Statute affords us and our publishers for ethical and quality publishing. As users of information, we must care about having quality publication continue, about having a robust publishing industry that can make an optimum transition to electronic publishing. As ethical professionals, we must stop cutting statutory corners or permitting others to do this mistakenly for us. As responsible members of society, we must involve ourselves, wherever possible, in the proper governing of the agencies involved, including their adequate funding. If publishing is important, we must fund it. If libraries are important, we must also fund their programs in such a way as to support, not undercut, publishing. To these extents,

copyright is important, and we should care about its consequences even if that means, ultimately, seeing to it that our representatives work to assure that the clarity of the Copyright Statute reflects their intent.

There will be some who will maintain that I have oversimplified the situation, that I have not shown a proper regard for the needs of the general public for "free access" in libraries. I agree that copyright is a complicated matter, but I also maintain that sometimes it is simply being used as a stalking horse for underfunded social causes. I repeat, there is no such thing as a free lunch, so we must be vigilant to prevent those who would serve one here from destroying quality publishing.

Expanding Use of the Copyright Clearance Center[†]

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Received October 5, 1981

Not only is it important for organizations to comply with the newly revised copyright law, it is important that they recognize why it is ultimately in their own best interest to compensate the outside information sources used by paying authorization fees whenever secondary uses are made of copyrighted publications by making photocopies. The Copyright Clearance Center can help organizations do that with speed, convenience, and low cost.

Each of you as users of chemical information need continuing access to a flow of reliable information. You may never give it a conscious thought, but most of you make use of several "outside" sources of published information in carrying out your jobs. Anything threatening the sources of supply or the long-term welfare of "outside" producers of information could ultimately become a threat to the success of your businesses as well as your own professional career activities. If a large number of scientific and professional journals were discontinued as a result of economic failure, this would soon become a matter of serious concern to everyone engaged in research or development.

In addition to the basic need of access to outside information sources, nearly everyone's organization needs the right to make secondary uses of the publications they purchase. Though these publications, for the most part, are protected by copyright, many articles and other information items contained therein must often be photocopied and distributed internally to you and your colleagues. In some situations, photocopies must be acquired from outside document delivery supply houses on a price-per-copy basis to get the information you need.

Because there are limits set by copyright law as to the conditions under which reproduction, distribution, and/or resale of copyrighted materials can be done without authorization from copyright owners, there needs to be a means of your getting these authorizations, when needed, with the least expenditure of time and cost. This is the purpose for which the Copyright Clearance Center (CCC) was established. Our intent is to provide your organization with a convenient centralized service where permissions to photocopy can be obtained at prices established individually and independently by copyright owners.

USER NEEDS

There are counterparts to CCC in the music business.

†Presented (in part) before the Divisions of Chemical Information and Chemical Education, Symposium on "The Copyright Law", 182nd National Meeting of the American Chemical Society, New York, Aug 27, 1981.

ASCAP and BMI are two organizations that license places of business, broadcast networks, and others, who find it advantageous to replay music performances. Playing music helps to make businesses "go". It is the mainstay of many radio stations and an important ingredient for creating the desired atmosphere in most restaurants. Your own firm may be using it in manufacturing plants or to keep customers happy while waiting on the telephone line.

Notice that none of these users are making reproduction copies for sale in a bootleg-copy market. Users of these licenses simply need to use cassette tapes, phonograph records, or whatever the purchased items are for more than individual personal use. Broadcast networks, hotels, restaurants, and the like find their need to replay copyrighted music performances as important an ingredient, today, as bricks, mortar, food and beverage supplies, air conditioning, heat, light, and the other goods and services being used to make their businesses successful. Without the use of these music performance replay licenses, any one of these establishments would consider themselves disadvantaged in doing business.

Let us look at what every information user organization in industry does and needs to do with copyrighted publications. It need not be explained that engineers, scientists, managers, attorneys, executives, marketers, and salesman, in fact, people in all job areas, need to utilize reliable information in order to make their firm's businesses go. Manpower, money, machines, methods, materials, markets and management are all basic ingredients required by a functioning enterprise. The added vital activity that connects these together into a functioning fabric or whole is information flow. Three of the better-known types of important information are scientific and technical, economic and financial, and marketing.

Essential information flow, in some cases, comes from outside sources that use copyrighted publications as their media for reaching users. Reports of outside scientific research, for example, mainly flow through scholarly journals. Fast-moving economic and financial information are provided via a variety of copyrighted publications. A vigorous and healthy source of supply for each of these and other information sources is required to support the well-being of nearly every firm in

industry. No less, I might add, are these needs shared by government agencies and educational institutions, especially universities and colleges.

If we look inside a typical modern organization, one with goods or services that have a high research and development content, for example, we find one or more of the following everyday activities engaged in to communicate incoming information in order to assure its utilization to the greatest possible value.

- (1) Spontaneous exchange of copyrighted textual information occurs among colleagues, among managers and their subordinates, between home office marketing and field offices, among executives and the board of directors—in short, in nearly every active working relationship in the organization. Today the most widely used method for communicating copyrighted items is by photocopy.
- (2) Systematic scanning of published literature by information specialists to identify those items of current or potential interest to individual workers, project groups, and established departments with on-demand photocopies made available through selective dissemination of information (SDI) procedures.
- (3) Organizers of workshops and classroom instruction for in-house staff and/or customers and clients need to distribute photocopies of copyrighted materials.
- (4) At conferences and symposia participated in by professional employees and colleagues outside the organization, distribution and use of photocopies of copyrighted articles occur.
- (5) A great deal of copyrighted published information is used in sales work to support the needs of clients, customers, and sales personnel in their field sales and application work.

Nearly every organization in existence makes use of photocopies of copyrighted materials in several of these ways in order to operate their businesses.

Are the rights to make these copies and distribute them acquired by an organization when it pays the subscription price for a scientific journal or the purchase price of a reference book? Clearly not. No more than a plant manager acquires the rights in a music store if he purchases a reel of taped music and proceeds to bring it to his place of business to use as background music for his production workers. Management is fully aware of its further legal obligation to compensate copyright owners through payment of fees to either ASCAP or BMI, the appropriate licensing agency for this type of music use.

Similarly the recently revised U.S. Copyright Law now contains language requiring those making copies and distributing copyrighted literary works to obtain authorization from copyright owners. Under certain conditions, there are exemptions provided in the law that refer to fair use, as well as limited interlibrary loan uses of photocopies. However, there are attorneys well informed on copyright matters who believe that the bulk of all photocopying of copyrighted works done on behalf of an industrial firm requires authorization.

NEED FOR THE COPYRIGHT CLEARANCE CENTER

Since photocopying of copyrighted publications to further the success of business and all professional efforts is necessary and can be done legitimately recognizing copyright owner interests, a way is needed to convey authorizations in a convenient and rapid manner. (Video and electronic publishing technologies are also beginning to require similar attention.) The ease of photocopying has added substantially to the speed and effectiveness of communications throughout industry and the practice must not be in any way hampered. Rather, it must

be facilitated by making authorizations from copyright owners as accessible as possible.

The Copyright Clearance Center, established in 1977, first focused its efforts on making available permissions to photocopy from scientific and professional journals, along with certain other serial publications.

Operationally, CCC has two functions. The first is to eliminate the time-consuming and laborious task of conveying copyright-owner authorizations generally referred to as "permissions to photocopy" from hundreds of the diverse types of publishing houses as requested by thousands of photocopy users of varying types. Generally, permissions to photocopy are made available for per-copy royalty fees established by copyright owners. The second function of the Center is to collect these fees for subsequent distribution to copyright owners. Without this central system through which both permissions and royalty collections now flow, users would have to individually contact hundreds of publishers. Such a burden would be totally unacceptable in light of the photocopying volume and timely service needs users have today.

CCC's approach to the authorization problem is also concerned with meeting the permissions needs of outside sources furnishing photocopies on a service basis such as document delivery supply houses and library networks. The former always require copyright-owner authorization and the latter, depending on the purpose and nature of network activities, sometimes require copyright-owner authorizations to furnish photocopies to requestors.

CCC'S START-UP EXPERIENCE

Photocopying in the U.S. is big business. A King Research Study in 1978, subsequently analyzed by CONTU, showed that of the fifty-four million copies of copyrighted materials reproduced in 1976, at least fifteen million would, in their estimation, have required authorization of the copyright owners. However, with the new law containing difficult language describing certain exemptions, full compliance with the new law is proceeding at a slow pace. Genuine lack of understanding about the law's intent combined with suspicions and bewilderment as to why publishers now have to begin collecting photocopying fees from tightly funded libraries after all these years of not doing so has resulted in an environment of mixed emotions—one not totally hospitable to starting up CCC's new service operation.

While some photocopy users still consider the questions of "does she or doesn't she" need to get photocopying authorization, publishers of scientific journals in particular continue to lose income from a dropoff in reprint sales and enjoy less than the full growth potential of reaching the expanding body of readers through subscription sales.

With a staff of 10 people plus a minicomputer, CCC has for the past 3 years been demonstrating that authorizations to photocopy and the collection of royalties can be handled on an instantaneous "pay as you use" transactional basis. This is all done by the Center at less than 25¢ a copy processing cost. I must hasten to point out, however, that we have taken on a considerable overhead expense each year to educate and promote awareness of the new law for both publishers and photocopy users. There are many in both groups who still have neither knowledge nor understanding of the requirements of the new law. Until they have this basic information, they simply cannot understand the service function of CCC. We often have to begin by pointing out that CCC does not produce and furnish photocopies.

The scope of CCC's operating activities can be identified best by describing our four overall program commitments:

(1) to implement effective comprehensive clearance mechanisms responsive to current needs

- (2) to provide application assistance to both copyright owners and to photocopy user organizations
- (3) to foster full compliance with the intent of the law by both photocopy users and copyright owners
- (4) to build a viable service organization capable of meeting both present and future clearance mechanism needs as new technology develops

EFFECTIVE COMPREHENSIVE CLEARANCE **MECHANISMS**

The permissions service presently available from CCC comes under the heading of *Precoded Permissions Service*. Also, there are two other types of service CCC believes will be necessary for it to undertake, and possibly a fourth, in order to provide a truly comprehensive solution to the needs of both users and copyright owners. All of these service needs are the result of the recent revisions of copyright legislation in the U.S. and in other countries in the western world.

Precoded permissions are being made available through the use of codes printed by publishers on pages in their published items. These unique identifier codes contain the ISSN or ISBN (standard numbers) followed by year of publication and a permissions fee figure. If the publication is a scholarly journal, an additional six digits are added to the code enabling identification of each individual article. This precoding method eliminates any need for a user to contact CCC (much less the copyright owner) until the end of each month when his photocopying transaction report is simply sent to us. The code is used by photocopy users to record their photocopy transactions on a CCC supplied log sheet. We, in turn, use this for billing the user organization the following month. When fee payments are received at CCC, they are credited to the accounts of the appropriate CCC participating publishers whose publications are registered with us. You will find these titles listed in CCC's catalog known as the quarterly updated PPC (Publishers Photo-Copy Fee Catalog).

A Permissions-By-Request Service is anticipated to handle permissions for photocopying from textbooks and other reference materials where permissions will be given by a publisher only under certain conditions of known user intent. There is a major challenge here, but it is hoped that permissions criteria can be sufficiently reduced to basic parameters that will allow CCC to put data into its computer, thus providing a central point for users to clear photocopying of this type of material. In this mode, CCC will be acting as an agent conveying permissions for publishers participating in this service. The possibility is under study at present but will not be described further until the concept is approved for operational use.

International agreements are already an operational part of CCC. The need for clearance mechanisms to facilitate authorized photocopying is a current problem being experienced in many countries throughout the western world. The Netherlands, Australia, Norway, and other countries have generally taken different approaches to the problem than we have in the U.S. because of differences in our copyright laws, but collecting societies in all of these countries are attempting to establish reciprocal arrangements with each other and with CCC. The collective effort may ultimately establish an international network for handling the conveying of photocopy permissions and royalty collections. CCC has completed negotiations with one and is currently negotiating agreements with two additional overseas collecting societies for this pur-

The fourth dimension of permission service I alluded to would come under the category of licensing. Some foreign nations are ready to make authorized photocopying of works published in their respective countries available in the U.S. through CCC acting, in effect, as their agent. An added



Figure 1.

possibility for using a limited licensing concept lies within the family of U.S. publishers as a way of providing authorization to photocopy from a long list of publication titles that appear to not warrant the administrative expense of formal registration in CCC's transactional precoded system.

Keeping in mind that the only permission service that has been operating to date at CCC has been the Precoded Permissions Service, note the graphs (Figure 1) that show the growth achieved during the first 3.5 years of operations. Publication titles have grown from 1000 to 4500. The number of users registered has grown from 200 to 1300. The number of photocopies reported annually is now up to 250 000. The dollar amount of fees collected annually is approaching \$400 000. In relative terms these are healthy growth curves, but considering careful estimates of the volume of photocopying being done in the United States for which authorization is required, it is apparent that the present transaction level being reported to CCC is no more than 5% of what it should be for a fully comprehensive system and a national community of photocopy users fully complying with the new law.

CCC USE INSTRUCTIONS AVAILABLE

Following the initial surge to register technical journals by scientific publishers most concerned with unauthorized photocopying, the registration of additional serial titles in the CCC system has proceeded at a slower pace. CCC has since found it necessary to promote an awareness of the need for publishers to take action that will make permissions immediately available to photocopy users. The mechanics of registration as well as establishing and affixing codes to publications are described in printed publications.

Similarly, descriptive publications have been prepared for users with added assitance provided through individual contact and the use of seminars and workshops.

FOSTER FULL COMPLIANCE

Realizing the new law requires authorizations to photocopy, CCC believes a truly comprehensive service must be available to the user community. In the aggregate, users can eventually be expected to photocopy from nearly every copyrighted publication. Accordingly, CCC pursues the publishing industry by working with publisher associations such as the Association of American Publishers, the American Business Press, the Magazine Publishers Association, and others. We solicit their assistance in educating and motivating their members to make permissions-to-photocopy readily available through participation in the CCC program.

Fostering full compliance by photocopy users is a more difficult challenge for CCC. Though we believe full compliance by the photocopy-user community is important to maintaining a healthy information transfer chain from author to reader, CCC has no enforcement responsibility nor policing powers.

There is, however, one project expected to be operational this year called the CCC Document Delivery Awareness Program that is expected to markedly improve compliance by the document delivery service industry. This program will periodically distribute a listing of document delivery supply houses known to be using direct licenses and/or the CCC clearance mechanism to obtain permissions. Most photocopy user organizations that place orders on these services want some assurance that they are dealing with a photocopy supplier that is responsibly handling the authorization requirement, thereby keeping all parties out of trouble. Several document delivery service houses have applauded this Awareness Program. The desired result is that all document delivery supply houses will be operating on the same economic basis, charging and forwarding permissions fees.

For provision of another plus for the document delivery supply houses, the listing of participating suppliers will be given limited free space for advertising copy.

VIABLE SERVICE ORGANIZATION

Initially CCC, a nonprofit service organization, with no stockholders and no investment capital, had to meet operating expenses with gift monies alone. The volume of copies now being reported times the 25ϕ per copy CCC charges publishers for service does not yet cover all CCC expenses. With the approval of consenting publishers, draws are made from permission fee collections to cover the deficit before remaining funds are distributed to the publishers. Last year, 45ϕ on each dollar earned by the publishers was distributed to them. This was nearly a 50% increase in the distributed dollar amount as compared to the year before. This arrangement fully finances CCC's operating budget needs and still distributes a significant portion of permission fees that would otherwise not be possible to collect.

Though CCC has a long way to go to complete its task, it can now be said that CCC is an established and stable organization. Our commitments are, as I have described, to make voluntary photocopy authorizations obtainable from copyright owners and to make this work as an open, free-market system in the United States. If we were to fail, the inequities of alternative government administered compulsory licensing could become very real. The economic viability of publications that are particularly important to you require that

substitute revenues from photocopying permission fees (independently established by publishers) flow directly to them. Under compulsory licensing, ultimate consumers could easily end up paying for photocopying they do not do and receiving less from original outside source publications forced to trim to failing revenues. CCC's long range aim is to reduce burdensome record-keeping and reporting requirements for photocopying and distribution rights to a minimum.

RECOMMENDATIONS TO PHOTOCOPY USER ORGANIZATIONS

To Researchers and Other End Users

Find out what the official policy is in your organization on the new law's requirement for authorizations to photocopy and follow it.

If no official policy exists, bring this to the attention of your supervisor preferably in written memo form if you frequently make the photocopies of copyrighted works that need to be distributed to others.

To Librarians and Managers of Information Services

If top management has not already considered this subject and established an official policy, call the existence of the new law to their attention and point out the legal requirements found in sections 106–108 and the penalties for noncompliance in Sections 504 and 506.

Begin to include the expense of permission fees in your budget for purchased information items.

The average fee per photocopy users report to CCC is \$1.70.

To R&D Managers and Executive Management

If you have not already done so, get competent legal advice regarding the impact of the new law on your organization's use of photocopies of copyrighted items. Note that many patent attorneys have little familiarity with copyright law.

Register your organization with CCC. It costs nothing to do so. The free information and experience we can provide can only help minimize the cost of complying with the new requirements.

Send one of your key people to a CCC User's Workshop. Speakers and attendees at these sessions tell how they are managing to work with the new copyright law in their organizations.

Establish an official policy for your organization and communicate it to all personnel that use photocopying machines. Most organizations assign responsibility to a specific individual for setting up and monitoring their internal systems and procedures on photocopying. That person is also usually named as the Contact Person in their registered account with CCC.