4. Access to Electronic Information: the Changing Legal Framework

From Copyright and Sale to Contract Law

In order to understand the massive shift that is taking place as libraries begin to acquire electronic information to supplement and perhaps ultimately replace much of the printed information they have traditionally purchased, it is first necessary to review the evolution of the system through which libraries support access to printed material to provide a basis for comparison.

To a great extent, the cornerstone for the success of libraries as institutions in the United States has relied on the fact that printed information is virtually always purchased by libraries, and thus its subsequent use is controlled by the copyright laws of the US and the doctrine of first sale. Without going into great depth (and the reader should note that the author of this paper is not an attorney, and is not attempting to give legal advice, but only his own understanding of the way that the involved institutions have typically interpreted the relevant laws), what this legal framework for print publications means is that a library, having purchased a book or journal is free to loan it to patrons or other libraries, or to re-sell the material.[12] Moreover, the use of this copyrighted material by the libray or its patrons is governed by the copyright law, which represents a public policy established by the Congress through legislation which is based on the constitutional responsibility delegated to the Congress to promote the useful arts and sciences. The promotion of these useful arts and sciences has historically required the Congress to achieve a balance between compensating the creators of intellectual property and recognizing the needs and interests of the public to have access to such intellectual property as a basis for further progress in these arts and sciences. (Note that in this section I will use the term “copyright law” to refer rather broadly to the actual legislation itself, and also the body of legal interpretation and legislative history and intent that surrounds and supports the actual legislation.). Under copyright law, while a library, for example, is free to loan the physical artifact it has purchased, it is restricted, in most cases, from duplicating the material. Certain provisions of the current copyright law such as the Fair Use provisions explicitly recognize, for example, the importance of permitting a scholar to quote from a copyrighted work (within limits) for the purpose of criticism or further scholarly analysis; the copyright law also recognizes the importance of permitting the use of copyrighted material in certain educational settings. The importance to society of preserving the historical record is recognized in the permission that is granted to libraries to make a single copy of a physically deteriorating out of print but still copyrighted work for preservation purposes if no reasonable substitute is available. Patent law, to cite another example of the balance between encouraging creators of intellectual property and the needs of the public to be able to make use of that property once it is created, can be viewed as a compact that trades protection of an inventor’s intellectual property

12 There is no international consensus on the details of the doctrine of first Sale; In some European countries, for example, I believe that the right to loan purchased materials can in fact be excluded from the set of rights passed to a purchaser (such as the right to resell the copy of the work that he or she has purchased) as part of the initial sale.

(during a limited period of time) for the disclosure of that property to the public as a means of moving the state of the art forward.

It is important to note that there is nothing, as far as I know, in the current copyright law that requires printed material protected by copyright to be sold to purchasers; there is no a priori reason why a contract could not be written by a rights holder which allows an organization to license copyrighted printed material for a limited period of time and for specific uses outside of the framework of the doctrine of first sale, and such a license might grant the licensee much more limited rights than the licensee would have had under copyright law if the material had been actually sold. In fact, certain print publishers (for example, publishers of some types of atlases, directories and other compilations such as Dun and Bradstreet) have attempted to use licensing as a means of controlling their products for years, and recently the library community has encountered a number of other cases where print publishers have attempted to restrict the use of their publications through license agreements.[13] In many cases, the validity and enforceability of these terms imposed by the publishers have been of ambiguous as the publishers seem to be following the "shrink-wrap" license model of the software industry (that is, a buyer "purchases" something and by opening the package, or at least by using the "purchased" product the publisher states that the buyer is implicitly entering into a legal agreement to adhere to the license terms stated in the license agreement enclosed with the product). In most cases the library community has resisted (and occasionally prominently ignored license terms) products that come with such license constraints. I am unaware of significant test cases that have come to litigation to clarify these situations; further, I would speculate that in many cases where publishers have a strong motivation to attempt to protect print publications with license terms that limit, for example, who can see the printed material, are for very high priced, specialized, highly time sensitive information which is more typically purchased by commercial corporations rather than the general library community (for example, information related to the financial or securities industries).

An interesting related issue is whether publishers are required to make available their publications to libraries,[14] and if so under what terms and constraints. It is a well established practice today for publishers to use differential pricing for libraries and individuals, often with a very wide price spread: a scholarly journal might cost a library $1000/year for a subscription, but the publisher may also offer individuals at a subscribing institution (such as a university) the option of purchasing supplemental individual subscriptions for only $150/year.[15] Another common variation is a journal

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13 The a~$_{emp}$t t. contro[access to print material through license agreement is not new, although it is relatively unusual in the United States. See, for example, Library Journal Volume 1 Number 2 (1877) in which the practices of publishers are deplored.

14 From a strictly legal perspective, I understand that publishers are under no compulsion to offer their works to any specific individual or institution.

15 While Commercial publishers often offer discounted subscriptions to ***individuals*** as a benefit for belonging to institutions where a library subscription to a journal is held, some professional societies go even farther and offer discounted subscriptions not only to individuals but to academic *departments* (for example, for departmental libraries, which are typically funded at the department level) for additional copies of journals. Today, subscription costs for scholarly journals have escalated to the level where individuals seldom subscribe even at the discounted prices, but the departmental level offerings are very attractive to some academic departments. The American Mathematical Society, for example, has used a

that comes to each individual that is a member of a professional society as a benefit of membership, but that is only available for library subscriptions (since membership in the organization is on an individual, rather than institutional basis, or institutional membership is many times as expensive as individual membership).[16] In response to such pricing schemes a librarian at an institution is often "encouraged" to join the professional society to get the journal at a reduced rate to the institution, with the membership fee reimbursed to the librarian. The publishers and professional societies suggest that it is at the least unethical for an individual to act as a "front" for an institution by ordering an individual subscription that is really going to be placed in the institution's library for general use,[17] and sometimes ask individuals ordering under the individual pricing scheme to sign statements asserting that they will not place the copies they are ordering in a library (indeed, some publishers have gone so far as to affix stickers indicating "individual use only" to publications shipped under individual subscription rates), but the legal enforceability of this is unclear given that once the individual obtains the material it is subject to the doctrine of first sale. Yet another interesting variation on this theme **arises** with publishers of very costly, time sensitive material-for example, a market research report at $5000 a copy. Such a publisher might well choose not to market to libraries, and perhaps not even to sell to a library that placed an order (or to process such an order very slowly). It is unclear whether such a publisher could actually be compelled to make a sale to a library.[18]

Licensing and the Interlibrary Loan System in the United States

The doctrine of first sale has also had another critically important implication for the library community in the United States; it has allowed the development of the interlibrary loan (ILL) system which permits one library to borrow materials from another. Historically, interlibrary loan was implemented by the physical shipment of materials from one library to another, which is clearly permitted under the doctrine of

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central library subscription to subsidize departmental copies of some of their publications for a long time. It should also be noted that differential pricing is not clearly a completely evil thing; in the case of the American Mathematical Society, for example, one can view the library as subsidizing increased access to the Society's publications (in the pre-computer networking era) by allowing the Mathematics department to obtain a second, easily accessible copy of the material for a very small co-payment, Of course, in an age of pervasive networks, where institutional copies of material should be as readily accessible to the institutional community as departmental or personal copies, the entire concept of differential pricing begins to break down quickly.

[16] It should be emphasized that what might appear to be "discriminatory" pricing that Costs libraries much more than individual is really much more complex than it appears on the surface. One view of this situation is that libraries are partially subsidizing individual or departmental access to the literature for the cost of a small "co-payment". Another point to be considered is that publishers are making material available to individuals for the marginal costs of additional copies in print runs, discounted for the advertising that they can sell because of the individual readers of the journal. Differential pricing for libraries actually offers some benefits to libraries, institutions, and individual subscribers at those institutions.

[17] Arguably this could be regarded as fraud; while the argument that it Is unethical **IS Clear, it** is **unclear** whether it is' really illegal.

18 Ironically, many of these publishers of very expensive reports file copies of their material with the Library of Congress for copyright reasons, and this material is often publicly available there (though not always on a very timely basis).

first sale (though recently technological innovations, ranging from inexpensive xerography to facsimile transmission and more recently image transfer across the Internet have greatly complicated the picture and moved libraries into areas that are of much less clear legality). Libraries—and particularly research libraries—in the US are linked by an elaborate, complex set of multilateral interlibrary loan agreements. In many cases libraries have traditionally simply agreed to reciprocal sharing without charge to either library; in other cases (which are becoming more frequent as the size of the total body of material grows and the ability of individual libraries to locally acquire even a significant portion of this body of published material diminishes, leading to a massive explosion in interlibrary loan) the supplying library charges the borrowing library a fee, which may or may not be passed on to the patron at the borrowing library that initiated the interlibrary loan request. (Currently, even many public libraries assess patrons a nuisance charge—perhaps a dollar per book—for interlibrary loan, more as a means of controlling frivolous requests than anything else.) In cases where one library recharged another, there were often resource sharing funds established through agencies such as state libraries which helped to subsidize the costs of interlibrary loan (either by directly compensating the lending library for its costs in servicing interlibrary loan requests, or by compensating borrowing libraries for interlibrary loan charges that they incurred), at least in the case of public libraries as borrowers or lenders, leading to patterns where research libraries (for example, at universities) acted as the providers of last resort to public libraries within a state or even nationally.

To provide some quantitative sense of the size, cost and importance of the interlibrary loan system in the United States, consider the following figures from a recent Association of Research Libraries study on interlibrary loan [Baker & Jackson, 1992; Roche, 1993]. ARL's figures indicate that among the 119 ARL libraries in the US and Canada, interlibraryborrowing has increased I08% between 1981 and 1992; lending has grown 52% in the same time period. Recently, the growth rate in these areas has accelerated: lending has grown 45% from 1985-6 to 1991-2, and borrowing 47% from 1985-6 to 1991-2. As indicated, much of the driving force for this growth has been the increasing inability of libraries budgets to acquire published materials: since 1981, ARL library materials budgets have increased 224% while collections grew only by 12%; during this period ARL tracks the average cost of a book as rising 49%, and the cost of a journal subscription I09%. The average cost among ARL libraries for an ILL lending transaction is now about $11; for an ILL borrowing transaction, the cost is about $19 (note that these are costs, and not necessarily what one library charges another for such a transaction). Current estimates suggest that the US library community spends around $70 million per year performing ILL transactions.

The interlibrary loan system essentially allows libraries, as a community, to purchase expensive and/or lightly used printed materials and share them within the community, though of course the specific library that has actually purchased the material can offer better access to it than other libraries which may have to obtain it on behalf of their patrons through interlibrary loan. Interlibrary loan has historically been a rather slow, expensive, and inefficient process. As use of ILL has increased due to the diminishing ability of any given library, even a world-class research library, to hold the majority of the published literature, considerable attention has been focused on speeding up and

improving the cost efficiency of the interlibrary loan process.[19] Work in this area has ranged from the use of electronic ILL systems linked to large national databases of holdings (such as OCLC) which allow a requesting library to quickly identify other libraries that probably hold material and dispatch loan requests to them through the exploitation of technology to reduce the cost of the actual shipment of material. The first step in this latter area was for the lending institution to send a Xerox of a journal article rather than the actual journal copy, so that the borrowing library did not have to return the material and the lending library did not lose use of it while it was out on interlibrary loan. This use of photocopying technology was controversial, and libraries ultimately agreed to limit it through the CONTU guidelines, which define limits on the number of articles that a borrowing library can request (from whatever source) from a given journal per year without additional payment to the rights holder (either through article-based fees assessed through organizations such as the Copyright Clearance Center or by subscribing to the journal directly); while the CONTU guidelines are generally accepted practice, they do not have any legal standing that I am aware of, and have not been subjected to any test cases—they merely represent an ad hoc, informal agreement between the library and publisher communities as to the bounds of acceptable behavior by libraries. More recently, libraries have employed both fax and Internet-based transmission systems such as the RLG Ariel product to further speed up the transfer of copies of material from one library to another in the ILL context, and with each additional application of technology the publishers have become more uncomfortable, and more resistant (with some legal grounds for doing so, though again this has not been subject to test). Interestingly, over the past two years we have seen the deployment of a number of commercial document delivery services (the fees for which cover not only the delivery of the document to the requesting library but also copyright fees to the publisher) offering rates that are competitive—indeed, perhaps substantially better-than the costs that a borrowing library would incur for obtaining material such as journal articles through traditional interlibrary loan processe.[20] At the same time, the research library community is mounting a major effort under the

19 It is important to recognize that in the United States the interlibrary loan system is a distributed sYstem in most cases; that is, individual libraries make their own decisions about which libraries they will use as potential interlibrary loan providers. Libraries set their own rates for interlibrary loans typically, though in some cases there are consortium arrangements that provide fixed rates for libraries that are members of the consortium. This is in contrast to the situation in many other countries, where there is a national library that acts both as the coordinator of the country's ILL system and usually as the lending library of last resort for the national ILL system. In the US, such arrangements only occur in the biomedical and health sciences, where the National Library of Medicine is designated to act as a national library, and to a lesser extent in the agricultural disciplines, where the National Agricultural Library often acts in this role, although its primary mandate is to function as a library supporting the US Department of Agriculture rather than the agricultural community as a whole. The Library of Congress is not a national library and does not serve this function for interlibrary loan. In some states, such as California, the state research university (the University of California, the case of California) serves as the library of last resort for borrowing libraries within the state, though often coordination of in-state interlibrary borrowing patterns is done by the State Library rather than the libraries of last resort for interlibrary loan.

20 The economics of interlibrary loan are actually quite complex, in the sense that lenders of material through interlibrary loan frequently do not recover their full costs for providing material, and, in fact, it is a matter of considerable debate whether they can even identify what these costs are; although the ARL study provides an important step in this direction, it focuses on one specific type of library. One can look simply at how a library trying to obtain material for a patron can do this most cheaply, but perhaps a better perspective would be to consider the overall cost to the library community as a whole in supporting interlibrary loan as opposed to using commercial document delivery services.

auspices of the Association for Research Libraries to improve interlibrary access to materials. It remains to be seen to what extent the new commercial document delivery services supplant traditional ILL in the 1990s.

Now, consider a library acquiring information in an electronic format. Such information is almost never, today, so/cl to a library (under the doctrine of first sale); rather, it is licensed to the library that acquires it, with the terms under which the acquiring library can utilize the information defined by a contract typically far more restrictive than copyright law. The licensing contract typically includes statements that define the user community permitted to utilize the electronic information as well as terms that define the specific uses that this user community may make of the licensed electronic information. These terms typically do not reflect any consideration of public policy decisions such as fair use, and in fact the licensing organization may well be liable for what its patrons do with the licensed information. Of equal importance, the contracts typically do not recognize activities such as interlibrary loan, and prohibit the library licensing the information from making it available outside of that library's immediate user community. This destroys the current cost-sharing structure that has been put in place among libraries through the existing interlibrary loan system, and makes each library (or, perhaps, the patrons of that library) responsible for the acquisitions cost of any material that is to be supplied to those patrons in electronic form.[21] The implications of this shift from copyright law and the doctrine of first sale to contract law (and very restrictive contract terms) is potentially devastating to the library community and to the ability of library patrons to obtain access to electronic information—in particular, it dissolves the historical linkage by which public libraries can provide access to information that is primarily held by research libraries to individuals desiring access to this information. There is also a great irony in the move to licensing in the context of computer communications networks-while these networks promise to largely eliminate the accidents of geography as an organizing principle for inter-institutional cooperation and to usher in a new era of cooperation among geographically dispersed organizations, the shift to licensing essentially means that each library contracting with a publisher or other information provider becomes as isolated, insular organization that cannot share its resources with any other organization on the network.

Other Implications of the Contract Law Framework for Libraries

The shift from copyright law to license agreements has a number of other implications, all of them troublesome. At a public policy level, the ability of the Congress to manage the balance between the creators of intellectual property and the public has been undermined since copyright law no longer defines this balance; rather it is defined by specific contracts between rights holders and libraries. From the legal perspective, there is a very complex and ambiguous area having to do with the preemption of contract law (defined, at least in part, at the State level) of provisions defined by Federal (contract) law. At the level of the individual library writing contracts for

21 It is important to recognize that there are several conflicting and perhaps equally legitimate viewpoints here. Some publishers are viewing the transition to contract law as an opportunity to address what they view as an interlibrary loan system that has been pushed to the limit, well beyond where they are comfortable: they view some of the fax-based interlibrary loan resource sharing arrangements in force today as going well beyond the legislative mandate for shared access to information.

information in electronic form, the implications are even worse. Very few contracts with publishers today are perpetual licenses; rather, they are licenses for a fixed period of time, with terms subject to renegotiation when that time period expires.[22] Libraries typically have no controls on price increase when the license is renewed; thus, rather than considering a traditional collection development decision about whether to renew a given subscription in light of recent price increases, they face the decision as to whether to lose all existing material that is part of the subscription as well as future material if they choose not to commit funds to cover the publisher's price increase at renewal time. (In this context, it is important to recognize that price increases of 50°/0 or more at renewal time for electronic information are not uncommon, and that publishers are offering libraries various types of one-year free trials or other special introductory offers; given that all evidence is that electronic information, from a patron perspective, is among the most attractive and heavily used offerings of many libraries, and that in a large number of areas a given provider has what is essentially a monopoly position with no effective competition, no substitutable alternative available to the library-leaving the library with little choice but to seek the funds to pay for very large, unexpected, and, from the library's perspective sometimes extortionate cost increases). In a bad budget year a library might cut back on its purchases and subscriptions in the print environment, relying on its existing collection and ILL for new material that it cannot afford to purchase in the bad year; in the new electronic environment, a bad budget year might well cause the disappearance of much of the existing collection as well as affecting patron access to newly-published information.

The most common licensing situation today is for information that is either stored on some physical medium (such **as** a CD-ROM) which is then housed in the library or information provided on tape which is then mounted on computer systems belonging to the library. But, in fact, various types of usage restrictions defined by license agreements apply equally to remote databases where the library has contracted for access through the network. Indeed, some of the traditional database producers who offer access to their databases through online services like Dialog have a long-standing tradition of introducing complex and odious contractual terms[23] that predate any

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22 One should not make too much of the problem of limited term as opposed to perpetual licenses. Some electronic information vendors are already incorporating perpetual license terms in their offerings, and several of the major publishers of primary journals have indicated a willingness to at least discuss a permanent licensing framework that parallels print practice. But this is an issue that libraries need to be aware of, and which does definitely have budgetary implications.

23 T. provide a sense of the contractual restrictions that one might encounter, consider the following terms excerpted from a recent set of contracts drafted by Dun and Bradstreet Inc. (D&B) and distributed to members of the Association of Independent Information Professionals, an association that represents free-lance information searchers that often work under contract to large companies. These terms are part of a rather complex legal agreement involving an independent information professional (IIP), and an end user employing the IIP, as well as D&B itself, and govern use of D&B information retrieved from Dialog. The terms include the following provisions:

- The information may only be provided by the IIP to a single end user.
- The II P may not overlay additional data elements to information retrieved from the D&B files, or merge this information with information from other sources (thus adding value). The information cannot be used to create a whole or any portion of a mailing or telemarketing list, or any other marketing or research aid or data compilation sold by the IIP to a third party.
- Only certain specific D&B files mounted on Dialog can be searched.
- I I P may not provide information to any person the II P has reason to believe will use it to engage in unfair or deceptive practices, or that will republish, subsequently license or resell the information.

significant use of these databases by research or public (as opposed to corporate) libraries.[24]

Practically speaking, no library is going to negotiate thousands of contracts, and no publisher wants to maintain contracts with thousands of libraries. This means that an industry of rights brokers will come into being. These may be aggregators such as University Microfilms (UMI) or Information Access Company; they may be clearinghouses similar to the Copyright Clearing Center (CCC) in the print world. Utilities may come into being that provide aggregated access to material provided by publishers, just as companies such as Dialog provided access to databases in the 1970s and 1980s; OCLC, among others, is already positioning for such a role through its mounting of various electronic journals such as *Current Clinical Trials.*

The uncertainty and restrictions surrounding contracts for access to electronic information are not the only problems that libraries will face in this transition from copyright law and purchase to contract law. Today, at least, there is no standardization of contracts, and efforts such as the CNI READI project [Peters, 1992b] that have sought to explore the potential of such standardization have been discouraging. Given that a large research library may well deal with several thousands of publishers in a given year, one can quickly see that in the electronic information environment, such a research library will be in no position to negotiate several thousand unique contracts with publishers for electronic information resources. Further, it is not just setting the contracts in place, which, as discussed, can be addressed to some extent through rights brokerage organizations (though this may impose a new cost on the overall system that is largely absent in print publication). Imagine the plight of a library that is attempting to support its host university's decision to enter into a cooperative agreement with a small not-for-profit research center which includes access to the university's library: there are now potentially thousands of separate contracts that need to be reviewed before the library can understand access constraints on this new cooperative venture; even in the case of rights brokerage organizations, unless there is a high degree of uniformity in the set of rights that the broker is prepared to license from various rightsholders and also in the terms of these licenses. In the most absurd case, a request to have access to a specific electronic information resource at the university library might well become a matter for the university's general counsel to

- The IIP acknowledges that D&B may introduce identifiable erroneous names that permit D&B to audit information use compliance, and the IIP agrees not to remove any such erroneous names.
- The end user agrees not to use the information as a factor in establishing an individual's eligibility for credit or insurance to be used primarily for personal, family or household purposes, or for employment.

24 One particularly sore point has been prohibitions on independent researchers who act as contractors for companies. The Association of Independent Information Professionals (AIIP) has spent a great deal of time over the past few years attempting to negotiate permissions to allow its members to legally use these databases on behalf of their clients. AIIP members, as independent small business people, tend to be meticulous about the legality of their database usage; the complexities that such usage restrictions would create for members of the academic community are so profound that in the academic environment it is likely that the restrictions on use would either be largely ignored, or the restricted use databases simply wouldn't be used. In an competitive environment this would be to some extent self-correcting; the restrictions would reduce revenue, and the competing product with the most liberal usage restrictions would be likely to gain market share. But, in an environment where the business community is the predominant revenue producer and the database is a relatively unique resource that is also needed by the research community, such restrictions quickly begin to function as a major barrier to access.

consider, and might take weeks or even months to resolve. This is a great distance from the old world in which a library could make its own decisions about who had access to its collection, and could readjust these policies in response to changes in the agreements that its host institution entered into.

The ability of publishers to specify usage conditions in a contract can also create other complex liabilities and administrative problems for libraries. For example, a publisher can specify that licensed material is being provided only for research and teaching applications. This can create legal ambiguities (and thus potential liabilities) if, for example, a faculty member uses some of this material in a book that is being commercially published, even if the use of this material might normally have been covered under the fair use exemptions for criticism within the copyright framework. Other information providers restrict printing of their material, downloading into personal databases, or the sharing of information with third parties; many of these restrictions are hard to define precisely, impossible for the library to enforce, and probably unrealistic. Given that the complexity of the usage restrictions is defined only by the publisher's ingenuity, we should not overlook the possibility of very odious usage restrictions being incorporated in contracts, or the liability that such contracts may create for libraries.

In providing a balanced view of the transition from copyright law to contract law it is important to recognize that institutions acquiring intellectual property are not simply being bullied into accepting contracts. While librarians may feel some discomfort about the transition, senior executives in most large organizations (for profit corporations or educational institutions) are relatively conservative and risk-adverse. The definition of rights under copyright law is interpreted through court decisions (case law) and thus appears to these decision-makers as fraught with ambiguity and uncertainty. Events such as the recent Texaco decision highlight the risks that institutions operating under copyright law can face. Contract law is less ambiguous and less risky as a framework for acquiring intellectual property, assuming that one has the money to pay the rights holders; this is a real attraction to management at many institutions.

The shift from copyright law to contract law seems inexorable, barring major restructuring of the copyright law. While consideration of such restructuring is outside the scope of this paper, which is focused on extrapolating and illuminating the implications of current trends within the current legal framework, it should be noted that a number of proposals have been developed for alternative legal frameworks. One example is compulsory licensing of materials in electronic formats. Depending on how fees were set in such an environment, some of the problems with current trends could be addressed, although such a shift would give rise to a number of new problems and issues, both at the public policy and practical operational levels.

Libraries and Multimedia: New Legal Issues

An increasing amount of electronic information will be in various multimedia formats. Here, a new and complex problem arises that is already causing great concern in **the** library community; the initial source of that concern is videotapes, videodisks and related materials. When dealing with printed material, the typical concern is over the right to make copies for various purposes. Loaning of physical artifacts is not much of a

question. Certainly, the ability of a library patron to view a book owned by a library is not an issue. But, if one studies the copyright law, one quickly finds that it addresses not only the right to copy, but also rights to display and perform works. While these are not much of an issue in respect to printed materials circulated by libraries, they represent real and complex problems for multimedia works. Without reviewing the legal details (which appear to be highly controversial at the present time) it does seem clear that the role of libraries in providing access to multimedia works is at best ambiguous. Even when operating under the general framework of copyright, as opposed to contract law, the worst case may be that libraries can acquire material that they cannot legally provide their patrons with the facilities to view within the library. (For a good summary of these issues from a legal perspective, see [Cochran].) Given the growing complexity of the technology base need to view (and interact with) certain types of multimedia products, this represents a very real barrier to access.

The issues related to traditional audiovisual materials are already serious, and have been a source of major problems for libraries. Early experiences with the lending of software has also revealed numerous issues. But perhaps even more important is the unresolved extent to which rights of performance and display will be attributed to the viewing of electronic information of all types, ranging from the browsing of bitmapped images of print pages through interaction with a digital movie driven by a program.

The widespread development of multimedia authoring tools will raise other issues as well, perhaps less for libraries than for users of digital information on the network. Multimedia integrates film clips, images, music and sound along with other content, and most developers of multimedia are not simultaneously artists, composers and musical performers. There will be a great demand for copyright-free (public domain) materials that can be included in multimedia works.[25] Here again one encounters a large number of ambiguous questions related to copyright law. One can find numerous opinions on these questions, but only very limited consensus and even less certainty. The questions include:

- Who owns the rights to an image? This includes photographs, images of classic paintings, and other materials? This is a particularly vexing question in regards to paintings owned by museums, for example. It's important to recognize that this is not a new problem that has been created by the digital environment; ownership of images is a very complex (and sometimes ambiguous) area in copyright law even in the older print and photographic environments. Digital imaging technologies and network distribution simply underscore existing uncertainties.

- If an image is digitized, and then perhaps subsequently enhanced, is this protected under copyright?

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25 We are already seeing the beginning of this process in the very complex restrictions that accompany demo disks for products such as Apple's Quicktime and the various "clip art" and "stock photo" products being offered to multimedia developers. People want to incorporate bits of this material into all sorts of new multimedia: sales presentations, educational materials, demonstrations, and training materials. In many cases it is unclear when rights must be cleared. It seems likely that a few well-publicized legal actions could lead to an atmosphere of pervasive paranoia that might quickly retard the use of multimedia technologies, particularly by the business and educational communities.

- To what extent is the linkage of a series of media (for example, images and a sound track) copyright able separately from the images themselves and the sound track itself?

- If an out of copyright text is scanned or keyboarded and then edited, to what extent is this protectable under copyright?

- How does the developer of a multimedia product, attempting to comply with the law and to behave responsibly, determine whether component works that he or she wishes to incorporate into a multimedia product are protected by copyright?

- To what extent are libraries (or other networked information providers) liable for contributing to copyright infringement in an electronic information environment. To give only one example, a number of libraries are currently considering how to upgrade their facilities to accommodate users of portable notebook computers in conjunction with the overall move to electronic information. If a library permits patrons to connect to a library network to download images from the library's collection, to what extent is the library liable if these images prove to be copyrighted?

The problem here is again in large part the uncertainty. As matters stand today, many of these questions will have to be decided, at least as I understand it, through test cases in court. Most libraries (and their parent organizations, such as universities) are not eager to serve as such test **cases.** It is quite possible that attempts by libraries to limit the potential legal liabilities of the current uncertain copyright framework may also contribute to the destruction of the interlibrary loan system through a migration to acquiring material under license (contract law); understandably, most organizations will place a greater priority on managing their own legal exposures than they will on the ability to share their material with other organizations. Of course, there are alternatives to defining the specifics of copyright in the electronic environment through case law: these include both specific legislative actions that clarify and perhaps further define the law in the electronic information world, or joint agreements between information providers and information purchasers similar to the CONTU efforts which establish community guidelines without having the actual force of law.

As one reviewer of an draft of this paper reminded me, it is also important to consider the perspective of the individual developer (perhaps in a very modest, non commercial sense) or user of multimedia—the teacher in the classroom, the marketing representative preparing a sales presentation, or the individual citizen amusing him or herself. As has been illustrated by such issues as the transcription of phonograph records or more recently CD-Audio recordings to audio tape, or the taping of shows from the broadcast media for later viewing, many such users are literally unwilling to recognize or worry about legal restrictions to actions that seem to them to be reasonable. Such individuals—the majority of the citizens of the US—are likely to become outlaws (most often unwittingly, but occasionally as a matter of deliberate choice) outside of the framework of institutions and institutional liability rather than abide by complex, hard to understand legal restrictions that seem intuitively senseless. Laws that are strongly at odds with social norms are frequently bad laws, as they undermine people's acceptance of the overall law of the Iand. In areas such as personal taping (so that one can play the Audio CD one just purchased on one's car stereo, or watch a program that was broadcast again from one's VCR) my sense is that