would depend on how articles from journals over five years old—those not covered by the CONTU guidelines—were treated.

TABLE 3
PHOTOCOPYING FROM U.S. COPYRIGHTED SERIALS FOR INTERLIBRARY LOAN
 Millions of Photocopied Items (one or several pages)

Conditions Affecting the Need for Authorization to Make Copies				
Type of Library	No. of Items Copied ¹	No. Exempt for Classroom Use, Replacement, and under 5 Copies per Title ¹	No. Needing Authorization w/o Time Limit (=col. 1 — col. 2) ¹	No. Needing Authorization w/ 5-Year Time Limit ¹
Special	1.25	.63	.62	.22
Academic	1.13	.47	.66	.14
Public	1.01	.53	.48	.09
Federal	.38	.22	.17	.06
TOTAL	3.77	1.85	1.93	.51

¹ King study, Table 4.14 and p. 71.

direct data on these types of exempted copying, but an approximation appears in Table 4, arrived at by distinguishing single and multiple copies and by applying estimates of the number of photocopied items consisting of but one page.

At first glance it appears that only some 5,100,000 photocopied items made for local patrons would require authorization. To this number must be added some portion of the 4,260,000 single items photocopied by libraries in profit organizations to take into account photocopies by those libraries that do not avail themselves of the benefits of section 108(d) because their collections are not open to the public or specialized researchers.

Photocopies Made for Intrasystem Use

The second-highest volume of copying of copyrighted materials in the types of libraries surveyed by King Research was for intrasystem loan. This volume was almost as great as copying for local patrons and more than twice as great as copying for interlibrary loan. Intrasystem loan was defined in the King study as "borrowing or lending of library materials carried on between branches or departments within the same library system as determined by common funding." No definition was provided for library system, but a library was defined to include "both the central library/head-

TABLE 4
PHOTOCOPYING FROM ALL COPYRIGHTED SERIALS FOR LOCAL USE
 Millions of Photocopied Items (one or several pages)

Conditions Affecting the Need for Authorization to Make Copies					
Type of Library	No. Copies Made from All Serials ¹	No. Copies Not Made for Replacement or Classroom Use ²	No. of Single Copies ³	No. of One-Page Items	No. of Copies Needing Authorization (col. 2 — col. 3 + 4)
Special	9.7	9.6	7.8 ⁴	.9	.9
Public	7.6	7.2	3.8	.7	2.7
Federal	2.5	2.4	.8	.2	1.4
Academic	2.0	1.8	1.5	.2	.1
TOTAL	21.7	21.0	13.9	2.1	5.1

NOTE: Due to rounding off of numbers, rows and columns may not add exactly.

¹ King study, Table 4.19.

² King study, Table 4.23; does not include 4,560,000 items for which the purpose of the request is unknown or unreported.

³ King study, Table 4.26.

⁴ Composed of an estimated 4.3 million in for-profit institutions and 3.6 million in nonprofit institutions.

quarters and the branch libraries/departments of your library system or archives.”²²⁹

The problem of estimating what portion of the intrasystem photocopying of copyright materials falls within fair use under section 107 or within the exceptions in section 108 is further complicated by the lack in either the 1976 Copyright Act or its legislative history of definitions of the terms *library* or *archives*. It is necessary to estimate what portion of intrasystem loan copies is governed by section 108(d)—single copies for patrons of articles or other small portions of copyrighted works—and what portion of the copies is governed by the limitations in section 108(g)(2) on copying for interlibrary loan. Presumably, Congress intended that individual instances of copying would fall under one or the other of these provisions, but not under both.

The estimates made in the analysis which follows are based upon the assumption that copying for intrasystem use is copying within a *library* as that term is used in the statute. For example, it is assumed that a large city's central or headquarters library and its numerous branches constitute one library, and, therefore, any library patron in that city may go to the headquarters or any branch to secure a single copy of an article from any periodical subscribed to by any library unit in that city—provided that the requests for the copies are iso-

lated, unrelated, and not a part of a concerted or systematic scheme—without incurring liability to the copyright proprietor in accord with section 108(d). Conversely, securing such a copy would not count as an interlibrary loan under the provisions of section 108(g)(2) and the CONTU guidelines. The corollary of this interpretation is that if the periodical is *not* subscribed to by *any* unit in the city system, all requests for copies of articles made to any unit in the city which were met from sources not in the city system would count against the quota of five copies in the CONTU guidelines. This interpretation seems to fit best with usual library practice, wherein only requests for copies that cannot be met within a city system are counted as interlibrary loans.

Table 5, which follows, applies this assumption in attempting to estimate what portion of the volume of photocopying shown in the King study as intrasystem use requires authorization.

An examination of Table 5 suggests that some 2,270,000 items copied for intrasystem loan would require authorization. To this number, however, should be added some portion of the 2,100,000 single copies made by special libraries, shown in column 3, to account for intrasystem copying by libraries in for-profit organizations that do not avail themselves of the privileges of section 108.

Table 6 recapitulates estimates of the minimum number of items copied from copyrighted materials on unsupervised machines in libraries that would require consent of the copyright proprietor.

²²⁹ King study, *supra* note 194, pp. viii, 216.

TABLE 5
PHOTOCOPYING FROM ALL COPYRIGHTED SERIALS FOR INTRASYSTEM LOAN
Millions of Photocopied Items (one or several pages)

Conditions Affecting the Need for Authorization to Make Copies					
Type of Library	No. Copies from All Serials	No. Copies for Replacement or Classroom Use ¹	No. Single Copies ²	No. Copies Needing Authorization w/o Limit on Length (col. 1 — cols. 2 + 3)	No. Copies Needing Authorization w/ One-Page Copies Exempt
Special	4.78	NA	2.10	2.68	1.47
Public	4.68	.18	2.53	1.97	.80
Academic	1.63	.23	1.29	.11	
Federal	.86	.05	.78	.03	
TOTAL	11.95	.45	6.70	4.80	2.27

¹ King study, Table 4.34.

² Donald King estimate, telephone conversation, December 22, 1977.

TABLE 6
ITEMS COPIED FROM COPYRIGHTED MATERIALS
ON UNSUPERVISED MACHINES

Type of Use	No. of Items	Source of Material
Interlibrary loan	420,000	From domestic serials under six years old
Local use	5,100,000	From serials only
Intrasystem loan	2,270,000	From serials only
TOTAL	7,790,000	

NOTE: The estimates in Table 6 are minimal because they do not include (1) copies for interlibrary loan made from serials over five years old, (2) single copies made for local use or intrasystem use in libraries in for-profit organizations which do not wish to make themselves eligible for the provisions of section 108, (3) copies made from books and other copyrighted materials, (4) issues of foreign serials copied for interlibrary loan, and (5) copies made in institutions not covered by the King study.

Means of Obtaining Permission to Make Photocopies or to Obtain Authorized Copies under the 1976 Copyright Act

The complexities of the new copyright law and the data compiled in the several studies (discussed in this chapter under *Interrelated Economics of Publishing . . .*) highlight the importance of ascertaining the copyright status of works and the need for easily obtaining permission to copy. Because the 1976 Copyright Act became effective on January 1, 1978, it is too early to know all the various arrangements that may come into existence for obtaining consent to make or to receive copies of copyrighted works not permitted under the new law—either as fair use under section 107 or pursuant to the various exemptions in section 108. However, some of the principal methods and mechanisms for obtaining authorization and making payments are known and may be discussed briefly.

Publisher May Notify Public That Certain Works May Be Photocopied for Individual Use

The absence of copyright notice on any work subject to copyright normally may be relied on by the public as evidence, in the absence of

knowledge to the contrary, that a work may be copied.²³⁰ There are various ways to notify the public that a proprietor grants consent for photocopying beyond that permitted under sections 107 and 108 of the 1976 Act. One method is to print in each issue a specific license stating what copying may be done without individual authorization. Some periodical publishers are likely to adopt liberal copying policies on photocopying and will publish such policies in each issue of the periodicals. A variety of such policies are conceivable: (1) general permission to copy except for resale; (2) permission to copy (single or multiple copies) by nonprofit organizations; and (3) permission to copy from older issues before a certain date.

The 1977 Fry/White/Johnson study—a report prepared for the Commission in 1977 by Bernard Fry, Herbert S. White, and Elizabeth Johnson of the Indiana University Graduate School and entitled *Survey of Publisher Practices and Present Attitudes on Authorized Journal Article Copying and Licensing*—throws some light on the extent to which periodical publishers may wish to adopt such policies.²³¹ Approximately 20 percent of the 974 responding journals were willing to permit copying by nonprofit organizations beyond that authorized in the law (and to permit copying to a lesser extent by for-profit organizations). The journals surveyed were more liberal in permitting copying from older issues than from more recent issues. Copyright Office records indicate that of the 1,485 journals not responding in this study, approximately 600, or 40 percent, did not register claims to copyright under the 1909 Act, which may indicate that a considerable portion of the journals not registering in the past may be willing to permit copying beyond that which is permissible under sections 107 and 108 of the 1976 Act.

A considerable number of older issues fall into the public domain when copyright is not renewed at the expiration of the first twenty-eight-year period of protection under the 1909

²³⁰ Section 405(b) of the 1976 Act offers considerable, although not absolute, protection to "an innocent infringer" who copies in reliance on the absence of a copyright notice. For the text of this section see Appendix J.

²³¹ Fry/White/Johnson study, *supra* note 196.

Act.²³² Unfortunately, there exists no simple and inexpensive method to determine whether these older issues are still under copyright. The Copyright Office has published annually a *Catalog of Copyright Entries* for periodicals that indicates what serial titles are registered for copyright under the 1909 Act, including renewal registrations, and will continue to publish data on renewal registrations. Obtaining access to and using these catalogs, however, is a rather cumbersome way of checking the copyright status of older periodical issues. At least three methods may be conceived to simplify the process:

1. A statement published in current issues of periodicals that issues more than twenty-eight years old regularly are (or are not) under copyright.

2. A statement in the catalog of journals participating in the Copyright Clearance Center that older issues are (or are not) under copyright or, alternatively, an indication that copying fees will not be requested for older issues.

3. A statement on the copyright status of individual journal titles in the on-line bibliographic data on periodicals available through library networks. It might well be possible for those responsible for the CONSER project to add copyright status to this computerized data base at a one-time cost that would be minimal when spread over libraries throughout the country.²³³

Clearance Mechanism

The Copyright Clearance Center, Inc. (CCC), is a nonprofit New York corporation created under the sponsorship of publisher and author organizations. After December 31, 1977, persons or organizations wishing to copy material entered into the CCC's system (initially predominantly scientific, technical, and medical

journals), for which consent must be obtained from copyright proprietors, may do so by paying the center the copying fee per article or periodical page printed in the publication or for pre-1978 issues listed in the CCC catalog.²³⁴

Publishers have the option of designating CCC as their agent to authorize the making of photocopies. Publishers who elect this option are also free to enter into agreements directly with individuals or organizations to authorize the making of photocopies. Accordingly, CCC provides but one mechanism of securing authorization to photocopy copyrighted works.

Suppliers of Authorized Photocopies

The great majority of photocopies of material that libraries do not possess and thus must secure from other sources will continue to be supplied through traditional interlibrary loan channels, pursuant to the proviso in section 108(g)(2) of the 1976 Act as further defined in the CONTU guidelines. However, there will be a small but significant portion of requests for photocopies of materials that will require securing authorized copies from institutions prepared to furnish photocopies on demand.²³⁵ Some of the principal suppliers will be described briefly.

Institute for Scientific Information

The Institute for Scientific Information (ISI) in Philadelphia has been furnishing various bibliographic information services and providing tearsheets or authorized photocopies of journal articles to its clients for some twenty years.²³⁶ This tearsheet/photocopy service is called Original Article Tear Sheets (OATS).

²³² In 1974, issues of 475 periodical titles out of approximately 4,900 titles eligible for renewal were, in fact, renewed. When renewals were filed it was usually for all issues of the title for the year. Of these 475 titles which renewed, 14 percent were in the fields of science and technology, and 9 percent in law and the social sciences. Historically, then, a relatively small minority of copyrighted periodical material is renewed.

²³³ See this chapter under Recommendations to Government Agencies.

²³⁴ As of June 30, 1978, CCC reports that there were 1,633 U.S. and foreign publications, mostly periodicals, participating in the system; that 591 organizations were registered as users; and that the range of copying fees for articles published before 1978 was from zero to \$12.25, with a median fee of somewhere between \$2.00 and \$2.50. The center has estimated that in the 1978 calendar year, 1,000,000 copying transactions will be authorized by use of its system.

²³⁵ See this chapter under Copying of Copyrighted U.S. Serials for Interlibrary Loan.

²³⁶ For a comparison of authorized copy delivery services, see this chapter under Secondary Suppliers of Authorized Copyright-Fee-Paid Copies.

Copies of articles in the most recent five years from more than 5,000 scientific, technical, and social science journals are available through OATS. More than 100,000 tearsheets or photocopies of articles were supplied by ISI in 1977, and volume has been growing at a rate of 10 percent a year.

During 1978, ISI will add about 800 arts and humanities journals and 3,000 published scientific proceedings to its collections. When feasible, OATS service will be extended to these new materials, thereby providing access to more than 180,000 additional items a year.

University Microfilms

University Microfilms International (UMI) in Ann Arbor, Michigan, a subsidiary of the Xerox Corporation, has contracts with publishers of several thousand serials authorizing it to sell microform copies of full-year volumes. The bulk of its business has been with libraries, which substitute the microfilm copies for the original paper issues to save storage space and binding costs. Through its contracts with publishers, UMI supplies on demand single or multiple copies of articles from about eight thousand serials (usually in full size). The periodical titles for which UMI has contracts for the most part do not duplicate those journals from which ISI supplies copies. A catalog is published by UMI so that libraries and other users may determine the periodical titles from which UMI is authorized to photocopy. Unlike ISI, however, UMI ordinarily can supply copies of articles from all issues of its serials, back to the start of publication.

Secondary Suppliers of Authorized Copyright-Fee-Paid Copies

There are or will be a number of so-called secondary suppliers of authorized copies of copyrighted materials. The National Technical Information Service (NTIS), for one example, is an agency of the Department of Commerce, established to make the results of research reports and other materials prepared in or for federal agencies more readily available to industry, business, and the general public. A large facility is operated by NTIS in Springfield, Virginia, a suburb of Washington, D.C., which stores these doc-

uments and supplies full-size or microform copies of hundreds of thousands of documents annually. Catalogs of documents are published by NTIS, which also enters them into a bibliographic data base, to which on-line access is available through some of the commercial data base services. In May 1978, NTIS instituted a means of ordering and paying for authorized copies of articles from fifty-three hundred nongovernment journals. The service estimates that by mid-summer of 1978 it will have completed arrangements for supplying copies from eight thousand to nine thousand journals.

Another source of copies of articles are so-called information-on-demand or information-broker companies. These companies are organized to do research and supply information on a wide variety of topics to anyone interested in such services.²³⁷ There are also organizations which provide computerized access to approximately 360 bibliographic data bases.²³⁸ Subscribers to certain of these services may electronically order copies of documents from these bibliographic data bases of certain materials and from certain suppliers for delivery by mail. Convenience and the increased speed of document delivery make it likely that this kind of electronic ordering of documents will increase in volume. Table 7 summarizes and compares the authorized copy delivery services provided by ISI, UMI, and NTIS.

Possible Nonprofit Periodical Copying Centers

In April 1977, the National Commission on Libraries and Information Science (NCLIS) published a task force report which proposed a national system for providing libraries with better access to copies of periodical materials not in their collections, based on three levels of supply:

Level 1—Local, state, and regional library

²³⁷ In the past, these organizations have often provided copies of copyrighted materials without authorization from copyright proprietors. A number of these organizations, however, have indicated to the Commission that they will begin to obtain authorization for any copies they supply their customers in the course of their business.

²³⁸ CHRISTIAN, *THE ELECTRONIC LIBRARY* 1 (1978).

TABLE 7
THREE AUTHORIZED COPY DELIVERY SERVICES

Characteristic	Institute for Scientific Information (OATS) ¹	University Microfilms Intl. (UMI)	National Technical Information Service (NTIS/JACS)
Number of titles	5,000 science, social science journals (for last 5 years); 1,000 humanities journals (1978-); 3,000 proceedings volumes (1978-)	10,000 serials (all issues) 80,000 monographs	8,000-9,000 (est.) (time coverage varies)
Serials included			
Science/technology	yes	yes	yes
Social sciences	yes	yes	yes
Humanities	yes (1978-)	yes	a few
Monographs included	no	yes	no
Proceedings included	yes (1978-)	no	no
Base price range/transaction	\$3.50, plus air mail postage	\$6.00 per article ³ (first copy), \$10.00 per issue; monograph: price varies; entire work only	\$6.00-\$13.50 (\$6.50 for majority)
Method of ordering	mail, telex, on-line, or telephone	mail or telephone	twx, telex, on-line, or telephone
Processing time	48 hours plus delivery	24 hours plus delivery	2 days plus delivery
Method of payment	prepaid stamps or cash	cash with order, credit card, or deposit accounts	deposit account only

¹ Approximately 4,000 titles from ISI are also available through NTIS.

² UMI titles generally are not available through NTIS.

³ Journals listed in *Current Index to Journals in Education* are four dollars per article for the first copy.

systems responsible for meeting a substantial portion of routine needs for periodicals.

Level 2—A comprehensive periodicals collection dedicated for lending and photocopy service to meet the majority of unfulfilled requests derived from Level 1. Initially, a single National Periodicals Center would be developed, but experience and demand may warrant more than one.

Level 3—Existing national libraries and other unique collections to back up the first two levels. The report was approved by NCLIS in June 1977.²³⁹

²³⁹ TASK FORCE IN A NATIONAL PERIODICALS SYSTEM, NATIONAL COMMISSION ON LIBRARIES AND INFORMATION SCIENCE, EFFECTIVE ACCESS TO THE PERIODICAL LITERATURE: A NATIONAL PROGRAM 38 (1977). Superintendent of Documents Stock No. 052-003-00353/8.

Levels 1 and 3 already exist for the most part and only need to be tied into the total system. The local, state, and regional library systems would be expected to provide access in Level 1 to most heavily used periodicals, estimated to consist of some two thousand titles. Level 2 in this system would be a new National Periodicals Center, designed to supply copies of periodical articles from some fifty-five thousand periodicals in the middle range of use. In Level 3, access to very rarely used periodicals would be provided by the three national libraries and other special collections.

The NCLIS report makes the following statement with respect to the status of such a center under the 1976 Copyright Act:

The impact of the new copyright law, effective January 1, 1978, on the National Center is unclear at this time. Should the law be interpreted

in light of the suggested CONTU guidelines, the responsibility rests on the individual borrowing libraries to account for their borrowing activities in accordance with the guidelines. This would seem to imply that a library would have to account for its combined borrowing activities from both the National Center and from other sources. The guidelines are expressed in terms of borrowing on a title by title basis. It would only be possible for the Center to do the accounting for libraries using the Center on a title by title basis.

King Research, Inc., in their photocopy study for the NCLIS, NSF, and CONTU, will investigate alternatives for royalties payment mechanisms. The results and recommendations of this study are expected to provide direction for the Center on the copyright issue.

The Library of Congress has indicated that it would be willing to operate such a center, if the library community desired that it do so, and if the initial funding for setting up the system is supplied by nonfederal sources. The Council on Library Resources, using funds of its own and other foundations, is making a further study of how such a center might be operated, either by the Library of Congress or by some other organization, existing or to be created. This further study is expected to be completed by the late summer of 1978.

This report is being published in advance of the completion of the additional study of a National Periodicals Center discussed above. Therefore, the Commission does not know what the study may recommend. Since it seems possible, however, that one or more such centers may come into existence within the next few years, the Commission has considered how they might operate and how they would fit in with other means of securing copies of copyrighted material not in hand.

The Commission agrees with the basic recommendation of the NCLIS report that improved methods of securing copies of periodical articles not in hand are needed, since the traditional interlibrary loan arrangements tend to be slow, inefficient, and costly. But the Commission does not take a position concerning the merits of nonprofit centers as opposed to other methods of achieving the objectives sought.

The experience of the British Library Lending Division (BLLD) in Boston Spa shows that a centralized and specialized source of supply can provide a very rapid service at a relatively

low cost.²⁴⁰ In addition, the existence of such centers in the future might provide a means for the on-demand publishing of short documents as an alternative to, or a supplement to, traditional journal publishing. Publishers could supply documents to these centers, which would sell copies in full size or microform, much as NTIS now sells copies of government reports.

The status of such nonprofit centers with respect to the 1976 Copyright Act is unclear. Can such nonprofit copying centers be considered a "library or archives" entitled to the benefits of the various exemptions in section 108 of the 1976 Act? More specifically, section 108(d) permits libraries and archives to make copies for users of single articles and small portions of other works for the purpose of "private study, scholarship and research," either from works in their own collections or "from that of another library or archives." Section 108(g)(2) prohibits the "systematic reproduction or distribution of single copies" of materials covered by section 108(d), except that a proviso states:

nothing in this clause prevents a library or archives from participating in interlibrary arrangements that do not have, as their purpose or effect, that the library or archives receiving such copies or phonorecords for distribution does so in such aggregate quantities as to substitute for a subscription to or purchase of such work.

The "aggregate quantities" constituting a substitute for subscriptions or purchases are defined in the CONTU guidelines in this chapter.

Neither *library* nor *archives* is defined in the 1976 Act. However, the American Library Association *Glossary of Library Terms* contains the following two definitions of a library:

Library. 1. A collection of books and similar material organized and administered for reading, consultation, and study. 2. A room, a group of rooms, or a building, in which a collection of books and similar material is organized and administered for reading, consultation, and study.²⁴¹

If such nonprofit copying centers are not

²⁴⁰ This organization is set up to supply photocopies of periodical articles, one copy to a customer and not more than one article per issue, to British and overseas organizations. It lends physical volumes of books. Currently BLLD supplies about 1.5 million copies of articles per year, and subscribes to approximately fifty-five thousand periodicals.

²⁴¹ A.L.A. GLOSSARY OF LIBRARY TERMS 80 (1943).

libraries or archives within the meaning of the 1976 Act, other libraries would not have the benefits of section 108(d) and its extension in the section 108(g)(2) proviso and the CONTU guidelines in securing photocopies of articles from them. In addition, the introduction to the CONTU guidelines, included in the Conference Report on the bill that became the 1976 Act, contains the following explicit statement:

The point has been made that the present practice on interlibrary loans and use of photocopies in lieu of loans may be supplemented or even largely replaced by a system in which one or more agencies or institutions, public or private, exist for the specific purpose of providing a central source for photocopies. Of course, these guidelines would not apply to such a situation.²⁴²

Taking these factors into consideration, the Commission believes that nonprofit centers established for the specific purpose of providing copies would be required to secure authorization from copyright owners to make and distribute full-scale copies of periodical articles from the original issues as well as to make microform copies. The two major alternatives seem to be: (1) to secure licenses to copy from copyright proprietors or (2) to pay royalties on individual transactions through a mechanism similar to that established by the Copyright Clearance Center, Inc.

In view of the uncertainties of whether one or more nonprofit periodical copying centers will be established and the lack of specific information as to how they might operate, the Commission does not believe that it is in a position to recommend any change in the 1976 Copyright Act directed at the operation of such centers. The Commission is of the opinion, however, that such arrangements are probably not entitled to the benefits of section 108 of the 1976 Act.

Periodical Centers in General

The Commission believes that arrangements that may supplement and, in part, take over copying services now provided through interlibrary loan systems could have great potential benefits, some examples of which are:

1. Providing comprehensive access to periodical literature

2. Providing, in cooperation with publishers, more efficient distribution of materials after initial distribution in traditional periodical form

3. Ensuring preservation in at least one copy of periodical literature

4. Making possible, in cooperation with publishers, the utilization of new technologies to develop alternative publishing and distribution methods for material for which there is a limited demand

5. Assisting local libraries to rationalize their collection development and maintenance plans

Such arrangements may include nonprofit centers especially created to serve this function, existing institutions, and various private enterprise undertakings. Central information sources or switching services to direct those seeking materials to the most efficient source of supply will no doubt be an important element.

Careful study will be required to determine the most effective array of resources, public and private, to meet these needs and the best modes of their operation. The Commission believes that the appropriate congressional committees and the Register of Copyrights, in monitoring developments preparatory to the mandatory first five-year report on the operation of section 108 of the 1976 Act, should carefully follow the evolution of plans for such centers during the next few years.

Interrelated Economics of Publishing and Libraries and the Impact of Copying Fees

Many assertions were made concerning the economic impact of photocopying on journal publishing during the debates in the twenty-year effort of Congress to revise the copyright law, but little statistical or other factual evidence to substantiate these assertions was presented, either by librarians or by publishers and authors.

Librarians took the position that copying did not and would not significantly reduce the volume of sales of printed publications, and that librarians strive to purchase little-used materials rather than subject their patrons to the inconvenience and delay of interlibrary loan. In part, publisher and author concerns were not so

²⁴² Conference Report, *supra* note 1, p. 72

much for the present as for the future, at which time they believed various means of photocopying might become increasingly cheaper relative to the cost of acquiring printed publications. They also believed that they should secure some revenue from copying as a contribution to the "first-copy" costs of publications, such as editorial, typesetting, and business overhead.

General Relationship of Journal Publishing to Library Budgets

The most complete study on library and journal publishing economics and their relationship to one another is the 1975 Fry/White study, sponsored by the National Science Foundation, covering the years 1969, 1971, and 1973.²⁴³ Pertinent data were obtained through questionnaires filled out by a sample of U.S. scholarly and research journals and by a sample of academic, public, and special libraries.²⁴⁴ The periodicals included in the survey were approximately 2,500 U.S. scholarly journals, of which about 150 furnished extensive usable data. The study provides data separately for four categories of journals by publisher: commercial publishers, professional societies, university presses, and other nonprofit publishers.

Library Acquisition Budgets—1969–73

During the period 1969–73 when prices rose sharply for both periodicals and books, expenditures for periodicals and the number of subscriptions increased in all three types of libraries

²⁴³ Fry/White study, *supra* note 208. A further study by Fry and White, repeating the library portions of the 1976 study and covering the years 1974–76, has been delivered to the National Science Foundation and will be made available through National Technical Information Service, IMPACT OF ECONOMIC PRESSURES ON AMERICAN LIBRARIES AND THEIR DECISIONS CONCERNING SCHOLARLY AND RESEARCH JOURNAL ACQUISITION AND RETENTION (NSF Grant Number DSI 76–23592). The second study shows a continuation of the 1969–73 trends in library budgets and practices but at slower rates. In the 1974–76 period, funds were still being shifted from books to periodical purchases, and the total number of periodical subscriptions was still rising.

²⁴⁴ Federal, state, and local government libraries were not surveyed in the Fry/White study, except for those that may have been included in the sample of special libraries. Elementary and secondary school libraries, both public and private, were not covered.

TABLE 8
PERCENT OF INCREASE IN ACQUISITION
EXPENDITURES, 1969–73

Type of Library	Periodicals	Books
Large academic	75	3
Large public	73	28
Large special	89	29

included in the Fry/White study. Although the total dollar expenditure for books also increased somewhat, the number of books purchased decreased. These trends were more sharply accentuated in academic libraries—the largest purchasers of periodicals—than in public and special libraries. The median percentage increases in acquisition expenditures for periodicals and books from 1969 to 1973 in large libraries of all three types are displayed in Table 8.

By 1973, large academic libraries, which had allotted 67 percent of their acquisition budgets to books and 33 percent to periodicals in 1969, were allotting 54 percent of the acquisition budgets to books and 46 percent to periodicals. The overall percentage increases in the number of periodical subscriptions by large libraries during the same 1969–73 period were: academic libraries, 18 percent; public libraries, 22 percent; and special libraries, 6 percent.

Borrowing and Photocopying through Interlibrary Loan

All types and sizes of libraries increased their borrowing of periodicals through interlibrary loan during the 1969–73 period. The median number of interlibrary loans and the percentage increases for large academic libraries, medium-sized public libraries, and large special libraries is delineated in Table 9.

TABLE 9
MEDIAN NUMBER OF INTERLIBRARY BORROWINGS
FOR LIBRARIES

Type of Library	1969	1971	1973	% of Increase in 1973 over 1969
Large academic	1,583	1,907	1,910	21
Medium public	1,730	1,553	1,950	13
Large special	1,214	1,145	1,441	19

NOTE: The above statistics are for borrowing periodical articles, but since the overwhelming proportion of interlibrary lending of articles consists of photocopies, this is also a reasonable measure of the increase in securing photocopies through interlibrary loan.

Effect of Photocopying on Periodical Subscriptions

Despite the frequent debate concerning whether library photocopying from journals substitutes for subscriptions, little information has been available to resolve it. The responses that Fry and White received when they asked librarians whether photocopying had this effect on subscriptions are displayed in Table 10.

While most libraries reported their purchases of journals were unaffected by photocopying practices, a substantial minority said otherwise. Although many libraries reported increasing subscriptions, the net effect on subscriptions seemed clearly negative in this study. Evidence from another study, however, indicates that in the state of Minnesota the total number of periodical subscriptions by fifty-three academic libraries in the MINITEX system increased by about 25 percent from 1970/71 to 1976/77 following the establishment of this statewide inter-library loan network in 1971.²⁴⁵

Scholarly Journal Subscriptions and Library Budgets

The Fry/White study also analyzed the economics of U.S. scholarly journal publishing and the significance of the library market for such journals. Libraries constitute the largest market for scholarly journals. These journals are also the type of periodical most copied in or by libraries in relation to the size of circulations. The universe of 2,459 U.S. scholarly journals surveyed by Fry and White was broken down as shown in Table 11.

The journals responding to the questionnaire reported that the number of copies circulated increased in the period 1969-73, but generally this was the result of increases in the number of foreign and institutional subscribers and decreases in the number of individual subscribers. Table 12 presents data by type of publisher.

The figures in Table 12 are consistent with the general trend in the Fry/White survey data which showed an increase in periodical sub-

TABLE 10
EFFECTS OF PHOTOCOPYING ON PERIODICAL SUBSCRIPTIONS
(Calculated by Percentage Points)

Type of Library	Total Affected by Photocopying	Dropped Duplicates	Dropped Subscriptions	Added Fewer	Added More	Not Specified
Large academic	42	15	24	26	7	5
Large public	27	9	14	9	7	2

NOTE: The percentages in the "affected" categories are not additive because multiple responses were possible.

²⁴⁵ A 1977 British study, conducted by Aslib with the cooperation of the British Library and the Scientific, Technical, and Medical group of the International Publishers Association, indicated little impact on periodical subscriptions in British libraries due to the availability of a quick and inexpensive source of photocopies from the British Library Lending Division (BLLD). Since Britain's interlibrary photocopy service is superior to that in the United States, one would expect a greater depressing effect on circulation levels there. However, only 15 percent of the British academic, public, and special libraries surveyed indicated that an effective interlibrary loan service enabled them "to reduce subscriptions by a significant amount without damaging the service." The British study also concluded that only about 3 percent of the photocopies secured from other libraries (or borrowing the periodical volume and photocopying the article on receipt) constituted "replace-

ment borrowing," which is defined as securing photocopies of current materials from BLLD from periodicals which were once—but are no longer—subscribed to by the borrowing library.

The author of this British study concludes that "the total number of subscriptions entered by all libraries is beginning to decline in 1976-1977," but he attributes this to causes other than photocopying, such as the stringency in library budgets and the inflation of periodical and other library materials prices. The more general conclusion of the Aslib study was that no evidence was presented that "a direct causal relationship exists whereby increased interlibrary lending leads to an overall decrease in periodical subscriptions by virtue of its associated photocopying" (WOODWARD, FACTORS AFFECTING THE RENEWAL OF PERIODICAL SUBSCRIPTIONS: A STUDY OF DECISION-MAKING IN LIBRARIES WITH SPECIAL REFERENCE TO ECONOMICS AND INTER-LIBRARY LENDING [London: Aslib R & D Department, November 1977]).

TABLE 11
BREAKDOWN OF NUMBER OF U.S. SCHOLARLY JOURNALS BY TYPE OF PUBLISHER

Subject Area	Commercial	Society	University Presses	Other Nonprofit	Total
Pure science	147	209	40	77	473
Applied science & technology	276	356	9	76	717
Humanities	40	84	28	147	299
Social sciences	182	424	50	314	970
TOTAL	645	1,073	127	614	2,459
Percent of total	26.2	43.6	5.2	25.0	100.0

scription by libraries from 1969 to 1973.²⁴⁶ These journal subscription data do not correspond exactly with the library data because, among other reasons, U.S. libraries subscribe to foreign journals and serial materials other than scholarly journals.

The data also show that U.S. institutions—principally libraries—account for about one-third of the circulation of scholarly journals published by commercial presses, university presses, and other nonprofit periodicals, and for over 20 percent of the circulation of journals of professional societies which provide subscriptions to their own members as part of general membership fees. The complete data on the proportion of subscriptions by type of subscriber are shown in Table 13.

The publisher data displayed in Table 14 indicate that, in general, the number of journals that had differential (usually higher) subscription rates for institutions and libraries increased markedly from 1969 to 1973.

²⁴⁶ Fry and White are skeptical about the figures for other nonprofit publishers and indicate that these reported results do not agree with other data supplied for journals published by this category of publisher.

Table 15 shows that, in general, the institutional (usually library) subscription rates, when they exist, increased substantially more than the individual subscription rates in the period 1969–73.

Taking all of the data from Table 15 into consideration, it is clear that libraries and other institutions provided an increased share of the revenues of scholarly journal publishers in 1973 as compared with 1969. Institutions were buying a larger number of subscriptions as well as an increased proportion of all subscriptions. In many cases, they were also paying institutional subscription prices which increased more than the subscription price for individuals. Unfortunately, direct data on the proportion of total revenues derived by scholarly journal publishers from institution and library subscriptions are not provided in the Fry/White study. However, for many individual journals (except for society journals with high proportions of individual subscriptions) as well as for classes of journals, one-half or more of total subscription revenues must have come from U.S. libraries or other institutions. If foreign sales are added (and these are predominantly to institutions), this proportion is still higher.

TABLE 12
PERCENTAGE CHANGES IN CIRCULATION BY TYPE OF PUBLISHER, 1969–73

Type of Subscription	Commercial	Society	University Presses	Other Nonprofit
Total	4.2	2.3	9.2	27.2
Total U.S.	-0.9	-0.3	-3.6	NA
Institutional	0.9	12.5	6.3	11.6
Individual	-2.7	-4.0	-12.9	54.3
Foreign	11.5	20.6	74.7	4.0

TABLE 13
PERCENT OF CIRCULATION DISTRIBUTION BY TYPE OF PUBLISHER, 1973

Type of Subscriber	Commercial	Society	University Press	Other Nonprofit
U.S. subscriptions				
Institutional	32	22	40	36
Individual	24	64	34	48
Total	56	86	74	84
Foreign subscriptions	44	14	26	16

The Fry/White study also collected data on the profitability of U.S. scholarly journal publishing. Statistically, this is the weakest part of the study, because only ninety-two journals provided financial data. The data are summarized in Table 16.

Operating income is defined in Table 16 as "all revenue minus costs of sales and operating expenses. It does not take into account such items as interest paid or received, capitalized expenditures, or taxes." Thus, for commercial publishers in 1973, the net profit after corporate income and other taxes would be about 6 percent of total revenue. The society, university press, and other nonprofit publishers would not, of course, be subject to federal and state corporate income taxes. Although libraries in the 1969-73 period were subscribing to more scholarly journals and paying higher prices for subscriptions, especially when they had to pay institutional subscription rates, the net effect was not a windfall for the publishers of scholarly journals. Fry and White concluded that the price-budget imbalance did not result from excessive returns to publishers. Commercial publishers had profits no better than average, and societies had barely enough capital to launch new journals. They described the condition of university press journal publishing as disastrous.

Estimates of Possible Additional Costs to Libraries for Copying Fees

Using the estimates made from the King Research data in this report²⁴⁷ on the number of photocopied items from serials that would require authorization, and assuming a certain average level of photocopying fees, it is possible to arrive at estimates of additional annual costs to libraries resulting from copying fees under the new copyright act. These estimates are valid only if libraries do not change their copying practices as a result of the 1976 Act. It is likely, however, that libraries may alter their practices. The analysis uses the three categories of copying in the King study (inter-library loan, local use, and intrasystem use) and breaks down the copying by type of library. These amounts are then compared with the available data on total annual library expenditures for library materials to arrive at some estimate of the comparative magnitudes of these new costs as compared with the existing acquisition costs for library materials. In the absence of comprehensive statistical data at this time, an average copying fee to publishers per article of \$1.25 will be assumed. This is higher than the

²⁴⁷ See this chapter under Volume of Library Photocopying in 1976.

TABLE 14
PERCENT OF JOURNALS HAVING
INSTITUTIONAL AND LIBRARY SUBSCRIPTION RATES, 1969-73

Type of Subscription	Commercial		Society		University Presses		Other Nonprofit	
	1969	1973	1969	1973	1969	1973	1969	1973
Institutional	37	50	56	67	39	58	13	30
Library	2	2	20	16	6	10	10	11

TABLE 15
INCREASES IN INDIVIDUAL AND INSTITUTIONAL SUBSCRIPTION RATES
MEDIAN SUBSCRIPTION RATES

Type of Publisher	Rate	1969	1971	1973	Percentage Change 1969-73
Commercial	Individual	\$16.61	\$19.50	\$22.39	35
	Institutional	31.75	41.56	54.16	71
Society	Individual	14.54	17.83	20.64	42
	Institutional	18.21	20.87	25.56	40
University presses	Individual	7.41	7.96	9.27	25
	Institutional	9.70	10.35	12.85	32
Other nonprofit	Individual	6.05	7.00	8.64	43
	Institutional	9.71	11.00	14.14	46

\$.60 paid by the Institute for Scientific Information (ISI) and the \$.50 paid by National Technical Information Service (NTIS) under direct contracts with publishers. It may, however, be less than the weighted average price which will be paid to the Copyright Clearance Center. The 1977 Fry/White/Johnson study on journal publishing indicated that some 53 percent of the journals responding to a question relating to appropriate fees to be paid by agents or clearing-houses for copying articles set \$1.00 or less as an appropriate fee.²⁴⁸

COPYING FOR INTERLIBRARY LOAN

Table 3 and the discussion following presented estimates of the volume of copying of periodicals for interlibrary loan for items not more than five years old that would not be exempt either under the CONTU guidelines, the exceptions in section 108 for replacement of copies, or section 107 for classroom use. Table 17 shows, at an average of \$1.25, the additional annual costs to libraries.

The estimates in Table 17 may in some respects overstate the additional costs because they do not consider the following: (1) libraries reaching their limit of five copies for a title might subscribe to the journal,²⁴⁹ or tell patrons that their requests could not be met, or that they

²⁴⁸ Fry/White/Johnson study, *supra* note 196, p. 112.

²⁴⁹ The Palmour study (*supra* note 195) shows that as the number of photocopies of articles from a single title secured from other libraries increases above five, in many cases it will be less costly for a library to subscribe rather than to continue to secure photocopies through interlibrary loan.

TABLE 16
OPERATING INCOME AS A PERCENTAGE
OF TOTAL REVENUE

Type of Publisher	1969	1973
Commercial	11	14
Society	3	3
University presses	-4	-7
Other nonprofit	-1	-7
All journals	1	4

charge an additional fee for copying; (2) many journals may adopt more liberal copying policies than is required by law; and (3) authorized royalty-paid copies might cost the borrowing library the same as or less than conventional interlibrary loans.

Data compiled from a special survey of interlibrary loan charges by members of the Association of Research Libraries in 1976 showed that the libraries in this group that charged for photocopies had a weighted average price of \$3.50 for a ten-page article—excluding those cases in which special lower rates were charged to libraries in the same state (or consortium), or in which interlibrary loans were subsidized by the state. If this \$3.50 figure is taken as a base and there is added to it an internal borrowing cost of \$6.00, the total average cost to the borrowing library becomes \$9.50. The \$6.00 fee is selected as an internal borrowing cost; this is somewhat less than the average of the internal borrowing costs in 1977 in the three libraries for which such costs were calculated in the Palmour study contracted for by the Commission.²⁵⁰

²⁵⁰ *Ibid.*

TABLE 17
ADDITIONAL ANNUAL COSTS FOR COPYING FOR
INTERLIBRARY LOAN
 (\$1.25 average copying fee)

Type of Library	Additional Costs (in thousands)
Academic	\$147
Public	94
Special	231
Federal	63
TOTAL	\$535

These combined costs compare with an out-of-pocket direct cost to a borrowing library of securing a ten-page article from ISI of \$3.50 (higher with special services), the \$4.00–\$6.00 cost of securing a single copy from University Microfilms, and the price of a copy through NTIS, which will vary somewhat, but may average \$7.00. These comparisons do not take into account the internal costs to the lending library, over and above the fees charged.

COPYING FOR LOCAL USE

Table 4 presented estimates of the number of copies for local use by type of library requiring authorization. Applying the same assumed \$1.25 average copying fee, Table 18 shows the additional annual costs for various types of libraries.

As in the case of copying for interlibrary loan, the figures in Table 18 may in some respects be an overstatement of additional costs for some (but not all) of the reasons mentioned for interlibrary loan copying: (1) patrons might be informed that copies could not be made, or that they would have to pay an additional copying fee; (2) many journals may adopt more

TABLE 18
ADDITIONAL ANNUAL COSTS FOR COPYING FOR
LOCAL USE
 (\$1.25 average copying fee)

Type of Library	Copying Fees (in thousands)
Academic	\$ 125
Public	3,375
Special	1,125
Federal	1,750
TOTAL	\$6,375

liberal copying policies than are required by law; and (3) many older issues of journals will be out of copyright because they were not renewed for a second term. On the other hand, the estimate for academic libraries may be low, because the King data on classroom use included all copying for classroom use, not copying for classroom use permissible under the educational copying guidelines.

COPYING FOR INTRASYSTEM USE

Table 5 presented estimates by types of library of the number of copies made for intrasystem use that would require authorization. Applying the same average \$1.25 copying fee, Table 19 shows the additional annual costs for various types of libraries. These figures may be an overstatement of additional costs for the same reasons given in the discussion of copying for local use.

Estimates of Total Additional Costs for Libraries

Based upon the above discussion and calculations, the estimated costs for various types of libraries may be aggregated as shown in Table 20. Data from the National Center for Education Statistics (NCES) on the total expenditures of three types of libraries for library materials are also included.

There are no reliable data on expenditures for materials by special libraries. Recently, NCES has contracted with the Special Libraries Association for a preliminary study of special libraries in commerce and industry, including the expenditures for materials. The results of this study may be available before the end of 1978.

TABLE 19
ADDITIONAL ANNUAL COSTS FOR COPYING FOR
INTRASYSTEM USE
 (\$1.25 average copying fee)

Type of Library	Copying Fees (in thousands)
Academic	
Public	\$1,000
Special	1,837
Federal	
TOTAL	\$2,837

TABLE 20
POSSIBLE ANNUAL ADDITIONAL COSTS TO LIBRARIES IN COPYING FEES FOR PERIODICALS
AS COMPARED WITH EXPENDITURES FOR LIBRARY MATERIALS

Type of Library	Additional Costs (in thousands)	Total Library Materials Expenditures (in millions)	Percentage Column 1 of Column 2
Academic	\$ 272	(1976) \$337	0.1
Public	4,469	(1974) 165	2.7
Special	3,193	NA	
Federal	1,813	(1972) 44	4.1
TOTAL	\$9,747		

SOURCE: National Center for Education Statistics published reports.
NOTE: Figures are rounded.

Table 20 has some unexpected aspects. The net estimated increased costs for academic libraries constitute an insignificant percentage of the current expenditures of these libraries for materials. The estimated copying fees of almost 3 percent of public library material expenditures constitute a very much higher percentage of materials expenditures than for academic libraries, but the dollar amounts are not large.

The special library estimates may reflect the amount of multiple copying done in many of these libraries for their research, professional, and executive personnel. The federal agency library estimates are not particularly surprising, given the nature of most of their operations, which are more similar to special libraries than to either of the other two types of libraries.

If these estimates of copying fees are approximately correct, the impact of photocopying on academic libraries as a class would be minimal and should not present any significant budget problems. Copying fees, which would go mostly to journal publishers, would not be great enough to do more than accentuate very slightly the trend in academic libraries of spending more of their acquisition funds on serials and less on books. For public libraries, the effect of photocopying would be proportionately much greater, with copying fees amounting to almost 3 percent of total acquisition budgets in 1974. Since the bulk of the copying fees would be paid to periodical publishers, in the case of public libraries this might modestly accentuate existing trends of shifting funds from book to periodical purchases.

For special libraries, at least two different situations exist: one for libraries in business and

industrial establishments or such related organizations as trade associations, and the other for special libraries in nonprofit organizations. In the first category, information is used to increase the revenues or to reduce the costs of the business. Copying fees would also be a tax-deductible cost of doing business. As compared to all other costs of doing business, copying fees would be small. Special libraries in nonprofit organizations are extremely varied, and it is difficult to state generally the impact of copying fees on their operations, especially since no statistical data exist on either their costs of operations as a class or their expenditures for periodicals, books, and other materials.

The federal library situation is somewhat similar to that of libraries in business and industrial establishments. Information is used in carrying out the work of federal agencies. Copying fees would represent another operating cost and should not, in general, be of such a magnitude compared to other operating costs as to present unmanageable budget problems.

Potential Copying Fees Compared with Publishers' Revenues—Periodicals

*Data on the total revenues from periodical publishing are collected approximately every five years by the Bureau of the Census in the Census of Manufactures and are estimated each year based on a sample survey in the Annual Survey of Manufactures. Unfortunately, the Bureau of the Census divides periodicals into only four classes: farm periodicals, specialized professional and business periodicals, general periodicals, and other periodicals (excluding shopping

news, directories, and catalogs). Specialized professional and business periodicals, with estimated total 1976 revenues of \$407 million from subscriptions and \$946 million from advertisements, are those most likely to be photocopied.²⁵¹ It is clear that this broad category of periodicals is very different from the 2,459 scholarly periodicals surveyed in the 1975 Fry/White study, the 1973 total annual revenues which were estimated at \$170 million, of which less than 10 percent was from advertising. If we compare total annual copying fees for periodicals, estimated to be about \$10 million, with the total 1973 revenues of the scholarly journals surveyed by Fry and White, revenues from copying fees appear to be a minor but still significant source of revenue for some of these journals. While not comparable with revenues from subscription charges, income from authorized photocopying could be, in some cases, more significant than such current sources of revenue as advertising, page charges, or a variety of subsidies.²⁵²

The Economics of Book Publishing, the Library Market for Books, and Photocopying

Libraries account for a very much smaller proportion of the total sales of U.S. books than they do of sales of scientific, technical, and scholarly journals, and the kinds of books which are photocopied in libraries fall into a few limited classes. The most copied classes of books

and the industry estimates of total dollar receipts in 1977 of U.S. publishers (including exports) for these classes were as follows: ²⁵³

Technical and scientific	\$266.8 million
Business and other professional	195.2 million
Medical	97.0 million
University press	53.5 million

The library and institutional market is particularly important to university press books, constituting well over one-half of university press sales within the United States.²⁵⁴ The King study clearly indicates that in 1976 the volume of photocopying from copyrighted books in libraries was considerably less than the volume of copying from copyrighted serials. The respective proportions were: 70 percent of the items copied in libraries were from serials, 24 percent from books, and 6 percent from other copyrighted materials. These data are consistent with data from other studies and also are consistent with the general practice of libraries, which is to lend the physical book to their patrons for local use and also for interlibrary loans and intrasystem loans rather than to make photocopies. The bulk of the copying from books in libraries has probably occurred in two ways: (1) the library patron may make a copy of some part of a book on a coin-operated machine; and (2) library employees or others in educational institutions may make copies to place chapters or other portions of books on reserve for the use of students, or the instructor may have copies of portions of books made for classroom use. Because of the ambiguity of the 1909 Act, there also had been a certain amount of copying to create anthologies or substitute textbooks by putting together photocopies of chapters of books and periodical articles for use in specific courses.

Congress dealt with copying for educational use by including in the House Report the educational copying guidelines.²⁵⁵ These guidelines place definite limitations on the amount and character of copying for teachers and for classroom use that may be regarded as fair use under section 107. It is unlikely that the educational copying permissible within these guidelines will

²⁵¹ U.S., BUREAU OF THE CENSUS, ANNUAL SURVEY OF MANUFACTURERS 1976: VALUE OF PRODUCT SHIPMENTS 12 (1977).

²⁵² Some comment is required here as to the impact of copying fees on individual journals. The journals most copied by the British Lending Library Division (BLDD) in Boston Spa have, in general but not uniformly, been journals with larger circulations. The King study tabulations of the MINITEX data do not seem to reflect the same correlation between the volume of copying and circulation size. It is probably fair to say that the amount of copying from journals will vary greatly from one journal to another and that the importance of copying fees relative to other revenues will also vary greatly. In economic terms, this would be a good result: the revenue of journals would be related not only to their subscriptions but also to the extent that they are copied, reflecting in each case the market value placed on journals by subscribers and other users.

²⁵³ ASSOCIATION OF AMERICAN PUBLISHERS, 1977 INDUSTRY STATISTICS (Washington, D.C., 1977).

²⁵⁴ Ibid.

²⁵⁵ House Report, *supra* note 1, p. 68.

have much adverse effect on the economic viability of book publishing.

The amount of copying from books that is permissible under the 1976 Act, either as fair use under section 107 and the educational copying guidelines or under the exemptions in section 108 for library copying, would seem to have no appreciable effect on the economics of book publishing at this time or in the next few years. There will undoubtedly be some copying of books in violation of the 1976 Act that will substitute for the purchase of books. The amount of such copying is probably small, however, and is inhibited by cost factors, in particular, the current frequently higher per-page cost of making copies as compared with the cost of buying the book. Furthermore, there are whole categories of books for which photocopies are not acceptable substitutes for the original product, such as paperback, book club, and art books.

The book publishing industry, although not highly profitable as compared with some other industries, has been fairly stable during the past few years. There has been a growing dollar volume of sales, much of which is a reflection of inflation and higher prices, with little or no increase in the number of copies of books sold. There is no question, however, that a problem exists with respect to the production and sale of scholarly books, most of which are now published in the United States by university presses. This problem is primarily due to inflation, limitations on the amount of support that universities are prepared to give their presses, and library budgets which have not kept pace with rising prices of periodicals and books. As discussed earlier, the data in the 1976 Fry/White report show the decline of the physical volume of book purchases by libraries because of the shift of acquisition funds from books to periodicals. For the next few years, at least, it does not appear that the photocopying of books under the conditions imposed by the 1976 Act will have any significant impact on any branch of book publishing.

Economic Analyses of the Impact of Photocopying Charges

The Commission sought the assistance of several economists in assessing the likely consequences of imposing and collecting fees for

photocopying copyrighted works, primarily periodical articles. Professors Fritz Machlup and William Baumol, each affiliated with Princeton and New York Universities, presented testimony, and Dr. Allen Ferguson, president of the Public Interest Economics Center in Washington, D.C., prepared a study for the Commission entitled *An Analysis of Computer and Photocopying Copyright Issues from the Point of View of the General Public and the Ultimate Consumer*.²⁵⁶

Professor Machlup suggested that the imposition of copying fees would be economically sound only if the burden of paying the fees fell on the actual users and the collection of fees provided additional revenues that would hold down subscription prices or assist journals to survive. He expressed skepticism whether any of these effects, given the volume of photocopying for which payments would be made at this time and administrative costs, would be realized by collections of fees for photocopying.²⁵⁷

Professor Baumol viewed copying fees as economically beneficial if they served to spread the costs of publication, including a reasonable return on capital, over a broader base of actual users of copyrighted works. He questioned, however, whether publishers' revenues for photocopying would significantly exceed the cost of collecting the fees. Unless fees provided additional net revenues, their imposition would not have a desirable economic effect.²⁵⁸

In his study, Dr. Ferguson concluded that the imposition of copying fees would not serve the interests of the general public.²⁵⁹ Such fees might inhibit user access to valuable information, he suggested, and would not necessarily hold down subscription rates significantly. He suggested that the Commission recommend broad exemptions from copyright liability for photocopying done by individuals and tax-exempt, nonprofit corporations. Copying done for resale by the copier, however, should not be exempted. He also suggested that publishers could practice price discrimination among different classes of subscribers to reflect such factors as photocopying as a means of increasing revenues. Periodical publishers may and often

²⁵⁶ Transcript, CONTU Meeting No. 15, p. 164.

²⁵⁷ Ibid., p. 9.

²⁵⁸ Ibid., p. 52.

²⁵⁹ Ibid., p. 167.

do charge libraries higher subscription prices than they charge individuals, but higher institutional subscription charges have not carried with them authorization to copy.²⁶⁰

The possibility, suggested by Dr. Ferguson, that photocopying privileges could be attached to higher prices charged to institutional subscribers, is one of three ways in which publishers could use the subscription price mechanism to authorize reproduction and to increase revenues. Other methods include an optional surcharge on the subscription price for blanket internal copying and the provision of lower multiple subscription rates. Although neither of the first two methods is in general use, two major newsletter publishers, the Bureau of National Affairs and Knowledge Industries Publications, offer lower multiple subscription rates. Furthermore, the optional subscription surcharge is the chief method used by the photocopying royalty collection agency in the Federal Republic of Germany. These considerations prompt an analysis of the relative merits of photocopying fees based on actual transactions and surcharges on subscription prices permitting photocopying.

A transaction-based system, such as that of the Copyright Clearance Center, Inc. (CCC), offers the greatest exactitude in payments from users to publishers and authors. In such a system the payment falls directly on users and is proportional to the amount of reproduction. At the same time, it imposes greater administrative burdens and higher collection costs. Authorization through subscription pricing has the opposite characteristics: the payments are less proportional to the amount of copying but the administrative burdens and costs of the system are very low. Hence, it is easily understood why, out of eight possibilities, authorization to make copies via subscription pricing was the single most popular alternative among the libraries surveyed in the King study. From the pub-

lishers' point of view, subscription revenues offer the advantage of providing revenues before publication, whereas copying fees provided delayed payments with a discounted present value.²⁶¹

It is important to realize that these two systems are complementary rather than exclusive. A library with significant photocopying activity might wish to acquire authorization for copying for local and intrasystem uses through higher subscription prices in some cases and to use such clearance systems as CCC in others. In some instances, the subscription price alternative may work to the mutual advantage of both the publisher and the subscriber. These considerations of complementary and mutual advantage call for further examination and exploration of flexible subscription pricing with photocopying privileges as an alternative to transaction-based systems of licensing photocopying of material which the copiers have in their possession.

Legislation and Systems Relating to Photocopying in Other Countries

The executive bodies responsible for the administration of the two international copyright conventions, the Berne Union and the Universal Copyright Convention, have studied copyright problems raised by photocopying for several years. At a joint meeting in December 1975, they decided that the subject was not yet ripe for international treatment but should be

²⁶⁰ The 1976 Fry/White study showed that in 1973, 1,754 out of the 2,459 journals in their universe of scholarly journals were practicing price discrimination between institutional and individual subscribers. By categories the percentages of journals practicing such price discrimination were: commercially published journals, 52.2; society published journals, 82.9; university press journals, 9.7; journals published by other nonprofit organizations, 38.4.

²⁶¹ Under the 1976 Copyright Act both the transaction-based and subscription surcharge systems will require authors to transfer photocopying rights to the publisher. Section 201(c) of the act provides that unless otherwise specified by contract, authors retain the rights to their individual contributions to a collective work and the publisher merely has a copyright in that collective work. In a transaction-based system, such as the CCC, authors may contract with the publisher to pay them a portion of the revenues derived from the photocopying rights to their individual contribution to collective works, which may be identified. In a subscription surcharge system, however, it would be impossible to determine what part of the photocopying revenues were due to individual authors because there would be no record of the amount of photocopying of specific contributions.

left for the time being to national consideration. When the two committees met again in November and December of 1977, this earlier decision was allowed to stand, and no further consideration has been given to adding to the international conventions' specific provisions relating to photocopying.

Meanwhile, active study of problems presented by photocopying has been undertaken in a number of countries. The discussion which follows concentrates on four of these countries: Great Britain, Canada, and Australia—all of which have published official reports—and the Netherlands, where the copyright law of 1972 and subsequent administrative decrees have established a compulsory license and various schedules of fees for photocopying. Some consideration is also given to developments in France and the Federal Republic of Germany. Sweden operates a system under which the government makes payments to Swedish publishers for domestic materials copied for classroom use in the elementary and secondary schools.

Great Britain

In March 1977 in Great Britain, a special committee on general copyright revision reported its findings and recommendations in a publication entitled *Copyright and Designs Law: Report of the Committee to Consider the Law on Copyright and Designs*,²⁶² commonly referred to as the Whitford Committee Report after its chairman, Justice Whitford. With respect to photocopying, the Whitford Committee recommended that the British copyright law of 1958—which, among other things, generally permits the making of single copies of articles from periodicals without authorization—be amended. The proposed amendments would permit no photocopying without authorization of the copyright proprietor, but this change would not take effect until authors and other copyright proprietors, with the approval of the government (under a so-called umbrella statute), had set up one or more collecting societies to collect copyright fees under blanket licenses. The fees to be charged by the collecting societies would be subject to review by a copyright tribunal.

²⁶² See note 43, *supra*.

Canada

The Canadian Department of Consumer and Corporate Affairs published a working paper in April 1977 entitled *Copyright in Canada—Proposals for a Revision of the Law*, by A. A. Keyes and C. Brunet. The Department has requested interested Canadian organizations to submit written comments on this report, and oral testimony is expected to be heard in 1979. The recommendations of the Keyes-Brunet report are somewhat similar to those of the Whitford Committee. Keyes and Brunet believe, however, that the present Canadian law adequately covers photocopying and recommend no changes in the statute. They propose that authors and other copyright proprietors form a collective or collectives, similar to those existing in Canada for the collection of music performance fees, to license photocopying under the supervision of a government tribunal.

Australia

A special committee headed by Justice Franki published a report in Australia in October 1976 limited to the photocopying question entitled *Report of the Copyright Law Committee on Reprographic Reproduction*, frequently referred to as the Franki Report. That committee was set up largely as a result of an Australian Supreme Court decision, which held that universities were liable for unauthorized photocopying of copyrighted materials, including copying done on unsupervised coin-operated machines on their premises where no copyright warning was posted. The Franki Committee's recommendations differ greatly from those of the Whitford Committee and of Keyes and Brunet. The Franki Report recommended that the Australian copyright law be amended to permit extensive single-copy photocopying of "reasonable portions" of copyrighted works by or on behalf of students in educational institutions and patrons of public libraries, and up to six copies for classroom use in nonprofit educational institutions. For copying beyond these limitations, a compulsory licensing scheme for nonprofit educational institutions was proposed.

Netherlands

The 1972 copyright law established liability for certain photocopying in the Netherlands

and provided for a compulsory licensing scheme covering both Dutch and foreign works. The implementation of the general provisions was spelled out in a Royal Ordinance of 1974. In general, articles and short excerpts may be copied freely for private use. Commercial enterprises and public institutions may also make copies by paying fees to copyright owners. In the case of commercial enterprises, the payment is required to be "equitable." The copying fee for public authorities, universities, and public libraries is set at ten Dutch cents per page, and for schools, at two and one-half Dutch cents per page. Libraries, however, may make single copies of articles for patrons and for interlibrary loan without liability.

A Dutch collecting society representing authors and publishers has been established but seems not to have progressed very far as yet in collecting copying fees. The one exception has been that the Dutch government paid 100,000 guilders for its copying in the years 1975-76 and is negotiating for the payment of fees for the years 1977-79. The collecting society proposes to negotiate several blanket license agreements with industry, universities, schools, libraries, and local governments. The fees collected will be distributed ultimately to the copyright proprietors whose works are copied, based on sampling and estimates. Until these arrangements can be made, any funds collected are to be distributed on an approximate basis by types of works, such as newspapers, books, and periodicals.

Federal Republic of Germany

As a result of a lawsuit in the Federal Republic of Germany, later reinforced by the enactment of section 54(2) of that country's Copyright Act of 1965, a partial scheme for collecting fees for the photocopying of German scientific, technical, and professional journals was set up several years ago. Corporations wishing to copy articles of this type published by members of the *Börsenverein* (short designation of the publishers and booksellers association) pay for copies they make on a sliding schedule of fees. Small quantities of copying may be paid for by the purchase of stamps from an operating affiliate of the *Börsenverein*. A corporation may pay for larger quantities of copying in selected journals by means of a 30

percent surcharge on the subscription price. Alternatively, blanket copying privileges may be obtained by paying a 20 percent surcharge on all journals purchased. After the deduction of rather modest charges to cover administration expenses, the fees are distributed, with one-half going to publishers of journals and one-half to various professional societies whose members are frequently the authors of articles in the journals covered. Although this system has been in operation for some years, it has continued to be limited in scope, with only about one hundred large companies paying copying fees on some twelve hundred journals. The total annual gross revenues to the collection agency are currently less than one million German marks.

France

Following a court decision in France, the Centre National de la Recherche Scientifique has confined its photocopy services to single copies of articles for research use supplied by two installations in Paris. Research use includes research in for-profit corporations. However, these two copying centers will not supply photocopies or microfiche of articles from issues of periodicals that are less than three months old.

There also has been a tax on the sale of photocopying machines in France since 1976. This tax, however, is not related to what is copied on the machines. The yield of the tax is not paid to authors and other copyright proprietors, but is distributed to French libraries for the purchase of French publications.

Recommendations of Interested Organizations

On October 21, 1977, and April 28, 1978, representatives of the principal library, author, and publisher organizations concerned with photocopying, other than for classroom use, appeared before the Commission to make recommendations regarding the Commission's final report.²⁶³ Testimony was presented by representatives of the Council of National Library Associations' Ad Hoc Committee on Copyright Practice and Implementation, which includes

²⁶³ Transcript, CONTU Meetings No. 17 and 21.

representatives of the following library organizations: Special Libraries Association, Music Library Association, Medical Library Association, Association of Research Libraries, American Library Association, and American Association of Law Libraries. On the same days, representatives of the Authors' League of America, Inc., and the Association of American Publishers also testified. All three groups stated that they wished to see how the provisions relating to photocopying in the 1976 Copyright Act would work in practice. They stated that they did not wish to suggest amendments to the 1976 Act at this time, but preferred to make such recommendations, if any, to the Register of Copyrights under the provisions of section 108 (i), which requires the Register of Copyrights to report to Congress in 1983 on how successfully section 108 has worked out in practice.

Two organizations with which the Commission had contracts to prepare studies on copyright issues from the point of view of consumers and the general public recommended changes in the 1976 Copyright Act at the July 1977 Commission hearings.²⁶⁴ The Public Interest Economics Center and the Public Interest Satellite Association proposed that the 1976 Act be amended to remove all restrictions on photocopying except copying for commercial resale. The full text of their recommendations may be found in the reports of the two organizations cited in Appendix H.

Effects of Future Technological Change

The Commission has examined the prospects of technological changes that may affect both the creation and the distribution of data (including copyrighted materials) which have been distributed by conventional publishing methods in the past to determine whether prospective changes in technology may require amendment of the copyright law. An entire meeting of the Commission in November 1977 was devoted to a discussion of this topic with several invited outside experts.²⁶⁵

It is now technologically possible to distribute

text, data, and graphics electronically rather than in traditional printed forms. The limitations on the spread of this mode of distribution at the moment are more in the cost of such technology and in user acceptance rather than in the technology itself, but costs are rapidly decreasing for both storage and transmission. In addition, more and more textual materials appearing ultimately in printed form exist at some state in the production process in digital form on tapes and disks or other electronic storage devices. The full text of certain legal materials, such as court decisions, may already be displayed on computer terminals from distant data bases.

It seems to the Commission, however, that these present and prospective technological developments for the creation, storage, and distribution of copyrighted materials do not in themselves call for any change in the copyright law other than those which have been recommended by the Commission to deal with copyright for computer software and computer data bases. These technological developments may ease the problem which has been caused by the wide availability of photocopying machines capable of producing copies quickly and relatively inexpensively. If the copyright owner possesses material in digital form on tapes or other storage devices and sells access to such material by contracts with users, the copyright owner may have more effective control over unauthorized use than over information distributed in printed form. Even now, owners of bibliographic and other data bases make them electronically available to users who pay for this service, either directly or through intermediaries selling on-line access to a variety of data bases.

It seems to the Commission that the foreseeable developments in technology and reduction of costs do not warrant any present change in the copyright law relating to the machine reproduction of copyrighted materials. Furthermore, the provisions of section 108(i) of the 1976 Act provide for a review of section 108 in 1983 and every five years thereafter by the Register of Copyrights, after consultation with the affected parties. If changes in the copyright law relating to machine reproduction seem necessary or desirable because of technological developments five, ten, or twenty-five years hence, this review provision provides a mechanism for timely consideration.

²⁶⁴ Transcript, CONTU Meeting No. 15.

²⁶⁵ Transcript, CONTU Meeting No. 18.