



DMCA Section 104 Report

**U.S. Copyright Office
August 2001**

**A Report of the Register of Copyrights
Pursuant to §104 of the Digital Millennium Copyright Act**

DIGITAL MILLENNIUM COPYRIGHT ACT OF 1998, § 104

Pub. L. No. 105-304, 112 Stat. 2860, 2876

SEC. 104. EVALUATION OF IMPACT OF COPYRIGHT LAW AND AMENDMENTS ON ELECTRONIC COMMERCE AND TECHNOLOGICAL DEVELOPMENT.

(a) **EVALUATION BY THE REGISTER OF COPYRIGHTS AND THE ASSISTANT SECRETARY FOR COMMUNICATIONS AND INFORMATION.**—The Register of Copyrights and Assistant Secretary for Communications and Information of the Department of Commerce shall jointly evaluate—

(1) the effects of the amendments made by this title and the development of electronic commerce and associated technology on the operation of sections 109 and 117 of title 17, United States Code; and

(2) the relationship between existing and emergent technology and the operation of sections 109 and 117 of title 17, United States Code.

(b) **REPORT TO CONGRESS.**—The Register of Copyrights and the Assistant Secretary for Communications and Information of the Department of Commerce shall, not later than 24 months after the date of the enactment of this Act, submit to the Congress a joint report on the evaluation conducted under subsection (a), including any legislative recommendations the Register and the Assistant Secretary may have.



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The Register of Copyrights
of the
United States of America

Library of Congress
Department 17
Washington, D.C. 20540

(202) 707-8350

August 29, 2001

Dear Mr. President:

I am pleased to present the Copyright Office's "DMCA Section 104 Report."

As required under section 104 of Public Law No. 105-304, the Report evaluates the effects of title I of the Digital Millennium Copyright Act of 1998 and the development of electronic commerce and associated technology on the operation of sections 109 and 117 of title 17, U.S.C. It also evaluates the relationship between existing and emergent technology and the operation of those sections.

Respectfully,

Marybeth Peters
Register of Copyrights

Enclosure

The Honorable Richard B. Cheney
President
United States Senate
Washington, D.C. 20510



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The Honorable J. Dennis Hastert
Speaker
United States House of Representatives
Washington, D.C. 20515

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This report is the result of the expertise, skills and dedication of many people. I was fortunate to be able to draw on many talented staff, and I am grateful to all of them. However, I especially thank and acknowledge the efforts of two officials of the Office. The first is Jesse Feder, Acting Associate Register for Policy and International Affairs, who served as the project manager and who was also a primary drafter of the report; the second is David O. Carson, General Counsel of the Copyright Office, whose wise counsel and sound advice was present throughout the process. Also, worthy of special praise are the others who drafted the report; they are Marla Poor, Attorney Advisor, Office of Policy and International Affairs, Steven Tepp, Policy Planning Advisor, Office of Policy and International Affairs, and Robert Kasunic, Senior Attorney-Advisor, Office of the Copyright General Counsel. Their efforts went well beyond writing sections of the report and they played important roles in the review process.

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Finally, just prior to completing the process, I asked June Besek, Director of Studies and Director of the International Program of the Kernochan Center for Law, Media and the Arts at Columbia Law School, to review the penultimate draft text. I appreciate her exceptional efforts (she had less than 48 hours) and her invaluable suggestions and comments.

Marybeth Peters
Register of Copyrights

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EXECUTIVE SUMMARY

INTRODUCTION

The Digital Millennium Copyright Act of 1998 (DMCA) was the foundation of an effort by Congress to implement United States treaty obligations and to move the nation's copyright law into the digital age. But as Congress recognized, the only thing that remains constant is change. The enactment of the DMCA was only the beginning of an ongoing evaluation by Congress on the relationship between technological change and U.S. copyright law. This Report of the Register of Copyrights was mandated in the DMCA to assist Congress in that continuing process.

Our mandate was to evaluate “the effects of the amendments made by [title I of the DMCA] and the development of electronic commerce and associated technology on the operation of sections 109 and 117 of title 17, United States Code; and the relationship between existing and emergent technology and the operation of sections 109 and 117. . . .” Specifically, this Report focuses on three proposals that were put forward during our consultations with the public: creation of a “digital first sale doctrine;” creation of an exemption for the making of certain temporary incidental copies; and the expansion of the archival copying exemption for computer programs in section 117 of the Act.

Part I of this Report describes the circumstances leading up to the enactment of the DMCA and the genesis of this study. Part I also examines the historical basis of sections 109 and

117 of the Act. Part II discusses the wide range of views expressed in the public comments and testimony. This input from the public, academia, libraries, copyright organizations and copyright owners formed the core information considered by the Office in its evaluation and recommendations. Part III evaluates the effect of title I of the DMCA and the development of electronic commerce and associated technology on the operations of sections 109 and 117 in light of the information received and states our conclusions and recommendations regarding the advisability of statutory change.

I. BACKGROUND

A. THE DIGITAL MILLENNIUM COPYRIGHT ACT

The World Intellectual Property Organization (WIPO) treaties were the impetus for the U.S. legislation. In order to facilitate the development of electronic commerce in the digital age, Congress implemented the WIPO treaties by enacting legislation to address those treaty obligations that were not adequately addressed under existing U.S. law. Legal prohibitions against circumvention of technological protection measures employed by copyright owners to protect their works, and against the removal or alteration of copyright management information, were required in order to implement U.S. treaty obligations.

The congressional determination to promote electronic commerce and the distribution of digital works by providing copyright owners with legal tools to prevent widespread piracy was tempered with concern for maintaining the integrity of the statutory limitations on the exclusive

rights of copyright owners. In addition to the provisions adopted by Congress in 1998, there were other proposals – including amendments to sections 109 and 117, that were not adopted, but were the subjects of a number of studies mandated by the DMCA. Section 104 of the DMCA requires the Register of Copyrights and the Assistant Secretary for Communications and Information to report on the effects of the DMCA on the operation of sections 109 and 117 and the relationship between existing and emergent technology on the operation of sections 109 and 117 of title 17 of the United States Code.

The inclusion of section 109 in the study has a clear relationship to the digital first sale proposal contained in a bill introduced in 1997 by Congressmen Rick Boucher and Tom Campbell. The reasons for including section 117 in the study are less obvious. While there is no legislative history explaining why section 117 is included in the study, it appears that the reference was intended to include within the scope of the study a proposed exemption for incidental copies found in the Boucher-Campbell bill, which would have been codified in section 117 of the Copyright Act.

B. SECTION 109(a) AND THE FIRST SALE DOCTRINE

The common-law roots of the first sale doctrine allowed the owner of a particular copy of a work to dispose of that copy. This judicial doctrine was grounded in the common-law principle that restraints on the alienation of tangible property are to be avoided in the absence of clear congressional intent to abrogate this principle. This doctrine appears in section 109 of the Copyright Act of 1976. Section 109(a) specified that this notwithstanding a copyright owner's

exclusive distribution right under section 106 the owner of a particular copy or phonorecord that was lawfully made under title 17 is entitled to sell or further dispose of the possession of that copy or phonorecord.

C. SECTION 117 COMPUTER PROGRAM EXEMPTIONS

Section 117 of the Copyright Act of 1976 was enacted in the Computer Software Copyright Amendments of 1980 in response to the recommendations of the National Commission on New Technological Uses of Copyrighted Works' (CONTU). Section 117 permits the owner of a copy of a computer program to make an additional copy of the program for purely archival purposes if all archival copies are destroyed in the event that continued possession of the computer program should cease to be rightful, or where the making of such a copy is an essential step in the utilization of the computer program in conjunction with a machine and that it is used in no other manner.

II. VIEWS OF THE PUBLIC

Section II of the report summarizes the views received from the public through comments, reply comments and hearing testimony. The summaries are grouped into three categories: views concerning section 109, views concerning section 117, and views on other miscellaneous issues.

A. VIEWS CONCERNING SECTION 109

Most of the comments dealt with section 109 whether or not they addressed section 117.

While there was a broad range of views on the effect of the DMCA on the first sale doctrine, most of the commenters believed that the anticircumvention provisions of 17 U.S.C. section 1201 allowed copyright owners to restrict the operation of section 109. Of particular concern to many commenters was the Content Scrambling System (CSS) and the “region coding” used to protect motion pictures on Digital Versatile Disks (DVDs). They argued that use of CSS forces a consumer to make two purchases in order to view a motion picture on DVD: the DVD and the authorized decryption device. In the view of these commenters, this system reduces or eliminates the value of and market for DVDs by interfering with their free alienability on the market. A similar argument was advanced for the region coding on DVDs in that the geographic market for resale is restricted by this technological protection measure.

Another concern expressed by a number of commenters was the growing use of non-negotiable licenses accompanying copyrighted works that are written to restrict or eliminate statutorily permitted uses, including uses permitted under section 109. In some cases, these license restrictions are enforced through technological measures. It was argued that these licensing practices and the prohibition on circumvention frustrate the goals of the first sale doctrine by allowing copyright owners to maintain control on works beyond the first sale of a particular copy. These commenters stated that this interference with the operation of the first sale

doctrine has the capacity to inhibit the function of traditional library operations, such as interlibrary loan, preservation, and use of donated copies of works.

Other commenters rebutted these claims, arguing that over-restrictive technological protection measures or licenses would not survive in the marketplace, since competition would be a limiting principle. It was also argued that the effect of licensing terms on the first sale doctrine is beyond the scope of this study.

Commenters generally viewed section 1202 of the DMCA, which prohibits the alteration or removal of copyright management information, as having no impact of the operation of the first sale doctrine.

The greatest area of contention in the comments was the question of whether to expand the first sale doctrine to permit digital transmission of lawfully made copies of works. Although some proponents argued that such transmissions are already permitted by the current language of section 109, most thought that clarification of this conclusion by Congress would be advisable since the absence of express statutory language could lead to uncertainty.

The proponents of revising section 109 argued that the transmission of a work that was subsequently deleted from the sender's computer is the digital equivalent of giving, lending, or selling a book. Allowing consumers to transfer the copy of the work efficiently by means of

online transmission would foster the principles of the first sale doctrine. These principles have promoted economic growth and creativity in the analog world and should be extended to the digital environment. Proponents of this argument sought amendment to section 109 to allow a person to forward a work over the Internet and then delete that work from his computer.

Others opposed such an amendment for a number of reasons. Opponents pointed out that the first sale doctrine is a limitation on the distribution right of copyright owners and has never implicated the reproduction right which is, in their view, a “cornerstone” of copyright protection. In addition, the impact of the doctrine on copyright owners was also limited in the off-line world by a number of factors, including geography and the gradual degradation of books and analog works. The absence of such limitations would have an adverse effect on the market for digital works. Opponents also believed that proposals that depend on the user deleting his copy would be unverifiable, leading to virtually undetectable cheating. Given the expanding market for digital works without a digital first sale doctrine, opponents questioned the consumer demand for such a change in the law.

B. VIEWS CONCERNING SECTION 117

The comments related to section 117 fell into two main categories: those addressing the status of temporary copies in RAM and those concerning the scope of the archival exemption.

Many commenters advocated a blanket exemption for temporary copies that are incidental to the operation of a device in the course of use of a work when that use is lawful under title 17. Such an exemption was originally proposed in the Boucher-Campbell bill as an amendment to section 117.

Other commenters vigorously opposed any exemption for incidental copies at this time. They argued that such an exemption would dramatically expand the scope of section 117 in contrast to the carefully calibrated adjustment made to section 117 in the DMCA to address the problems experienced by independent computer service organizations at issue in *MAI Systems Corp. v. Peak Computer, Inc.* These commenters stated that Congress' narrow adjustment to section 117 in the DMCA reaffirmed the conclusion that temporary copies in random access memory (RAM) are copies that are subject to the copyright owner's exclusive reproduction right. Further change would undercut the reproduction right in all works and endanger international treaty obligations.

There was disagreement on the economic value of temporary copies. Proponents of an amendment argued that temporary buffer copies are necessary to carry out streaming of performances of works on the Internet and have no value apart from that performance. They argued that the limitations under other sections of the Copyright Act, including sections 107 and 512, were insufficient to sustain the operation of businesses that stream audio performances to the public.

Opponents, on the other hand, argued that these copies are within the scope of the copyright owner's exclusive rights and do possess value. Particular emphasis was placed on the value of temporary copies of computer programs. It was also argued that as streaming performances become more common, these temporary copies will increase in value because of the adverse effect of the performances on the market for purchases of copies of these works. Opponents believed it would be premature to change the law because of the absence of specific evidence of harm and the high potential for adverse unintended consequences. It was noted that when Congress was presented with concrete evidence of harm to independent service organizations after the *MAI v. Peak* decision, Congress took steps to remedy the situation. Similarly, section 512 of the DMCA created limitations on the remedies available against Internet service providers for incidental copying that is essential to the operation of the Internet.

The other major concern involving section 117 concerned the scope of the archival exemption. Proponents of amending section 117 raised two primary points. First, they argued that the policy behind the archival exemption needs to be updated to encompass all digital works rather than just computer programs. Since computers are vulnerable to crashes, viruses, and other failures, downloaded music, electronic books and other works face the same risks that precipitated the exemption for computer programs. Some argued that all digital media is susceptible to accidental deletion or corruption. Consumers should be permitted to protect their investments in works.

Proponents of expansion of the archival exemption offered another argument – section 117 does not comport with reality. Systematic backup practices do not fit the structure of section 117, which is limited to making a copy of an individual program at the time the consumer obtains it. It was argued that such a discrepancy between the law and commonly accepted practices undermines the integrity of the law. Such a fundamental mismatch creates the perception that the law need not be literally followed, thereby creating a slippery slope.

Opponents of an expansion of the archival exemption countered that the justification behind section 117 no longer exists. Most software is distributed on CD-ROM, which is far more robust than floppy disks. Consumers need merely retain the original CD as a backup, since it is a simple operation to reinstall software that is compromised. In addition, these opponents argued that there is currently an inaccurate public perception of the scope of the backup copy exception. These commenters argue that many invoke the archival exception as a shield to commercial piracy.

Opponents of an amendment to section 117 asserted that even if there is a mismatch between actual backup practices and the current exception, no one has been harmed by it. Commenters noted that no one has been sued as a result of backing up material outside the scope of section 117, and no one has stopped performing backups. It was also argued that if a particular activity does not fall within the terms of section 117, it may nevertheless be privileged under the fair use doctrine.

C. VIEWS CONCERNING OTHER MISCELLANEOUS ISSUES

There were assorted other comments and testimony on a range of issues. There were concerns raised about the potential adverse effects of sections 1201 and 1202 on the traditional concepts of first sale, fair use, and the archival and preservation exemptions. It was argued that these prohibitions are likely to diminish, if not eliminate, otherwise lawful uses. It was asserted that copyright management information may also have the capacity to reveal user information in a manner that would chill legitimate uses of copyrighted works.

Another prevalent concern was that licenses are being used increasingly by copyright owners to undermine the first sale doctrine and restrict other user privileges under the copyright law. These commenters argue that this trend is displacing the uniformity of federal copyright law with a wide variation of contract terms that must be evaluated and interpreted. This poses a particular challenge to large institutions, such as universities and libraries, in determining legal and acceptable use in any given work. A number of commenters argued that federal copyright law should preempt such license terms.

Other commenters argued that Congress did not intend copyright law broadly to preempt contract provisions. They argue that the freedom to contract serves the interests on both copyright owners and the public by allowing greater flexibility in determining pricing, terms and conditions of use, and other options.

III. EVALUATION AND RECOMMENDATIONS

We are not persuaded that title I of the DMCA has had a significant effect on the operation of sections 109 and 117 of title 17. The adverse effects that section 1201, for example, is alleged to have had on these sections cannot accurately be ascribed to section 1201. The causal relationship between the problems identified and section 1201 are currently either minimal or easily attributable to other factors such as the increasing use of license terms. Accordingly, none of our legislative recommendations are based on the effects of section 1201 on the operation of sections 109 and 117.

A. THE EFFECT OF TITLE I OF THE DMCA ON THE OPERATION OF SECTIONS 109 AND 117

The arguments raised concerning the adverse effects of the CSS technological protection measure on the operation of section 109 are flawed. The first sale doctrine is primarily a limitation on copyright owner's distribution right. Section 109 does not guarantee the existence of secondary markets for works. There are many factors which could affect the resale market for works, none of which could be said to interfere with the operation of section 109. The need for a particular device on which to view the work is not a novel concept and does not constitute an effect on section 109. VHS videocassettes for example, must be played on VHS VCRs.

A plausible argument can be made that section 1201 may have a negative effect on the operation of the first sale doctrine in the context of works tethered to a particular device. In the case of tethered works, even if the work is on removable media, the content cannot be accessed

on any device other than the one on which it was originally made. This process effectively prevents disposition of the work. However, the practice of tethering a copy of a work to a particular hardware device does not appear to be widespread at this time, at least outside the context of electronic books. Given the relative infancy of digital rights management, it is premature to consider any legislative change at this time. Should this practice become widespread, it could have serious consequences for the operation of the first sale doctrine, although the ultimate effect on consumers is unclear.

We also find that the use of technological measures that prevent the copying of a work potentially could have a negative effect on the operation of section 117. To the extent that a technological measure prohibits access to a copyrighted work, the prohibition on the circumvention of measures that protect access in section 1201(a)(1) may have an adverse impact on the operation of the archival exception in section 117. Again, however, the current impact of such a concern appears to be minimal, since licenses generally define the scope of permissible archiving of software, and the use of CD-ROM reduces the need to make backup copies.

Given the minimal adverse impact at the present time, we conclude that no legislative change is warranted to mitigate any effect of section 1201 on section 117.

B. THE EFFECT OF ELECTRONIC COMMERCE AND TECHNOLOGICAL CHANGE ON SECTIONS 109 AND 117

There is no dispute that section 109 applies to works in digital form. Physical copies of works in a digital format, such as CDs or DVDs, are subject to section 109 in the same way as physical copies in analog form. Similarly, a lawfully made tangible copy of a digitally downloaded work, such as a work downloaded to a floppy disk, Zip™ disk, or CD-RW, is clearly subject to section 109. The question we address here is whether the transmission of a work to another person falls within – or should fall within – the scope of section 109.

1. *The First Sale Doctrine in the Digital World*

a. Evaluation of Arguments Concerning First Sale

The first sale doctrine is primarily a limitation on the copyright owner's exclusive right of distribution. It does not limit the exclusive right of reproduction. While disposition of a work downloaded to a floppy disk would only implicate the distribution right, the transmission of a work from one person to another over the Internet results in a reproduction on the recipient's computer, even if the sender subsequently deletes the original copy of the work. This activity therefore entails an exercise of an exclusive right that is not covered by section 109.

Proponents of expansion of the scope of section 109 to include the transmission and deletion of a digital file argue that this activity is essentially identical to the transfer of a physical copy and that the similarities outweigh the differences. While it is true that there are similarities, we find the analogy to the physical world to be flawed and unconvincing.

Physical copies degrade with time and use; digital information does not. Works in digital format can be reproduced flawlessly, and disseminated to nearly any point on the globe instantly and at negligible cost. Digital transmissions can adversely effect the market for the original to a much greater degree than transfers of physical copies. Additionally, unless a “forward-and-delete” technology is employed to automatically delete the sender’s copy, the deletion of a work requires an additional affirmative act on the part of the sender subsequent to the transmission. This act is difficult to prove or disprove, as is a person’s claim to have transmitted only a single copy, thereby raising complex evidentiary concerns. There were conflicting views on whether effective forward and delete technologies exist today. Even if they do, it is not clear that the market will bear the cost of an expensive technological measure.

The underlying policy of the first sale doctrine as adopted by the courts was to give effect to the common law rule against restraints on the alienation of tangible property. The tangible nature of a copy is a defining element of the first sale doctrine and critical to its rationale. The digital transmission of a work does not implicate the alienability of a physical artifact. When a work is transmitted, the sender is exercising control over the intangible work through its reproduction rather than common law dominion over an item of tangible personal property. Unlike the physical distribution of digital works on a tangible medium, such as a floppy disk, the transmission of works interferes with the copyright owner’s control over the intangible work and the exclusive right of reproduction. The benefits to further expansion simply do not outweigh the likelihood of increased harm.

Digital communications technology enables authors and publishers to develop new business models, with a more flexible array of products that can be tailored and priced to meet the needs of different consumers. We are concerned that these proposals for a digital first sale doctrine endeavor to fit the exploitation of works online into a distribution model – the sale of copies – that was developed within the confines of pre-digital technology. If the sale model is to continue as the dominant method of distribution, it should be the choice of the market, not due to legislative fiat.

We also examined how other countries are addressing the applicability of the first sale – or exhaustion – doctrine to digital transmissions. We found that other countries are addressing digital transmissions under the communication to the public right and are not applying the principle of exhaustion, or any other analog thereof, to digital transmissions.

b. Recommendation Concerning the Digital First Sale Doctrine

We recommend no change to section 109 at this time. Although speculative concerns have been raised, there was no convincing evidence of present-day problems. In order to recommend a change in the law, there should be a demonstrated need for the change that outweighs the negative aspects of the proposal. The Copyright Office does not believe that this is the case with the proposal to expand the scope of section 109 to include digital transmissions. The time may come when Congress may wish to address these concerns should they materialize.

The fact that we do not recommend adopting a “digital first sale” provision at this time does not mean that the issues raised by libraries are not potentially valid concerns. Similarly, our conclusion that certain issues are beyond the scope of the present study does not reflect our judgment on the merits of those issues.

The library community has raised concerns about how the current marketing of works in digital form affects libraries with regard to five specifically enumerated categories: interlibrary loans, off-site accessibility, archiving/preservation, availability of works, and use of donated copies. Most of these issues arise from terms and conditions of use, and costs of license agreements. One arises because, when the library has only online access to the work, it lacks a physical copy of the copyrighted work that can be transferred. These issues arise from existing business models and are therefore subject to market forces. We are in the early stages of electronic commerce. We hope and expect that the marketplace will respond to the various concerns of customers in the library community. However, these issues may require further consideration at some point in the future. Libraries serve a vital function in society, and we will continue to work with the library and publishing communities on ways to ensure the continuation of library functions that are critical to our national interest.

2. The Legal Status of Temporary Copies

a. RAM Reproductions as “Copies” under the Copyright Act

All of the familiar activities that one performs on a computer, from the execution of a computer program to browsing the World Wide Web, necessarily involve copies stored in

integrated circuits known as RAM. This information can remain in memory until the power is switched off or the information is overwritten. These reproductions generally persist only for as long as the particular activity takes place.

The legal status of RAM reproductions has arisen in this study almost exclusively in the context of streaming audio delivery, including webcasting. In order to render the packets of audio information in an audio “stream” smoothly, in spite of inconsistencies in the rate of delivery, packets of audio information are saved in a portion of RAM called a buffer until they are ready to be rendered.

Based on an the text of the Copyright Act – including the definition of “copies” in section 101 – and its legislative history, we conclude that the making of temporary copies of a work in RAM implicates the reproduction right so long as the reproduction persists long enough to be perceived, copied, or communicated.

Every court that has addressed the issue of reproductions in RAM has expressly or impliedly found such reproductions to be copies within the scope of the reproduction right. The seminal case on this subject, *MAI, Sys. Corp. v. Peak Computer, Inc.*, found that the loading of copyrighted software into RAM creates a “copy” of that software. At least nine other courts have followed *MAI v. Peak* in holding RAM reproductions to be “copies” and several other cases have

held that loading a computer program into a computer entails making a copy, without mentioning RAM specifically.

b. Evaluation of Arguments Concerning Temporary Incidental Copy Exceptions

In the course of this study, arguments were advanced in support of a blanket exemption for incidental copies similar to that proposed in the Boucher-Campbell bill. Most of the arguments advanced on such a proposal focused exclusively on the specific issue of buffer copies made in the course of audio streaming, rather than the broader issue of incidental copying generally. This focus suggests that legislation tailored to address the specific problems raised in the context of audio streaming should be examined. This focus is particularly appropriate since there was no compelling evidence presented in support of a blanket exemption for incidental copies and there was evidence that such an exemption could lead to unintended adverse consequences for copyright owners.

There was compelling evidence presented, however, on the uncertainty surrounding temporary buffer copies made in RAM in the course of rendering a digital musical stream. Specifically, webcasters asserted that the unknown legal status of buffer copies exposes webcasters to demands for additional royalty payments from the owner of the sound recording, as well as potential infringement liability.

The buffer copies identified by the webcasting industry exist for only a short period of time and consist of small portions of the work. Webcasters argue that these reproductions are incidental to the licensed performance of the work and should not be subject to an additional license for a reproduction that is only a means to an authorized end. Buffer copies implicate the reproduction right, thus potentially resulting in liability. There is, therefore, a legitimate concern on the part of webcasters and other streaming music services as to their potential liability.

We believe that there is a strong case that the making of a buffer copy in the course of streaming is a fair use. Fair use is a defense that may limit any of the copyright owner's exclusive rights, including the reproduction right implicated in temporary copies. In order to assess whether a particular use of the works at issue is a fair use, section 107 requires the consideration and balancing of four mandatory, but nonexclusive, factors on a case-by-case basis.

In examining the first factor – the purpose and character of the use – it appears that the making of buffer copies is commercial and not transformative. However, the use does not supersede or supplant the market for the original works. Buffer copies are a means to a noninfringing and socially beneficial end – the licensed performance of these works. There is no commercial exploitation intended or made of the buffer copy in itself. The first factor weighs in favor of fair use.

The second factor – the nature of the copyrighted work – weighs against a finding of fair use because musical works are generally creative. The third factor – the amount and

substantiality of the portion used in relation to the copyrighted work as a whole – would also be likely to weigh against fair use since, in aggregate, an entire musical work is copied in the RAM buffer. Since this is necessary in order to carry out a licensed performance of the work, however, the factor should be of little weight.

In analyzing the fourth factor – the effect of the use on the actual or potential market for the work – the effect appears to be minimal or nonexistent. This factor strongly weighs in favor of fair use.

Two of the four statutory factors weigh in favor of fair use, but fair use is also an “equitable rule of reason.” In the case of temporary buffer copies, we believe that the equities unquestionably favor the user. The sole purpose for making the buffer copies is to permit an activity that is licensed by the copyright owner and for which the copyright owner receives a performance royalty. In essence, copyright owners appear to be seeking to be paid twice for the same activity. Additionally, it is technologically necessary to make buffer copies in order to carry out a digital performance of music over the Internet. Finally, the buffer copies exist for too short a period of time to be exploited in any way other than as a narrowly tailored means to enable the authorized performance of the work. On balance, therefore, the equities weigh heavily in favor of fair use.

c. Recommendation Concerning Temporary Incidental Copies

Representatives of the webcasting industry expressed concern that the case-by-case fair use defense is too uncertain a basis for making rational business decisions. We agree. While we recommend against the adoption of a general exemption from the reproduction right to render noninfringing all temporary copies that are incidental to lawful uses, a more carefully tailored approach is desirable.

We recommend that Congress enact legislation amending the Copyright Act to preclude any liability arising from the assertion of a copyright owner's reproduction right with respect to temporary buffer copies that are incidental to a licensed digital transmission of a public performance of a sound recording and any underlying musical work.

The economic value of licensed streaming is in the public performances of the musical work and the sound recording, both of which are paid for. The buffer copies have no independent economic significance. They are made solely to enable the performance of these works. The uncertainty of the present law potentially allows those who administer the reproduction right in musical works to prevent webcasting from taking place – to the detriment of other copyright owners, webcasters and consumers alike – or to extract an additional payment that is not justified by the economic value of the copies at issue. Congressional action is desirable to remove the uncertainty and to allow the activity that Congress sought to encourage through the adoption of the section 114 webcasting compulsory license to take place.

Although we believe that the fair use defense probably does apply to temporary buffer copies, this approach is fraught with uncertain application in the courts. This uncertainty, coupled with the apparent willingness of some copyright owners to assert claims based on the making of buffer copies, argues for statutory change. We believe that the narrowly tailored scope of our recommendation will minimize, if not eliminate, concerns expressed by copyright owners about potential unanticipated consequences.

Given our recommendations concerning temporary copies that are incidental to digital performances of sound recordings and musical works, fairness requires that we acknowledge the symmetrical difficulty that is faced in the online music industry: digital performances that are incidental to digital music downloads. Just as webcasters appear to be facing demands for royalty payments for incidental exercise of the reproduction right in the course of licensed public performances, it appears that companies that sell licensed digital downloads of music are facing demands for public performance royalties for a technical “performance” of the underlying musical work that allegedly occurs in the course of transmitting it from the vendor’s server to the consumer’s computer.

Although we recognize that it is an unsettled point of law that is subject to debate, we do not endorse the proposition that a digital download constitutes a public performance even when no contemporaneous performance takes place. If a court were to find that such a download can be considered a public performance within the language of the Copyright Act, we believe that arguments concerning fair use and the making of buffer copies are applicable to this performance

issue as well. It is our view that no liability should result from a technical “performance” that takes place in the course of a download.

3. Archival Exemption

a. Evaluation of Arguments Concerning the Scope of Section 117(a)(2)

Currently the archival exemption under section 117(a)(2) is limited to computer programs. This section allows the owner of a copy of a computer program to make or authorize the making of an additional copy of the program “for archival purposes,” provided that “all archival copies are destroyed in the event that continued possession of the computer program should cease to be rightful.” A number of arguments were advanced in the course of this study for an expansion of this archival exemption in order to cover the kind of routine backups that are performed on computers and to allow consumers to archive material in digital format other than computer programs.

Commenters asserted that consumers need to backup works in digital form because they are vulnerable. That was CONTU’s rationale for recommending that Congress create an exemption to permit archival copies of computer programs. In both cases, the vulnerability stems from the digital nature of the works. It would be perfectly consistent with the rationale of CONTU’s recommendations and Congress’ enactment of section 117 to extend the archival exemption to protect against the vulnerabilities that may afflict all works in digital format.

Evidence was presented to us noting that the archival exemption under section 117 does not permit the prevailing practices and procedures most people and businesses follow for backing up data on a computer hard drive. There is a fundamental mismatch between accepted, prudent practices among most system administrators and other users, on the one hand, and section 117 on the other. As a consequence, few adhere to the law.

While there is no question that this mismatch exists, nobody was able to identify any actual harm to consumers as a result of the limited scope of the archival exemption. Additionally, it was argued that the need to make archival copies of computer programs has diminished, because almost all software sold in the United States is distributed on CD-ROM, which itself serves as an archival copy in the event of hard drive problems or upgrades.

b. Recommendations Concerning the Archival Exemption

Although there has been a complete absence of any demonstrated harm to the prospective beneficiaries of an expanded archival exemption, and although we believe that a strong case could be made that most common archival activities by computer users would qualify as fair use, we have identified a potential concern – the interplay between sections 107 and 109. It appears that the language of the Copyright Act could lead a court to conclude that copies lawfully made under the fair use doctrine may be freely distributed under section 109.

Section 109 permits “the owner of a particular copy or phonorecord lawfully made” under title 17 to distribute that copy without the copyright owner’s permission. To the extent that

section 107 permits a user to make a backup copy of a work stored on a hard drive, that copy is lawfully made and the user owns it. Section 109, on its face, appears to permit the user to sell or otherwise dispose of the possession of that backup copy. The legislative history can be read to support either view.

We conclude that a statutory change is desirable, and recommend that Congress amend the copyright law in one of two ways.

Given the uncertain state of authority on the issue, we cannot conclude with a satisfactory level of certainty that a court will not, in the future, find a backup copy made by virtue of section 107 to be eligible for distribution under section 109. We believe that such a result is contrary to the intent of Congress and would have the capacity to do serious damage to the copyright owner's market. We therefore recommend that Congress either (1) amend section 109 to ensure that fair use copies are not subject to the first sale doctrine or (2) create a new archival exemption that provides expressly that backup copies may not be distributed. We express no preference as between the two options, and note that they are not mutually exclusive.

The first option would entail amending section 109(a) to state that only copies lawfully made *and lawfully distributed* are subject to the first sale doctrine. This proposed change would not preclude the distribution of copies made pursuant to the fair use doctrine since the exclusive right of distribution is equally subject to the fair use doctrine. It would, however, require that a separate fair use analysis be applied to the distribution of that copy.

The second option entails creating a new exemption for making backups of lawful copies of material in digital form, and amending section 117 to delete references to archival copies. The new exemption should follow the general contours of section 117(a)(2) and (b), and include the following elements: it should permit the making of one or more backup copies of a work. The copy from which the backup copies are made must be in digital form on a medium that is subject to accidental erasure, damage, or destruction in the ordinary course of its use. It should stipulate that the copies may be made and used solely for archival purposes or for use in lieu of the original copy. It should also specify that, notwithstanding the provisions of section 109, the archival copy may not be transferred except as part of a lawful transfer of all rights in the work. Finally, it should specify that the archival copies may not be used in any manner in the event that continued possession of the work ceases to be rightful.

4. *Contract Preemption*

The question of contract preemption was raised by a number commenters who argued that the Copyright Act should be amended to insure that contract provisions that override consumer privileges in the copyright law, or are otherwise unreasonable, are not enforceable. Although the general issue of contract preemption is outside the scope of this Report, we do note that this issue is complex and of increasing practical importance, and thus legislative action appears to be premature. On the one hand, copyright law has long coexisted with contract law. On the other hand, the movement at the state level toward resolving questions as to the enforceability of non-negotiated contracts coupled with legally-protected technological measures that give right holders the technological capability of imposing contractual provisions unilaterally, increases the

possibility that right holders, rather than Congress, will determine the landscape of consumer privileges in the future. Although market forces may well prevent right holders from unreasonably limiting consumer privileges, it is possible that at some point in the future a case could be made for statutory change.

INTRODUCTION

The Digital Millennium Copyright Act of 1998 (DMCA) was the most substantial revision of the nation's copyright law since the general revision enacted in 1976. What began as a more modest (though critically important) effort to implement two new treaties that addressed issues of copyright in the digital age became a far more comprehensive legislative project to address a range of issues, digital and non-digital. The debates, both inside and outside the Congress, that were generated by this legislation led to myriad proposals – some of which were enacted and some of which were not. As Representative Howard Coble, Chairman of the House Judiciary Subcommittee on Courts and Intellectual Property and one of the bill's chief sponsors in the House, stated when he brought the measure to the floor, the DMCA “is only the beginning of Congress' evaluation of the impact of the digital age on copyrighted works.”¹

The DMCA directed the Register of Copyrights to prepare this Report as part of Congress' continuing evaluation of the impact of the digital age on copyrighted works. It is the fourth such undertaking mandated by Congress in the DMCA. In 1999, the Copyright Office released a report on digital distance education, which included recommendations that are embodied in S. 487 in this Congress.² In 2000, the Copyright Office and the National Telecommunications and Information Administration of the Department of Commerce (NTIA) released a joint report on the effect of the prohibition on circumventing access control

¹ 144 Cong. Rec. H7092 (daily ed. Aug. 4, 1998) (statement of Rep. Coble).

² Copyright Office, Copyright Office Report on Copyright and Digital Distance Education (1999). The results of this study were presented to Congress on May 25, 1999 and are available at: www.loc.gov/copyright/docs/de_rprt.pdf. The text of S.487 is available at: thomas.loc.gov/cgi-bin/query/z?c107:S.487:.

technologies in section 1201(a)(1)(A) of title 17, and an exception to that prohibition in section 1201(g), on encryption research.³ Also in 2000, the Office completed a rulemaking required under section 1201(a)(1)(C) concerning an exemption from the section 1201(a)(1)(A) prohibition for noninfringing uses with respect to certain classes of works.

The focus of this Report is an evaluation of “the effects of the amendments made by [title I of the DMCA] and the development of electronic commerce and associated technology on the operation of sections 109 and 117 of title 17, United States Code; and the relationship between existing and emergent technology and the operation of sections 109 and 117”⁴ It is an outgrowth of proposals that were made contemporaneously with the consideration of the DMCA, but were not adopted in the law. Specifically, this Report focuses on two proposals that were characterized as vital to the continued growth of electronic commerce by their proponents: creation of a digital first sale doctrine to permit certain retransmissions of downloaded copies of works in digital form; and an exemption for certain digital reproductions that are incidental to the use of a copyrighted work in conjunction with a machine. One additional issue that was raised during the preparation of the Report, and appears to fall within the scope set forth by Congress in section 104 of the DMCA, is the appropriate breadth and formulation of the exception for making archival copies of computer programs in section 117.

³ The results of that joint Copyright Office and NTIA study were presented to Congress in May 2000 and are available at: www.loc.gov/copyright/reports/studies/dmca_report.html.

⁴ DMCA, Pub. L. No. 105-304, § 104(a), 112 Stat. 2860, 2876 (1998).

The DMCA contemplated that, like the report on encryption research, the present effort would be a joint report of the Copyright Office and NTIA. In March 2001, however, NTIA released its own report. This Report, consequently, is exclusively the work of the Copyright Office. All of the views expressed and the recommendations made are, necessarily, solely those of the Register of Copyrights.

I. BACKGROUND

A. THE DIGITAL MILLENNIUM COPYRIGHT ACT

The DMCA was “designed to facilitate the robust development and world-wide expansion of electronic commerce, communications, research, development, and education in the digital age.”⁵ The DMCA grew out of legislation introduced to implement the provisions of two treaties concluded in Geneva, Switzerland in December 1996. These two treaties – which are sometimes referred to as the “Internet Treaties” – updated international copyright norms to account for the advent of digital networks. Title I of the DMCA implements the treaties, “thereby bringing the U.S. copyright law squarely into the digital age and setting a marker for other nations who must also implement these treaties.”⁶ Congress crafted title I to “protect property rights in the digital world.”⁷

1. The WIPO Treaties

On December 20, 1996, at the conclusion of a three-week Diplomatic Conference held in Geneva, Switzerland, headquarters of the World Intellectual Property Organization (WIPO), delegations from 127 countries and the European Commission agreed on the text of two new treaties on copyright and neighboring rights: the WIPO Copyright Treaty (WCT) and the WIPO

⁵ S. Rep. No. 105-190, at 1-2 (1998).

⁶ *Id.* at 2.

⁷ Staff of House Committee on the Judiciary, 105th Cong., Section-by-Section Analysis of H.R. 2281 as Passed by the United States House of Representatives on August 4, 1998, at 2 (Comm. Print 1998) (Serial No. 6) (hereinafter House Manager’s Statement). As the Senate Judiciary Committee noted, “[due to the ease with which digital works can be copied and distributed worldwide virtually instantaneously, copyright owners will hesitate to make their works readily available on the Internet without reasonable assurance that they will be protected against massive piracy. Legislation implementing the treaties provides this protection and creates the legal platform for launching the global digital on-line marketplace for copyrighted works.” S. Rep. No. 105-190, at 8 (1998).

Performances and Phonograms Treaty (WPPT). The Diplomatic Conference was the culmination of a process that began formally in 1991 when a “Committee of Experts” was convened at WIPO to discuss a possible protocol to the Berne Convention for the Protection of Literary and Artistic Works (Berne)⁸.

Berne is the principal multilateral agreement for protecting copyrights internationally. Berne establishes minimum levels of protection that all member countries must grant to authors, and requires member countries to grant national treatment to authors from other member countries. The last general revision of Berne took place in 1971. Technological and legal developments during the intervening two decades made updating Berne an imperative in the international copyright community.

In addition, the United States sought to introduce the subject of improved protection for sound recordings into the early Berne Protocol discussions. Rather than incorporating the subject of protection for sound recordings in the Berne Protocol, it was placed on a parallel track that had as its goal the creation of a separate “new instrument” for the protection of performers and producers — reflecting the civil law tradition of protecting performers and producers of sound recordings under the separate rubric of neighboring rights (or related rights, as they are sometimes called), rather than copyright.

⁸ Berne Convention for the Protection of Literary and Artistic Works (Paris Act 1971).

In 1993, at the urging of the United States, the Committees of Experts on the Berne Protocol and the New Instrument began considering the possible need for new international norms to address the effects on copyright owners of digital technologies and the rapid growth of digital networks.⁹ The emergence and widespread use of these technologies exposed copyright owners to substantial risks of massive global piracy, while at the same time holding out the promise of new markets, new distribution channels and new means of licensing copyrighted works. In addition, digital technology created greater possibilities to use technological means to foil would-be infringers.

A central component of the “digital agenda” in the Berne Protocol and New Instrument discussions was to include in any new treaty a measure against the circumvention of technological measures employed by right holders to protect their rights. By 1993 it was widely recognized that, while use of technological measures to protect works was likely to become a critical element in a digital network environment, those measures were vulnerable to tampering. Widespread availability and use of devices or software for circumventing technological measures would imperil the right holder’s reproduction right and, ultimately, could serve to dissuade right holders from making their works available in digital form.

Proposals up to and including the documents prepared for the 1996 Diplomatic Conference focused on prohibiting the making and selling of devices, or provision of services,

⁹ *E.g.*, WIPO, Questions Concerning a Possible Protocol to the Berne Convention — Part III, New Items, WIPO Doc. No. BCP/CE/III/2-III at ¶¶74-75 (March 12, 1993).

for the purpose of circumvention. The obligation adopted by the Diplomatic Conference and set forth in Article 11 of the WCT and Article 18 of the WPPT is somewhat less precise. Rather than specifying the particular means of achieving the desired result — the prevention of circumvention of technological protection measures — the treaties require Contracting Parties to put in place adequate and effective legal measures for achieving that result.¹⁰ Contracting Parties are afforded a degree of flexibility in determining precisely how to implement this obligation within their respective legal systems, provided that the implementation is adequate and effective against circumvention.

2. Implementation of the WIPO Treaties in the DMCA

The Administration proposed and Congress adopted a minimalist approach in implementing the WCT and the WPPT in U.S. law.¹¹ In this context, “minimalist” was understood to mean that any provision of the treaty that was already implemented in U.S. law would not be addressed in new legislation. As to treaty obligations that were not adequately

¹⁰ Article 11 of the WCT states:

Contracting Parties shall provide adequate legal protection and effective legal remedies against the circumvention of effective technological measures that are used by authors in connection with the exercise of their rights under this Treaty or the Berne Convention and that restrict acts, in respect of their works, which are not authorized by the authors concerned or permitted by law.

Article 18 of the WPPT states:

Contracting Parties shall provide adequate legal protection and effective legal remedies against the circumvention of effective technological measures that are used by performers or producers of phonograms in connection with the exercise of their rights under this Treaty and that restrict acts, in respect of their performances or phonograms, which are not authorized by the performers or the producers of phonograms concerned or permitted by law.

¹¹ The U.S. took the same approach in implementing the Berne Convention in 1988. *See* H.R. Rep. No. 100-609, at 20 (1988).

addressed in existing U.S. law, new measures would have to be adopted in implementing legislation in order to satisfy these obligations.

Protection against circumvention was determined not to be adequately covered by U.S. law. Certain specific instances of circumvention were prohibited by federal law, such as unauthorized decryption of encrypted satellite signals and trafficking in the means to do so,¹² but coverage was not comprehensive. To the extent that circumvention requires reproduction of the work that is protected by a technological measure, an act of circumvention can constitute copyright infringement. In addition, some instances of providing devices that circumvent technological measures could constitute contributory copyright infringement, but those circumstances would be extremely narrow — confined essentially to those instances where the device used to circumvent has *no* substantial noninfringing uses.¹³ Consequently, new legislation was deemed necessary to implement the anticircumvention obligation in Article 11 of the WCT and Article 18 of the WPPT.¹⁴

a. *Section 1201 - Anticircumvention*

A principal means of addressing the risk of infringement in the digital age was to encourage copyright owners to help themselves by using technological measures to protect works

¹² 47 U.S.C. § 605.

¹³ *See Sony Corp. v. Universal City Studios, Inc.*, 464 U.S. 417, 442 (1984) (manufacture of a staple article of commerce such as a copying device is not contributory infringement if it is “merely . . . capable of substantial noninfringing uses”).

¹⁴ H.R. 2281, 105th Cong., 1st Sess. (1997); S. 1146, 105th Cong., 1st Sess. (1997).

in digital form. Section 1201 of the DMCA reinforces those technological measures through legal sanctions against those who circumvent them. Not only does section 1201 prohibit the manufacture and distribution of devices, and the rendering of services, for the purpose of circumventing technological measures that protect against unauthorized access to works, or unauthorized exercise of the rights of the copyright owner, it also addresses the conduct of circumventing a technological measure that protects access.

It was determined early in the legislative drafting process that a prohibition on the *devices and services* that enable circumvention (the original focus of the treaty proposals) would be a critical element in treaty implementation, notwithstanding the fact that the treaty obligation was formulated broadly enough to include, potentially, national laws directed at the *act* of circumventing technological protection measures. Since the act of circumvention frequently entails copyright infringement, or is immediately followed by an act of infringement, a legal prohibition focusing exclusively on the act of circumvention would add little to existing protections under copyright, and would suffer from the same practical difficulties in enforcement.¹⁵ Whether under copyright or under a specific prohibition on circumvention, a copyright owner's only recourse would be to detect individual violations by users of copyrighted works and bring a multitude of actions against the violators unfortunate enough to get caught. From a practical standpoint this outcome was viewed as an expensive, inefficient, and ultimately ineffective means of combating on-line infringement. By contrast, a prohibition on the

¹⁵ Cf. S. Rep. No. 105-190, at 12 (1998) (“The copyright law has long forbidden copyright infringements, so no new prohibition [on circumvention of copy control technologies] was necessary.”).

manufacture, import or sale of devices, or rendering of services, for the circumvention of technological measures can prevent infringement by keeping the tools that enable circumvention out of the hands of individual users.

In addition to ensuring that protection against circumvention would be adequate and effective as required by the treaties, the drafters of the implementing legislation sought to protect the countervailing interest of users in their continuing ability to engage in noninfringing uses of copyrighted works. The principal means of accomplishing this goal was to divide technological protection measures into two categories — measures that control access to a work and measures that control the exercise of exclusive rights with respect to a work— and to treat these categories differently.

Fair use and other exceptions and limitations to a copyright owner's exclusive rights are defenses to copyright infringement — that is, the unauthorized exercise of the copyright owner's exclusive rights. Technological measures that control or prevent the exercise of those exclusive rights (often referred to by the shorthand phrase “copy control measures”) thus have a direct relationship to fair use and other copyright exceptions. Activity that may be permitted under these exceptions could, nonetheless, result in liability under a prohibition on circumvention that included copy control measures. For this reason, the implementing legislation proposed by the Administration did not (and the DMCA does not) prohibit the conduct of circumventing of copy control measures.

By contrast, fair use and other copyright exceptions are not defenses to gaining unauthorized access to a copyrighted work: Quoting a manuscript may be a fair use; breaking into a desk drawer and stealing it is not.¹⁶ Circumventing access control measures was, therefore, prohibited in the Administration’s proposed implementing legislation.

As to both types of technological measures, trafficking in circumvention tools — devices and services that enable circumvention — was prohibited under the Administration proposal if those tools meet at least one of three statutory criteria relating to the purpose for which the tool is designed, the predominant commercially significant use of the tool and the purpose for which the tool is marketed. This basic structure was retained throughout the legislative process and has been enacted into law as part of the DMCA.¹⁷

b. *Section 1202 - Copyright Management Information*

In addition to the anticircumvention provisions of title I, Congress also found that U.S. law did not adequately meet the requirements of the WIPO treaties that require contracting states to prohibit the removal or alteration of copyright management information (CMI).¹⁸ As a

¹⁶ See H.R. Rep. No. 105-551, pt. 1, at 17 (1998) (“The act of circumventing a technological protection measure put in place by a copyright owner to control access to a copyrighted work is the electronic equivalent of breaking into a locked room in order to obtain a copy of a book.”) (House Judiciary Committee).

¹⁷ 17 U.S.C. § 1201

¹⁸ Article 12 of the WCT provides in relevant part:

Contracting Parties shall provide adequate and effective legal remedies against any person knowingly performing any of the following acts knowing, or with respect to civil remedies having reasonable grounds to know, that it will induce, enable, facilitate or conceal an infringement of any right covered by this Treaty or the Berne Convention:

- (i) to remove or alter any electronic rights management information without

consequence, Congress enacted a new section as part of title I of the DMCA implementing the obligation to protect the integrity of CMI.¹⁹ The scope of protection for this section is set out in two separate paragraphs, the first addressing false CMI²⁰ and the second prohibiting the removal or alteration of CMI. Subsection (a) prohibits the knowing provision or distribution of false CMI, if done with the intent to induce, enable, facilitate or conceal infringement. Subsection (b) bars the intentional removal or alteration of CMI without the authority of the copyright owner, as well as the dissemination of CMI or copies of works, knowing that the CMI has been removed or altered without authority. These provisions of the DMCA differ from other copyright provisions in title 17 in that they require that the act be done with knowledge or, with respect to civil remedies, with reasonable grounds to know that it will induce, enable, facilitate or conceal an infringement.

The implementation of these provisions to protect the integrity of CMI in U.S. law go beyond the minimum requirements in the two WIPO treaties.²¹ The law does not, however,

authority;

(ii) to distribute, import for distribution, broadcast or communicate to the public, without authority, works or copies of works knowing that electronic rights management information has been removed or altered without authority.

Article 19 of the WPPT contains nearly identical language.

¹⁹ 17 U.S.C. § 1202.

²⁰ Provision of false CMI is not prohibited under the WIPO treaties. A prohibition on false CMI was, however, proposed in an Administration white paper in 1995, and introduced in Congress that same year. Information Infrastructure task force, Intellectual Property and the National Information Infrastructure: The Report of the Working Group on Intellectual Property Rights 235-36 (1995); H.R. 2441, 104th Cong., 1st Sess. § 4 (1995); S. 1284, 104th Cong., 1st Sess. § 4 (1995). It appears these proposals carried over into the Administration proposal for treaty implementation and, ultimately, into the DMCA as enacted.

²¹ *See supra* note 20.

address the liability of persons who manufacture devices or provide services and it does not mandate the use of CMI or any particular type of CMI. It “merely protects the integrity of CMI if a party chooses to use it in connection with a copyrighted work.”²²

c. Origin of the Present Report

During the legislative process leading to the enactment of the DMCA, there were concerns raised about the adverse effects of these new protections on traditional noninfringing uses of copyrighted works that were privileged under limitations of the exclusive rights in the Copyright Act. In particular, concerns about the future viability of, *inter alia*, fair use and the first sale doctrine, and about liability for temporary incidental copies, were raised by segments of the public and Members of Congress.

One remedial method of addressing these concerns was the incorporation of a triennial rulemaking proceeding to be conducted by the Copyright Office.²³ This rulemaking process was created to examine whether section 1201(a)(1) has had or is likely to have any adverse effect on noninfringing uses of copyrighted works. It was intended to operate as a recurring means of monitoring the effect of section 1201(a)(1) on the market. Congress provided the Librarian of Congress with the regulatory authority to exempt “particular classes of works” for which users of copyrighted works were adversely affected in their ability to make noninfringing uses. On

²² House Manager’s Statement, *supra* note 7 at 20.

²³ *Id.* § 1201(a)(1)(C).

October 27, 2000, the results of the first rulemaking proceeding were published in the Federal Register.²⁴

Another response to the concerns about the continued applicability of the first sale doctrine in section 109 of the Copyright Act and the temporary reproductions that are incidental to lawful uses of works on digital equipment was a bill proposed by Representative Rick Boucher and Representative Tom Campbell (the “Boucher-Campbell bill”).²⁵ One of the changes suggested in this bill was a modification of section 109 to make the first sale privilege apply expressly to digital transmissions of copyrighted works.²⁶ Another section of the bill proposed amending section 117 of the Copyright Act to allow reproductions of digital works that were incidental to the operation of a device and that did not affect the normal exploitation of the work.²⁷ At that time, based on the evidence available to it, Congress did not adopt this proposal.

²⁴ 65 Fed. Reg. 64,556 (October 27, 2000). Exemption to Prohibition on Circumvention of Copyright Protection Systems for Access Control Technologies. Final rule.

²⁵ H.R. 3048, 105th Cong., 1st Sess. (1997).

²⁶

SEC. 4. FIRST SALE.

Section 109 of title 17, United States Code, is amended by adding the following new subsection at the end thereof:

(f) The authorization for use set forth in subsection (a) applies where the owner of a particular copy or phonorecord in a digital format lawfully made under this title, or any person authorized by such owner, performs, displays or distributes the work by means of transmission to a single recipient, if that person erases or destroys his or her copy or phonorecord at substantially the same time. The reproduction of the work, to the extent necessary for such performance, display, distribution, is not an infringement.

²⁷

SEC. 6. LIMITATIONS ON EXCLUSIVE RIGHTS.

(a) TITLE- The title of section 117 of title 17, United States Code, is amended to read as follows:

Instead Congress chose to have the Copyright Office and NTIA jointly conduct a study. In setting the parameters of this Report, however, the legislative history demonstrates that the scope of the Report was not intended to comprehend the full sweep of the proposals made in the Boucher-Campbell bill.²⁸

`Sec. Limitations on exclusive rights: Computer programs and digital copies`;

(b) DIGITAL COPIES—Section 117 of title 17, United States Code, is amended by inserting `(a)' before 'Notwithstanding' and inserting the following as a new subsection (b):

(b) Notwithstanding the provisions of section 106, it is not an infringement to make a copy of a work in a digital format if such copying--

(1) is incidental to the operation of a device in the course of the use of a work otherwise lawful under this title; and

(2) does not conflict with the normal exploitation of the work and does not unreasonably prejudice the legitimate interests of the author.'

²⁸ The Boucher-Campbell bill also included proposals on the following:

- expanding fair use to include uses by analog or digital transmission in connection with teaching, research, and other specified activities. The proposal was not acted on;
- expanding the rights of libraries and archives to reproduce and distribute copies or phonorecords to authorize three copies or phonorecords to be reproduced or distributed for preservation, security, or replacement purposes, and to permit such copies to be in digital form. This proposal, with some modifications, was enacted as section 404 of the DMCA;
- revising limitations on exclusive rights to provide for certain distance education activities. The DMCA directed the Register of Copyrights to study the issue of promoting distance education through digital technologies and provide recommendations to Congress. Copyright Office, "Report on Copyright and Digital Distance Education" (1999). Based in large part on recommendations made in the Copyright Office's Study, this proposal has now been taken up in S. 487, which passed the Senate and is currently pending in the House;
- preemption of terms in non-negotiated licenses that abrogate or restrict the limitations on exclusive rights in chapter 1 of the Copyright Act. This proposal was not acted on. See discussions *infra* at 69-71 and 162-164;
- copyright protection and management systems. These provisions were proposed as an alternative to the anticircumvention and CMI provisions of the DMCA. The DMCA version prevailed and was enacted.

In an amendment to H.R. 2281 offered by Representative Rick White and adopted by the House Commerce Committee, what was to become the joint study by the Copyright Office and NTIA was introduced into the DMCA. Section 205 of the House Commerce Committee proposal called for a broad evaluation of the copyright law and electronic commerce “to ensure that neither the copyright law nor electronic commerce inhibits the development of the other.”²⁹

By the time the bill reached the House floor on August 4, 1998, the language regarding the joint study by the Copyright Office and NTIA had been pared back to focus on an evaluation of “the impact of this title and the development of electronic commerce on the operation of sections 109 and 117 of title 17, and the relationship between existing and emerging technology

²⁹ *Id.* § 6 H.R. Rep.No. 105-551, pt. 2, at (1998) at 18.

SEC. 205. EVALUATION OF IMPACT OF COPYRIGHT LAW AND AMENDMENTS ON ELECTRONIC COMMERCE AND TECHNOLOGICAL DEVELOPMENT.

(a) FINDINGS—In order to maintain strong protection for intellectual property and promote the development of electronic commerce and the technologies to support that commerce, the Congress must have accurate and current information on the effects of intellectual property protection on electronic commerce and technology. The emergence of digital technology and the proliferation of copyrighted works in digital media, along with the amendments to copyright law contained in this Act, make it appropriate for the Congress to review these issues to ensure that neither copyright law nor electronic commerce inhibits the development of the other.

(b) EVALUATION BY SECRETARY OF COMMERCE—The Secretary of Commerce, in consultation with the Assistant Secretary of Commerce for Communications and Information and the Register of Copyrights, shall evaluate—

- (1) the effects of this Act and the amendments made by this Act on the development of electronic commerce and associated technology; and
- (2) the relationship between existing and emergent technology and existing copyright law.

(c) REPORT TO CONGRESS—The Secretary of Commerce shall, not later than 1 year after the date of the enactment of this Act, submit to the Congress a report on the evaluation conducted under subsection (b), including any legislative recommendations the Secretary may have.

on the operation of those provisions.”³⁰ This change makes it clear that Congress was not seeking a broad review of copyright and electronic commerce issues, but focused instead on two particular sections of the Copyright Act.

In explaining the reasons for examining section 109, the House Manager’s Statement stated that:

[t]he first sale doctrine does not readily apply in the digital networked environment because the owner of a particular digital copy usually does not sell or otherwise dispose of the possession of that copy. Rather, “disposition” of a digital copy by its owner normally entails reproduction and transmission of that reproduction to another person. The original copy may then be retained or destroyed. The appropriate application of this doctrine to the digital environment merits further evaluation and this section therefore calls for such an evaluation and report.”³¹

The reference to section 109 in the bill plainly refers back to the digital first sale proposal in the Boucher-Campbell bill. Although there is no similar legislative history explaining why section 117 is included in the Report, the most likely explanation is that it is an oblique reference to the proposed exception for incidental copies in section 6 of the Boucher-Campbell bill – particularly given the absence of any contemporaneous discussions concerning the scope of the computer program exemptions in section 117 (apart from title III of the DMCA). The Boucher-Campbell proposal on incidental copies would have been codified in section 117 of the Copyright Act.

³⁰ House Manager’s Statement, *supra* note 7, at 24. The conference committee made no substantive changes to the language of this section, which was ultimately enacted as section 104 of the DMCA.

³¹ *Id.*

As ultimately enacted, section 104 of the DMCA requires the Copyright Office and NTIA jointly to evaluate:

(1) the effects of the amendments made by this title and the development of electronic commerce and associated technology on the operation of sections 109 and 117 of title 17, United States Code; and

(2) the relationship between existing and emergent technology and the operation of sections 109 and 117 of title 17, United States Code.

B. SECTION 109 AND THE FIRST SALE DOCTRINE

Section 109 of the Copyright Act restates the principle commonly referred to as the “first sale doctrine.” Under the first sale doctrine a copyright owner does not retain the legal right to control the resale or other distribution of copies or phonorecords of a work that have already been lawfully sold. The first sentence of section 109(a) of the Copyright Act provides:

Notwithstanding the provisions of section 106(3), the owner of a particular copy or phonorecord lawfully made under this title, or any person authorized by such owner, is entitled, without the authority of the copyright owner, to sell or otherwise dispose of the possession of that copy or phonorecord.

It is this provision of the copyright law that permits sales of used books and CDs, lending of books and other copyrighted materials by libraries, and rentals of videocassettes, among other activities, without the need to obtain the permission of copyright owners or make royalty payments.

1. History of the First Sale Doctrine

The first sale doctrine was initially a judicial doctrine. In *Bobbs-Merrill Co. v. Straus*,³² the U.S. Supreme Court held that a copyright owner's exclusive right to "vend" did not permit it to impose a price limitation on the retail sale of books in the absence of any agreement as to the future sale price. In its interpretation of the reach of the vending right, the Court expressed doubt that Congress intended to abrogate the common-law principle that restraints on the alienation of tangible property are to be avoided. It posed and answered a series of rhetorical questions:

What does the statute mean in granting 'the sole right of vending the same'? Was it intended to create a right which would permit the holder of the copyright to fasten, by notice in a book or upon one of the articles mentioned within the statute, a restriction upon the subsequent alienation of the subject-matter of copyright after the owner had parted with the title to one who had acquired full dominion over it and had given a satisfactory price for it? It is not denied that one who has sold a copyrighted article, without restriction, has parted with all right to control the sale of it. The purchaser of a book, once sold by authority of the owner of the copyright, may sell it again, although he could not publish a new edition of it.³³

The Court drew a sharp distinction between the reproduction right and the right to vend. It noted, as a matter of statutory construction, that the reproduction right was the "main purpose" of the copyright law, and the right to vend existed to give effect to the reproduction right.³⁴ Since a grant of control to the copyright owner over resales would not further this main purpose of

³² 210 U.S. 339 (1908).

³³ *Id.* at 349-50.

³⁴ *Id.* at 350-51.

protecting the reproduction right, the Court was unwilling to read the statute as providing such a grant.³⁵

In our view the copyright statutes, while protecting the owner of the copyright in his right to multiply and sell his production, do not create the right to impose . . . a limitation at which the book shall be sold at retail by future purchasers, with whom there is no privity of contract. This conclusion is reached in view of the language of the statute, read in the light of its main purpose to secure the right of multiplying copies of the work True, the statute also secures, to make this right of multiplication effectual, the sole right to vend copies of the book To add to the right of exclusive sale the authority to control all future retail sales . . . would give a right not included in the terms of the statute, and, in our view, extend its operation, by construction, beyond its meaning, when interpreted with a view to ascertaining the legislative intent in its enactment.³⁶

The parties in *Bobbs-Merrill* also raised, and the Court of Appeals addressed, antitrust concerns. Although the Supreme Court did not address these concerns, it was undoubtedly aware of them,³⁷ and competition policy is viewed as one of the underlying bases for the first sale doctrine.³⁸

³⁵ *Id.*

³⁶ *Id.*

³⁷ “This conclusion renders it unnecessary to discuss other questions noticed in the opinion in the Circuit Court of Appeals, or to examine into the validity of the publisher’s agreements, alleged to be in violation of the acts to restrain combinations creating a monopoly or directly tending to the restraint of trade.” *Id.*

³⁸ See MELVILLE B. NIMMER & DAVID NIMMER, NIMMER ON COPYRIGHT §8.12[A] [hereinafter NIMMER].

2. Legislative History of Section 109

The year following the *Bobbs-Merrill* decision, Congress codified the first sale doctrine in the Copyright Act of 1909.³⁹ Section 109(a) of the Copyright Act of 1976 carried forward the existing federal policy of terminating a copyright owner’s distribution right as to a particular lawfully-made copy or phonorecord of a work after the first sale of that copy. The House Report explains:

Section 109(a) restates and confirms the principle that, where the copyright owner has transferred ownership of a particular copy or phonorecord of a work, the person to whom the copy or phonorecord is transferred is entitled to dispose of it by sale, rental, or any other means. Under this principle, which has been established by the court decisions and section 27 of the present law, the copyright owner's exclusive right of public distribution would have no effect upon anyone who owns “a particular copy or phonorecord lawfully made under this title” and who wishes to transfer it to someone else or to destroy it.⁴⁰

Section 109 creates a two-prong test for eligibility for the privileges⁴¹ under section 109.

First, the person must be the owner of the copy⁴² at issue. This applies to ownership of the

³⁹ Section 27 of the 1909 Copyright Act provided:

The copyright is distinct from the property in the material object copyrighted, and the sale or conveyance, by gift or otherwise, of the material object shall not of itself constitute a transfer of the copyright, nor shall the assignment of the copyright constitute a transfer of the title to the material object; *but nothing in this title shall be deemed to forbid, prevent, or restrict the transfer of any copy of a copyrighted work the possession of which has been lawfully obtained.*

17 U.S.C. § 27 (1977) (emphasis added).

⁴⁰ H.R. Rep. No. 94-1476, at 79 (1976) [“1976 House Report”].

⁴¹ Many of the commenters referred to the first sale doctrine as a “right.” This is an inartful term to describe the doctrine. Rights are guaranteed to individuals and are generally enforceable in court. The first sale doctrine is not an enforceable right from the standpoint of the owner of a copy – that is, there is no independent remedy if a person is effectively denied the benefits of section 109 through technological or contractual means. The first sale doctrine is a limitation to the scope of copyright; specifically it is a limitation to the distribution right of copyright owners.

⁴² For convenience, the term “copy” will be used with the understanding that it incorporates phonorecords as well.

tangible item (e.g., a book, photograph, videocassette, CD, floppy disc, etc.) in which a copyrighted work is fixed.⁴³ While ownership may be obtained by virtue of a sale, this prong is also satisfied if ownership is obtained by virtue of gift, bequest, or other transfer of title.⁴⁴ It does not apply to mere possession, regardless of whether that possession is legitimate, such as by rental, or illegitimate, such as by theft.⁴⁵ Nor does it refer to ownership of the copyright or of any of the exclusive rights.⁴⁶

Second, that copy must have been lawfully made. Ownership of a copy that is not authorized by either the copyright owner or the law, even if the owner is unaware of the piratical nature of the copy, does not permit the owner to avail himself of section 109.⁴⁷ Nothing in the statute limits the manner in which the making of the copy may be accomplished, so long as the resulting copy is lawful.

The statute does not distinguish between analog and digital copies. Consequently, it does not matter whether the work is embodied in an analog videocassette or a digital DVD – the copyright owner’s distribution right with respect to that particular copy is extinguished once

⁴³ Nimmer, *supra* note 38, at § 8.12[B][1].

⁴⁴ *Id.*

⁴⁵ *Id.*

⁴⁶ *Id.*

⁴⁷ Nimmer, *supra* note 38, at § 8.12[B][4].

ownership of the copy has been transferred, and the new owner is entitled to dispose of that copy as he desires.

3. Subsequent Amendments to Section 109

Congress has seen fit on three occasions to limit the effect of the first sale doctrine. In the Record Rental Amendment of 1984,⁴⁸ Congress amended section 109 to allow copyright owners of sound recordings and the musical works embodied therein to retain the exclusive right to dispose of a particular phonorecord by rental, lease or lending for purposes of direct or indirect commercial advantage, even after a lawful first sale of that phonorecord. The purpose of the amendment was to prevent the displacement of record sales by “rentals” that were, in fact, thinly-disguised opportunities for consumers to make personal copies of records without buying them.⁴⁹ In essence the so-called “rental right” serves to guard against infringement of the reproduction right. Congress extended the same concept to computer programs in the Computer Software Rental Amendments Act of 1990.⁵⁰ Both provisions have been incorporated into multilateral agreements and are now widely-accepted international standards.⁵¹

⁴⁸ Pub. L. No. 98-450, 98 Stat. 1727 (1984).

⁴⁹ H.R. Rep. No. 98-987, at 2. (1983).

⁵⁰ Title VII of the Judicial Improvements Act of 1990, Pub. L. No. 101-650, 104 Stat. 5089, 5134 (1990). Both the Record Rental Amendment and the Computer Software Rental Amendments Act are codified at 17 U.S.C. § 109(b).

⁵¹ Agreement on Trade-Related Aspects of Intellectual Property Rights (“TRIPS”), Articles 11 and 14.4 (1994); WIPO Copyright Treaty, Article 7 (1996); WIPO Performances and Phonograms Treaty, Articles 9 and 13 (1996).

Congress also limited the effect of the first sale doctrine when, in the course of implementing U.S. obligations under the TRIPS agreement in 1994, it extended copyright protection to certain preexisting works of foreign origin that had previously fallen into the public domain in the United States. Under section 109(a), as amended by the Uruguay Round Agreements Act,⁵² copies embodying certain restored copyrights may not be sold or otherwise disposed of without the authorization of the copyright owner more than twelve months after the person in possession of the copies receives actual or constructive notice that the copyright owner intends to enforce his rights in the restored work.

By the same token, Congress has, on one occasion, expanded the first sale doctrine to cover not only the distribution right, but the public performance and public display rights as well.⁵³ Although legislatively sunsetted on October 1, 1995, section 109(e) permitted the public performance or display of an electronic videogame intended for use in coin-operated equipment.⁵⁴

⁵² Pub. L. No. 103-465, 108 Stat. 4809, 4981 (1994).

⁵³ Section 109(c) also permits public display in limited circumstances: “Notwithstanding the provisions of section 106(5), the owner of a particular copy lawfully made under this title, or any person authorized by such owner, is entitled, without the authority of the copyright owner, to display that copy publicly, either directly or by the projection of no more than one image at a time, to viewers present at the place where the copy is located.” This provision permits, among other things, the display of a painting in a museum or public art gallery by the purchaser of the painting.

⁵⁴ Pub. L. No. 101-650, § 804(c), 104 Stat. 5089, 5136 (1990) was enacted as part of the Computer Software Rental Amendments of 1990 in order to overturn the result in *Red Baron-Franklin Park, Inc. v. Taito Corp.*, 883 F.2d 275 (4th Cir. 1989), *cert. denied*, 493 U.S. 1058 (1990), a case which held that a copyright owner could prevent the purchaser of gray market circuit boards containing a copyrighted videogame from performing the videogame in a video arcade.

C. SECTION 117 COMPUTER PROGRAM EXEMPTIONS

Section 117 of the Copyright Act limits the exclusive rights of copyright owners by allowing the lawful owner of a copy of a computer program to make or authorize the making of another copy or adaptation of that program only for archival purposes or if it is necessary as an essential step in the utilization of the program in conjunction with a machine.⁵⁵

⁵⁵ In its entirety, section 117 reads as follows:

§ 117. Limitations on exclusive rights: Computer programs

(a) Making of Additional Copy or Adaptation by Owner of Copy.-Notwithstanding the provisions of section 106, it is not an infringement for the owner of a copy of a computer program to make or authorize the making of another copy or adaptation of that computer program provided:

- (1) that such a new copy or adaptation is created as an essential step in the utilization of the computer program in conjunction with a machine and that it is used in no other manner, or
- (2) that such new copy or adaptation is for archival purposes only and that all archival copies are destroyed in the event that continued possession of the computer program should cease to be rightful.

(b) Lease, Sale, or Other Transfer of Additional Copy or Adaptation.-Any exact copies prepared in accordance with the provisions of this section may be leased, sold, or otherwise transferred, along with the copy from which such copies were prepared, only as part of the lease, sale, or other transfer of all rights in the program. Adaptations so prepared may be transferred only with the authorization of the copyright owner.

(c) Machine Maintenance or Repair.-Notwithstanding the provisions of section 106, it is not an infringement for the owner or lessee of a machine to make or authorize the making of a copy of a computer program if such copy is made solely by virtue of the activation of a machine that lawfully contains an authorized copy of the computer program, for purposes only of maintenance or repair of that machine, if-

- (1) such new copy is used in no other manner and is destroyed immediately after the maintenance or repair is completed; and
- (2) with respect to any computer program or part thereof that is not necessary for that machine to be activated, such program or part thereof is not accessed or used other than to make such new copy by virtue of the activation of the machine.

(d) Definitions.-For purposes of this section-

- (1) the "maintenance" of a machine is the servicing of the machine in order to make it work in accordance with its original specifications and any changes to those specifications authorized for that machine; and

In addition, pursuant to an amendment contained in title III of the DMCA,⁵⁶ section 117 permits the owner or lessee of a machine to make or authorize the making of a temporary copy of a computer program if such copy is made solely by virtue of the activation of a machine that lawfully contains an authorized copy of the computer program, for purposes of maintenance or repair of that machine. The exemption only permits a copy that is made automatically when a computer is activated, and only if the computer already lawfully contains an authorized copy of the program. The new copy cannot be used in any other manner and must be destroyed immediately after the maintenance or repair is completed.

1. Legislative History of Section 117

a. Recommendations of CONTU

The transformation of section 117 into its current form dealing with computer programs began in the 1970s. When the 1976 Act took effect on January 1, 1978, Congress' approach to problems relating to computer uses of copyright works was still "not sufficiently developed for a definitive legislative solution."⁵⁷ Congress enacted what was commonly referred to as a "moratorium" provision in section 117, which preserved the status quo on December 31, 1977 (i.e., the day before the 1976 Copyright Act became effective) as to use of copyrighted works in conjunction with computers and similar information systems.⁵⁸

(2) the "repair" of a machine is the restoring of the machine to the state of working in accordance with its original specifications and any changes to those specifications authorized for that machine.

⁵⁶ Computer Maintenance Competition Assurance Act, Pub. L. No. 105-304, 112 Stat. 2860, 2886 (1998), codified at 17 U.S.C. § 117.

⁵⁷ 1976 House Report, *supra* note 40, at 116.

⁵⁸ *Id.* at 19. Former section 117 provided:

Notwithstanding the provisions of sections 106 through 116 and 118, this title does not afford to

Congress stated at that time that it would look to the National Commission on New Technological Uses of Copyrighted Works (CONTU) to “recommend definitive copyright provisions to deal with the situation.”⁵⁹ CONTU was created in 1974⁶⁰ to assist the President and Congress in developing a national policy for both protecting the rights of copyright owners and ensuring public access to copyrighted works when they are used in computer and machine duplication systems, bearing in mind the public and consumer interest.

Between CONTU’s inception in 1974 and the issuance of its final report on July 31, 1978, the 1976 Copyright Act was enacted and became effective.⁶¹ The final report recommended that section 117 as enacted in 1976 be repealed in its entirety to ensure that the generally applicable copyright rules set forth in the 1976 Copyright Act apply to all computer uses of copyrighted works.⁶² In addition, CONTU proposed that the Act be amended: (1) to define “computer program”;⁶³ (2) to ensure that rightful possessors of copies of computer programs may use or adapt these copies for their use, because “placement of a work into a

the owner of copyright in a work any greater or lesser rights with respect to the use of the work in conjunction with automatic systems capable of storing, processing, retrieving, or transferring information, or in conjunction with any similar device, machine or process, than those afforded to works under the law, whether title 17 or the common law or statutes of a State, in effect on December 31, 1977, as held applicable and construed by a court in action brought under this title.

⁵⁹ 1976 House Report, *supra* note 40, at 116.

⁶⁰ Pub. L. No. 93-573, 88 Stat. 1873 (1974).

⁶¹ Final Report of the National Commission on New Technological Uses of Copyrighted Works 3-4 (1979) [hereinafter CONTU Report]. Although the report was issued in 1978, it was published in 1979.

⁶² *Id.* at 12-13.

⁶³ Congress had already made it clear in legislative history that computer programs, to the extent that they embody a programmer’s original expression, were protected under copyright within the category of “literary works.” 1976 House Report, *supra* note 40, at 54.

computer is the preparation of a copy;”⁶⁴ and (3) to permit rightful possessors of computer programs to make archival (backup) copies of programs to “guard against destruction or damage by mechanical or electrical failure.”⁶⁵

b. *The 1980 Computer Software Copyright Amendments*

Congress adopted CONTU’s recommendations in the Computer Software Copyright Amendments of 1980 with few changes.⁶⁶ The House Report accompanying the 1980 amendments did not explain the intent of the legislation, other than to “implement the recommendations of the [CONTU] Commission with respect to clarifying the law of copyright of computer software.”⁶⁷ In the absence of a substantive discussion in the committee report, some courts have treated the CONTU Report as the legislative history of the 1980 amendments to the Copyright Act.⁶⁸ Other courts have expressed scepticism regarding the use of a report by an independent commission as evidence of congressional intent.⁶⁹

⁶⁴ CONTU Report, *supra* note 61, at 13.

⁶⁵ *Id.*

⁶⁶ Pub. L. No. 96-517, 94 Stat. 3015, 3028 (1980). Congress changed “rightful possessor” to “owner.”

⁶⁷ H.R. Rep No. 96-1307, pt. I (1980).

⁶⁸ *See, e.g., Apple Computer, Inc. v. Formula Int’l, Inc.*, 725 F.2d 521, 525 (9th Cir. 1984) (employing CONTU Report as legislative history of the 1980 amendments); *Apple Computer, Inc. v. Franklin Computer Corp.*, 714 F.2d 1240, 1247-48, 1252 (3^d Cir. 1983)(same).

⁶⁹ *See, e.g., Lotus Dev. Corp. v. Borland Int’l., Inc.*, 788 F. Supp. 78, 93 (D. Mass. 1992), *rev’d on other grounds*, 49 F.3d 807 (1st Cir. 1995), *aff’d by an equally divided Court*, 116 S. Ct. 804 (1996).

As enacted in 1980, section 117 permits the owner of a copy of a computer program to make an additional copy of the program for archival purposes⁷⁰, or where the making of such a copy is “an essential step in the utilization of the computer program in conjunction with a machine and . . . is used in no other manner”⁷¹

c. The Computer Maintenance Competition Assurance Act of 1998

Section 117 was further amended by title III of the DMCA, the Computer Maintenance Competition Assurance Act of 1998. The amendment was intended to “provide a minor, yet important, clarification in section 117 of the Copyright Act to ensure that the lawful owner or lessee of a computer machine may authorize an independent service provider, a person unaffiliated with either the owner or lessee of the machine, to activate the machine for the sole purpose of servicing its hardware components.”⁷² Title III was prompted by the outcome in *MAI Systems Corp. v. Peak Computer, Inc.*⁷³ and other cases that had held an independent service organization liable for copyright infringement by virtue of loading operating system software into a computer’s RAM when a technician switched the computer on in order to repair or maintain it. Rather than addressing the general question of temporary copies as proposed in some contemporaneous bills,⁷⁴ title III of the DMCA narrowly overturned the outcome of *MAI v. Peak*

⁷⁰ “Archival purposes,” in this context, was intended to mean the backing up of copies by users, not for the purposes of, for example, expanding a library’s archival collection.

⁷¹ 17 U.S.C. § 117(a)(1).

⁷² 144 Cong. Rec. S11890 (daily ed. Oct. 8, 1998) (statement by Sen. Leahy).

⁷³ 991 F.2d 511, *cert. dismissed*, 114 S. Ct. 671 (1994).

⁷⁴ *See* discussion of the Boucher-Campbell bill, *supra* at 15.

with respect to independent service organizations, leaving the underlying holding with respect to temporary copies intact.

2. Judicial Interpretation of Section 117

Courts have interpreted the section 117 exceptions narrowly. For example, in *Sega Enterprises Ltd. v. Accolade, Inc.*,⁷⁵ the Ninth Circuit held that copying a computer program into memory in order to disassemble it was a use that “went far beyond that contemplated by CONTU and authorized by section 117.”⁷⁶ Regarding the archival exemption, one court has held that section 117 does not excuse the making of purported backup copies of a videogame embodied in ROM, because that particular storage medium is not vulnerable to “damage by mechanical or electrical failure.”⁷⁷

⁷⁵ 977 F.2d 1510 (9th Cir. 1992).

⁷⁶ *Id.* at 1520.

⁷⁷ *Atari, Inc. v. J S & A Group, Inc.*, 597 F. Supp. 5, 9-10 (N.D. Ill. 1983).

II. VIEWS OF THE PUBLIC

A. SOLICITATION OF PUBLIC COMMENTS

In order to focus the issues involved in this Report, and to provide information and assistance to the Copyright Office and NTIA, the two agencies sought both written comments and oral testimony from the public. This process of public consultation commenced with the publication of a Notice of Inquiry in the Federal Register on June 5, 2000.⁷⁸

The Notice of Inquiry sought comments and reply comments in connection with the effects of the amendments made by title I of the DMCA and the development of electronic commerce on the operation of sections 109 and 117 of title 17, United States Code, and the relationship between existing and emerging technology and the operation of such sections.⁷⁹

In response to the Notice of Inquiry, we received thirty initial comments and sixteen reply comments.⁸⁰ Of those thirty initial comments, twenty-one dealt with section 109 and twelve dealt with section 117. Of the sixteen replies (to the initial comments), thirteen dealt with section 109 and eight dealt with section 117.

⁷⁸ 65 Fed Reg 35,673 (June 5, 2000).

⁷⁹ *Id.* For a more complete statement of the background and purpose of the inquiry, see the Notice of Inquiry which is available on the Copyright Office's website at: www.loc.gov/copyright/fedreg/65fr35673.html.

⁸⁰ The comments and replies have been posted on the Office's website; *see* www.loc.gov/copyright/reports/studies/dmca/comments/ and www.loc.gov/copyright/reports/studies/dmca/reply/, respectively.

On October 24, 2000, the two agencies published a notice of public hearing in the Federal Register.⁸¹ At this public hearing, held at the Copyright Office on November 29, 2000, the two agencies inquired into points made in the written comments and focused on a series of specific questions. The information received from the written comments, as well as from the testimony of witnesses at the November 2000 public hearing, is summarized here.⁸²

B. VIEWS CONCERNING SECTION 109⁸³

1. The Effect of Section 1201 Prohibitions on the Operation of the First Sale Doctrine

There was a dramatic range of opinions in the many comments addressing this question. Most commenters believed that the anticircumvention provisions of 17 U.S.C. § 1201 provided copyright owners with the ability to restrict the operation of the first sale doctrine. A few of these commenters did not elaborate on this assertion. Those who did expressed many different views on precisely how the rule against the circumvention of technological protection measures restricts the operation of the first sale doctrine, and how severe that effect is.

⁸¹ 65 Fed Reg 63,626 (October 24, 2000).

⁸² Summaries of testimony are available on the Copyright Office website at www.loc.gov/copyright/reports/studies/dmca/testimony/hearings.html; a full transcript of the public hearing is available at www.loc.gov/copyright/reports/studies/dmca/testimony/transcript.pdf.

⁸³ In referring to the comments and hearing materials, we will use the following abbreviations: C-Comment, R-Reply Comment, WST-Written Summary of Testimony, T + speaker-Hearing Transcript. Citations to page numbers in the hearing transcript are to the PDF version of the transcript on the Copyright Office website: www.loc.gov/copyright/reports/studies/dmca/testimony/transcript.pdf.

Among those who believed that section 1201 limits first sale, the majority of comments focused on one of two practical concerns surrounding the market for DVDs. The first addressed the proprietary encryption scheme known as the Content Scrambling System⁸⁴ (CSS) that is used on commercial DVDs, and the requirement that manufacturers be licensed to produce DVD players. The second addressed the practice known as region coding.⁸⁵

Most commercially released motion pictures on DVD, as noted by many commenters, are encrypted using CSS. Some commenters noted further that the only devices that are authorized to decrypt DVDs are DVD players that have been manufactured under a license from the consortium (which includes the major motion picture studios) that owns the rights to CSS.⁸⁶ As a result, the commenters complained, they are required to make two purchases in order to view a single DVD (i.e., the DVD and the player).⁸⁷ Certain commenters suggested that the practice of requiring a licensed player in order to view a DVD amounts to a violation of antitrust law.⁸⁸

But for the anticircumvention law, it would be permissible for a person to use an unauthorized decryption program to view DVDs on devices other than authorized players, such

⁸⁴ CSS is the technological protection measure adopted by the motion picture industry and consumer electronics manufacturers to provide security to copyrighted content of DVDs and to prevent unauthorized copying of that content. Motion Picture Association of America website: www.mpa.org/Press, visited on May 1, 2001.

⁸⁵ See discussion *infra*, at 36.

⁸⁶ C-Arromdee, at 1.

⁸⁷ C-Taylor, at 1.

⁸⁸ C-National Association of Recording Merchandisers, Inc. (NARM) and the Video Software Dealers Association, Inc. (VSDA), at 29-30.

as personal computers, if necessary. Such a program was found in violation of section 1201 in a highly publicized court case.⁸⁹ Some commenters discussed the case in great detail in their comments.⁹⁰

The implication of the complaint about the CSS encryption code is that by enabling copyright owners to compel users to purchase a licensed DVD player, the value of a DVD is reduced. It is, argued some commenters, a requirement that each subsequent owner of a DVD obtain a new authorization to view the contents of that work.⁹¹ That, in turn, means that the value of the first sale doctrine as applied to DVDs is reduced or eliminated. Thus, as applied to the market for DVDs, these commenters argued that the operation of the first sale doctrine has been obstructed by the rules against circumvention of technological protection measures.⁹²

The concerns about region coding of DVDs are similar in nature. Region coding is a technological means of preventing DVDs manufactured for sale in one region of the world from playing on a DVD player that is manufactured for sale in a different region of the world. The result is that a DVD purchased in Asia cannot be viewed on a licensed DVD player purchased in the United States.⁹³ Were unauthorized circumvention permissible, region coding could be

⁸⁹ See *Universal City Studios, et al. v. Reimerdes*, 82 F. Supp. 2d 211 (S.D.N.Y. 2000). The case is presently on appeal to the Second Circuit. *Universal City Studios, et al. v. Corley*, docket #00-9185.

⁹⁰ C-Thau and Taylor, at 4 *et seq.*

⁹¹ *E.g.*, C-Taylor, at 1.

⁹² *E.g.*, C-Arromdee, at 1.

⁹³ Some DVD players can be switched from one region setting to another, but the user may only switch a few times before being permanently locked into a region.

defeated. These commenters argued that region coding reduces the value of the first sale doctrine by limiting the market for resale of a DVD. And because the anticircumvention rules prevent users from defeating region coding, these commenters argued that those rules are interfering with the operation of the first sale doctrine.⁹⁴

Others who believe that prohibitions on circumvention of technological protection measures have restricted the operation of the first sale doctrine were more general in their comments. One representative sample is a comment which noted that access controls that permit access on only a single device are likely to interfere with the exercise of the first sale doctrine.⁹⁵ This comment also addressed other situations, noting that access controls sometimes limit the amount of a work that is viewable at any time. While acknowledging that this serves a reasonable anti-piracy purpose, the comment also noted that such a practice makes it less likely that the user will exercise the first sale privilege. This is because in order to obtain a complete tangible copy of the work the user will have to separately print out numerous small portions.⁹⁶ This comment also observed that while files that require a password to gain access may not be limited to one device, transfer of the password, or “key,” may be restricted in a way that prevents transfer of a file in a usable form.⁹⁷

⁹⁴ *E.g.*, C-LXNY, at 1.

⁹⁵ C-Computer Professionals for Social Responsibility (CPSR), at 2.

⁹⁶ *Id.* at 3, 5.

⁹⁷ *Id.* at 4.

That final point was echoed by a number of commenters. Their concern was that the non-negotiable licenses which are offered to users of copyrighted works are written to reduce or eliminate the availability of statutorily permitted uses, including uses permitted under section 109.⁹⁸ These terms may be enforced through technological protection measures. Thus, they argued, the rules against circumvention of such measures hamper the operation of the first sale doctrine.⁹⁹ This concern was particularly evident among users of computer software, who decried so-called shrinkwrap and click-wrap licenses.¹⁰⁰ A few commenters delved into a discussion of the relative merits of the Uniform Computer Information Transactions Act¹⁰¹ (UCITA) – legislation that is currently being considered in numerous state legislatures, that would validate the enforceability of shrinkwrap and click-wrap licenses.¹⁰²

⁹⁸ *E.g.*, C-American Library Association, American Association of Law Libraries, Association of Research Libraries, Medical Library Association, and Special Libraries Association (Library Ass'ns), at 5-7.

⁹⁹ *Id.*

¹⁰⁰ Shrinkwrap and click-wrap licenses are terms used to describe the non-negotiable licensing terms that are sometimes placed on consumer packaging of copyrighted works, particularly software, in lieu of a simple sale of that copy of the work. The names derive from the practice of demonstrating users' assent to the terms by virtue of their tearing open the plastic shrinkwrap packaging or clicking an "agree" button with a mouse.

¹⁰¹ The Uniform Computer Information Transactions Act (UCITA), according to the National Conference of Commissioners on Uniform State Laws, represents the first comprehensive uniform computer information licensing law. This act uses the accepted and familiar principles of contract law, setting the rules for creating electronic contracts and the use of electronic signatures for contract adoption – thereby making computer information transactions as well-grounded in the law as traditional transactions. National Conference of Commissioners on Uniform State Laws website: www.nccusl.org/uniformact_factsheets/uniformacts-fs-ucita.htm, visited on May 2, 2001.

¹⁰² *E.g.*, C-Lyons, at 3-5; R-Software and Information Industry Association (SIIA), at 10-11.

Similar concerns were also raised in the submission of the library associations.¹⁰³ They expressed concern that rules against circumvention give copyright owners the ability to maintain a running control on access to and copying of their works.¹⁰⁴ This, they argued, frustrates the goal of the first sale doctrine, by extending the rights of the copyright owner beyond the first sale of a particular copy.¹⁰⁵ As tangible examples of how this interference in the operation of the first sale doctrine might inhibit the functioning of a library, they gave several examples including interlibrary loan programs, preservation, and accepting donations of works.¹⁰⁶ All of these, they argued, have become difficult or impossible as a result of the intersection of licensing terms, technological measures and restrictions on circumvention.¹⁰⁷

Other commenters had varying explanations for their belief that anticircumvention rules have hampered the first sale doctrine. For example, one commenter argued that anticircumvention rules limit the user's ability to make copies, which effectively precludes users from benefitting from the first sale doctrine.¹⁰⁸

A few commenters stated that the rules against circumvention have little or no effect on the first sale doctrine. One commenter, for example, opined that such rules are irrelevant

¹⁰³ C-Library Ass'ns, at 4-7.

¹⁰⁴ *Id.*

¹⁰⁵ *Id.*

¹⁰⁶ *Id.* at 10-19.

¹⁰⁷ *Id.*

¹⁰⁸ C-Van De Walker, at 2.

because they are essentially unenforceable.¹⁰⁹ Others argued that it is simply too soon in the evolution of this field to know.¹¹⁰ They noted, however, that with time that condition may change.

A significant number of commenters expressed the view that prohibitions on circumvention of technological protection measures, particularly in the online environment, have had no effect on the operation of the first sale doctrine because the first sale doctrine is inapplicable to digital transmissions.¹¹¹ Several of these comments sought to respond to the concerns previously mentioned. For example, one commenter argued that concerns about copyright owners locking up works behind technological protection measures are without merit, because doing so would be a doomed business strategy.¹¹² That commenter also argued that the licensing of DVD players in no way disadvantaged consumers.¹¹³ Further, that commenter asserted that analysis of the effect of licensing terms is beyond the scope of this Report.¹¹⁴

¹⁰⁹ C-Stanford Linear Accelerator Center (SLAC), at 1.

¹¹⁰ C-Digital Media Association (DiMA), at 7-9; C-Anthony, at 1.

¹¹¹ *E.g.*, R-Reed Elsevier Inc., at 5-8.

¹¹² R-Time Warner Inc., at 1-2.

¹¹³ *Id.* at 2.

¹¹⁴ *Id.* at 4.

2. The Effect of Section 1202 Prohibitions on the Operation of the First Sale Doctrine

The overwhelming number of commenters that expressed a view on this issue stated that there has not been any effect on the operation of the first sale doctrine as a result of the protections for copyright management information.¹¹⁵ However, the library associations argued that when combined with technological protection measures and licensing limitations, copyright management information can give the copyright owner the ability to monitor and prohibit uses that are permissible under the law.¹¹⁶ They were also concerned that such technology can give the copyright owner access to personal information about users, such as ‘cookies’,¹¹⁷ that chills use of the work.¹¹⁸ One commenter argued that protections for copyright management information limit the utility of the first sale doctrine because they prevent the owner of the copy from removing what he referred to as the “packaging” of the work.¹¹⁹

¹¹⁵ See, e.g., C-SLAC, at 1; C-McGown, at 1; C-DiMA, at 9.

¹¹⁶ C-Library Ass’ns, at 7-10.

¹¹⁷ A “cookie” is information that is stored by Internet browsing software on a user’s hard drive in response to an automated request by a web server. A subsequent automated request by a web server can instruct the browsing software to transmit that information back to the server.

¹¹⁸ C-Library Ass’ns, at 7-10.

¹¹⁹ C-Thomason, at 1.

3. The Effect of the Development of Electronic Commerce and Associated Technology on the Operation of the First Sale Doctrine.

One commenter simply found that the development of electronic commerce and associated technology has had no effect on the first sale doctrine.¹²⁰ Another believed that it was too soon to tell what the effect will be.¹²¹

The library associations argued that with the increase in distribution of copyrighted works online, it is less likely that a user will purchase a copy. Rather, they foresee that the user will be licensed to access a work online.¹²² One result of this change, they argued, is that the first sale doctrine will not apply to online access.¹²³ They also argued that it permits copyright owners to create a price structure wherein entities that cannot afford the best version of the work must settle for a less expensive and less desirable version.¹²⁴

Other commenters took that sentiment further, arguing that particularly in the e-commerce sphere, technology can now be used by copyright owners to circumvent constitutional and legislative limitations on the distribution right to the point of copyright misuse and/or antitrust violations.¹²⁵

¹²⁰ C-McGown, at 1.

¹²¹ C-DiMA, at 9-11.

¹²² C-Library Ass'ns, at 10-19.

¹²³ *Id.*

¹²⁴ *Id.*

¹²⁵ *See* C-NARM/VSDA, at 29-30, 37.

One copyright owner commented that new technology has made infringement of copyright easier and that a change in the existing level of protection for copyrighted works (such as expanded first sale privilege) could be disastrous for copyright owners.¹²⁶

4. The Relationship Between Existing and Emergent Technology, on One Hand, and the First Sale Doctrine, on the Other

Relatively few commenters addressed this issue directly. Of those who did, most commenters believed that there is no relationship between existing and emergent technology and the first sale doctrine.¹²⁷ Some argued that technology is being used to defeat the first sale doctrine, as discussed above.¹²⁸ Another commenter noted that the first sale doctrine applies to tangible copies, not to the streaming or downloading of works.¹²⁹

5. The Extent to Which the First Sale Doctrine Is Related To, or Premised On, Particular Media or Methods of Distribution

Many comments indicated that the first sale doctrine is not premised on any particular media or methods of distribution.¹³⁰ Some noted that the first sale doctrine is premised on older

¹²⁶ R-Time Warner Inc., at 1.

¹²⁷ *E.g.*, C-McGown, at 1; C-Library Ass'ns, at 19.

¹²⁸ C-Library Ass'ns, at 10-19.

¹²⁹ C-Time Warner Inc., at 2-3.

¹³⁰ *E.g.*, C-McGown, at 1; C-Taylor, at 5.

technology which provided greater impediments to the transfer of works than modern technology.¹³¹ Others observed that the first sale doctrine is based on tangible copies.¹³²

6. The Extent, if Any, to Which the Emergence of New Technologies Alters the Technological Premises upon Which the First Sale Doctrine Is Established

As with the previous issues, many of the commenters indicated that new technology does not alter the technological premises upon which the first sale doctrine is established. One commenter stated that new technology has made copyright laws obsolete and ineffective because of the impossibility of enforcement.¹³³ Several commenters noted that while new technology has not altered the premises of the first sale doctrine, the legislative codification of that doctrine may need to be periodically updated to continue the proper application of the first sale doctrine to new technology.

7. The Need, if Any, to Expand the First Sale Doctrine to Apply to Digital Transmissions

The comments on this issue were both voluminous and passionate. They can be divided into two starkly contrasting groups: those arguing that section 109 should be amended to permit the digital transmission of works that were lawfully acquired (including the reproduction of the work as a part of the transmission process) and those opposing modification of section 109.

¹³¹ C-SIIA, at 6; C-SLAC, at 2.

¹³² C-Time Warner Inc., at 3; C-Anthony, at 2-3.

¹³³ C-SLAC, at 2-3.

Some of the commenters argued that digital transmissions are already permitted by the existing language of section 109.¹³⁴ This is because in obtaining the “source” copy, a user receives a transmission and upon completion of that transmission, there exists a copy of the work in tangible form. They dismissed concerns about additional copies being made when the first purchaser transmits the work to a second as being incidental to the transmission process. A legislative change that they seek is to amend section 1201 to allow circumvention of technological protection measures which prevent the operation of the first sale doctrine.¹³⁵

Other commenters argued that the current language of section 109 could be read to apply to digital transmissions (although some conceded that a “formalistic” reading of section 109 does not), but sought legislative clarification to codify this conclusion.¹³⁶ Many commenters referred to the Boucher-Campbell bill¹³⁷ as a model for the changes they would like to see made to section 109.¹³⁸

The commenters supporting changes to section 109 argued that copyright law has always been interpreted to be technology neutral, and that in order to be faithful to that tradition, the first sale doctrine should be updated to apply to digital transmissions.¹³⁹ They noted that the policy

¹³⁴ C-NARM/VSDA, at 36-37.

¹³⁵ *Id.*

¹³⁶ R-Library Ass’ns, at 1-2.

¹³⁷ H.R. 3048, 105th Cong., 1st Sess. (1997).

¹³⁸ *E.g.*, C-Digital Future Coalition (DFC), at 3.

¹³⁹ *Id.*

behind the first sale doctrine was to prevent restraints on the alienability of property in order to promote the continual flow of property in society.¹⁴⁰ They argued further that the first sale doctrine has, for nearly a century, promoted economic growth and creativity, and should be extended into the digital environment.¹⁴¹ In anticipation of counter-arguments that such an extension would be an invitation to infringement, they argued that technological protection measures and copyright management information can be used in concert to guarantee that when a user transmits the work, the “source” copy is deleted.¹⁴² They also asserted that this technology exists now. Additionally, some argued that without a clear application of the first sale doctrine to digital transmissions, circumvention technology will gain in popularity.¹⁴³

The library associations sought specific amendments to section 109 to address the concerns unique to libraries relating to interlibrary loans, preservation/archiving, accepting donated works, and other activities.¹⁴⁴

There were a few other views supporting such a change as well. One commenter argued that while the copyright law is no longer relevant and the expansion of section 109 is not technologically necessary, the principles of copyright law should apply evenly.¹⁴⁵ Another

¹⁴⁰ C-NARM /VSDA, at 9.

¹⁴¹ C-Home Recording Rights Coalition (HRR), at 2-3.

¹⁴² *Id.* at 5.

¹⁴³ R-DiMA, at 6-7.

¹⁴⁴ C-Library Ass'ns, at 11-19.

¹⁴⁵ C-SLAC, at 3.

commented that first sale principles should also apply to the transmission of encryption “keys” so as to prevent technological protection measures from inhibiting exercise of the first sale right while still providing protection against infringement.¹⁴⁶

Those who opposed the amendment of section 109 argued that the requested changes do not merely update the long-standing first sale doctrine to accommodate new technology, but expand the first sale doctrine well beyond its previous scope.¹⁴⁷ To date, the first sale doctrine has, with limited exceptions,¹⁴⁸ always been a limitation on only the distribution right. Commenters from the copyright industries noted that in order to transfer a copy of a work from one person to another by digital transmission it is necessary for copies to be made, thus implicating the reproduction right.¹⁴⁹ They asserted too that the transfer may also involve a performance of the work, implicating the public performance right or for sound recordings, the digital audio transmission right.¹⁵⁰

Those opposed to amending section 109 also argued that a change along the lines proposed in the Boucher-Campbell bill would open the door to widespread unauthorized copying

¹⁴⁶ C-Thau and Taylor, at 6.

¹⁴⁷ C-SIIA, at 3.

¹⁴⁸ See § 109(c) (limiting the public display right) and § 109(e) (limiting the public performance and public display rights). These provisions are discussed *supra*, at 25.

¹⁴⁹ R-American Film Marketing Association, Association of American Publishers, Business Software Alliance, Motion Picture Association of America, National Music Publishers’ Association, and Recording Industry Association of America (Copyright Industry Orgs.), at 2.

¹⁵⁰ *Id.* at 5.

of works which, in turn, would destroy the market for those works.¹⁵¹ They argued that this result could occur because the technology to require simultaneous destruction of the “source” copy remains ineffective and prohibitively expensive.¹⁵² Moreover, at least one copyright owner representative questioned the existence of any demand in the marketplace for the simultaneous destruction (also called “forward and delete”) technology.¹⁵³ Opponents also argued that in the context of traditional technology, the effect of the first sale doctrine on the marketplace for unused copies was limited by geography and the gradual degradation of books and analog tapes.¹⁵⁴ The absence of such limitations in the context of digital technology would cause an expanded first sale doctrine to have a far greater effect on the market.¹⁵⁵ They also noted that copyright owners’ concerns raised in the context of this Report were precisely the same concerns that persuaded the Congress not to enact the Boucher-Campbell bill in the 105th Congress, and that nothing has changed that should alter Congress’ judgment.¹⁵⁶

8. The Effect of the Absence of a Digital First Sale Doctrine on the Marketplace for Works in Digital Form

For those who seek an amendment to section 109 to include digital transmissions explicitly in the first sale doctrine, the absence of express statutory language is a source of

¹⁵¹ *E.g.*, R-Time Warner Inc., at 1.

¹⁵² R-Copyright Industry Orgs., at 3-4.

¹⁵³ T-National Music Publishers’ Association (NMPA), Mann, at 157-58.

¹⁵⁴ R-SIIA, at 6.

¹⁵⁵ *Id.*

¹⁵⁶ R-NMPA, at 2-3.

uncertainty, reduced utility and/or a chilling effect on users in the marketplace, which is reducing the demand for copyrighted works.¹⁵⁷

To those who oppose such an amendment, the current law provides an environment in which copyright owners are willing to offer their works in a digital form.¹⁵⁸ This, they argued, enhances the market for such works by providing them to consumers in the media they desire most. To counter claims that the absence of a clear application of the first sale doctrine to digital transmissions is harming the marketplace, one commenter quoted a 1997 U.S. Department of Commerce study asserting that “electronic shopping and mail order houses sold \$22.9 billion in computer hardware, software, and supplies . . . more than any other types of retail businesses.”¹⁵⁹ Another noted that according to Jupiter Communications, digital downloads will be a \$1.5 billion commercial market by 2006.¹⁶⁰

C. VIEWS CONCERNING SECTION 117

The public comments related to section 117 fell broadly into two categories: comments concerning the status of temporary copies in RAM and comments concerning the scope of the archival exemption.

¹⁵⁷ C-Library Ass’ns, at 25-26; C-DiMA, at 13.

¹⁵⁸ *E.g.*, C-Time Warner Inc., at 3.

¹⁵⁹ R-SIIA, at 5.

¹⁶⁰ R-Broadcast Music, Inc. (BMI), at 6-7.

1. Exemption for Temporary Buffer Copies in Random Access Memory (RAM)

a. *Legal Status of Temporary Copies and Need for an Exception.*

Most of the comments received on “section 117” related not to the computer program exemptions provided in that section, but to the question whether an exemption for temporary incidental copies should be enacted. One group of commenters requested an exemption from the exclusive right of reproduction for certain kinds of temporary copies.¹⁶¹ Another group of commenters, mostly comprised of copyright owners, did not believe there is any need or basis for an exemption for these temporary copies.¹⁶²

Many of the commenters who support an amendment to create a general exception from the reproduction right for temporary incidental copies supported the exemption proposed in the Boucher-Campbell bill.¹⁶³ This bill included an exemption for digital copies that are incidental to the operation of a device in the course of use of a work when that use is lawful under title 17, U.S. Code. Because this exemption was originally proposed as an amendment to section 117, we discuss it in the context of section 117.¹⁶⁴

¹⁶¹ See generally comments by Computer & Communications Industry Association (CCIA), DFC, HRRC, DiMA (suggesting similar but different wording), Blue Spike, Launch; see also R-Library Ass’ns, at 15-16.

¹⁶² See generally comments by NARM and VSDA, Digital Commerce Coalition (DCC), Business Software Alliance (BSA), BMI, Copyright Industry Orgs., Reed Elsevier, Inc. (REI).

¹⁶³ H.R. 3048, 105th Cong., (1997); see discussion *supra* at 15.

¹⁶⁴ See discussion of the nexus between the temporary incidental copy issue and section 117 *supra* at 18.

The proponents of a temporary incidental copy exception argued that court decisions like *MAI Systems Corp. v. Peak Computer, Inc.*¹⁶⁵ and its progeny, have had the effect of invalidating the usefulness of the exemptions under section 117.¹⁶⁶ *MAI v. Peak* held that the loading of software into a computer’s random access memory (RAM) in violation of a license agreement was an infringement because it entailed making a copy.¹⁶⁷ The exemption in section 117 applies to “the owner of a copy of a computer program.”¹⁶⁸ The court in *MAI v. Peak* concluded that since the software was licensed by the copyright owner, the defendant, a third-party independent service organization, was not an “owner” of the software and did not qualify for the exemptions under section 117.¹⁶⁹ The commenters argued that because most software today is acquired by license rather than purchase, few users of computer software would qualify for the exemption under section 117. Therefore, they contended, it is of little use.¹⁷⁰

Other commenters generally opposed any exemption for temporary incidental copies at this time.¹⁷¹ Many of them opposed the Boucher-Campbell bill, arguing that the proposed

¹⁶⁵ 991 F.2d 511 (9th Cir. 1993), *cert. dismissed*, 114 S. Ct. 671 (1994).

¹⁶⁶ The DFC argues, for instance, that the practical force of the section 117 exemptions has been deprived by recent case law, citing *MAI v. Peak* and subsequent decisions that hold that every temporary RAM copying of a computer program, incidental to its use on a hardware platform, constitutes a form of “reproduction”. C-DFC, at 3. CCIA said that the existing 117 has “in essence . . . been repealed” by *MAI v. Peak* and decisions like it. C-CCIA, at 2.

¹⁶⁷ See discussion of *MAI v. Peak* *infra* at 118.

¹⁶⁸ 17 U.S.C. § 117(a)(1).

¹⁶⁹ 991 F.2d 511, 518 n. 5 (9th Cir. 1993).

¹⁷⁰ This argument appears to be less relevant to the proposal for a general exemption for temporary incidental copies, than to the question whether the existing exemptions under section 117 should apply only to “owners” of copies or to “rightful possessors” including licensees.

¹⁷¹ See *generally* comments by the Copyright Industry Orgs., NMPA, and SIIA; T-BMI, Berenson, at 167.

exemption is not justified by technological developments, would dramatically expand the scope of section 117, and would drastically cut back on the exclusive reproduction right for all works.¹⁷² In their view, the *MAI v. Peak* decision stands for two propositions relevant to section 117, both of which buttress, rather than weaken or “repeal” that statutory provision and the objectives for which it was enacted.¹⁷³ First, the Ninth Circuit’s holding in *MAI v. Peak* has been followed in a number of other federal court decisions.¹⁷⁴ The copyright owners also argued that if the Ninth Circuit had reached the opposite conclusion – that such copying of a computer program into memory was not a reproduction falling within the scope of the reproduction right – enactment of what is now section 117(a)(1) would not have been necessary.¹⁷⁵ Second, the copyright owners argued that proponents of the Boucher-Campbell bill called on Congress in 1998 to overturn *MAI v. Peak* by adopting an exception for incidental copies, but that Congress did the opposite by passing title III of the DMCA, endorsing and reaffirming the conclusions of CONTU and the Ninth Circuit regarding temporary copies.¹⁷⁶ The copyright owners, joined by other commenters, argued that the DMCA embraced the general principle that temporary copies in RAM are copies that are subject to the copyright owner’s exclusive reproduction right, and made only those carefully calibrated adjustments to the principle necessary to address the problems experienced by independent providers of computer maintenance and repair services.¹⁷⁷

¹⁷² R-Copyright Industry Orgs., at 9.

¹⁷³ *Id.*

¹⁷⁴ *See infra* at 119.

¹⁷⁵ R-Copyright Industry Orgs., at 9; *see infra*, at 113.

¹⁷⁶ *Id.*

¹⁷⁷ R-Copyright Industry Orgs., at 10.

The copyright owners were also concerned that an exception for incidental copies would undercut the reproduction right in all works, and would raise significant questions about U.S. compliance with its international obligations.¹⁷⁸

b. *The Economic Value of Temporary Copies*

Commenters were divided on the question whether temporary copies have economic value. The point of view of the commenters appeared to be strongly influenced by the context in which the particular temporary copy is made. Some commenters who discussed temporary copies that are incidental to an authorized transmission placed little or no economic value on the copies. The small temporary buffer memory copies that are used in today's webcasting technology, argued one commenter, have no intrinsic or economic value apart from the performance.¹⁷⁹ This commenter, representing an alliance of companies that develop and deploy technologies to perform, promote and market music and video content on the web and through other digital networks, noted that this webcasting technology demonstrates why section 117 needs to be updated for the digital age. He said that it should provide that the temporary buffers necessary to enable an authorized performance of copyrighted material are exempt from any claim of copyright infringement.¹⁸⁰

¹⁷⁸ WST-Copyright Industry Orgs.

¹⁷⁹ C-DiMA, at 19.

¹⁸⁰ *Id.*

Other commenters argued that the temporary copy has significant economic value.¹⁸¹ These commenters referred to the holding in *MAI v. Peak*, and its subsequent confirmation by Congress in title III of the DMCA, as an implicit recognition that the copies have economic value since Congress deemed them worthy of protection.¹⁸² Indeed, one commenter from a trade association that represents software and electronic commerce developers asserted that in the digital world it is possible that the full commercial value of the work is contained in that temporary copy. For example, customers are becoming less interested in possessing a permanent copy of software, and more interested in having that copy available to them as they need it.¹⁸³

c. Promotion of Electronic Commerce

Some commenters asserted that the promotion and growth of electronic commerce requires a general exception for temporary incidental copies to cover all forms of digital content, not just computer software.¹⁸⁴

Opposing that view was one commenter who noted that there is every indication from the marketplace to suggest that electronic commerce and the Internet continue to grow vigorously, and that in the two years since the enactment of the DMCA that growth has accelerated.¹⁸⁵ The commenter concluded that the evidence is simply not there to support the thesis that exemptions

¹⁸¹ See generally comments by Copyright Industry Orgs., BSA.

¹⁸² R-Copyright Industry Orgs., at 9; T-BSA, Simon, at 105.

¹⁸³ T-BSA, Simon, at 138.

¹⁸⁴ C-DiMA, at 15; WST-HRRC ; R-Library Ass'ns, at 14.

¹⁸⁵ T-BSA, Simon, at 105.

must be expanded to meet the demands of electronic commerce.¹⁸⁶ Copyright industries did not believe any changes to section 117 were necessary at this time in order to facilitate the continued growth of electronic commerce and the advance of technology for conducting electronic transactions in copyrighted materials. They professed to be unaware of any significant impediments to electronic commerce which have arisen as a result of section 117 in its current form.

d. *Changed Circumstances since Enactment of the DMCA*

A representative of the copyright industry associations observed that when Congress has dealt with the question of temporary copies, it has done so in response to real problems.¹⁸⁷ He noted that Congress responded in 1998 to real problems that were presented to it by independent service organizations that had been sued and were being held liable for creating temporary copies in RAM in the course of maintaining or repairing computers.¹⁸⁸ Congress, he also noted, took the same approach when it was presented with evidence that there was at least a credible threat of liability for online service providers, for making temporary copies in the course of carrying out functions that are at the core of the Internet.¹⁸⁹

Several commenters spoke directly to this issue by addressing what has changed in the past two years that would require an exemption from the reproduction right for certain temporary

¹⁸⁶ *Id.*

¹⁸⁷ T-Copyright Industry Orgs., Metalitz, at 249.

¹⁸⁸ *Id.*; *see supra*, at 30.

¹⁸⁹ T-Copyright Industry Orgs., Metalitz, at 249; *see infra*, note 201.

copies and what additional experience has been gained over the past two years that may persuade Congress to rethink these issues. One commenter remarked that the test that should be considered is whether something has happened to the marketplace that would justify further changes in law.¹⁹⁰ He noted that Congress found no compelling evidence in 1998 that changes were merited, and having reviewed the submissions and marketplace developments, he found that there is no justification to come to a different conclusion today.¹⁹¹

Still another commenter argued that an amendment to section 117 to exempt temporary copies of works that are made as part of the operation of the machine or device is not necessary and would be inappropriate because no one can provide any evidence of harm.¹⁹² This commenter asserted that no concrete examples had been proffered of situations where copyright owners have filed suit or otherwise made inappropriate claims based on such temporary copies or where webcasters have been hampered by any alleged threats. He was not aware of any record company that has claimed infringement or threatened litigation based on the making of temporary copies. To the contrary, he provided examples of webcasters and other Internet music services being licensed by copyright owners with all the permissions they need to operate their business. Need for legislative action on this point, he said, has not been demonstrated and none should be taken where the likelihood of unintended consequences is high.¹⁹³

¹⁹⁰ T-BSA, Simon, at 105.

¹⁹¹ *Id.*

¹⁹² T-RIAA, Sherman, at 305.

¹⁹³ *Id.*

Other commenters, however, argued the problem was not theoretical. One webcaster noted that there are music publishers that are seeking mechanical royalties for temporary copies made in RAM buffers when music is streamed on the Internet, even though the performance to which the copy is incidental is fully licensed.¹⁹⁴ He noted that his company had not been sued but certainly had been threatened, and the threat of suit had been used against it in negotiations over license agreements.¹⁹⁵ The commenter said the threat of litigation, particularly to a growing company like his, is enough to cause problems, and is enough to make such a company agree to licenses that are, perhaps, unfair.¹⁹⁶ He also noted that it is not in anyone's interest to resolve a perceived ambiguity through litigation; this is a clear example of an instance in which legislative action could effectively resolve any uncertainty.¹⁹⁷

e. Applicability of the Fair Use Doctrine to Temporary Copies

Suggestions were made in the comments that the fair use doctrine, rather than a separate exemption for temporary incidental copies, could address some of the concerns that were raised about such copies. Since certain commenters proposed that language be added to section 117 that would permit the making of temporary copies when such copies are “incidental to the operation of a device . . .” and do “not conflict with the normal exploitation of the work and do not unreasonably prejudice the legitimate interests of the author,” one commenter suggested instead that the fair use doctrine be used rather than expanding section 117 with such broad

¹⁹⁴ T-Launch, Goldberg, at 311.

¹⁹⁵ Launch has since been sued, but over issues unrelated to buffer copies.

¹⁹⁶ T-Launch, Goldberg, at 311.

¹⁹⁷ WST-Launch.

language. This commenter argued that this language is too broad and use of it may be dangerous by allowing acts well above and beyond any reasonable fair use.¹⁹⁸

One of the commenters advocating an exemption for temporary incidental copies also recognized that fair use may address some of the concerns that were expressed. This commenter took the position that between the archival exemption set out in section 117 and the fair use doctrine, certain types of copies should already be determined not to be infringing under the law, including temporary copies of recorded content made in the course of playback through buffering, caching, or other means.¹⁹⁹ Library associations said that while they believe that the copying rights at issue already exist under fair use, making them explicit could help to eliminate some of the uncertainty that is currently preventing these rights from being fully and consistently exercised.²⁰⁰

¹⁹⁸ R-SIIA, at 3, 4; WST-SIIA; T-SIIA, Kupferschmid, at 132.

¹⁹⁹ WST-HRRC. The copies that HRRC asserts should already be determined not to be infringing under the law (because the copies fall under the archival exemption set out in section 117 or the fair use doctrine) are back-up or archival copies of works or phonorecords of content lawfully acquired through digital downloading; temporary copies of recorded content made in the course of playback through buffering, caching, or other means; and temporary copies that are stored through the technical process of Internet webcasting.

²⁰⁰ R-Library Ass'ns, at 14.

f. Liability for Making Temporary Copies under Section 512²⁰¹

The copyright industries questioned why the limitations on liability set out in section 512 cannot be used by the webcasters to address their problems regarding threats of litigation and noted that there have not been significant legal conflicts over incidental copying.²⁰² The copyright industries asserted that Congress, in enacting the DMCA, addressed and resolved some of the potential flash points. For instance, they asserted that, in what is now section 512, Congress carefully fashioned limitations on remedies that apply to infringements – including, notably “incidental copying” – that may occur in the course of activities that are essential to the smooth functioning of the Internet such as linking, storing, caching or providing conduit services, rather than creating broad exemptions to exclusive rights.²⁰³

Other commenters disagreed. One noted that the section 512 provisions are helpful to those who qualify as Internet service providers within the meaning of section 512 but that many webcasters are not Internet service providers and do not qualify for relief from liability under

²⁰¹ 17 U.S.C. § 512. Under section 512, a party that qualifies as a “service provider” may be eligible for one or more of four limitations on monetary liability for copyright infringement deriving from specified activities. For purposes of the first limitation, relating to transitory communications, “service provider” is defined in section 512(k)(1)(A) as “an entity offering the transmission, routing, or providing of connections for digital online communications, between or among points specified by a user, of material of the user’s choosing, without modification to the content of the material as sent or received.” For purposes of the other three limitations relating to system caching, hosting, and information location tools, “service provider” is more broadly defined in section 512(k)(1)(B) as “a provider of online services or network access, or the operator of facilities therefor.”

In addition, to be eligible for any of the limitations, a service provider must meet two overall conditions: (1) it must adopt and reasonably implement a policy of terminating in appropriate circumstances the accounts of subscribers who are repeat infringers; and (2) it must accommodate and not interfere with “standard technical measures” as defined in section 512(i).

²⁰² T-Copyright Industry Orgs., Metalitz, at 247.

²⁰³ R-Copyright Industry Orgs., at 10-11.

section 512.²⁰⁴ Another commenter agreed that section 512 can be extremely helpful for intermediaries, but asserted that it does not solve the particular problem for Internet webcasters and Internet broadcasters who are the originators of the transmissions.²⁰⁵

2. Scope of the Archival Exemption

a. Expansion of the Archival Exemption to Works Other than Computer Programs

Although most comments received on section 117 related to an exemption for temporary copies, a number of commenters discussed the scope of section 117's archival exemption. One commented that it supports amending section 117 to allow owners of any digitally-acquired content (i.e., not just computer programs) the right to make an archival or backup copy;²⁰⁶ that consumers may wish to make removable archive copies of downloaded music and video to protect their downloads against losses; and that despite the convenience of digital downloading, media collections on hard drives are vulnerable.²⁰⁷ This commenter noted, for example, that when a consumer wants to upgrade to a new computer or a more capacious hard disk drive, there is no lawful means to transfer the consumer's media collection onto new equipment.

This point was echoed by other commenters who said that section 117 is too narrow and, in addition to computer programs, should apply to other works due to the fact that CDs can erode

²⁰⁴ T-DFC, Jaszi, at 273-74.

²⁰⁵ T-DiMA, Greenstein, at 274.

²⁰⁶ The copyright industry organizations pointed out in reply comments that DiMA believes this narrow exception to section 117(a)(2) should be expanded to cover any "content that [consumers] lawfully acquire through digital downloading." R-Copyright Industry Orgs., at 12.

²⁰⁷ T-DiMA, Greenstein, at 238-39.

and DVDs can also develop similar problems.²⁰⁸ Another commenter representing the library associations said that more categories of works are now being published in digital formats and that section 117 should be updated to clarify that the rights apply to all rightfully possessed digital media.²⁰⁹ The library associations went on to say that all digital content is prone to deletion, corruption, and loss due to system crashes and that consumers must be permitted to protect their investments; thus it is critical to recognize that archival copying rights are as important today to the growth of digital publishing as they were to the growth of the computer software industry in the 1980s.²¹⁰

On the other side was a trade association for the software and information industries. This association suggested that an expansion of section 117 to other copyrighted works is senseless because it is being used so sparingly today for computer software and the justification for the provision no longer exists.²¹¹

This same trade association expressed the view that the public perception of the scope of the section 117 backup copy exception may be distorted, and that persons engaged in piracy of software and other content assert they can justify their actions by relying on section 117. That commenter contended, for example, that persons attempting to auction off their so-called backup

²⁰⁸ C-Antony, at 4-5.

²⁰⁹ R-Library Ass'ns, at 11. "Many types of works that were formerly distributed in print and analog formats are now being distributed only in digital format." *Id.* at 14.

²¹⁰ *Id.* at 15.

²¹¹ R-SIIA, at 9.

copies of computer software or who make pirated software available on websites, ftp sites or chat rooms, do so under the guise of the section 117 backup copy exception.²¹²

A trade association representing publishers of video and computer games stated that section 117 is used, not as a legitimate defense to infringement, but as an enticement to engage in piracy.²¹³ It asserted that, despite the diminishing need for an archival copy exception to protect any legitimate interest of users of computer programs, and the lack of any judicial precedent for expanding the scope of section 117(a)(2), the Internet is replete with sites purporting to offer “backup copies” of videogames containing computer programs, or the means for making them.²¹⁴ It contended that many of these sites specifically refer to section 117 as providing a legal basis for their operations; for example, one website offering such ‘backup copies’ reassures users that “under the copyright laws of the U.S., you are entitled to own a backup of any software you have paid for,” while another proclaims: “All the games, music cd's, and computer software that you will find on this page for sale are copied because it is perfectly legal by Section 117 of the US Copyright Law, to own these cd's and use them as long as you have the original program, game, or music cd.”²¹⁵ In fact, according to this commenter, these sites are not actually offering “backup copies” or even copies that they rightfully own, and in any event they offer works other than computer programs. The commenter asserted that such sites “refer to section 117(a)(2) only

²¹² C-SIIA, at 3-4.

²¹³ C-Interactive Digital Software Association (IDSA), at 5.

²¹⁴ *Id.*

²¹⁵ *Id.*

to provide a patina of legitimacy to their operations, and to foster a false sense among users that a patently illicit transaction – a download of pirate product – might in fact somehow be lawful.

The same commenter recommended that the language of section 117(a)(2) be narrowed to make it clear that the provision does not allow a free-standing market in so-called “backup copies,” and that it only covers the copying of computer programs to the extent required to prevent loss of use of the program when the original is damaged or destroyed due to electrical or mechanical failures. It asserted that such a statutory adjustment would not only accurately reflect the changes wrought by two decades of technological advancement, but would also promote legitimate electronic commerce. Perhaps most importantly, such an adjustment would eliminate much of the confusion created in the minds of some users by those who justify their piratical activities by reference to a supposed “right” to make “back up copies” of entertainment software products.²¹⁶

b. Clarification of the Archival Copy Exemption for Computer Programs

One commenter noted that section 117 does not comport with normal practices and procedures that people use for archiving information on computers.²¹⁷ He asserted that while most businesses, and many individuals, perform periodic backups of everything on their hard

²¹⁶ *Id.* at 6.

²¹⁷ WST-Hollaar.

drive, section 117 prescribes a different style of archiving: making a copy of an individual program at the time the consumer obtains it.²¹⁸

In this case, the commenter advised, the archival copy will not only contain copied data, but also copied commercial software that happened to be installed on the hard drive. Not only is the program copied but also data that came along with the program, even though section 117 does not give permission to copy that data.²¹⁹

If the use of a particular program ceases to be rightful (primarily because the user has obtained a new version of the program – perhaps an upgraded version) the user no longer has the right to use it, but rather has the right to use the new program. The user most likely will not go back, find the CD-ROM that includes the archived data and programs and try to attempt in some way to delete the programs from the CD. Section 117, noted the commenter, does not match the reality of how file archives are made today.²²⁰

Another commenter agreed and said multiple backup copies are needed; programs that perform backups have no knowledge of the license status of the computer files being backed up and there is no commonly used file system that stores such status with the files, so that there is no way (within common practice) for backup programs to ascertain that status.²²¹ He also explained

²¹⁸ *Id.*

²¹⁹ *Id.* at 93-95.

²²⁰ *Id.*

²²¹ C-LXNY, at 1.

that periodic backups are made according to schedules, and to enable recovery. For example, backups may be made daily, weekly, monthly, yearly. Each tape (of the “full backup” type) would contain a copy. Although tapes are generally recycled, there are often legitimate reasons to preserve tapes.²²²

In response to the question whether there is any evidence of actual harm resulting from this mismatch between section 117 and the way system administrators or others actually backup network systems, most commenters were not aware of any harm that had resulted in this mismatch.²²³ One commenter expressed concern that when the law is so far out of step with reality that it is seldom, if ever, observed, respect for the legal system diminishes and the rule of law suffers.²²⁴

However, one commenter did not agree that archiving backup copies necessarily amounted to a violation of section 117. He pointed out that it would be necessary to look at section 107, stating that if the activity does not fall within the specific terms of section 117, then it may be permissible under the fair use doctrine.²²⁵ Another commenter agreed that there was a mismatch, but questioned what the practical effect of this mismatch is. No one has been sued for backing up material that may fall outside the scope of Section 117. The commenter noted that the mission of the Report is to respond to real problems. He referred to the comment submitted

²²² *Id.*

²²³ *Id.* at 129.

²²⁴ *Id.* at 95.

²²⁵ T-SIIA, Kupferschmid, at 148.

by the Interactive Digital Software Association, which reported that one of the easiest ways to find pirated videogames online is to search for the term “section 117,” since many websites offering pirated products refer, incorrectly, to that provision as legitimizing their conduct.²²⁶

D. VIEWS ON MISCELLANEOUS TOPICS

A number of public comments that we received addressed issues that are not directly related to section 109 or section 117. These miscellaneous views are summarized below.

1. Effect of Technological Protection Measures and Rights Management Information on Access to Works, Fair Use, and Other Noninfringing Uses.

There were many comments relating to the effects on noninfringing uses of works of technological protection measures used by copyright owners to protect their works from unauthorized access or copying. The library associations argued that it is not in the public interest to introduce legal and technological measures that diminish, if not eliminate, otherwise lawful uses.²²⁷ The public, they asserted, now must face licensing barriers (contractual restrictions) and legal barriers (criminal penalties for circumvention) to both private and public lending and use.²²⁸ They fear that it will remain illegal for a library or a user to circumvent technical protection measures in order to use the underlying works in ways that have traditionally been permitted under the first sale doctrine, fair use and exemptions for preservation.²²⁹

²²⁶ T-Copyright Industry Orgs., Metalitz, at 249.

²²⁷ T-Library Ass'ns, Petersen, at 23.

²²⁸ C-Library Ass'ns, at 4.

²²⁹ *Id.* at 2.

The DMCA was criticized by another commenter because he said it prohibits circumvention of access control devices without requiring that the devices serve only their primary purpose.²³⁰ This commenter believes the DMCA should not allow access control devices to act as a single entry point to a technology, thereby creating an artificially privileged group of technology providers in the market.²³¹

Another commenter reached the opposite conclusion based on the premise that technological protection measures are largely ineffective. This commenter noted that despite the current illegality of circumventing technological protection measures, these measures are routinely defeated, concluding that, in practice, the law has not had a significant effect on controlling copying and distribution of digital works.²³²

Some commenters expressed concern with the effects on a user's ability to use copyrighted material under the fair use provisions when anticircumvention devices are employed. More broadly, one commenter opined that the pendulum has swung too far in the interest of copyright owners and has begun to trample the needs and rights of the copyright users.²³³ The library associations noted that many librarians are reluctant to make fair use judgment calls due to accountability imposed by CMI technologies and criminal sanctions; where uncertainty about

²³⁰ C-Fischer, at 1-2.

²³¹ *Id.*

²³² C-SLAC, at 1-5.

²³³ C-Beard, at 1-3.

permissible use exists, liability concerns may lead librarians to forego uses that are actually permitted under license and law.²³⁴

Another comment regarding the anti-circumvention provisions of the DMCA related to the implementation of the Secure Digital Music Initiative (SDMI) and similar technologies that could deprive educators and researchers of access to music.²³⁵ The commenter noted that access to music under traditional notions of fair use has always been a part of our nation's cultural and legal history.²³⁶

2. Privacy

The library associations expressed concern for privacy rights and noted that, with copyright management information, content owners have the ability to track ongoing use of works in digital form, and to monitor who is looking at a work and exactly what the users are doing with it despite Congress' efforts to protect privacy in the DMCA.²³⁷ They went on to say that although the DMCA's definition of CMI specifically excludes any personally identifying information about a user of a work or a copy,²³⁸ the way CMI technologies are actually implemented may result in the compilation and tracking of usage information.²³⁹

²³⁴ C-Library Ass'ns, at 8.

²³⁵ C-Future of Music Coalition, at 3.

²³⁶ *Id.*

²³⁷ C-Library Ass'ns, at 8.

²³⁸ 17 U.S.C. § 1202(c).

²³⁹ C-Library Ass'ns, at 8.

Another commenter noted a threat to the right to privacy since copyright holders may invade the privacy of citizens attempting to communicate privately with one another on the grounds that “violations” or “infringements” may be occurring.²⁴⁰ This may lead government, said the commenter, to routine monitoring of its own citizens’ communications in order to prevent the transmission of “unlicensed” information.²⁴¹

3. Contract Preemption and Licensing

Many comments raised in both written and oral testimony related to contract preemption and licensing issues. The library associations argued that the first-sale doctrine is being undermined by contract and restrictive licensing which results in uncertainty about the application of the first sale doctrine for copies of works in digital form.²⁴² They noted the trend towards the displacement of provisions of the uniform federal law — the Copyright Act — with licenses or contracts for digital information. The library associations asserted that college and university administrators, faculty, and students who previously turned to a single source of law and experience for determining legal and acceptable use must now evaluate and interpret thousands of licenses.²⁴³

²⁴⁰ C-Darr, at 2.

²⁴¹ *Id.*

²⁴² T-Library Ass’ns, Neal, at 16.

²⁴³ *Id.* T-Library Ass’ns., Petersen, at 23.

Another commenter argued that the case law is in disarray concerning the effectiveness of contractual terms contained in so-called “shrink-wrap” and “click-through” licenses²⁴⁴ that override consumer privileges codified in the Copyright Act. This commenter proposed that section 301 of the Copyright Act²⁴⁵ be amended to provide a clear statement of the supremacy of federal copyright law provisions providing for consumer privileges over state contract rules.²⁴⁶ The library associations agreed with this view. Publishers responded to this line of argumentation by characterizing it as a licensing issue, not a first-sale issue.²⁴⁷ The publishers noted that Congress did not intend copyright law broadly to preempt contract provisions, citing the example of section 108(f)(4) which provides that despite the privileges otherwise provided to libraries and archives under section 108, nothing in the section is to affect any contractual obligations assumed at any time by a library or archives when it obtained a copy of a work in its collections. These privileges for libraries, according to the publishers, were written to take account of the fact that contractual licensing was going to be the primary way in which copyright owners were going to exploit the rights provided to them under the law.²⁴⁸ Another commenter pointed out that it is a long accepted principle of American jurisprudence that parties should be free to form contracts as they see fit.²⁴⁹

²⁴⁴ *See supra*, note 100.

²⁴⁵ 17 U.S.C. § 301. Section 301 establishes the scope of federal preemption under the Copyright Act. *See infra*, at 162.

²⁴⁶ C-DFC, at 3; T-DFC, Jaszi, at 228.

²⁴⁷ T-AAP, Adler, at 31, 32.

²⁴⁸ *Id.*

²⁴⁹ R-DCC, at 4.

Some commenters discussed UCITA in this context and noted that, as with the Uniform Commercial Code and other uniform state laws, UCITA is intended to help facilitate electronic commerce.²⁵⁰ Concern was expressed that UCITA ignores the supremacy of federal law, and, again, recommendations were made to amend section 301. The library associations believe that ambiguity in the law harms libraries and has a stifling impact on library activities. As an example, they stated that it is unclear whether a librarian, on behalf of a patron, can secure and provide interlibrary loan copies or interlibrary loan delivery of works in this environment.²⁵¹

4. Open Source Software

One commenter was concerned that amendments to section 109 may jeopardize the ability of open source and free software licensors to ensure that third-party transferees receive the entire product whose distribution was authorized by the licensor, including the software license rights.²⁵² Open source or free software licenses grant users the right to: (1) have the source code; (2) freely copy the software; (3) modify and make derivative works of the software; and (4) transfer or distribute the software in its original form or as a derivative work, without paying copyright license fees.²⁵³ The entire open source model is premised on the enforceability of those license provisions.

²⁵⁰ R-DCC, at 1; *see supra*, note 38 and accompanying text.

²⁵¹ T-Library Ass'ns, Neal, at 55.

²⁵² T-Red Hat, Kunze, at 256, 257.

²⁵³ WST-Red Hat.

5. Other DMCA Concerns

Several commenters expressed opposition to the DMCA for a variety of reasons. One commented that his right to communicate freely under the First Amendment was threatened by the DMCA because it broadened the definition and scope of copyright. This, in turn, resulted in frivolous cease and desist letters being sent to those attempting to exercise fair use and other exceptions.²⁵⁴

Another commenter expressed concern that the DMCA shifted the balance of power away from consumers and gave undue leverage to corporations.²⁵⁵ This commenter believes that the DMCA has hampered progress and the rights of citizens by, for example, taking down websites without due process and condoning corporate behavior that does not support fair use.²⁵⁶

Concern was expressed over the distribution of monies relating to the digital performance right in sound recordings.²⁵⁷ This commenter noted that the royalties should not be distributed in the “same unfair and inaccurate way” as monies are distributed under the current formula of the Audio Home Recording Act.

²⁵⁴ C-Darr, at 1.

²⁵⁵ C-Jones, at 1.

²⁵⁶ *Id.*

²⁵⁷ C-Future of Music Coalition, at 2.

III. EVALUATION AND RECOMMENDATIONS

A. THE EFFECT OF TITLE I OF THE DMCA ON THE OPERATION OF SECTIONS 109 AND 117

We are not persuaded that title I of the DMCA has had a significant effect on the operation of sections 109 and 117 of title 17, apart from some isolated factual contexts that are discussed below. Many of the public comments received by us alleged that 17 U.S.C. § 1201, as enacted in title I of the DMCA,²⁵⁸ is affecting the operation of sections 109 and 117²⁵⁹ (while a significant number of others argued that it is not²⁶⁰). However, either the concerns raised cannot be accurately described as being “effects on the operation of” one of those sections, or if there is an effect on the operation of one of those sections, that effect can just as easily be ascribed to other factors (such as the existence of license terms) as to section 1201. Consequently, none of the legislative recommendations made in this Report are based on effects of section 1201 on the operation of sections 109 and 117.

1. The Effect of Section 1201 on the Operation of the First Sale Doctrine

a. *DVD Encryption*

Several commenters argued that section 1201’s protection of CSS for DVDs against circumvention affects consumers’ exercise of the first sale doctrine by enforcing technological limitations on the way DVDs can be used.²⁶¹ These commenters asserted that because CSS is

²⁵⁸ No commenters indicated that any other provision of title I of the DMCA affected the operation of sections 109 and 117, and we are not aware of any issues relating to whether other provisions have an effect on those sections of the Copyright Act.

²⁵⁹ See C-Fischer, C-DFC, C-NARM/VSDA.

²⁶⁰ See C-Copyright Industry Orgs., C-Time Warner Inc.

²⁶¹ See C-Arromdee, C-Thau and Taylor.

proprietary technology that is licensed to device manufacturers under restrictive terms, the use of CSS limits the potential playback devices for DVDs, which, in turn, limits the potential market for resale of DVDs. Second, they argued that because licensed playback devices enforce region codes,²⁶² DVDs purchased in one region of the world cannot be as easily resold in other regions, again limiting the potential resale market.

This argument is without merit. The first sale doctrine codified in section 109 limits an author's distribution right so that subsequent disposition of a particular copy by its owner is not an infringement of copyright. The first sale doctrine does not guarantee the existence of a secondary market or a certain price for copies of copyrighted works. If fewer people may wish to purchase a used DVD, or if they would pay less for it due to CSS, that would not equate to interference with the operation of section 109. Many circumstances in the marketplace may affect the resale market for copies of works – improvements in technology, introduction of new formats, and the quality and cultural durability of the content of the work. None of these factors can properly be said to interfere with the operation of section 109, even though they could reduce the resale market for a work or even render it nonexistent.²⁶³

²⁶² Each DVD bears an embedded region code corresponding to the region of the world where the particular DVD is authorized to be sold. Licensed DVD players will only play DVDs that are coded for the region where the player is sold. Region coding is used to prevent gray market importation of DVDs from one region to another.

²⁶³ To the extent that there is a concern that region coding may limit the number of purchasers outside North America who are willing to buy region 1 DVDs (i.e., DVDs coded for sale within North America), that concern has nothing to do with section 1201. Section 1201 of title 17, United States Code, has no effect outside the United States. Consequently, a purchaser in Hong Kong could modify a region 6 player so that it could play a region 1 DVD without fear of any repercussions under section 1201 (although there may or may not be consequences under Hong Kong law). Moreover, resale outside the U.S. has nothing to do with section 109, which only governs resale within the United States.

Equally without merit is the argument – essentially a corollary to the guaranteed resale market argument – that the first sale doctrine gives consumers a right to use a DVD on any electronic device. In fact, virtually all devices capable of playing a DVD that are sold in the U.S. are compliant with CSS, so there is no real effect on the resale market as a result of the application of CSS technology. Further, this argument has nothing whatever to do with the privilege under section 109 to dispose of a copy of a work. Moreover, taken one step further, that argument would lead to the absurd result of requiring that consumers be able to play Beta videocassettes on VHS players, or VHS videocassettes on personal computers.

b. *Tethering Works to a Device*

A plausible argument can be made that section 1201 may have a negative effect on the operation of the first sale doctrine in the context of tethered copies – copies that are encrypted with a key that uses a unique feature of a particular device, such as a CPU identification number, to ensure that they cannot be used on any other device.²⁶⁴ Even if a tethered copy is downloaded directly on to a removable medium such as a Zip™ disk or CD-RW, the content cannot be accessed on any device other than the device on which it was made. Disposition of the copy becomes a useless exercise, since the recipient will always receive nothing more than a useless piece of plastic. The only way of accessing the content on another device would be to circumvent the tethering technology, which would violate section 1201.

²⁶⁴ See C-CPSR, at 4-5.

The practice of using technological measures to tether a copy of a work to a particular hardware device does not appear to be widespread at the present time, at least outside the context of electronic books. We understand through informal discussions with industry that this technique is – or at least can be – employed in some cases with electronic books using digital rights management (DRM) technology. Given that DRM is in its relative infancy, and the use of DRM to tether works is not widespread, it is premature to consider any legislative change to mitigate the effect of tethered works on the first sale doctrine. Nevertheless, we recognize that if the practice of tethering were to become widespread, it could have serious consequences for the operation of the first sale doctrine, although the ultimate effect on consumers of such a development remains unclear.

2. The Effect of Section 1201 on the Operation of Section 117

The use of technological measures that prevent copying of a work could have a negative effect on users' ability to make archival copies that are permitted under section 117. If, and to the extent that, such anti-copying measures can also be considered to be access control measures that are protected against circumvention by section 1201,²⁶⁵ section 1201 could be said to have an adverse impact on the operation of section 117 in this context. For several reasons, however, the actual impact on consumers appears to be minimal.

²⁶⁵ Section 1201 does not prohibit the circumvention of technological protection measures that only prevent copying. Thus, a user could lawfully circumvent the measures to create an archival copy. However, to the extent that copy controls also function as access controls, the circumvention of which is prohibited by section 1201, the circumvention of those measures is prohibited. Moreover, because section 1201 also prohibits the creation and distribution of circumvention tools, those consumers who lack the ability to circumvent technological protection measures would be unable to circumvent those measures even when such circumvention would not be unlawful.

First, since the overwhelming majority of computer programs sold in the United States are sold pursuant to a license, and section 117 applies only to “owners,” the terms of the license agreement generally determine whether a user has the right to make an archival copy.²⁶⁶ In cases where the license does not permit the creation of an archival copy, even absent technological protection measures, the copying is prohibited. Thus, in such cases it is the license that is impairing the operation of section 117.

Second, at the present time most software is sold without copy protection. Where the license permits or does not preclude the creation of an archival copy (or in the relatively few cases where the transaction was an outright sale) the user may make an archival copy as contemplated in section 117.

Third, as of last year approximately ninety-eight percent of computer software sold in the United States was sold on CD-ROM.²⁶⁷ This means that even where consumers are prevented from making an archival copy, they are still able to reinstall the work in the event of computer malfunction. In essence, the CD-ROM itself acts as the archival copy. In that case, even if consumers are prevented from making archival copies as contemplated in section 117, their software investment is protected from system malfunctions, thus fulfilling the purpose of the

²⁶⁶ Our (admittedly unscientific) review of sixteen license agreements for software used by the Copyright Office found that fourteen of them permitted the user to make a backup copy and one was silent. Only one of the sixteen licenses prohibited the user from making a backup copy, requiring the user either to use the original media as the backup copy or to replace the original media for a twenty-five dollar fee.

²⁶⁷ R-SIIA, at 9.

archival exemption as articulated by CONTU.²⁶⁸ Accordingly, we conclude that the evidence at this time of an effect of title I of the DMCA on the operation of section 117 is not substantial, and no legislative change is warranted.

B. THE EFFECT OF ELECTRONIC COMMERCE AND TECHNOLOGICAL CHANGE ON SECTIONS 109 AND 117

We have made no attempt in preparing this study to separate out the impact of electronic commerce on sections 109 and 117 from the impact of technological change. Such an effort would probably have been futile since, as the language of section 104 suggests, by grouping the two issues together, the issues are inextricably intertwined. In its essence, electronic commerce is commerce carried out through new technologies. This study is an outgrowth of the intersection between new technology and the new business models that it makes possible. Our evaluation is of the impact of that intersection on the specified provisions of the Copyright Act.

1. The First Sale Doctrine in the Digital World

a. Application of Existing Law to Digital Content

The application of section 109 to digital content is not a question of whether the provision applies to works in digital form — it does. Physical copies of works in a digital format, such as CDs or DVDs, are subject to section 109 in the same way as physical copies of works in analog form. Likewise, a lawfully made tangible copy of a digitally downloaded work, such as an image file downloaded directly to a floppy disk, is subject to section 109. The question we address here

²⁶⁸ See *supra*, at 29.

is whether the conduct of transmitting the work digitally,²⁶⁹ so that another person receives a copy of the work, falls within the scope of the defense.²⁷⁰

Section 109 limits a copyright owner's exclusive right of distribution. It does not, by its terms, serve as a defense to a claim of infringement of any of the other exclusive rights.²⁷¹ The transmissions that are the focus of proposals for a "digital first sale doctrine"²⁷² result in reproductions of the works involved. The ultimate product of one of these digital transmissions is a new copy in the possession of a new person. Unlike the traditional circumstances of a first sale transfer, the recipient obtains a new copy, not the same one with which the sender began. Indeed, absent human or technological intervention, the sender retains the source copy. This copying implicates the copyright owner's reproduction right as well as the distribution right.

²⁶⁹ The transmissions discussed in this section are not broadcasts, but transmissions that, like point-to-point transmissions, involve the selection of specific recipients by the sender.

²⁷⁰ Some commenters were confused between the proposal to apply the first sale doctrine to otherwise unauthorized digital transmissions of copyrighted works by lawful owners of copies of such works and the notion that a lawful copy created as a result of an authorized digital transmission is a lawful copy for purposes of section 109. The former would expand the scope of section 109 and will be discussed below. The latter is well within the current language of the statute. Regardless of whether a copy is created as a result of the nearly instantaneous transmission of digital information through broadband computer connections or as a result of months of painstaking labor of a cloistered monk working with a quill by candlelight, so long as that copy is lawfully made, it satisfies the second prong of eligibility for the section 109 defenses.

²⁷¹ 17 U.S.C. § 109(a). In limited circumstances the public display right is covered as well. 17 U.S.C. § 109(c). *See supra*, note 53.

²⁷² The term "digital first sale doctrine" is used here to denote a proposed copyright exception that would permit the transmission of a work from one person to another, generally via the Internet, provided the sender's copy is destroyed or disabled (whether voluntarily or automatically by virtue of a technological measure). We use the term because it has been used frequently in discourse about the subject. It is, however, a misnomer since the proposal relates not to works in digital form generally (which are, of course, already subject to section 109), but to *transmissions* of such works.

Section 109 provides no defense to infringements of the reproduction right. Therefore, when the owner of a lawful copy of a copyrighted work digitally transmits that work in a way that exercises the reproduction right without authorization, section 109 does not provide a defense to infringement.

Some commenters suggested that this reading of section 109 is unduly formalistic. The language of the statute, however, must be given effect. Section 109 is quite specific about the rights that are covered, and does not support a reading that would find additional rights to be covered by implication. Where Congress intended to immunize an activity, such as fair use, from infringement of any of the exclusive rights, it did so expressly.²⁷³ It simply cannot be presumed that where Congress did enumerate specific rights, it somehow intended other rights to be included as well. In addition, our reading of section 109 is entirely consistent with the judicial origin of the first sale doctrine in the *Bobbs-Merrill* decision. The Supreme Court drew a sharp distinction between the two rights, creating an exception to the vending (i.e., distribution) right only to the extent that it didn't interfere with the reproduction right.²⁷⁴ We therefore conclude that section 109 does not apply to digital transmission of works.

b. *Evaluation of Arguments Concerning Expansion of Section 109*

A number of commenters proposed that section 109 be expanded to apply expressly to the reproduction, public performance and public display rights to the extent necessary to permit the

²⁷³ *E.g.*, 17 U.S.C. § 107 (“Notwithstanding the provisions of sections 106 and 106A, the fair use of a copyrighted work . . . is not an infringement of copyright.”).

²⁷⁴ *Bobbs-Merrill*, 210 U.S. at 350-51. *See* discussion *supra*, at 20-21.

digital transmission of a work by the owner of a lawful copy of that work, so long as that copy is destroyed. This section will review the arguments for and against such a digital first sale doctrine.

i. Analogy to the physical world

Arguments in support of a digital first sale doctrine generally proceed from an analogy to the circulation of physical goods. Whether couched as a means of achieving technological neutrality,²⁷⁵ meeting consumer expectations that were formed in the off-line world,²⁷⁶ or eliminating barriers to competition between e-commerce and traditional commerce,²⁷⁷ an underlying basis for the argument in favor of a digital first sale doctrine is that the transmission and deletion of a digital file is essentially the same as the transfer of a physical copy.

To be sure, there is an important similarity between physical transfer, on one hand, and transmission and deletion, on the other. At the completion of each process the transferor no longer has the copy (at least in usable form) and the transferee does. Some of the proposals would enhance this similarity by requiring the use of technological measures (in some cases

²⁷⁵ *E.g.*, C-Anthony, at 3.

²⁷⁶ *E.g.*, R-DiMA, at 6 (arguing that, without a digital first sale doctrine, consumers are being short-changed when they purchase copyrighted works online because they don't get what they expect, and, consequently, will become disenchanted with the medium, decreasing legitimate demand and increasing online infringement).

The opponents of a digital first sale doctrine counter that the proposal would sharply reduce the supply of works available online because copyright owners would lack confidence that their works will be protected from piracy. In addition, they point out that there is tremendous demand for copyrighted works online, even though section 109 has not been expanded. R-SiIA, R-BMI. They view this as evidence that revision of section 109 is not a prerequisite to having robust growth in e-commerce in copyrighted works.

²⁷⁷ C-HRRC, at 5-6.

referred to as “move” or “forward-and-delete” technology) that will disable access to or delete entirely the source file upon transfer of a copy of that file. Assuming the technology is effective, these proposals would ensure that the single act of sending the work to a recipient results in a copy of the work being retained by the recipient alone. They differ from the Boucher-Campbell bill, which required an additional affirmative act: the subsequent deletion of the work by the sender.

Implicit in any argument by analogy is the assertion that the similarities outweigh the differences. Whether or not the analogy outlined above is compelling from a policy perspective depends upon whether the differences between the circulation of physical copies and electronic “transfers” are more significant than the similarities.

Physical copies of works degrade with time and use, making used copies less desirable than new ones. Digital information does not degrade, and can be reproduced perfectly on a recipient’s computer. The “used”²⁷⁸ copy is just as desirable as (in fact, is indistinguishable from) a new copy of the same work. Time, space, effort and cost no longer act as barriers to the movement of copies, since digital copies can be transmitted nearly instantaneously anywhere in the world with minimal effort and negligible cost. The need to transport physical copies of works, which acts as a natural brake on the effect of resales on the copyright owner’s market, no

²⁷⁸ The “used” copy refers to the copy on the recipient’s computer. In fact, it is not “used” in any sense of the word since it was initially created on the recipient’s computer as the end result of the transmission process.

longer exists in the realm of digital transmissions. The ability of such “used” copies to compete for market share with new copies is thus far greater in the digital world.²⁷⁹

Even the “lending” of a fairly small number of copies of a work by digital transmission could substitute for a large number of purchases. For example, one could devise an aggregation site on the Internet that stores (or, in a peer-to-peer model, points to) multiple copies of an electronic book. A user can “borrow” a copy of the book for as long as he is actually reading it. Once the book is “closed,” it is “returned” into circulation. Unlike a typical lending library, where the book, once lent to a patron, is out of circulation for days or weeks at a time, the electronic book in this scenario is available to other readers at any moment that it is not actually being read. Since, at any given time, only a limited number of readers will actually be reading the book, a small number of copies can supply the demand of a much larger audience. The effect of this activity on the copyright owner’s market for the work is far greater than the effect of the analogous activity in the non-digital world.

In addition, unless a “forward-and-delete” technology is employed, transfer of a copy by transmission requires an additional affirmative act by the sender. In applying a digital first sale doctrine as a defense to infringement it would be difficult to prove or disprove whether that act had taken place, thereby complicating enforcement.²⁸⁰ This carries with it a greatly increased risk

²⁷⁹ T-SIIA, Kupferschmid, at 85.

²⁸⁰ These differences have already been noted by the Register on a prior occasion. Marybeth Peters, *The Spring 1996 Horace S. Manges Lecture – The National Information Infrastructure: A Copyright Office Perspective*, 20 Colum. V.L.A. Journal 341, 355 (Spring, 1996).

of infringement in a medium where piracy risks are already orders of magnitude greater than in the physical world. Removing, even in limited circumstances, the legal limitations on retransmission of works, coupled with the lack of inherent technological limitations on rapid duplication and dissemination, will make it too easy for unauthorized copies to be made and distributed, seriously harming the market for those works.²⁸¹

Even the use of “forward-and-delete” technology, as advocated by some commenters,²⁸² is not a silver bullet. Technological measures can be hacked; they are expensive; and they often encounter resistance in the marketplace. In order to achieve a result that occurs automatically in the physical world, a publisher would have to pay for an expensive (and less than 100 percent reliable) technology and pass that cost along to the consumer, while at the same time potentially making the product less desirable in the marketplace. The ability of the market to correct this imbalance would be inhibited because copyright owners would need to apply these measures or face the risk of unauthorized copying under the guise of the first sale doctrine. In addition, technological measures may inadvertently impede legitimate uses of the work, harming consumers. Further, no one has offered evidence that this technology is viable at this time.

One copyright industry representative observed in oral testimony that there had been no “hue and cry, not even so much as a suggestion, that consumers are looking for products that will

²⁸¹ *Accord* R-Time Warner Inc., at 2-3.

²⁸² *E.g.*, R-DiMA, at 5.

function under the forward-and-delete model.”²⁸³ To the contrary, the Napster phenomenon was cited as evidence that consumers wish to retain, not destroy, the digital copy from which the work is transmitted.²⁸⁴ We encountered nothing in the course of preparing this Report that would refute this observation.

Each of these differences between circulation of tangible and intangible copies is directly relevant to the balance between copyright owners and users in section 109. In weighing the detrimental effect of a digital first sale doctrine on copyright owners’ markets against the furtherance of the policies behind the first sale doctrine it must be acknowledged that the detrimental effect increases significantly in the online environment. “The ultimate question is whether an equivalent to the first sale doctrine *should* be crafted to apply in the digital environment. The answer must turn on a determination that such a new exception is needed to further the policies behind the first sale doctrine, and that it can be implemented without greater detriment to the copyright owner’s market.”²⁸⁵ We turn now to an evaluation of the policies behind the first sale doctrine.

²⁸³ T-NMPA, Mann, at 157.

²⁸⁴ *Id.* at 157-58.

²⁸⁵ Peters, *supra*, note 280, at 355-56 (emphasis in original).

ii. Policies behind the first sale doctrine

“The first sale doctrine was originally adopted by the courts to give effect to the early common law rule against restraints on the alienation of tangible property.”²⁸⁶ As discussed above, it appears to have been motivated as well by competition concerns – specifically, the ability of publishers to use their vending or distribution right to control not only the initial sales of books, but the aftermarket for resales.²⁸⁷

The tangible nature of the copy is not a mere relic of a bygone technology. It is a defining element of the first sale doctrine and critical to its rationale. This is because the first sale doctrine is an outgrowth of the distinction between ownership of intangible intellectual property (the copyright) and ownership of tangible personal property (the copy).²⁸⁸

The distribution right can be conceptualized as an extension of the copyright owner’s exclusive rights to include an interest in the tangible copies. Under common-law principles, the owner of the physical artifact – the copy – has complete dominion over it, and may dispose of possession or ownership of it as he sees fit. The distribution right, nonetheless, enables the

²⁸⁶ S. Rep. No. 162, 98th Cong., 1st Sess. 4 (1983). The legislative history of section 109 and of section 27 of the 1909 law, the first codification of the first sale doctrine, is quite brief. Despite its brevity, it focuses on one important and relevant concept. Repeatedly, the congressional reports refer to the ability of the owner of a *material copy* to dispose of that copy as he sees fit. H.R. Rep. No. 2222, 60th Cong., 2nd Sess. 19 (1909); H.R. 28192, 60th Cong., 2nd Sess. 26 (1909); H.R. Rep. No. 94-1476, 94th Cong., 2nd Sess. 79 (1976).

²⁸⁷ See *supra*, at 21.

²⁸⁸ “Ownership of a copyright, or of any of the exclusive rights under a copyright, is distinct from ownership of any material object in which the work is embodied. Transfer of ownership of any material object, including the copy or phonorecord in which the work is first fixed, does not of itself convey any rights in the copyrighted work embodied in the object; nor, in the absence of an agreement, does transfer of ownership of a copyright or of any exclusive rights under a copyright convey property rights in any material object.” 17 U.S.C. § 202.

copyright owner to prevent alienation of the copy – up to a point. That point is when ownership of a lawfully made copy is transferred to another person – *i.e.*, first sale. The first sale doctrine upholds the distinction between ownership of the copyright and ownership of the material object by confining the effect of the distribution right’s encroachment on that distinction.

The underlying connection between the two concepts is apparent in the 1909 Copyright Act. Both the first sale doctrine and the doctrine that ownership of copyright is distinct from ownership of a material object are found in section 27.²⁸⁹ Notwithstanding their codification in separate sections of the 1976 Act, their origin as part of the same provision of the 1909 Act demonstrates that the concepts are two sides of the same coin.

Digital transmission of a work does not implicate the alienability of a physical artifact. When a work is transmitted, the sender is not exercising common-law dominion over an item of personal property; he is exercising the central copyright right of reproduction with respect to the intangible work. Conversely, the copyright owner’s reproduction right does not interfere at all with the ability of the owner of the physical copy to dispose of ownership or possession of that copy, since the first sale doctrine applies fully with respect to the tangible object (e.g., the user’s hard drive) in which the work is embodied.

Because the underlying purpose of the first sale doctrine is to ensure the free circulation of tangible copies, it simply cannot be said that a transformation of section 109 to cover digital

²⁸⁹ The text of section 27 is quoted, *supra*, note 39.

transmissions furthers that purpose. The concerns that animate the first sale doctrine do not apply to the transmission of works in digital form.²⁹⁰

A number of the comments we received express the view that a digital first sale doctrine would further the purposes of section 109. We note that none of those comments are supported by a historically sound formulation of what those purposes are. For example, one commenter argued that the first sale doctrine is based on a calculation of incentives to create.²⁹¹ This view is not supported by the legislative history of section 109. Moreover, as is discussed below, the potential harm to the market and increased risk of infringement that would result from an expansion of section 109 could substantially reduce the incentive to create.²⁹² Thus, this argument is both historically unsound and unpersuasive as a practical matter.

Another commenter suggested that the original purpose of the first sale doctrine was “to Promote the Progress of science and Useful Arts [sic].”²⁹³ This observation does not advance the argument. It is a given that the “Progress of Science and useful Arts”²⁹⁴ is the policy

²⁹⁰ “The first sale doctrine was developed to avoid restraints on the alienation of physical property, and to prevent publishers from controlling not only initial sales of books, but the after-market for resales. These concerns do not apply to transmissions of works on the [Internet].” Peters, *supra*, note 280, at 355-56 (emphasis in original).

²⁹¹ C-DiMA, at 5-6 (“Copyright law secures to the copyright owner the exclusive rights of first distribution to provide an incentive for the creation and dissemination of copyrighted works. Once the copyright holder has been compensated for the initial distribution of the work, no further incentive is required, so the copyright owner should not be able to extract further profits from that particular copy of the work.”).

²⁹² *See infra*, at 97-99.

²⁹³ C-DFC, at 2 (“Historically, the ‘first sale’ doctrine has contributed to the achievement of that goal by providing a means for the broad secondary dissemination of works of imagination and information.”) (quoting without citation, U.S. Const. Art. I, sec. 8).

²⁹⁴ U.S. Const. Art. I, sec. 8.

undergirding the *entire* Copyright Act. However, particular provisions of the law may have more precise purposes, as is the case here.

The library associations made the claim that the first sale doctrine is based on a right of access²⁹⁵ – a right not found in the legislative history of section 109. In support of this argument, they cited to section 109(d)²⁹⁶ as a demonstration that section 109 applies “according to the scope of the interest that has been transferred, rather than according to the object of that interest.”²⁹⁷ We understand this argument to suggest that because the lease of a tangible object is not activity to which section 109 applies, the fact that a work is embodied in a tangible object must not be the test for the application of section 109. Instead, this argument appears to suggest, the scope of the interest conveyed (ownership versus rental) is the determinative factor for the application of section 109. This interpretation is fundamentally flawed. Section 109 is conditioned on *both* ownership (as opposed to mere possession) and the requirement that such ownership be of a particular physical copy. The failure to satisfy either requirement will preclude the distribution of the copy pursuant to section 109.

The library associations supported their conclusion regarding the first sale doctrine being a proxy for a right of access by proceeding from the premise that the requirement of a particular physical copy should be jettisoned from the doctrine. To support that premise, the library

²⁹⁵ R-Library Ass’ns, at 3-7.

²⁹⁶ 17 U.S.C. § 109(d) (stipulating that the privileges of this section apply only to ownership of copies, not mere possession).

²⁹⁷ *Id.* at 3.

associations claim that the requirement of a particular physical copy “was an efficient proxy for distinguishing the copyright owner’s exclusive rights in his work from the right to access and use that work”²⁹⁸ The argument is circular.

There is nothing to support the thesis that the first sale doctrine is a stand-in for a right of access to copyrighted works. Apart from the reference to section 109(d) discussed above, no authority was marshaled in support of this proposition. Neither the statutory text nor the legislative history of section 109 (or section 27 of the 1909 law) support the proposition. To the contrary, however, the Supreme Court’s decision in *Bobbs-Merrill* and the legislative history of the 1909 Act do refer directly to alienability of tangible property.²⁹⁹

A number of the comments also made reference to socially desirable activities, such as library lending, that are furthered by the existing first sale doctrine, and argue that similarly desirable activities would be furthered by a digital first sale doctrine. Asserting that a digital first sale doctrine would have beneficial effects is not the same as arguing that it would further the purposes of the existing first sale doctrine, since there is no sound basis for asserting that those effects are related to the purpose of the first sale doctrine. This argument relates not to underlying purpose, but to a balancing of the impact of copyright rights and exceptions. Even assuming the accuracy of the assertion that a digital first sale doctrine would result in socially desirable activities, the fact that a particular limitation on a copyright owner’s exclusive rights

²⁹⁸ *Id.* at 3-4.

²⁹⁹ *See supra* at 20-24.

will promote a public good is not, in itself, a sufficient basis for curtailing copyright protection. The social benefit must be balanced against the harm to the copyright owner's legitimate interests, and thus to the incentive to create. As discussed above, the extension, by analogy, of the first sale doctrine to the online environment has a significantly greater negative impact on copyright owners' legitimate interests than does the traditional first sale doctrine in the realm of tangible copies.

iii. Development of new business models

Reasoning by analogy always carries with it the risk of becoming captive to the analogy. Assumptions that are implicit in one situation can carry over to the analogous situation even though those assumptions no longer apply. This appears to be the case with the analogy between distribution of tangible copies and online transmissions of works.

Proposals for a digital first sale doctrine endeavor to fit the exploitation of works online within a distribution model that was developed within the confines of pre-digital technology. Digital communications technology enables authors and publishers to develop new business models, with a more flexible array of products that can be tailored and priced to meet the needs of different consumers.³⁰⁰ Requiring that transmissions of digital files be treated just the same as the sale of tangible copies artificially forces authors and publishers into a distribution model based on outright sale of copies of the work. The sale model was dictated by the technological necessity of manufacturing and parting company with physical copies in order to exploit a work –

³⁰⁰ Jane C. Ginsburg, *From Having Copies to Experiencing Works: the Development of an Access Right in U.S. Copyright Law* 10 (2000) (available online at papers.ssrn.com/paper.taf?abstract_id=222493).

neither of which apply to online distribution. If the sale model continues to be the dominant method of distribution, it should be the choice of the market, not due to legislative fiat.

iv. International considerations

In evaluating the arguments put forward to support a digital first sale doctrine, it is instructive to inquire how the international community is addressing the application of exhaustion of rights³⁰¹ to the online transmissions of works. The 1996 WIPO treaties³⁰² set international norms for the treatment of copyright and related rights in the Internet environment. The treaties addressed both the circulation of physical goods and the transmission of works.

³⁰¹ “Exhaustion” is the term that is often used in international agreements to refer to the termination of a copyright owner’s distribution right with respect to a particular copy after that copy has been sold with the copyright owner’s authorization — i.e., the first sale doctrine. The distribution right is said to “exhaust” after the first sale.

³⁰² *See supra*, at 5.

The WCT and the WPPT provide an exclusive distribution right³⁰³ with respect to tangible copies of works while, with respect to intangible copies (that is, transmissions), providing a separate exclusive right of making available to the public, that was conceived as a

³⁰³ WCT, art. 6:

(1) Authors of literary and artistic works shall enjoy the exclusive right of authorizing the making available to the public of the original and copies of their works through the sale or other transfer of ownership.

(2) Nothing in this Treaty shall affect the freedom of Contracting Parties to determine the conditions, if any, under which the exhaustion of the right in paragraph (1) applies after the first sale or other transfer of ownership of the original or a copy of the work with the authorization of the owner.*

*Agreed statement concerning Articles 6 and 7: As used in these Articles, the expressions “copies” and “original and copies,” being subject to the right of distribution and the right of rental under the said Articles, refer exclusively to fixed copies that can be put into circulation as tangible objects.

WPPT, art. 8:

(1) Performers shall enjoy the exclusive right of authorizing the making available to the public of the original and copies of their performances fixed in phonograms through the sale or other transfer of ownership.

(2) Nothing in this Treaty shall affect the freedom of Contracting Parties to determine the conditions, if any, under which the exhaustion of the right in paragraph (1) applies after the first sale or other transfer of ownership of the original or a copy of the fixed performance with the authorization of the performer.*

*Agreed statement concerning Articles 2(e), 8, 9, 12, and 13: As used in these Articles, the expressions “copies” and “original and copies,” being subject to the right of distribution and the right of rental under the said Articles, refer exclusively to fixed copies that can be put into circulation as tangible objects.;

WPPT, art. 12:

(1) Producers of phonograms shall enjoy the exclusive right of authorizing the making available to the public of the original and copies of their performances fixed in phonograms through the sale or other transfer of ownership.

(2) Nothing in this Treaty shall affect the freedom of Contracting Parties to determine the conditions, if any, under which the exhaustion of the right in paragraph (1) applies after the first sale or other transfer of ownership of the original or a copy of the phonogram with the authorization of the producer of the phonogram.*

*Agreed statement concerning Articles 2(e), 8, 9, 12, and 13: As used in these Articles, the expressions “copies” and “original and copies,” being subject to the right of distribution and the right of rental under the said Articles, refer exclusively to fixed copies that can be put into circulation as tangible objects.

subset of a general right of communication to the public.³⁰⁴ The treaties permit members to limit the distribution right with an exhaustion principle,³⁰⁵ but there is no requirement to do so. There is no provision in either treaty regarding exhaustion of the making available or communication rights. This is hardly surprising since exhaustion is a concept that has heretofore only applied to the right to distribute tangible copies.

Those countries that have implemented protection for online transmissions have largely done so through the right of communication to the public and thus provide no equivalent of the first sale limitation to such rights. We are not aware of any country other than the United States that has implemented the making available right through application of a combination of the distribution, reproduction, public performance and public display rights. In a sense, the only reason the issue of first sale arises in the U.S. is because we chose to implement the making

³⁰⁴ WCT, art. 8:

Without prejudice to the provisions of Articles 11(1)(ii), 11*bis*(1)(i) and (ii), 11*ter*(1)(ii) and 14*bis*(1) of the Berne Convention, authors of literary and artistic works shall enjoy the exclusive right of authorizing any communication to the public of their works, by wire or wireless means, including the making available to the public of their works in such a way that members of the public may access these works from a place and at a time individually chosen by them.

WPPT, art. 10:

Performers shall enjoy the exclusive right of authorizing the making available to the public of their performances fixed in phonograms, by wire or wireless means, in such a way that members of the public may access them from a place and at a time individually chosen by them.;

WPPT, art. 14:

Producers of phonograms shall enjoy the exclusive right of authorizing the making available to the public of their phonograms, by wire or wireless means, in such a way that members of the public may access them from a place and at a time individually chosen by them.

³⁰⁵ WCT, art. 6(2); WPPT, art. 8(2), art. 12(2).

available right through, *inter alia*, the distribution right. Elsewhere, online transmissions are considered communications to the public, and the first sale doctrine simply does not apply.

An important example of this is the European Union's Information Society Directive.³⁰⁶ This directive, which, among other things, implements the WIPO treaties, provides for a distribution right³⁰⁷ that is limited by the exhaustion principle, and a separate making available right that is not. The exhaustion principle in the Directive is expressly limited to circulation of tangible copies:

Copyright protection under this Directive includes the exclusive right to control distribution of the work incorporated in a tangible article. The first sale in the Community of the original of a work or copies thereof by the rightholder or with his consent exhausts the right to control resale of that object in the Community.³⁰⁸

The Directive goes further, stating in clear terms that exhaustion does not apply to online transmissions:

The question of exhaustion does not arise in the case of services and on-line services in particular. This also applies with regard to a material copy of a work or other subject-matter made by a user of such a service with the consent of the rightholder. Therefore, the same applies to rental and lending of the original and copies of works or other subject-matter which are services by nature. Unlike CD-

³⁰⁶ Directive 2001/29/EC of the European Parliament and of the Council of 22 May 2001, on the harmonisation of certain aspects of copyright and related rights in the information society (OJ L 167/10 2001) ("Information Society Directive").

³⁰⁷ Information Society Directive, art. 4:

1. Member States shall provide for authors, in respect of the original of their works or of copies thereof, the exclusive right to authorise or prohibit any form of distribution to the public by sale or otherwise.

2. The distribution right shall not be exhausted within the Community in respect of the original or copies of the work, except where the first sale or other transfer of ownership in the Community of that object is made by the rightholder or with his consent.

³⁰⁸ Information Society Directive, art. 28.

ROM or CD-I, where the intellectual property is incorporated in a material medium, namely an item of goods, every on-line service is in fact an act which should be subject to authorisation where the copyright or related right so provides.³⁰⁹

The decision of the EU not to create an exception to the right of communication to the public that is similar to the doctrine of exhaustion of the right of distribution represents an informed policy decision that such an expansion is not appropriate. We are not aware of a public outcry in any of the EU countries in opposition to this decision.

The analogy that some in the U.S. have made between the downstream distribution of a tangible copy of a work and an online transmission is attractive because of the broad application of the right of distribution in U.S. copyright law. As both activities implicate the distribution right, the distinction between the distribution of physical objects and intangible transmissions may at first blush seem small. They are, however, distinct acts with distinct characteristics that ought not necessarily be treated similarly. When viewed through an international lens this distinction becomes clearer.

c. Recommendations

Based on the foregoing discussion, and for the reasons set forth below, we recommend no change to section 109 at this time. Although there is a great deal of speculation about what may happen in the future, we heard no convincing evidence of present-day problems. However, legitimate concerns have been raised about what may develop as the market and technology evolve. These concerns are particularly acute in the context of the potential impact on library

³⁰⁹ Information Society Directive, art. 29.

operations. The time may come when Congress may wish to consider further how to address these concerns.

i. No change to section 109

In order to recommend a change in the law, there should be a demonstrated need for the change that outweighs any negative aspects of the proposal. We do not believe that this is the case with the proposal to expand the scope of section 109 to include a digital first sale doctrine.

Much of the rhetorical force behind the digital first sale proposal stems from the analogy to circulation of goods in the physical realm. On examining the nature of digital transmissions compared to the nature of transfers of material objects, we do not find this analogy compelling for several reasons.

The analogy ultimately rests on the fiction that a transmission of a work is the same as a transfer of a physical copy. In order to get around the fact that a transmission results in two copies, the analogy requires one of two things to happen: either a voluntary deletion of the sender's copy or its automatic deletion by technological means. Both are unworkable at this time.

Relying on voluntary deletion is an open invitation to virtually undetectable cheating, and there is no reason to believe there would be general compliance with such a requirement. If the burden were placed on the copyright owner to demonstrate that there was no simultaneous

deletion of the copy from which the transmission was made, it would erect what would probably be an impossible evidentiary burden. If the burden of establishing the defense were placed on the defendant, and had to be met by demonstrating simultaneous deletion, the defendant would have a similarly impossible evidentiary burden. If the defendant were merely required to demonstrate the absence of a copy of the work on his hard drive, then the simultaneous deletion principle would, as a practical matter, disappear, and section 109 would become a defense that could be asserted whenever a copy was deleted at any time after it had been transmitted one or more times or copied for retention on another medium. The recent phenomenon of the popularity of using Napster to obtain unauthorized copies of works strongly suggests that some members of the public will infringe copyright when the likelihood of detection and punishment is low.

Relying on a “forward-and-delete” technology is not workable either. At present such technology does not appear to be available. Even assuming that it is developed in the future, the technology would have to be robust, persistent, and fairly easy to use. As such, it would likely be expensive – an expense that would have to be borne by the copyright owner or passed on to the consumer. Even so, the technology would probably not be 100 percent effective. Conditioning a curtailment of the copyright owners’ rights on the employment of an expensive technology would give the copyright owner every incentive *not* to use it. In the alternative, it would be damaging to the market to expand section 109 in anticipation of the application of technological protection measures, thus giving the copyright owner a choice between significantly increased expenses, significantly increased exposure to online infringement, or not offering works online.

Asserting, by analogy, that an online digital transmission is the same as a transfer of a material object ignores the many differences between the two events. Digital transmission has a much greater effect on the market for copies provided by the copyright owners. It is also accompanied by a greatly increased risk of piracy.

The risk that expansion of section 109 will lead to increased digital infringement weighs heavily against such an expansion. Copyright piracy in the online world is not a matter of speculation — it is, unfortunately, an established fact of life. It appears likely that expanding section 109 would encourage infringement of the reproduction right, either in the mistaken belief that the provision allows a user to retain a copy of a work after it has been transmitted one or more times, or in the belief that the defense can be asserted in bad faith to defeat, or at least complicate, an infringement lawsuit. And unlike Napster, the activity would not rely on a central server, so both the infringing activity and the evidence of infringement would be decentralized and therefore difficult to detect and remedy.³¹⁰

Twice since the enactment of the current Copyright Act, Congress has stepped in to *narrow* the scope of the first sale doctrine to safeguard the reproduction right.³¹¹ In both cases there was anecdotal evidence of abuses in the marketplace, combined with conditions that created the opportunity for widespread abuse. The same conditions apply to the proposals to

³¹⁰ See I. Trotter Hardy, Project Looking Forward: Sketching the Future of Copyright in a Networked World 262-63 (Copyright Office, 1998) (analyzing the difficulties involved in preventing, identifying, and remedying decentralized infringement) (available online at www.loc.gov/copyright/docs/thardy.pdf).

³¹¹ See discussion *supra*, at 24-25.

create a digital first sale doctrine. Again, the striking popularity of Napster is a strong indication that many people will infringe copyright if the means to do so is at their disposal. And the more convenient the means, the greater the likelihood of infringements. The risk to the copyright owners' reproduction right is simply too great.

We do not ignore the claim that an expansion of section 109 would further the pro-competitive goals of the first sale doctrine. To the extent that section 109 does not permit the transmission of copyrighted works, the right holders retain the exclusive right to restrict or prohibit such activity, thereby barring resales that compete with sales of new copies. Of course, a lawfully made and owned copy of a work on a floppy disk, Zip™ disk, CD-ROM or similar removable storage medium can easily be transferred by physical transfer of the item and that activity is within the current reach of section 109. In the final analysis, the concerns about expanding first sale to limit the reproduction right, harm to the market as a result of the ease of distribution, and the lessened deterrent effect of the law that could promote piracy, outweigh the pro-competitive gains that might be realized from the creation of a digital first sale doctrine. In addition, there does not appear to be any evidence that the kind of price-fixing behavior that prompted the Supreme Court to establish the first sale doctrine is occurring. Should such behavior become widespread, and should antitrust law fail to afford an appropriate remedy, this conclusion may have to be revisited.

Implicit in several of the submissions that addressed the first sale issue is a belief that the analogy of transmissions to physical transfer is so compelling that consumer expectations about

transferability of downloaded material have become deeply-rooted. It is said that failure of the law to live up to this expectation will damage commerce in such material. We are aware of no empirical (or even anecdotal) evidence for this proposition, so any assessment of claims concerning consumer expectations and their effect on e-commerce is necessarily conjectural. However, it can be said with confidence that e-commerce and the market for works online has grown quite substantially despite the absence of an expanded section 109. In addition, judging from consumer trends today, there appears to be little or no evidence of desire on the part of consumers to engage in the kind of conduct — transmission and simultaneous deletion — that would be covered in a digital first sale doctrine.

In any event, these issues of consumer expectations and the growth of electronic commerce are precisely what should be left to the marketplace to determine. Straight-jacketing copyright owners into a distribution model that developed around a different technology at a different time is a formula for stifling innovative, market-driven approaches to meeting consumer demand for digital content. If, as has been asserted, the current terms by which copyright owners offer their products are unacceptable to consumers, consumers will stop buying them under those terms and competitors will step into the breach. Such self-correcting market forces should be given an opportunity to address these types of concerns before Congress alters the balance of rights and exceptions in the Copyright Act.

ii. Further consideration of ways to address library issues related to the first sale doctrine

The fact that we did not recommend adopting a “digital first sale” provision at this time does not mean that the issues raised by libraries are not potentially valid concerns. Similarly, our conclusion that certain issues are beyond the scope of the present study does not reflect our judgment on the merits of those issues.

The library community has raised concerns about how the current marketing of works in digital form affects libraries with regard to five specifically enumerated categories: interlibrary loans, off-site accessibility, archiving/preservation, availability of works, and use of donated copies.³¹² In each case, the concern is that licensing terms for use of the works will effectively prohibit the desired activity.³¹³

Concerning interlibrary lending, library associations suggest that the Copyright Act should reaffirm and strengthen rules on interlibrary loan especially for acquired digital works.³¹⁴ They state that licenses often prohibit the loaning of works in digital form. As mentioned elsewhere, the issue of licenses is beyond the scope of this study.

It should be noted that many interlibrary loans are not in fact loans – the temporary lending of a particular copy of a work – but delivery of copies. The “lending” institution

³¹² C-Library Ass’ns, at 11-19.

³¹³ *Id.*

³¹⁴ *Id.* at 11-13, 23.

reproduces the copyrighted work and sends the reproduction to the “borrowing” library. This copy is given by the borrowing library to its patron, who becomes the owner of that copy. Clearly this activity of libraries is outside of the scope of section 109. As to the library patron, to the extent that such a reproduction and distribution is authorized by section 108,³¹⁵ the copy becomes his property and is therefore subject to section 109.

Library concerns about offsite accessibility relate chiefly to licenses that limit access to a particular work to a specific location (e.g., a single building or computer). This means that such works are not available for use offsite, including in a classroom. Libraries seek the ability to make all works in their collections available for classroom use.³¹⁶ These are contract issues that are not within the mandate for this study.

Library associations raised a related concern about licensing terms which limit the number of users of a work at any given time, the hours of the day during which works may be used, or other similar limitations.³¹⁷ Less restrictive licenses are often available, but at a higher price. As with restrictions on offsite availability of works, these limitations have the effect of reducing the general availability of those works that are subject to the limitations. The library associations believe that these restrictions create substantial burdens to research.³¹⁸ This is also a

³¹⁵ Section 108 was updated in the Digital Millennium Copyright Act of 1998; as updated, section 108 makes it clear that digital copies may not be given to patrons. Copies given to patrons must be in analog form – e.g., photocopies.

³¹⁶ C-Library Ass’ns, at 11-13, 23.

³¹⁷ *Id.* at 17.

³¹⁸ *Id.*

contract issue that is not within the mandate of the study. However, we do note that the difficulty identified by the library associations is not new, and is not unique to the digital world. Libraries have always had to make difficult trade-offs between greater availability of particular works (through the purchase of more copies) and other priorities.

Concern was also raised about works that libraries can only offer by means of online access. The terms of use of a work that is accessed in this way are typically set forth in a subscription agreement. Online access is achieved by loading the work into the RAM of a computer while it is being accessed; it does not involve the making of a permanent copy. Here there is no section 109 issue – at the end of the online session the library owns no physical copy that can be transferred.

Preservation and archiving are identified as potential problems because many licenses prohibit copying for such purposes (or for any purpose) and because prohibitions on copying are enforced by technological means.³¹⁹ The library associations propose creating a national system of digital repositories, where specific libraries or institutions would be designated as custodians of specific parts of our nation's digital history and assisted in their efforts to preserve these works.³²⁰ While these issues are beyond the scope of this study, we acknowledge that they are legitimate concerns that have been recognized as such.³²¹ In fact, they are being addressed. For

³¹⁹ C-Library Ass'ns, at 14.

³²⁰ *Id.* at 23.

³²¹ Committee on Intellectual Property Rights and the Emerging Information Infrastructure, *The Digital Dilemma* 209-10 (2000).

example, the Librarian of Congress, James H. Billington, has appointed a national advisory committee to assist the Library of Congress in the development of a National Digital Information Infrastructure and Preservation Program to ensure the long-term availability of digital materials. That committee held its first meeting on May 1, 2001.

The focus of library concerns regarding donated copies is their ability to use donated CD-ROMs. Libraries are not able to use CD-ROMs donated to them because the donors are not owners of the CD-ROMs, only licensees, and thus lack the legal authority to transfer the copy of the work they possess.³²² Since the license agreement prevents the transfer, the issue is beyond the scope of this study.

Most of these issues arise from terms and conditions of use, and costs of license agreements. One arises because, when the library has only online access to the work, it lacks a physical copy of the copyrighted work that can be transferred.³²³ These issues arise from existing business models and are therefore subject to market forces. We are in the early stages of electronic commerce. We hope and expect that the marketplace will respond to the various concerns of customers in the library community. However, these issues may require further consideration at some point in the future. Libraries serve a vital function in society, and we will continue to work with the library and publishing communities on ways to ensure the continuation of library functions that are critical to our national interest.

³²² C-Library Ass'ns, at 18-19.

³²³ See Ginsburg *supra* note 300, at 10.

2. The Legal Status of Temporary Copies

a. *Relevance to this Report*

As was discussed above, this Report is a direct outgrowth of Congressional concern at the time of the enactment of the DMCA about the copyright treatment of digital reproduction and transmission.³²⁴ Specifically, the scope of the study and Report mandated by Congress in section 104 of the DMCA can be traced to some of the proposed amendments to sections 109 and 117 of title 17 made in the Boucher-Campbell bill.³²⁵ One of these proposals was an amendment to section 117 that would allow temporary copies to be made if these copies were “incidental to the operation of a device in the course of the use of a work otherwise lawful under this title.”³²⁶ While this proposal was not adopted by Congress, section 117 was one of the provisions of title 17 that we were instructed to examine in this Report. The only context in which section 117 arose in the Boucher-Campbell bill was with respect to incidental copying.

This Report necessarily requires consideration and evaluation of temporary incidental copies made in the course of use on a computer or computer network, such as the Internet. In addition to the congressional concerns leading to the creation of this Report, the comments and testimony received in the course of our study illustrate the importance of clarifying the lawful scope of temporary copies in the current market. In order to understand the issues raised by the transmission of digital works over the Internet, it is appropriate to clarify the current state of the

³²⁴ See discussion *supra*, at 18.

³²⁵ H.R. 3048, 105th Congress, 1st Session, November 13, 1997. See discussion *supra*, at 15 & ff.

³²⁶ *Id.* at Sec. 6(b)(1).

law on this issue. This section will discuss the origins of the section 117 exemption for temporary copies and examine its purpose in relation to new developments related to temporary buffer copies.

b. *RAM Reproductions as “Copies” under the Copyright Act*

i. Technical background

All instructions and data that are operated on by a computer are stored in integrated circuits known as RAM. Unlike flash memory, read-only memory (ROM)³²⁷ and magnetic storage devices such as disk and tape drives, RAM is volatile: when power is switched off, all information stored in RAM is erased. Conversely, as long as the power remains on, information stored in RAM can be retrieved and reproduced unless it is overwritten by other information.

All of the familiar activities that one performs on a computer — e.g., execution of a computer program, retrieval and display of information, browsing the World-Wide Web — necessarily entail making reproductions in RAM. These reproductions generally are made automatically, and transparently to the user—i.e., without the user being aware that copies are being made. The copies usually persist for as long as the activity takes place.³²⁸ For example, the instructions that comprise a computer program generally remain in RAM for as long as the

³²⁷ This term includes all variants of ROM, such as programmable read-only memory (PROM), erasable programmable read-only memory (EPROM), electrically erasable programmable read-only memory (EEPROM) and so on.

³²⁸ In many instances, as a technical matter, the information will remain in RAM even after it is no longer in use. For example, when a computer program terminates, the operating system takes note of the fact that the memory occupied by the program is now available for other use. The content of that memory, however, is unchanged until it is overwritten with new information, or the power is turned off.

program is running. Likewise, the data that express text and images remain in RAM for as long as the text and images are displayed. As the packets of binary information comprising works traverse computer networks, temporary copies (in RAM and on disk) are made as they move from point to point along the way from source to destination.

Although it is theoretically possible that information could be stored in RAM for such a short period of time that it could not be retrieved, displayed, copied or communicated, this is unlikely to happen in practice. A device that is capable of storing, but not retrieving, displaying, copying or communicating information would have no practical purpose, and there would be no engineering justification for making such a device.

The issue of the legal status of RAM reproductions has arisen in this study almost exclusively in the particular factual context of streaming audio.³²⁹ In order to render³³⁰ the packets of audio information in an audio “stream ” smoothly, the rendering software maintains a “buffer” – a portion of memory set aside to store audio information until it has been rendered. Inconsistencies in the rate at which audio packets are delivered over the Internet are thus evened out, so that the software can render the information at a constant rate. As information is rendered, it is discarded and new information is put into the buffer as it is received.

³²⁹ “Streaming audio” is the digital transmission of sound – often sound recordings of musical compositions – as a series of packets of audio information that are reassembled and rendered on the recipient’s computer as they are received.

³³⁰ In this context “render” means the process by which the digital representation of sounds and/or images is converted back into those sounds and/or images.

ii. Statutory analysis

Section 106(1) of the Copyright Act grants a copyright owner the exclusive right “to reproduce the copyrighted work in copies” and to authorize others to do so. Reproducing a work in RAM therefore falls within the scope of a copyright owner’s exclusive reproduction right if it results in a “copy.”

The starting point for determining whether reproductions in RAM are copies for copyright purposes is the text of the statute. “Copies” are defined in the Copyright Act as:

material objects, other than phonorecords, in which a work is fixed by any method now known or later developed, and from which the work can be perceived, reproduced, or otherwise communicated, either directly or with the aid of a machine or device.³³¹

There is no question that RAM chips are “material objects.” They are electronic integrated circuits, etched and deposited on a wafer of semiconducting material (such as silicon), which are capable of storing binary information in the form of electrical impulses. A work stored in RAM can be “perceived, reproduced, or otherwise communicated” with the aid of a computer. The key issue, therefore, is whether a reproduction in RAM is “fixed.”

The Copyright Act defines “fixed” as follows:

A work is “fixed” in a tangible medium of expression when its embodiment in a copy or phonorecord . . . is sufficiently permanent or stable to permit it to be perceived, reproduced, or otherwise communicated for a period of more than transitory duration.³³²

³³¹ 17 U.S.C. § 101.

³³² *Id.*

As to the element of duration, the definition of “fixed” does not require that a copy be permanent or that it last for any specified period of time.³³³ For a work to be fixed, it must only be “*sufficiently permanent or stable* to permit it to be perceived [or] reproduced . . . for a period of more than transitory duration.”³³⁴ Although the embodiment of a work in RAM is not permanent, since loss of power results in erasure of the work, typically it is “sufficiently . . . stable” to be “perceived [or] reproduced” for an indefinite period of time — i.e., for as long as the power remains on and the memory locations storing the work are not overwritten with other information. As one court has observed, the conclusion that RAM copies are fixed

is actually confirmed rather than refuted by [the] argument that the RAM representation of the program is not “fixed” because it disappears from RAM the instant the computer is turned off. Thus one need only imagine a scenario where the computer, with the program loaded into RAM, is left on for extended periods of time, say months or years, or indeed left on for the life of the computer. In this event, the RAM version of the program is surely not ephemeral or transient; it is, instead, essentially permanent and thus plainly sufficiently fixed to constitute a copy under the Act.³³⁵

Based on the definitional language in the Copyright Act, RAM reproductions are generally “fixed” and thus constitute “copies” that are within the scope of the copyright owner’s reproduction right. The definition of “fixed” leaves open the possibility, however, that certain RAM reproductions that exist for only a “period of . . . transitory duration” are not copies. The statute does not define “transitory duration” directly. Since permanence is not required for

³³³ See *Advanced Computer Services of Michigan, Inc. v. MAI Sys. Corp.*, 845 F. Supp. 356, 362-63 (E.D. Va. 1994).

³³⁴ 17 U.S.C. § 101 (emphasis added).

³³⁵ *Advanced Computer Services*, 845 F. Supp. at 363.

fixation, “transitory” must denote something shorter than “temporary.” “Transitory” must also denote something less than “ephemeral,” as that term is used in the Copyright Act, since the Act confirms that “ephemeral recordings” are fixed by providing a specific exemption for “ephemeral recordings” lasting up to six months.³³⁶ Courts have not attempted to formulate a general rule defining how long a reproduction must endure to be “fixed,” deciding instead on a case-by-case basis whether the particular reproduction at issue sufficed.³³⁷

Nonetheless, a general rule can be drawn from the language of the statute. In establishing the dividing line between those reproductions that are subject to the reproduction right and those that are not, we believe that Congress intended the copyright owner’s exclusive right to extend to all reproductions from which economic value can be derived. The economic value derived from a reproduction lies in the ability to copy, perceive or communicate it. Unless a reproduction manifests itself so fleetingly that it cannot be copied, perceived or communicated, the making of that copy should fall within the scope of the copyright owner’s exclusive rights. The dividing line, then, can be drawn between reproductions that exist for a sufficient period of time to be capable of being “perceived, reproduced, or otherwise communicated” and those that do not.³³⁸

³³⁶ 17 U.S.C. § 112.

³³⁷ See, e.g., *MAI Sys. Corp. v. Peak Computer, Inc.*, 991 F.2d 511, 518 (9th Cir. 1993); *Advanced Computer Servs.*, 845 F. Supp. at 363.

³³⁸ This view is consistent with the discussion of fixation in the legislative history of the Copyright Act. The legislative history is examined *infra* at 114-117.

It is also consistent with “a quite well-established position at the international level” that “fixation means sufficient stability of form so that what is ‘fixed’ may be perceived, reproduced or otherwise communicated.” Mihály Ficsor, *Copyright for the Digital Era: The WIPO “Internet” Treaties*, 21 Colum./VLA J. L. and the Arts 197 (1997) (“Digital Era”).

As a practical matter, as discussed above, this would cover the temporary copies that are made in RAM in the course of using works on computers and computer networks.

Drawing the line with reference to the ability to perceive, reproduce or otherwise communicate a work makes particular sense when one considers the manner in which one important category of digital works—computer programs—are utilized. Computer programs are exploited chiefly through exercise of the rights of reproduction and distribution. In order to utilize a program, it must be copied into RAM. To exercise the right to make that temporary copy in RAM is to realize the economic value of the program. That RAM copy need only exist long enough to communicate the instructions to the computer's processing unit in the proper sequence.

Exploitation of works on digital networks illustrates the same point. Digital networks permit a single disk copy of a work to meet the demands of many users by creating multiple RAM copies. These copies need exist only long enough to be perceived (e.g., displayed on the screen or played through speakers), reproduced or otherwise communicated (e.g., to a computer's processing unit) in order for their economic value to be realized. If the network is sufficiently reliable, users have no need to retain copies of the material. Commercial exploitation in a network environment can be said to be based on selling a right to perceive temporary reproductions of works.³³⁹

³³⁹ Other exclusive rights may be involved as well. A discussion of these additional rights is beyond the scope of this Report.

Apart from these policy considerations, attempting to draw a line based on duration may be impossible. The language of the Copyright Act rules out drawing the line between temporary and permanent copies, as discussed above. Even if this distinction were possible under the statute, the concept of permanence is not helpful in this context. Magnetic disks and tapes can be erased; printed works decompose over time, or can be destroyed deliberately or accidentally. Separating some temporary copies from others based on their duration poses similar difficulties. How temporary is temporary? Hours? Minutes? Seconds? Nanoseconds? The line would be difficult to draw, both in theory and as a matter of proof in litigation.

The conclusion that reproductions in RAM are “copies” is reinforced by the existence of another provision of the Copyright Act: section 117. The current version of section 117 was added in 1980 at the recommendation of CONTU. In relevant part, it provides:

Notwithstanding the provisions of section 106, it is not an infringement for the owner of a copy of a computer program to make or authorize the making of another copy or adaptation of that computer program provided:

(1) that such a new copy or adaptation is created as an essential step in the utilization of the computer program in conjunction with a machine and that it is used in no other manner³⁴⁰

The “new copy” that is “created as an essential step in the utilization of the computer program in conjunction with a machine” is the copy made in RAM when the program is executed. No such exemption would have been necessary if reproductions in RAM could not be copies. It would be

³⁴⁰ 17 U.S.C. § 117.

unreasonable to interpret the definitions in section 101 in such a way that it would render section 117 superfluous.³⁴¹

iii. Legislative history

The legislative history of the Copyright Act confirms that certain temporary reproductions implicate the reproduction right, but is ambiguous as to the precise dividing line between temporary reproductions that are considered “fixed” and those that are not. In discussing the definition of “fixed,” the House Report that accompanied the Copyright Act of 1976 states that copies that exist only “momentarily” in RAM may not satisfy the fixation requirement.³⁴² According to the 1976 House Report, “the definition of ‘fixation’ would exclude from the concept purely evanescent or transient reproductions such as those projected briefly on a screen, shown electronically on a television or other cathode ray tube, or captured momentarily in the ‘memory’ of a computer.”³⁴³

One interpretation of that statement is that Congress viewed all reproductions in the “memory” of a computer to exist only momentarily, and thus as incapable of meeting the fixation requirement.³⁴⁴ If so, then the legislative history was based on an imperfect grasp of the relevant technology. As discussed above, reproductions in RAM can exist for long periods of time — i.e.,

³⁴¹ See, e.g., *Pennsylvania Dept. of Public Welfare v. Davenport*, 495 U.S. 552, 562 (1990) (“Our cases express a deep reluctance to interpret a statutory provision so as to render superfluous other provisions in the same enactment.”).

³⁴² 1976 House Report, *supra* note 40, at 53.

³⁴³ *Id.*

³⁴⁴ See discussion *infra*, at 120-123.

for as long as the power remains on and no other information is stored in the memory locations occupied by the reproduction. In addition, RAM reproductions are qualitatively different from the other examples cited (projection on a screen, or display on a television or cathode ray tube). RAM reproductions are stored or embodied in the RAM chip. A projection on a screen or a display on a television or cathode ray tube is not stored or embodied in the screen or TV or display tube.³⁴⁵ In any event, the premise that all RAM reproductions exist only momentarily is incorrect, and cannot support a conclusion that all RAM reproductions are unfixed.³⁴⁶

Another possible interpretation of the statement in the House Report concerning computer memory is that it applies not to all RAM reproductions, but only to those “reproductions . . . captured *momentarily*” in “computer memory.”³⁴⁷ This interpretation implies that any reproduction in computer memory that exists more than “momentarily” is fixed. This interpretation adheres more closely to the statutory text, since, as discussed above, the statute on its face contemplates that at least some temporary copies satisfy the fixation requirement.³⁴⁸ Consequently, it appears to be the better interpretation of the language in the 1976 House Report.

³⁴⁵ See *infra*, note 369.

³⁴⁶ Accord CONTU Report, *supra* note 61, at 22 n.111 (“Insofar as a contrary conclusion [that works in computer storage are not fixed] is suggested in one report accompanying the new law, this should be regarded as incorrect and should not be followed since legislative history need not be perused in the construction of an unambiguous statute.”).

³⁴⁷ 1976 House Report, *supra* note 22, at 53 (emphasis added).

³⁴⁸ See discussion *supra*, at 109–114.

Stating that copies which exist only “momentarily” are not fixed (and copies that exist longer are fixed) still begs the question of precisely which RAM copies exist for too short a time to satisfy the fixation requirement, and which do not. The best guide in the legislative history for determining where Congress intended to draw the line between fixed and unfixed reproductions is elsewhere in the 1976 House Report, where it is stated that “fixation is sufficient if the work ‘can be perceived, reproduced, or otherwise communicated, either directly or with the aid of a machine or device.’”³⁴⁹ This statement supports the distinction drawn above between RAM copies that exist long enough to be perceived, reproduced or otherwise communicated and those that do not.

The legislative history of a subsequent amendment to the Copyright Act also supports the conclusion that temporary copies in RAM may satisfy the fixation requirement. The current text of sections 117(a) and (b) was added in 1980 as part of a package of amendments recommended by CONTU. The House report accompanying the 1980 amendments did not explain the intent of the legislation, other than to implement CONTU’s recommendations.³⁵⁰ The CONTU Report sets forth its reasons for recommending the statutory additions, which Congress enacted with few changes.³⁵¹

³⁴⁹ 1976 House Report, *supra* note 35, at 52 (quoting 17 U.S.C. § 102(a)).

³⁵⁰ Referring to the portion of the bill that added the section 101 definition of “computer program” and section 117, the House committee report stated only that it “embodie[d] the recommendations of the Commission on New Technological Uses of Copyrighted Works with respect to clarifying the law of copyright of computer programs.” H.R. Rep. No. 1307 (Part I), 96th Cong., 2^d Sess. 23 (1980).

³⁵¹ The status of the CONTU Report as legislative history is discussed *supra*, at 29.

CONTU clearly viewed reproductions in computer memory as “copies,” implicating a copyright owner’s exclusive rights under section 106.³⁵² In 1976 Congress considered the problems associated with computer uses of copyrighted works not to be sufficiently developed for a definitive legislative solution.³⁵³ Congress enacted what was commonly referred to as a “moratorium” provision in section 117, which preserved the status quo on December 31, 1977 as to use of copyrighted works in conjunction with computers and similar information systems.³⁵⁴ In recommending the repeal of that provision, CONTU stated:

The 1976 Act, without change, makes it clear that the placement of any copyrighted work into a computer is the preparation of a copy and, therefore, a potential infringement of copyright. . . .

Because the placement of a work into a computer is the preparation of a copy, the law should provide that persons in rightful possession of copies of programs be able to use them freely without fear of exposure to copyright liability. . . . One who rightfully possesses a copy of a program, therefore, should be provided with a legal right to copy it to that extent which will permit its use by that possessor. This would include the right to load it into a computer³⁵⁵

³⁵² CONTU Report, *supra* note 61, at 13. It is reasonable to assume that in 1978, when the CONTU Report was published, reference to “placement of a work into a computer” was understood to include reproduction in volatile memory. Although early generations of computers used non-volatile ferrite core memory, volatile solid-state memory was in wide use by the early 1970s.

³⁵³ 1976 House Report, *supra* note 35, at 116.

³⁵⁴ Pub. L. No. 94-553, 90 Stat. 2541 (1976); 1976 House Report, *supra* note 35, at 116. Former section 117 read as follows:

Notwithstanding the provisions of sections 106 through 116 and 118, this title does not afford to the owner of copyright in a work any greater or lesser rights with respect to the use of the work in conjunction with automatic systems capable of storing, processing, retrieving, or transferring information, or in conjunction with any similar device, machine or process, than those afforded to works under the law, whether title 17 or the common law or statutes of a State, in effect on December 31, 1977, as held applicable and construed by a court in action brought under this title.

³⁵⁵ CONTU Report, *supra* note 61, at 13.

iv. Judicial interpretation

Every court that has addressed the issue of reproductions in volatile RAM has expressly or impliedly found such reproductions to be copies within the scope of the reproduction right.

We are aware of no cases that have reached the contrary conclusion.

The seminal case on the subject is *MAI Sys. Corp. v. Peak Computer, Inc.*,³⁵⁶ in which the defendant's loading of operating system and diagnostic software into computer memory in violation of a license agreement was held to be an infringement.³⁵⁷ In reaching that conclusion, the Ninth Circuit examined the definitions in section 101 and found that "loading of copyrighted software into RAM creates a 'copy' of that software."³⁵⁸ The court noted that, although it was aware of no prior cases holding that reproductions in RAM were copies, "it is generally accepted that the loading of software into a computer constitutes the creation of a copy under the Copyright Act."³⁵⁹ After making note of evidence in the record that, once the software was loaded into RAM, the defendant was able to view the system error log in order to diagnose a problem with the computer, the court reasoned that this evidence demonstrated "that the representation created in the RAM is 'sufficiently permanent or stable to permit it to be perceived, reproduced, or otherwise communicated for a period of more than transitory

³⁵⁶ 991 F.2d 511 (9th Cir. 1993), *cert. dismissed*, 114 S. Ct. 671 (1994).

³⁵⁷ *MAI v. Peak* has generated controversy on two fronts. As discussed *infra*, at 120, the holding regarding RAM copying has been consistently upheld by later courts, but criticized by a number of academic commentators. In addition, the implications of the case for competition in the computer repair industry led in 1998 to a specific legislative exemption for certain temporary copies in RAM. See discussion *infra*, at 30.

³⁵⁸ *Id.* at 518.

³⁵⁹ *Id.* at 519.

duration.”³⁶⁰ Consequently, the court affirmed the district court’s conclusion that “a ‘copying’ for purposes of copyright law occurs when a computer program is transferred from a permanent storage device to a computer’s RAM.”³⁶¹

At least nine other courts have followed *MAI v. Peak* in holding RAM reproductions to be “copies,” although not all have ultimately found the defendant to be liable for infringement.³⁶² Even before *MAI v. Peak*, the Fifth Circuit had stated that “the act of loading a program from a medium of storage into a computer’s memory creates a copy of the program.”³⁶³ The factual context suggests that the court was referring to RAM. Several other cases have also held that

³⁶⁰ *Id.*

³⁶¹ *Id.*

³⁶² See *Stenograph L.L.C. v. Bossard Assocs.*, 144 F.3d 96, 101-02 (D.C. Cir. 1998) (holding that “a RAM reproduction constitutes a copy”); *DSC Communications Corp. v. DGI Technologies, Inc.*, 81 F.3d 597, 600 (5th Cir. 1996) (citing *MAI v. Peak*, holding that copy is made when software is loaded into computer’s RAM; defendant is not enjoined from making such copies, however, because it is likely to prevail on its defense of copyright misuse); *Triad Sys. Corp. v. Southeastern Express Co.*, 64 F.3d 1330, 1335 (9th Cir.), *cert. denied*, 116 S. Ct. 1015 (1995) (loading of software into RAM is “copying” for purposes of the Copyright Act); *Intellectual Reserve, Inc. v. Utah Lighthouse Ministry, Inc.*, 75 F. Supp. 2d 1290, 1294 (D. Utah 1999); *Wilcom Pty. Ltd. v. Endless Visions*, 1998 U.S. Dist. LEXIS 20583, *9 (E.D. Mich. Dec. 2, 1998) (“a temporary copy of the program's object code in . . . RAM . . . is sufficiently ‘fixed in a tangible medium of expression’ to constitute an infringing copy under the Copyright Act”); *In re Independent Serv. Orgs. Antitrust Litigation*, 23 F. Supp. 2d 1242, 1245 (D. Kan. 1998) (“use (and hence reproduction into random access memory (‘RAM’)) of diagnostic software . . . was not authorized by [plaintiff] and hence constituted infringement”); *Marobie-FL, Inc. v. National Assoc. of Fire Equip. Dists.*, 983 F. Supp. 1167, 1176-78 (N.D. Ill. 1997) (citing *MAI v. Peak*, finding RAM copies to be fixed as long as they are capable of being perceived); *Religious Tech. Center v. Netcom On-line Comm.*, 907 F. Supp 1361, 1368 (N.D. Cal. 1995) (“In the present case, there is no question after *MAI* that ‘copies’ were created”; preliminary injunction denied, however, because plaintiff did not demonstrate a substantial likelihood of success on the merits); *In re Independent Serv. Orgs. Litigation*, 910 F. Supp. 1537, 1541 (D. Kan. 1995) (“We agree with the court in [*MAI v. Peak*], that transferring a computer program from a storage device to a computer's RAM constitutes a copy for purposes of copyright law.”); *Advanced Computer Servs. of Mich., Inc. v. MAI Systems Corp.*, 845 F. Supp. 356, 363 (E.D. Va. 1994) (where “a copyrighted program is loaded into RAM and maintained there for minutes or longer, the RAM representation of the program is sufficiently ‘fixed’ to constitute a ‘copy’ under the Act”). See also, *Ohio v. Perry*, 41 U.S.P.Q.2d (BNA) 1989 (Ohio App. 1997) (following *MAI v. Peak* in concluding that state charge of unauthorized use of property stemming from the unauthorized posting of software on a computer bulletin board service was preempted by the Copyright Act because the defendant’s acts constituted copyright infringement).

³⁶³ *Vault Corp. v. Quaid Software Ltd.*, 847 F.2d 255, 260 (5th Cir. 1988).

loading a computer program into a computer entails making a copy, without mentioning RAM specifically.³⁶⁴

v. Commentary

In contrast to the apparent unanimity among courts that have considered the issue of RAM copying, legal scholars are divided on the question – which may account for the characterization of *MAI v. Peak* by at least one commenter as “controversial.”³⁶⁵ Although some academics have expressed support for the conclusion that the reproduction right can embrace RAM copies,³⁶⁶ much commentary on the subject has criticized the holding of *MAI v. Peak*.³⁶⁷

³⁶⁴ See, e.g., *Sega Enterprises Ltd. v. MAPHIA*, 948 F. Supp. 923, 931-32 (N.D. Cal. 1996) (following *MAI v. Peak*); *NLFC, Inc. v. Devcom Mid-America, Inc.*, 45 F.3d 231, 235 (7th Cir. 1995) (“Neither party disputes that loading software into a computer constitutes the creation of a copy under the Copyright Act”; nonetheless, court affirms summary judgment for defendant because of plaintiff’s failure to establish copying as a factual matter); *Roeslin v. District of Columbia*, 921 F. Supp. 793, 800 (D.D.C. 1995) (“The placement of a copyrighted program into a computer, or the loading of a copyrighted program into a computer (which occurs every time [one] uses the program), constitutes ‘copying’ the program for purposes of the Copyright Act.”); *Tricom, Inc. v. Electronic Data Sys. Corp.*, 902 F. Supp. 741, 745 (E.D. Mich. 1995) (loading software onto mainframe computer constitutes copying under the copyright law); *Hubco Data Prods. Corp. v. Management Assistance, Inc.*, 219 U.S.P.Q. (BNA) 450, 456 (D. Idaho 1983) (statutory definition of “copy” “makes clear that the input of a work into a computer results in the making of a copy, and hence that such unauthorized input infringes the copyright owner’s reproduction right”).

³⁶⁵ C-DFC, at 3.

³⁶⁶ See, e.g., 1 William F. Patry, *Copyright Law and Practice* 171(1994); David Nimmer, *Brains and Other Paraphernalia of the Digital Age*, 10 Harv. J. of Law & Tech. 1, 10-11 (1996); Jane C. Ginsburg, *Putting Cars on the “Information Superhighway”: Authors, Exploiters, and Copyright in Cyberspace*, 95 Colum L. Rev. 1466, 1475-77 (1995); I. Trotter Hardy, *Symposium: Copyright Owners’ Rights and Users’ Privileges on the Internet: Computer RAM “Copies”: A Hit or a Myth? Historical Perspectives on Caching as a Microcosm of Current Copyright Concerns*, 22 Dayton L. Rev. 423, 427-28, 456-60 (1997).

³⁶⁷ See, e.g., Mark A. Lemley, *Symposium: Copyright Owners’ Rights and Users’ Privileges on the Internet: Dealing with Overlapping Copyrights on the Internet*, 22 Dayton L. Rev. 547, 550-51 (1997); James Boyle, *Intellectual Property Policy Online: A Young Person’s Guide*, 10 Harv. J. Law and Tech. 47, 88-94 (1996); Fred H. Cate, *The Technological Transformation of Copyright Law*, 81 Iowa L. Rev. 1395, 1452-53; Niva Elkin-Koren, *Cyberlaw and Social Change: A Democratic Approach to Copyright Law in Cyberspace*, 14 Cardozo Arts & Ent. L.J. 215, 269-74 (1996); Pamela Samuelson, *Legally Speaking: The NII Intellectual Property Report*, Communications of the ACM, Dec. 1994, at 21, 22 (“*Legally Speaking*”); Jessica Litman, *The Herbert Tenzer Memorial Conference: Copyright in the Twenty-First Century: The Exclusive Right to Read*, 13 Cardozo Arts & Ent. L.J. 29, 42-43 (1994).

The criticism of *MAI* has rested mainly on three arguments: (1) that the text and legislative history of the Copyright Act indicate that Congress did not intend that “the temporary storage of a copyrighted work in a computer’s memory . . . be regarded as an infringing reproduction”;³⁶⁸ (2) that the reasoning employed in *MAI v. Peak*, if carried to its logical extreme, would lead to absurd results ; and (3) that *MAI v. Peak* is merely the decision of one appellate court, and should not be followed.

The first argument — that Congress did not intend RAM reproductions to be copies — is addressed in the foregoing analysis. Except for reproductions that do not persist long enough to be perceived, reproduced or otherwise communicated, the text and legislative history of the Copyright Act support the conclusion that Congress intended temporary reproductions in RAM to be “copies.” In particular, the argument fails to explain Congress’ view that it was necessary to adopt section 117(a)(1) to permit the making of temporary RAM copies in the course of using a computer program.

The second argument — that the reasoning employed in *MAI v. Peak* would lead to absurd results — is based on the implicit assumption that a finding of *copying* leads inevitably to a finding of *infringement*.³⁶⁹ But determining that a reproduction in RAM implicates the

³⁶⁸ Pamela Samuelson, *The Copyright Grab*, *Wired*, Jan. 1996, at 4.

³⁶⁹ One example that has been made to support this argument is that, by the logic of *MAI v. Peak*, “holding a mirror up to a book would be infringement because the book’s image could be perceived there for more than a transitory duration, i.e., however long one has the patience to hold the mirror.” *Legally Speaking*, *supra*, n.13; *see also* Litman, *supra*, at 42 n.63 (quoting *Legally Speaking*). *MAI v. Peak* does not compel a finding of copying in this hypothetical, however. A reflection on a mirror is not fixed. This conclusion flows not from its temporary nature, but from the fact that the work reflected off the mirror’s surface is not “embodied” in the mirror. By contrast, there was no question that the work in *MAI v. Peak* was “embodied” in RAM by virtue of the electrical charges stored in

reproduction right does not mean that there is liability every time a RAM copy is made.³⁷⁰ As discussed in the following section, many uses of works that entail RAM copying are expressly or impliedly licensed. In addition, exemptions, such as fair use, that apply to copying in other contexts apply in this context as well. Several recent exemptions have been adopted into U.S. law specifically to address RAM copying in particular contexts.³⁷¹ If existing exceptions are determined to be insufficient and current law could still lead to inappropriate results, additional exceptions could be adopted in the future to deal with those circumstances.

The third argument — that *MAI v. Peak* is merely the decision of one appellate court, and therefore should not be followed — has been overtaken by events. As discussed above, a judicial consensus has formed around the holding in *MAI v. Peak* since these commentators' articles were written. The D.C. Circuit, the Fifth Circuit and several trial courts have endorsed the Ninth Circuit's holding, without contradiction by any other court.³⁷²

An additional argument (not related specifically to *MAI v. Peak*) has been leveled at the application of the reproduction right to transient copies made in the course of transmitting material on a packet-switched digital network. The crux of this argument is that, since the

the RAM circuitry. The issue was whether the embodiment in RAM was sufficiently permanent or stable to satisfy the fixation requirement.

³⁷⁰ For example, liability was not imposed in several of the cases cited above that followed *MAI v. Peak*. See, e.g., *Religious Tech. Center*, 907 F. Supp. 1361; *DSC Communications*, 81 F.3d 597.

³⁷¹ See, e.g., titles II and III of the DMCA, Pub. L. No. 105-304, 112 Stat. 2860, 2886-2905 (1998).

³⁷² Moreover, two Courts of Appeals appear to have reached the same conclusion, at least implicitly, before the *MAI v. Peak* decision. See *NLFC, Inc. v. Devcom Mid-America, Inc.*, 45 F.3d 231, 235 (7th Cir. 1995); *Vault Corp. v. Quaid Software, Ltd.*, 847 F.2d 255, 260 (5th Cir. 1988).

material is broken down into packets for transmission across the network, it is only those packets representing portions of the work that are copied. No copies of the entire work will exist at any intermediate point between the sender and the recipient. Therefore there are no “copies” of the work except in the recipient’s computer where the packets are reassembled (and not even there in the case of streaming audio, where the packets are rendered in real time and discarded).³⁷³

There are a number of problems with this argument. To determine whether the reproduction right is implicated, the focus is on whether there has been a fixation in a material object, not on the quantity of material that has been so fixed. The reproduction right is not limited to copies of an entire work. Photocopying a page or paragraph out of an encyclopedia implicates the reproduction right and may, in appropriate circumstances, be an infringement. Whether or not a copy of a portion of a work is infringing is a question not of whether the reproduction right is implicated, but of whether the copying is substantial.

In addition, this argument fails to account for the fact that in many instances, transient copies of a number of packets may be made on a single machine in the course of transmission, that, in aggregate, represent a large portion or even the entirety of a work.

³⁷³ See, e.g., David L. Hayes, *Advanced Copyright Issues on the Internet*, at 5 (May 1998) (available on the Internet at www.fenwick.com/pub/copyright.pdf).

vi. International considerations

The treatment of temporary copies under U.S. law that is described above is consistent with the scope of the reproduction right that is mandated in Berne. Berne establishes the reproduction right in broad and general terms:

Authors of literary and artistic works protected by this convention shall have the exclusive right of authorizing the reproduction of these works, in any manner or form.³⁷⁴

On its face, the plain language of Article 9(1) includes temporary copies in RAM. Article 9(1) does not restrict the coverage of the right by the duration of a reproduction, and explicitly covers “any manner or form.” As one “manner or form” of reproduction, temporary copies in RAM are covered by this formulation. This view has been advanced by Dr. Mihály Ficsor, then-Assistant Director General of WIPO, in a statement to Congress:

It would be in conflict with the Berne Convention to deny the application of the right of reproduction just because a reproduction is not in tangible form, or because it is only temporary. . . . There is only one criterion, namely whether or not there is any fixation of the work in a computer memory, even for a very short time, but still for a sufficient time, so that it may serve as a basis for the perception of the signs, images and/or sounds in which the work is expressed, or for a parallel or subsequent reproduction.³⁷⁵

³⁷⁴ Berne, Art. 9(1). This provision is among those that are incorporated by reference in the WTO Agreement on Trade-Related Aspects of Intellectual Property Rights (“TRIPS”), and is thus a part of the U.S. obligations under its WTO commitments. Similarly, the WIPO Copyright Treaty (“WCT”) also incorporates the Berne reproduction right by reference, and articles 7 and 11 of the WIPO Performances and Phonograms Treaty (“WPPT”) give performers and producers of phonograms (sound recordings) the exclusive right to reproduce their sound recordings “in any manner or form.” Neither the WCT nor the WPPT has yet come into force, although both are expected to enter into force during 2001. The WIPO Copyright Treaty is discussed further *infra* at pages 125-127.

³⁷⁵ *Joint Hearing before the Subcommittee on Courts and Intellectual Property of the House Committee on the Judiciary and the Senate Committee on the Judiciary on H.R. 2441 and S. 1284* (Serial No. 38 (Part 1)), 104th Cong., 1st Sess. 57 (1995) (statement of Mihály Ficsor); see also, WIPO, *Basic Proposal for the Substantive Provisions of the Treaty on Certain Questions Concerning The Protection of Literary and Artistic Works to Be Considered by the Diplomatic Conference*, Art. 7, explanatory notes 7.05-7.06 (Doc. No. CRNR/DC/4) (1996) (memorandum prepared by the Chairman of the Committees of Experts) (“Draft WIPO Copyright Treaty”).

A similar conclusion was reached by a committee of governmental experts convened by WIPO and UNESCO in 1982 to examine copyright issues arising from the use of computers in creating or accessing works. In its report of the meeting, the committee stated:

As for the act of input of protected subject-matter for storage purposes, it was generally agreed that it included at least reproduction of works on a machine-readable material support and their fixation in memory of a computer system. The Committee agreed that whatever this act may be, it involves fixation of works in a form sufficiently stable to permit their communication to an individual, and therefore it should be considered as governed by the international conventions and national legislation on copyright and therefore was subjected to the author's exclusive rights.³⁷⁶

Nonetheless, since temporary reproductions in RAM were not considered in the deliberations over the last revision of Berne in 1971, the principal treatise on the Berne Convention argues that Article 9(1) does not compel member states to include RAM copies within the scope of the reproduction right.³⁷⁷ Events in the intervening decade and a half since that treatise was written, however, cast serious doubt on that conclusion.

In 1996 an effort was made to clarify the scope of the Berne reproduction right in the WCT (or, as it was styled up until its conclusion, the Berne Protocol). Article 7 of the draft copyright treaty that served as the basis for negotiations stated that “[t]he exclusive right accorded to authors of literary and artistic works in Article 9(1) of the Berne Convention of

³⁷⁶ *Second Committee of Governmental Experts on Copyright Problems Arising from the Use of Computers for Access to or the Creation of Works* ¶33 (1982) (reprinted in UNESCO Copyright Bulletin, vol. XVI, no. 4, at 39, 43 (1982)).

³⁷⁷ Sam Ricketson, *The Berne Convention for the Protection of Literary and Artistic Works: 1886-1986*, at 373-74 (1987).

authorizing the reproduction of their works shall include direct and indirect reproduction of their works, whether permanent or temporary, in any manner or form.”³⁷⁸ The second paragraph of draft Article 7 would have permitted parties to adopt exceptions to the reproduction right as applied to temporary copies

in cases where a temporary reproduction has the sole purpose of making the work perceptible or where the reproduction is of a transient or incidental nature, provided that such reproduction takes place in the course of use of the work that is authorized by the author or permitted by law.³⁷⁹

The Diplomatic Conference did not adopt proposed Article 7, but adopted the following Agreed Statement patterned, in part, on the joint WIPO/UNESCO statement from 1982 that is quoted above:³⁸⁰

The reproduction right, as set out in Article 9 of the Berne Convention, and the exceptions permitted thereunder, fully apply in the digital environment, in particular to the use of works in digital form. It is understood that the storage of a protected work in digital form in an electronic medium constitutes a reproduction within the meaning of Article 9 of the Berne Convention.³⁸¹

While the outcome of the 1996 Diplomatic Conference does not go as far in clarifying the reach of Article 9(1) of Berne as originally proposed, the statement that was adopted tends to confirm that Article 9(1) covers temporary copies in computer memory: “It follows from [the] first sentence [of the agreed statement] that Article 9(1) of the Convention, which extends to reproduction ‘in any manner of [sic] form,’ must not be restricted just because a reproduction is

³⁷⁸ Draft WIPO Copyright Treaty, *supra* note 124, Art. 7(1).

³⁷⁹ *Id.*, Art. 7(2).

³⁸⁰ *Supra*, at 125.

³⁸¹ WIPO, *Agreed Statements Concerning the WIPO Copyright Treaty* (WIPO Doc. No. CRNR/DC/96) (1996) (Agreed Statement concerning Article 1(4)).

in digital form, through storage in an electronic memory, and just because a reproduction is of a temporary nature.”³⁸²

Lending support to this interpretation of the Berne obligation, the national laws of a number of Berne countries (in addition to the United States) consider the making of temporary RAM copies to be within the reproduction right, either generally or in the context of computer programs. Although some countries expressed concern about applying the reproduction right to all temporary copies in RAM in the context of the debate at the December 1996 Diplomatic Conference, we are aware of no country that has excluded such copies from the reproduction right in its legislation.³⁸³

In 1991, the European Union³⁸⁴ adopted a directive on software protection that required each of the member states³⁸⁵ to protect computer programs under copyright law.³⁸⁶ The Directive

³⁸² Ficsor, *Digital Era*, *supra* note 338, at 8.

³⁸³ A court in Japan has, however, considered the absence of an explicit statement in that country’s copyright statute to preclude protection for temporary copies. The court took the unusual step of noting the inequitable outcome of the case and suggested that a legislative response may be warranted. *RIAJ v. Dai-Ichi Kosho* (Tokyo Dist. Ct. 2000).

³⁸⁴ The term “European Union” did not actually come into use until the Treaty of Maastricht came into force, after the adoption of the Software Directive.

³⁸⁵ The EU presently consists of the following fifteen Member States: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, The Netherlands, Portugal, Spain, Sweden and the United Kingdom. The European Economic Area (EEA) consists of the following three Member States: Iceland, Liechtenstein and Norway. The EU and EEA Member States participate in one single market – EU Single Market – and are governed by the same basic rules (*Acquis Communautaire*). EEA members are thus obliged to implement EU directives. Countries of Central and Eastern Europe that are seeking EU membership also generally conform their intellectual property laws to the relevant EU directives. Consequently, the directives have a direct impact beyond the fifteen Member States.

³⁸⁶ *Council Directive on the Legal Protection of Computer Programs*, 91/250/EEC, 1991 O.J. (L 122) 42 (the “European Software Directive”).

expressly requires that rightholders be granted the exclusive right to make temporary copies such as those made in RAM:

Subject to the provisions of Articles 5 and 6, the exclusive rights of the rightholder within the meaning of Article 2, shall include the right to do or to authorize:

(a) the permanent or temporary reproduction of a computer program by any means and in any form, in part or in whole. Insofar as loading, displaying, running, transmission or storage of the computer program necessitate such reproduction, such acts shall be subject to authorization by the rightholder³⁸⁷

The exclusive reproduction right is subject to an exemption that parallels section 117(1) of the U.S. Copyright Act, permitting acts that “are necessary for the use of the computer program by the lawful acquirer in accordance with its intended purpose.”³⁸⁸ The Directive has been implemented in each of the member countries of the European Union.

Earlier this year the EU finalized a Directive on Copyright and Related Rights in the Information Society³⁸⁹ that had been under consideration since 1997 and is intended, *inter alia*, to implement the WIPO treaties in the EU. The Directive includes temporary copies generally within the reproduction right,³⁹⁰ but then mandates that Member States enact an exemption for:

³⁸⁷ *Id.*, Art. 4.

³⁸⁸ *See id.*, Art. 5(1) .

³⁸⁹ Directive 2001/29/EC of the European Parliament and of the Council of 22 May 2001, on the harmonisation of certain aspects of copyright and related rights in the information society (OJ L 167/10 2001) (“Information Society Directive”).

³⁹⁰ “Member States shall provide for the exclusive right to authorise or prohibit direct or indirect, temporary or permanent reproduction by any means and in any form, in whole or in part” *Id.*, Art. 2.

Temporary acts of reproduction . . . which are transient or incidental, which are an integral and essential part of a technological process whose sole purpose is to enable:

(a) a transmission in a network between third parties by an intermediary or

(b) a lawful use of a work or other subject matter . . . and which have no independent economic significance³⁹¹

Member States must implement the Directive in their national laws within 18 months from the date it was published in the Official Journal of the European Communities – June 22, 2001.³⁹²

Australian copyright law also considers RAM copies of at least computer programs to implicate the reproduction right. In recommending to Parliament an exception to permit reproduction of computer programs for normal use,³⁹³ the Australian Copyright Law Review Committee (CLRC) stated:

[B]ecause most computer programs operate by reproduction in whole or in part in the random access memory (RAM) of the computer, each time the purchaser of a copy of a computer program uses the program he or she arguably exercises the copyright owner's right to reproduce the program in material form. Unless the user has the permission of the copyright owner, this will constitute an infringement of copyright and, although permission may be implied by the very act of marketing the program, the lack of express statutory sanction has been commented on.³⁹⁴

³⁹¹ *Id.*, Art. 5(1).

³⁹² *Id.*, Art. 13(1).

³⁹³ Copyright Act (1968), § 47B(1), as added by Copyright Amendment (Computer Programs) Act 1999.

³⁹⁴ CLRC, *Computer Software Protection* 139 (1995). See also, *Ricketson*, at 374 & n.28 (discussing this aspect of Australian copyright law).

c. Temporary Digital Copies Incidental to any Lawful Use

Although many of the comments supported adoption of the blanket exception for incidental copies that was proposed in the Boucher-Campbell bill,³⁹⁵ most of the arguments advanced in support of that proposal focused only on the specific issue of buffer copies made in the course of streaming transmissions of performances of musical works, including webcasting, rather than the broader issue of incidental copies generally. This suggests that another possible approach – legislation tailored to address the specific problems raised in the context of such streaming – should be examined.

In fact, no compelling evidence was presented to us during the course of our study that would support a blanket exception for incidental copies. Under current law, without any broad exception for incidental copies, we can discern no harm to users of copyrighted works. Nor does there appear to be any discernable evidence that electronic commerce is being impeded by the absence of a general exception for incidental copies. In fact, the opposite was shown – that electronic commerce is thriving. Moreover, we were presented with no evidence, outside the context of buffer copies of streaming audio, that consumers or businesses were facing claims for compensation or refraining from any activities as a result of legal uncertainty concerning the status of incidental copies.

On the other hand, we were presented with evidence that a blanket exception for incidental copies could have the unintended consequence of harming copyright owners and

³⁹⁵ See discussion *supra*, at 15.

threatening new business models. For example, we heard testimony regarding the emerging practice of delivering software on demand, not for retention but for immediate use and subsequent disposal.³⁹⁶ The software exists as a temporary copy on the user's computer while it is used, then the copy is discarded. The users never possess a permanent copy of the software; rather, copies of software are available to them as they need them. The only event in this model that has copyright significance is the making of the temporary copy that is incidental to the use of the software. In essence, the entire economic value of the transaction is in that temporary copy of the software.

Another, somewhat more prosaic example that was cited is the use of software on a local area network (LAN) beyond the scope of the applicable license.³⁹⁷ Each user on the LAN can realize the full economic value of the software by running the software on his individual computer – an activity that entails making a temporary incidental copy in the PC's RAM.

In light of the lack of factual arguments to support a blanket exception for incidental copies, and the significant risks that such an exception would immunize copying that appropriates the economic value of the work, we do not recommend such an exception. We turn instead to an examination of a tailored approach that focuses on the specific problems that were brought to our attention.³⁹⁸

³⁹⁶ T-BSA, Simon, at 111-13.

³⁹⁷ T-BSA, Simon, at 111.

³⁹⁸ We note that similar problems were raised during the debates in Europe over the Information Society Directive. Recall that the Information Society Directive, *infra* at 23, provides an exception in Article 5(1) to the exclusive right of reproduction to allow certain acts of temporary reproduction subject to a number of conditions.

d. *Temporary Copies Incidental to a Licensed Digital Performance of a Musical Work*

One factual context for the temporary copying issue was repeatedly brought to our attention during the preparation of this Report: temporary buffer copies made in RAM in the course of rendering a digital music stream.³⁹⁹ The buffer copies identified by the webcasting industry have the following characteristics: they exist for only a short period of time; at any given time they consist of only a small portion of the work; and they are incidental to a performance of the work that has been licenced by the copyright owner. Webcasters asserted that lack of clarity as to the legal status of buffer copies casts a shadow over their nascent industry, exposing them to demands for additional royalty payments and potential infringement liability. As we will discuss below, it appears that their concerns have merit.

The exception in Article 5(1) would appear to be broader than the exception we are recommending in this Report. Member States of the European Union have 18 months from the publishing date in the Official Journal of the European Communities – June 22, 2001 – to implement the Information Society Directive. What scope courts actually give this exception then remains to be seen.

Article 5 is to be read in conjunction with Recital 33, which reads as follows:

(33) The exclusive right of reproduction should be subject to an exception to allow certain acts of temporary reproduction, which are transient or incidental reproductions, forming an integral and essential part of a technological process and carried out for the sole purpose of enabling either efficient transmission in a network between third parties by an intermediary, or a lawful use of a work or other subject-matter to be made. The acts of reproduction concerned should have no separate economic value on their own. To the extent that they meet these conditions, this exception should include acts which enable browsing as well as acts of caching to take place, including those which enable transmission systems to function efficiently, provided that the intermediary does not modify the information and does not interfere with the lawful use of technology, widely recognised and used by industry, to obtain data on the use of the information. A use should be considered lawful where it is authorised by the rightholder or not restricted by law.

Some Member States give no legal weight to recitals, however, so it will be necessary to await and look to their implementing legislation to see whether, and to what degree, those Member States put this language into effect.

³⁹⁹ See *supra*, at 108.

i. Do buffer copies implicate the reproduction right?

The fact that the copies made in the course of streaming are of very small portions of a work does not necessarily render them noninfringing.⁴⁰⁰ Even if each individual copy were to be considered a *de minimis* portion under the test for substantial similarity, the aggregate effect is the copying of the entire work. Moreover, increases in broadband use by consumers could ultimately result in the use of buffers that store the entire work for the duration of the performance. There does appear to be at least some risk that making buffer copies in the course of streaming infringes the reproduction right.

The fact that the copies are incidental to a licensed performance does not bear upon either the applicability of the reproduction right or the test for substantial similarity. It could, however, affect a fair use analysis.⁴⁰¹

ii. Is the making of buffer copies in the course of streaming a fair use?

The webcasters have asserted that the making of buffer copies in the course of streaming should be considered a fair use, and one copyright owner representative has suggested that it is.⁴⁰² While we agree that there is, in fact, a strong case that the making of a buffer copy in this context is a fair use, we note that whether a use is fair is determined on a case-by-case basis by the courts.

⁴⁰⁰ See *supra*, at 122-123.

⁴⁰¹ Cf. *Sega Enterprises Ltd. v. Accolade, Inc.*, 977 F.2d 1510, 1522-23 (9th Cir. 1992) (first factor weighed in favor of a defendant who engaged in disassembly of a computer program because the use was intermediate in the process of developing a noninfringing program).

⁴⁰² See *generally* comments and testimony by SIIA.

The judicially-created doctrine of fair use that is codified in section 107 of the Copyright Act⁴⁰³ limits the copyright owner’s exclusive rights, including the reproduction right as it applies to temporary copies. Section 107 sets out four nonexclusive factors to be considered in determining whether or not a particular use is fair: (1) the purpose and character of the use, including whether such use is of a commercial nature or is for nonprofit educational purposes; (2) the nature of the copyrighted work; (3) the amount and substantiality of the portion used in relation to the copyrighted work as a whole; and (4) the effect of the use upon the potential market for or value of the copyrighted work.⁴⁰⁴ In addition, as a doctrine that has its origins in equity, other equitable considerations may be brought to bear in a fair use analysis.

In analyzing the purpose and character of the use, courts inquire, *inter alia*, whether the use merely supplants the original work or instead adds a further purpose or different character. In other words, this factor asks “whether and to what extent the new work is ‘transformative.’”⁴⁰⁵

⁴⁰³ § 107. Limitations on exclusive rights: Fair use

Notwithstanding the provisions of sections 106 and 106A, the fair use of a copyrighted work, including such use by reproduction in copies or phonorecords or by any other means specified by that section, for purposes such as criticism, comment, news reporting, teaching (including multiple copies for classroom use), scholarship, or research, is not an infringement of copyright. In determining whether the use made of a work in any particular case is a fair use the factors to be considered shall include-

- (1) the purpose and character of the use, including whether such use is of a commercial nature or is for nonprofit educational purposes;
- (2) the nature of the copyrighted work;
- (3) the amount and substantiality of the portion used in relation to the copyrighted work as a whole; and
- (4) the effect of the use upon the potential market for or value of the copyrighted work.

The fact that a work is unpublished shall not itself bar a finding of fair use if such finding is made upon consideration of all the above factors.

⁴⁰⁴ 17 U.S.C. § 107.

⁴⁰⁵ *Campbell v. Acuff-Rose Music, Inc.*, 510 U.S. 569, 579 (1994).

Although “transformative use is not absolutely necessary for a finding of fair use, the goal of copyright, to promote science and the arts, is generally furthered by the creation of transformative works. Such works thus lie at the heart of the fair use doctrine's guarantee of breathing space within the confines of copyright, and the more transformative the new work, the less will be the significance of other factors, like commercialism, that may weigh against a finding of fair use.”⁴⁰⁶

The making of a buffer copy is not transformative. The portion of the work that is copied into the buffer is an identical reproduction of the corresponding portion of the original. “There is neither new expression, new meaning nor new message.”⁴⁰⁷ While the copy is made in order to effectuate a performance, this fact, in itself, would not render the use transformative.⁴⁰⁸

Another element that courts examine under this factor is whether the use is commercial or noncommercial.⁴⁰⁹ Uses that are of a “commercial nature” are generally disfavored under fair use.⁴¹⁰ However, the commercial nature of a particular use does not necessarily lead to the conclusion that an activity is not fair use.⁴¹¹ Moreover, the characteristics of a particular

⁴⁰⁶ *Id.* (citations omitted).

⁴⁰⁷ *Infinity Broadcast Corp. v. Kirkwood*, 150 F.3d 104, 108 (2d Cir. 1994) (quoting the District Court opinion, 965 F. Supp. 553, 557 (S.D.N.Y. 1997)).

⁴⁰⁸ *Cf. Id.* (difference in purpose is not the same thing as transformation).

⁴⁰⁹ *Campbell*, 510 U.S. at 584-85 (1994). In fact, 17 U.S.C. § 107 expressly includes “including whether such use is of a commercial nature or is for nonprofit educational purposes” as a consideration under the first fair use factor.

⁴¹⁰ 17 U.S.C. § 107 (first factor). *See, e.g., Harper & Row, Publishers, Inc. v. Nation Enters.*, 471 U.S. 539, 562 (1985); *Sony Corp. of America v. Universal City Studios, Inc.*, 464 U.S. 417, 451 (1984); *Triangle Publications, Inc. v. Knight-Ridder Newspapers, Inc.*, 626 F.2d 1171, 1175 (5th Cir. 1980).

⁴¹¹ *Campbell*, 510 U.S. 569, 584-85 (1994).

commercial use should be considered in determining whether the first factor weighs in favor of the copyright owner.⁴¹²

Inasmuch as the buffer copy is made to further a commercial activity (commercial streaming of music) it is a commercial use. However, it is not a superseding use that supplants the original. It is a necessary incident to carrying out streaming. The purpose of making the copy is solely to render a performance that is fully licensed. There is no separate exploitation of the buffer copy. It is a productive use that serves a socially beneficial end – bringing a licensed performance to a consumer. As such, it can be readily concluded that the use is for “a legitimate, essentially non-exploitative purpose, and that the commercial aspect of [the] use can best be described as of minimal significance.”⁴¹³

Notwithstanding the commercial and non-transformative nature of the making of a buffer copy, the essentially “non-exploitative” purpose of the use — i.e., to enable a use that has been authorized by the copyright owner and for which the copyright owner typically has been compensated — persuades us that the first factor favors the user.

⁴¹² *Sega Enters. Ltd. v. Accolade, Inc.*, 977 F.2d 1510, 1522-23 (1992); *Maxtone-Graham v. Burtchaell*, 803 F.2d 1253, 1262 (2d Cir. 1986), *cert. denied*, 481 U.S. 1059 (1987).

⁴¹³ *Sega*, 977 F.2d at 1523. A parallel can be drawn to “time-shifting,” which the Supreme Court held to be “a noncommercial, nonprofit activity” in *Sony*. In *Sony*, the Court noted that “time-shifting merely enables viewer to see such a work which he has been invited to witness in its entirety free of charge” *Sony*, 464 U.S. at 449. The buffer copy merely enables the user to listen to a work that the transmitting entity is licensed to stream to him. *Campbell*, 510 U.S. at 591 (No “presumption” or inference of market harm that might find support in *Sony* is applicable to a case involving something beyond mere duplication for commercial purposes.)

It is generally accepted that in analyzing the second fair use factor — the nature of the copyrighted work — creative works are subject to a more limited scope of fair use than informational works.⁴¹⁴ Musical works that are copied into buffers while they are streamed are generally at the creative end of the spectrum that is generally subject to a narrower scope of fair use. Of course, the same can be said of the motion pictures and television programs, the copying of which for time-shifting purposes the Supreme Court held to be a fair use. This factor would appear to favor the copyright owner, but, as demonstrated by the *Sony* case, it by no means precludes the conclusion that the making of a buffer copy is a fair use.

In analyzing the third factor — the amount and substantiality of the portion used in relation to the copyrighted work as a whole — copying an entire work generally weighs against a finding of fair use.⁴¹⁵ “While ‘wholesale copying does not preclude fair use per se,’ copying an entire work ‘militates against a finding of fair use.’”⁴¹⁶

At any given time, the content of the buffer comprises only a small, fairly insubstantial portion of the work. In aggregate, though, the buffer copies constitute the entire work. Even if the making of buffer copies is considered to be a reproduction of the entire work, that does not preclude a finding of fair use. There are a number of circumstances where courts have considered copying of an entire work to be fair use. For example, in *Sony* the time-shifting of

⁴¹⁴ *Campbell*, 510 U.S. at 586; *Diamond v. Am-Law Corp.*, 745 F.2d 142, 148 (2d Cir. 1984).

⁴¹⁵ *Infinity Broadcast Corp. v. Kirkwood*, 150 F.3d 104, 109 (2d Cir 1998).

⁴¹⁶ *Worldwide Church*, 227 F.3d at 1118 (quoting *Hustler Magazine, Inc. v. Moral Majority, Inc.*, 796 F.2d 1148, 1155 (9th Cir. 1986)).

entire motion pictures or television programs was held to be a fair use.⁴¹⁷ In *Sega v. Accolade*, the court, recognizing that disassembly of a computer program necessarily entailed making digital reproductions of the entire work, found this factor to weigh in favor of the copyright owner, but to be “of very little weight.”⁴¹⁸

To the extent that the portion residing in the buffer at any given time is examined in isolation, it represents a *de minimis* portion of the entire work and this factor would weigh in favor of the user. If, however, all the buffer copies are aggregated to constitute the entire work, this factor would favor the copyright owner. But this factor would be of very little weight in the overall analysis. Although the entire work is reproduced, in the aggregate, the entire work must be copied to achieve its productive purpose – to render the performance of the work over the Internet. In achieving this purpose, the individual packets buffered contain no more than is reasonably necessary to effectuate that function.⁴¹⁹

“Fair use, when properly applied, is limited to copying by others which does not materially impair the marketability of the work which is copied.”⁴²⁰ In analyzing the fourth fair use factor with regard to the making of a temporary buffer copy, the effect of the use on the

⁴¹⁷ *Sony Corp. v. Universal City Studios, Inc.*, 464 U.S. 417, 449-50 (1984) (acknowledging that time-shifting necessarily involved making a complete copy of a protected work).

⁴¹⁸ *Sega*, 977 F.2d at 1527.

⁴¹⁹ See *Campbell*, 510 U.S. 569, 588 (1994) (“Once enough has been taken to assure identification, how much more is reasonable will depend, say, on the extent to which the song’s overriding purpose and character is to parody the original or, in contrast, the likelihood that the parody may serve as a market substitute for the original”.)

⁴²⁰ *Harper & Row*, 471 U.S. 539, 566-67 (1985).

actual or potential market for the work appears to be minimal, if indeed there is any effect at all. The buffer copy has no economic value independent of the performance that it enables, so there appears to be no conceivable effect upon the market for or value of the copyrighted work. In *Sony*, the Supreme Court directs us to inquire whether “if [the use] should become widespread, it would adversely affect the potential market for the copyrighted work.”⁴²¹ There is no market for buffer copies other than as a means to block an authorized performance of the musical works.⁴²² Nor can it be said that record sales are being reduced because of the making of buffer copies. The copy merely facilitates an already existing market for the authorized and lawful streaming of works. This factor strongly favors the user.

Of the four statutory factors, the first and fourth favor the user, and the second factor appears to favor the copyright owner. The third factor favors the copyright owner, but should be accorded little weight. Of course, fair use is not determined simply by tallying up the factors that favor either party. Rather, fair use is an “equitable rule of reason.”⁴²³ It is especially appropriate where, as here, the statutory factors do not favor either the copyright owner or the user lopsidedly, to weigh other equitable considerations in carrying out the balancing inherent in an equitable rule of reason. We identified three.

⁴²¹ *Sony*, 464 U.S. at 451.

⁴²² *Campbell*, 510 U.S. at 592. This could be analogized to requiring a license for a parody of a work – a successful noninfringing parody is lawful notwithstanding a copyright owner’s subsequent willingness to offer a license.

⁴²³ *Sony*, 464 U.S. at 448 (quoting 1976 House Report, supra note 40, at 65).

First, the sole purpose for making these buffer copies is to permit an activity that is licensed by the copyright owner and for which the copyright owner receives a performance royalty. In essence, there appears to be some truth to the allegation made by some commenters that copyright owners are seeking to be paid twice for the same activity.⁴²⁴ Demanding a separate payment for the copies that are an inevitable by-product of that activity appears to be double-dipping, and is not a sound equitable basis for resisting the invocation of the fair use doctrine.

Second, it is technologically necessary (at least given the nature of the Internet today, and quite possibly well into the future) to make buffer copies in order to carry out a digital performance of music over the Internet. The work cannot be experienced without copying it. This circumstance appears analogous to facts that were before the Ninth Circuit in *Sega v. Accolade*. There the court found that a computer program could not be read and understood by a programmer without disassembling it, and it could not be disassembled without copying it.⁴²⁵ Those elements favored the court's holding that disassembly in that case was a fair use.

Third, the buffer copies exist for too short a period of time to be exploited in any way other than to enable the performance of the work. Absent intervention by the consumer and use of technologies to get around the normal functioning of the rendering software, the buffer copy is continually overwritten and ceases to exist once the song is finished playing. No further use can be made of the buffer copy because it is not retained: at the end of the transmission the consumer

⁴²⁴ T-DIMA, Greenstein, at 275; T-Launch, Goldberg, at 307.

⁴²⁵ *Sega*, 977 F.2d at 1525-26.

is left with nothing but the fond memory of a favorite song. The use of the copy is narrowly tailored to the licensed performance of the work. This circumstance favors a finding of fair use.

On balance, we find the case that the making of temporary buffer copies to enable a licensed performance of a musical work by streaming technology is a fair use to be a strong one. We do recognize, however, that fair use is determined on a case-by-case basis and, as such, lacks the certainty of a specific exception. Representatives of the webcasting industry expressed concern in their comments that, given copyright owners' willingness to assert claims based on the making of temporary buffer copies, the fair use defense in this context may be too uncertain a basis for making rational business decisions.

e. Recommendations

i. A blanket exception for temporary copies incidental to a lawful use is not warranted

We recommend against the adoption of a general exception from the reproduction right to render noninfringing all temporary copies that are incidental to lawful uses. Outside the context of buffer copies that are incidental to a licensed performance of a work,⁴²⁶ no compelling case has been made that a broad exception is needed.⁴²⁷ However, the risks of a blanket exception appear significant.⁴²⁸

⁴²⁶ See discussion *infra*, at 142-145.

⁴²⁷ See discussion *supra*, at 131.

⁴²⁸ See discussion *supra*, at 130-131.

Copyright owners have pointed out with justification that the reproduction right is the “cornerstone of the edifice of copyright protection”⁴²⁹ and that exceptions from that right should not be made lightly. In the absence of specific, identifiable harm, the risk of foreclosing legitimate business opportunities based on copyright owners’ exploitation of their exclusive reproduction right counsels against creating a broad exception to that right.

The risks associated with a narrowly defined exception are less significant. We believe that Congress’ tailored approach taken in the Computer Maintenance Competition Assurance Act⁴³⁰ to the question of temporary copies to be the appropriate model. Presented with specific examples of identifiable harm to competition in the computer repair and maintenance industry in the form of infringement suits premised on temporary copying, Congress created a narrow exemption to deal with that specific problem.⁴³¹ We believe the same approach should be taken here.

ii. Temporary copies incidental to a licensed digital performance should result in no liability

We recommend that Congress enact legislation amending the Copyright Act to preclude any liability arising from the assertion of a copyright owner’s reproduction right with respect to

⁴²⁹ T-Copyright Industry Orgs., at 243.

⁴³⁰ Title III of the DMCA, Pub. L. No. 105-304, 112 Stat. 2860, 2887 (1998).

⁴³¹ *See supra*, at 30.

temporary buffer copies that are incidental to a licensed digital transmission of a public performance of a sound recording and any underlying musical work.

The economic value of licensed streaming is in the public performances of the musical work and the sound recording, both of which are paid for. The buffer copies have no independent economic significance. They are made solely to enable the performance. The same copyright owners appear to be seeking a second compensation for the same activity merely because of the happenstance that the transmission technology implicates the reproduction right, and the reproduction right of songwriters and music publishers is administered by a different collective than the public performance right.⁴³²

The uncertainty of the present law potentially allows those who administer the reproduction right in musical works to prevent webcasting from taking place — to the detriment of copyright owners, webcasters, and consumers alike — or to extract an additional payment that is not justified by the economic value of the copies at issue. Congressional action is desirable to remove the uncertainty and to allow the activity that Congress sought to encourage through the adoption of the section 114 webcasting compulsory license to take place.

⁴³² It seems unlikely that this particular problem would arise in other industries where the copyright owner's public performance right and reproduction right are administered by the same entity. We note, for example, that the issue of temporary buffer copies of sound recordings has not been raised as an issue, and does not appear to be the subject of any demands for additional royalties. In the recording industry, the reproduction right and digital public performance right are generally held by the same entity.

A close analogy to the present circumstances can be found in the adoption of an exemption for so-called ephemeral recordings in section 112 of the Copyright Act. Ephemeral recordings are copies that are made and used by a transmitting organization to facilitate its transmitting activities. Congress saw fit to exempt those copies when the transmission is either made under license (including the compulsory license for webcasting and subscription digital transmissions) or under an exemption from exclusive rights (as in the case of analog public performances of sound recordings). As with temporary buffer copies, ephemeral recordings are made for the sole purpose of carrying out a transmission. If they are used strictly in accordance with the restrictions set forth in section 112,⁴³³ they have no economic value independent of the public performance that they enable.⁴³⁴

We note the suggestion by one copyright owner group that statutory change is unnecessary because the issue of buffer copies can be addressed under the aegis of the fair use

⁴³³ An ephemeral recording may be retained and used only by the transmitting organization that made it, and no further copies may be reproduced from it; it may be used only for the transmitting organization's own transmissions or for archival preservation or security; and it must be destroyed within six months from the date that it was first transmitted to the public unless it is preserved exclusively for archival purposes. 17 U.S.C. § 112(a)(1). The use of temporary buffer copies is even more limited, since they are used only in the course of a single transmission, and do not endure any longer than the transmission.

⁴³⁴ The webcasting amendments in section 405 of the DMCA created a new compulsory license to make ephemeral recordings of sound recordings under specified circumstances. 17 U.S.C. § 112(e). In light of the original purpose of section 112, and a subsequent legislative proposal to exempt certain ephemeral recordings used to facilitate the transmission of digital distance education materials, *see* S. 487, 107th Cong., 1st Sess. § 1(c) (2001), section 112(e) can best be viewed as an aberration. As we indicated in 1998 to the affected parties who championed this provision as part of an overall compromise, we saw no justification for the disparate treatment of broadcasters and webcasters regarding the making of ephemeral recordings. Nor did we see any justification for the imposition of a royalty obligation under a statutory licence to make copies that have no independent economic value and are made solely to enable another use that is permitted under a separate compulsory license. Our views have not changed in the interim, and we would favor repeal of section 112(e) and the adoption of an appropriately-crafted ephemeral recording exemption.

doctrine.⁴³⁵ While we agree that the fair use defense probably does apply to such buffer copies,⁴³⁶ this approach is fraught with uncertainty. It is conceivable that a court confronted with the issue could conclude that the making of buffer copies is not fair use. This risk, coupled with the apparent willingness of some copyright owners to assert claims based on the making of buffer copies, argues for statutory change.

A number of the copyright owners expressed concerns about the potential unintended consequences of an exception from the reproduction right for temporary copies. We note that most of those comments were addressed to the proposal for a broader exception covering all temporary, incidental copies – a proposal that we have declined to endorse. We believe that the much narrower scope of our recommendation addresses these concerns.

We also note the criticism leveled at proponents of a temporary copy exception for webcasting – that they are seeking to have copyright owners subsidize certain types of business models by refraining from enforcing, or seeking compensation for one of their exclusive rights.⁴³⁷ This is not a case where an additional use is being made of a work beyond the use that has been compensated. The making of buffer copies is a part of the same use. It is integral to the performance, and would not take place but for the performance. Permitting such incidental copies cannot be considered a “subsidy” by copyright owners.

⁴³⁵ T-SIIA, Kupferschmid, at 83-84, 131-32.

⁴³⁶ *See supra*, at 133-141.

⁴³⁷ T-Copyright Industry Orgs., p. 276.

Finally, we note that in informal communications with representatives of music publishers we have been apprised of concerns that streaming technology renders musical works vulnerable to digital copying.⁴³⁸ A mechanical royalty on audio streams (based on the buffer copy) is viewed as a necessary protection against lost revenues from unauthorized copying. Although we are sympathetic to the concerns expressed by copyright owners about such technology, we find this reasoning flawed and unpersuasive.

Whether or not consumers make unauthorized copies of audio streams has nothing to do with temporary buffer copies. Those copies are not directly involved in the making of the unauthorized copy.⁴³⁹ Requiring payment for a copy with no economic value because an unrelated copy with economic value might be made would be inappropriate.

iii. Public performances incidental to licensed music downloads should result in no liability

Given our recommendations concerning temporary copies that are incidental to digital performances of sound recordings and musical works, fairness requires that we acknowledge the symmetrical difficulty that is faced in the online music industry: digital performances that are incidental to digital music downloads.

⁴³⁸ “Total Recorder” is an example of one software product, available on the Internet, that permits unauthorized copying of streaming audio. Devices such as Total Recorder may violate section 1201(b). *See, e.g.*, 17 U.S.C. § 1201(b) and 17 U.S.C. § 114(d)(2)(C)(vi), (viii). If they do not, consideration should be given to amending section 1201(b) to prohibit such devices.

⁴³⁹ The data in the stream buffer is compressed and may be subject to technological protections such as encryption. Consequently, it makes far more sense to capture the audio data after it has been rendered by the player software and is uncompressed and unprotected. Total Recorder works in this fashion, capturing the audio data on its trip from the player software to the sound card.

Just as webcasters appear to be facing demands for royalty payments for incidental exercise of the reproduction right in the course of licensed public performances, it appears that companies that sell digital downloads of music under either voluntary licenses from music publishers or the section 115 compulsory license, and voluntary licenses from record companies, are facing demands for public performance royalties for a technical “performance” of the underlying musical work that allegedly occurs in the course of transmitting it from the vendor’s server to the consumer’s PC.⁴⁴⁰

As with the issue of buffer copies made in the course of streaming, this appears to be an issue driven as much by the structure of the administration of copyright rights in the music industry as by technology. The issue simply would not seem to arise in other industries where the public performance and reproduction rights are exercised by the same entity.

We view this issue as the mirror image of the question regarding buffer copies. We recognize that the proposition that a digital download constitutes a public performance even when no contemporaneous performance takes place is an unsettled point of law that is subject to debate. However, to the extent that such a download can be considered a public performance, the performance is merely a technical by-product of the transmission process that has no value separate from the value of the download. If it is a public performance, then, we believe that arguments concerning fair use and the making of buffer copies apply to that performance.⁴⁴¹ In

⁴⁴⁰ T-BMI, Berenson, at 163-65.

⁴⁴¹ See discussion of the application of fair use to buffer copies, *supra*, at 133-141.

any case, for the reasons articulated above, it is our view that no liability should result under U.S. law from a technical “performance” that takes place in the course of a download.

3. Scope of Archival Exemption

Currently the archival exemption under section 117(a)(2) is limited to computer programs. This section allows the owner of a copy of a computer program to make or authorize the making of an additional copy of the program “for archival purposes,” provided that “all archival copies are destroyed in the event that continued possession of the computer program should cease to be rightful.”⁴⁴² A number of arguments were advanced in the course of the study for an expansion of this archival exception in order to cover the kind of routine backups that are performed on computers and to allow consumers to archive material in digital format other than computer programs. The arguments for and against such an expansion are discussed below.

a. Arguments in Favor of Expanding the Archival Exemption

i. General vulnerability of content in digital form

Commenters asserted that consumers need to back up works in digital form because they are vulnerable. CONTU recommended that Congress create an exemption to permit archival (backup) copies of computer programs because they are vulnerable to “destruction or damage by mechanical or electrical failure.”⁴⁴³ This vulnerability stems not from the fact that they are computer programs, but because they are stored in digital form. The rationale given by CONTU

⁴⁴² 17 U.S.C. § 117(a)(2).

⁴⁴³ CONTU Report, *supra* note 61 at 13.

for adopting an archival exemption for computer programs would apply equally to any work stored in digital format.⁴⁴⁴

It would be perfectly consistent with CONTU's recommendations and Congress' enactment of section 117 to extend the archival exemption to protect against technical vulnerabilities that afflict the present day use of digital files. The digital media collection on a hard drive is also vulnerable to technical failure such as hard disk crashes, virus infection, or file corruption.

ii. Mismatch between section 117 and current archival practices

Evidence has been presented noting that the archival exemption under section 117 does not permit the practices and procedures most people follow for backing up data on a computer hard drive. The commenters stated that an amendment to section 117 would be necessary for it to reflect the reality of how many computer users (and most business users) actually back up information.

Section 117 appears to have been written to address a particular style of archiving: the making of a copy of an individual program at the time the consumer obtains it. However, we were told that most businesses, and many individuals, perform periodic backups of everything on

⁴⁴⁴ It would have been well within CONTU's mandate (to make recommendations concerning "the reproduction and use of copyrighted works of authorship. . . . in conjunction with automatic systems capable of storing, processing, retrieving, and transferring information") to have proposed an archival exemption applicable to all works in digital form. CONTU Report, *supra* note 61, at 4. It did not do so, for reasons that were not articulated in the Report.

their disk (and not just one backup copy upon purchase of the computer program). This backup copy includes all installed computer programs, together with any related data files, various configuration files, and all of the user's own data, including any copyrighted works that have been downloaded. Section 117 does not permit the copying of anything other than the computer programs.⁴⁴⁵

Section 117 requires the destruction of any archived copy once possession of the program ceases to be rightful. Possession – or at least use – of a program typically ceases to be rightful once the user acquires an upgraded version.⁴⁴⁶ A literal reading of section 117 would require the user to go through all of the backup tapes, CD-Rs and other archival media, identify each of the files that constitute the earlier version of the computer program, and attempt to delete them. This is neither practical nor reasonable.

Based on the evidence presented during the course of preparing this Report, there is a fundamental mismatch between accepted, prudent practice among most system administrators and other users, on one hand, and section 117 on the other. As a consequence, few adhere to the letter of the law.

⁴⁴⁵ It was suggested by one commenter that even data files associated with a computer program could not be archived under section 117. WST-Hollaar.

⁴⁴⁶ T-Hollaar, at 94, 150. For example, the Symantec License and Warranty for Norton SystemWorks™ provides that “YOU MAY NOT: . . . use a previous version or copy of the Software after you have received a disk replacement set or an upgraded version as a replacement of the prior version, . . .”.

b. *Arguments Against Expanding the Archival Exemption*

i. Lack of demonstrated harm

While the mismatch between section 117 and sound backup practices is indisputable, nobody was able to identify any instance where a consumer has suffered any harm as a result of the limited scope of the archival exemption. There are two principal ways that consumers could be harmed: by refraining, to their detriment, from activities because they do not fall within the scope of the exemption; and by being subject to legal claims from copyright owners for conduct that falls outside the scope of the exemption. Neither appears to be occurring.

It was pointed out several times during the course of this study that the backup copies that consumers make from their hard drives generally embody all files, including digital downloads. If this activity is so commonplace, it does not appear that consumers are risking their investment in digital media to conform their conduct to section 117. Nor has anyone provided any evidence that any consumer has ever faced litigation, or even the threat of litigation, for making a backup copy of a hard drive containing material that fell outside the scope of the archival exception under section 117. To the contrary, evidence was presented that consumers who back up their hard drives generally do so outside the parameters of section 117 with no repercussions whatsoever.

ii. Justification for section 117(a)(2) has diminished

The need to make backup copies of computer programs has diminished. It was pointed out in the comments that today section 117(a)(2) has little, if any, utility. Almost all the software

sold in the United States is sold on CD-ROM.⁴⁴⁷ The CD-ROM serves as the backup copy once a computer program is loaded from the CD-ROM to one's computer. CD-ROMs have an estimated failure rate of significantly less than 1%.

It has been argued that there would seem to be little point to expanding section 117(a)(2) to other copyrighted works when current law does not appear to be causing any real-world problems and the justification for the provision may no longer exist. While this may be the case today, we acknowledge that the sale of computer software as digital downloads is on the rise, and that may increase the need for an archival exemption.

iii. Bad faith use of the section 117 defense

It was brought to our attention during the course of this study that section 117 is being used by some members of the public to justify conduct that it does not permit because of the public's misunderstanding of the purpose of the section. We were told that persons engaged in software and content piracy are also using section 117 to justify their activities. For example, one of the commenters noted that people auction off their so-called backup copies of their computer software or make pirate software available on websites, ftp sites or chat rooms under the guise of the section 117 back-up copy exception.⁴⁴⁸

⁴⁴⁷ According to PC Data, in 1999, ninety-seven percent of all the software sold in the United States was sold on CD-ROM and in 2000, ninety-eight percent of all software was sold on CD-ROM. R-SIIA, at 9.

⁴⁴⁸ C-SIIA, at 4.

c. Recommendations

We recommend that Congress amend the copyright law in one of the two ways that we outline below. We acknowledge that persuasive arguments were presented on both sides of the question whether to expand the archival copy exemption that is currently in section 117(a)(2). On balance, after examining those arguments and taking into consideration the additional concerns that we discuss below, we conclude that a statutory change is desirable.

In support of a recommendation to revise the archival exemption, it has been demonstrated to our satisfaction that there is a fundamental mismatch between section 117 and current archival practices. Those practices – to which copyright owners have not objected – do not harm right holders, are necessary for consumers to protect their investment in digital materials, and should be permitted to continue.

In support of making no change to the scope of the exemption, there has been a complete absence of any demonstrated harm to the prospective beneficiaries of an expanded archival exemption.⁴⁴⁹ Any dramatic expansion of a fairly modest copyright exemption carries with it the risk of causing unintended consequences. Moreover, we believe that a strong case can be made that most common archival activities by computer users⁴⁵⁰ would qualify as fair use.

⁴⁴⁹ This factor is an element that distinguishes the archival exemption issue from the buffer copy issue discussed *supra*.

⁴⁵⁰ We are assuming for purposes of this fair use analysis that the activity consists of backing up all or a portion of the contents of a hard drive on a removable medium for retention against the possibility of accidental destruction of that material *and for no other purpose*. Of course, this analysis would not apply to any infringing material on a hard drive.

The purpose of the use – backing up the material on a computer’s hard drive – is merely to safeguard lawfully-obtained copies against accidental destruction. Although the use is not transformative, it probably would not be considered commercial either.⁴⁵¹ The use does not supplant the original because it does not entail a separate exploitation of the work – or any exploitation unless that original copy is damaged or destroyed. As with time-shifting, backing up is “a legitimate, essentially non-exploitative purpose.” This factor appears to favor the user.

The second factor – nature of the work – would appear to favor copyright owners since many of the works being copied are clearly very creative in nature, and are thus subject to a more limited scope of fair use than informational works.⁴⁵² But this by no means precludes the conclusion that making backup copies is a fair use.⁴⁵³

The third factor – the amount and substantiality of the portion used – might also appear to weigh against a finding of fair use since the entire work is copied.⁴⁵⁴ However, this too does not preclude a finding of fair use.⁴⁵⁵ Here, since the purpose of the activity being engaged in is to protect one’s legally obtained copy through archiving, copying the entire work is necessary.

⁴⁵¹ See *Campbell*, 510 U.S. at 579 (discussing transformative use); *id.* at 584-85 (discussing commercial use).

⁴⁵² *Id.* at 586; *Diamond*, 745 F.2d 142, at 148 (2d Cir. 1984).

⁴⁵³ For example, copying of entire motion pictures for time-shifting purposes was considered a fair use in *Sony*. Motion pictures generally fall at the creative end of the spectrum.

⁴⁵⁴ *Infinity Broadcast Corp.*, 150 F.3d 104, at 109 (2d. Cir. 1998).

⁴⁵⁵ *Sony*, 464 U.S. 417, 449-50 (1984).

The fourth factor – effect of the use on the market – weighs strongly in favor of fair use. The effect on the market for the copyrighted work will be nonexistent. The copies being made under this fair use analysis are being made for the sole purpose of safeguarding one’s investment – a vulnerable investment due to susceptibility of digital media to accidental damage or destruction. The archival copies do not enter the market at any point and since they are copies of works for which the copyright owner has already been compensated, there is no harm to the owner in lost revenue. It is our conclusion that a strong case can be made that the use being made is fair.

If the analysis ended there, recommending no statutory change could be a viable option. Another element to consider, however, is the interplay between sections 107 and 109. It appears that the language of the Copyright Act could lead a court to conclude that, by operation of section 109, copies of works made lawfully under the fair use doctrine may be freely distributed.

Section 109 permits “the owner of a particular copy or phonorecord lawfully made” under title 17 to distribute that copy without the copyright owner’s permission.⁴⁵⁶ To the extent that section 107 permits a user to make backup copies of works stored on a hard drive, those backup copies are lawfully made and the user owns them. Section 109, on its face, appears to permit the

⁴⁵⁶ 17 U.S.C. § 109(a).

user, as the owner of a lawfully made backup copy, to “sell or otherwise dispose of the possession” of that backup copy.⁴⁵⁷

Authority is unclear over the application of the first sale doctrine to lawfully made copies that have not been distributed with the copyright owner’s consent. Section 109 is commonly understood to codify the “first sale doctrine,” which implies that an actual sale, or at least an authorized distribution, must occur before the doctrine applies. However, the statutory text only requires that the copy be lawfully made, and makes no reference to a prior authorized sale or other distribution.⁴⁵⁸

The legislative history of section 109 can be read to support both views. In one sentence, the 1976 House Report suggests that an actual first sale is required to trigger section 109, which it asserts “restates and confirms the principle that, where the copyright owner has transferred ownership of a particular copy or phonorecord of a work, the person to whom the copy or phonorecord is transferred is entitled to dispose of it by sale, rental, or any other means”⁴⁵⁹ But this position is undercut by a passage on the same page, which asserts that “the disposition of a phonorecord legally made under the compulsory licensing provisions of Section 115 would not

⁴⁵⁷ *Id.* Backup copies made pursuant to § 117(a)(2), though “lawfully made,” are subject to the limitations on distribution contained in § 117(b) and the requirement in § 117(a)(2) that they be destroyed once possession of the original is no longer rightful. Since § 117 is both the more specific and the later enacted provision, these limitations would prevail over the general language of § 109(a) under basic canons of statutory interpretation.

⁴⁵⁸ 17 U.S.C. § 109(a).

⁴⁵⁹ 1976 House Report, *supra* note 40, at 79 (1976).

[be outside the scope of Section 109(a)].”⁴⁶⁰ A leading copyright treatise concludes that “on balance, it would seem that the literal text of Section 109(a) should be followed, so that its immunity may be claimed by any ‘owner of a particular copy or phonorecord lawfully made,’ and not just by those who acquired such ownership via a prior transfer from the copyright owner.”⁴⁶¹

Given our view that, in the typical situation,⁴⁶² the making of backup copies is probably a fair use, we see a risk to copyright owners under current law that those backup copies could then be distributed without legal consequence. We believe that outcome would be fundamentally unfair⁴⁶³ and, notwithstanding the ambiguity of the 1976 House Report on this point, contrary to congressional intent. Nonetheless, we cannot overlook the possibility that a court would hold this way. When added into the balance, this element tips the scale in favor of statutory change.

We therefore recommend that Congress either (1) amend section 109(a) to ensure that fair use copies are not subject to the first sale doctrine; or (2) create a new archival exemption that provides expressly that backup copies may not be distributed. We express no preference as between the two options, and note that they are not mutually exclusive.

⁴⁶⁰ *Id.*

⁴⁶¹ Nimmer, *supra* note 21, at § 8.12[B][3][c].

⁴⁶² *See supra*, note 450.

⁴⁶³ Apart from the obvious detrimental effect this outcome would have on the copyright owner’s market, we note that the initial determination of fair use that permitted the making of the copy may have been premised on the fact that the copy was not made for distribution. *See infra*, note 468.

The first option would entail amending section 109(a) to state that only copies that have been lawfully made *and lawfully distributed* are subject to the first sale doctrine. We believe that this change would be consistent with what Congress intended in section 109.

As noted above, the text of section 109 does not refer to any previous transfer of a lawfully owned copy (although the condition that the person be an owner could be argued to presuppose a sale or other transfer of ownership from the copyright owner) and the 1976 House Report is ambiguous on the question whether a first sale must occur to trigger the application of section 109 to a particular copy. Section 109 was intended by Congress to “restate[] and confirm[]” a principle that had been “established by the court decisions and section 27” of the 1909 law. Section 27 refers not to “lawful copies” but to copies “the possession of which has been lawfully obtained.” This language arguably requires a lawful sale or other distribution (otherwise the copy would be lawfully “made” not lawfully “obtained”q).⁴⁶⁴ The seminal court decision on first sale, *Bobbs-Merrill Co. v. Straus*,⁴⁶⁵ went even further, holding that the copyright owner parted with all right to control sale of a copy after it “had parted with the title to one who had acquired full dominion over it and had given a satisfactory price”⁴⁶⁶ Given this chronology of the development of the first sale doctrine, it seems very unlikely that Congress intended a radical departure from the requirement of a “first sale” or other authorized distribution by the copyright owner. A likelier explanation for the particular wording in the statute is that it

⁴⁶⁴ See *Platt & Munk Co. v. Republic Graphics, Inc.*, 513 F.2d 847 (2d. Cir. 1963).

⁴⁶⁵ 210 U.S. 339 (1908). The case is discussed *supra*, at 20.

⁴⁶⁶ 210 U.S. at 350.

was drafted to avoid any potential conflict with the ability of a compulsory licensee's, or subsequent purchaser's, ability to sell phonorecords made under the section 115 compulsory license "to make and distribute phonorecords" of nondramatic musical works.⁴⁶⁷

We note that this proposed change to section 109 would not preclude the distribution of copies made pursuant to section 107 in all cases, since (like all of the exclusive rights in section 106) the distribution right is subject to the fair use doctrine. It would, however, require that a separate fair use analysis be applied to the distribution of that particular copy. The fair use copy could be transferred only in those cases where the distribution itself qualified as a fair use.⁴⁶⁸

The second option entails creating a new exemption for making backups of lawful copies of material in digital form, and amending section 117 to delete references to archival copies.⁴⁶⁹ The new exemption should follow the general contours of section 117 (a)(2) and (b), and include the following elements: It should permit the making of one or more backup copies of a work.

⁴⁶⁷ 1976 House Report, *supra* note 40, at 79 ("[A]ny resale of an illegally 'pirated' phonorecord would be an infringement, but the disposition of a phonorecord legally made under the compulsory licensing provisions of section 115 would not."). Our proposal would also meet this concern since a phonorecord that is manufactured and sold under the section 115 license would be both lawfully made and lawfully distributed.

⁴⁶⁸ In some cases, the making of a copy may be a fair use in large part because the copy is not disseminated to third parties. For example, in *Sony*, the Supreme Court held that it was a fair use for a private citizen to record a television program off-the-air for purposes of "time-shifting," which the Court described as "the practice of recording a program to view it once at a later time, and thereafter erasing it." 464 U.S. at 423. The personal nature of that use was critical to the Court's analysis. *See, e.g.*, 464 U.S. at 449 ("the District Court's findings plainly establish that time-shifting for private home use must be characterized as a noncommercial, nonprofit activity"). The fact that the making of a personal copy for purposes of time-shifting (and with the anticipation of subsequent destruction of the copy) is fair use should not make it lawful subsequently to sell, rent or give that "lawfully made" copy to a third party.

⁴⁶⁹ We recommend this approach in order to preserve section 117's present character as a computer program exemption and at the same time ensure that computer programs and other materials in digital form are subject to the same rules concerning the making of backup copies.

The copy from which the backup copies are made must be in digital form on a medium that is subject to accidental erasure, damage or destruction in the ordinary course of its use. It should stipulate that the copies may be made and used solely for archival purposes or for use in lieu of the original copy. It should also specify that, notwithstanding the provisions of section 109, the archival copy may not be transferred except as part of a lawful transfer of all rights in the work. Finally, it should specify that the archival copies may not be used in any manner in the event that continued possession of the work ceases to be rightful.

Permitting the making of multiple copies is necessary because prudent backup practice requires it. For example, a typical approach to backing up would entail making both on-site and off-site copies of the entire contents of a hard drive on a regular basis, in addition to making incremental backups of just those files on the hard drive that have changed.

The requirement that the work be stored in digital form on a medium that is subject to accidental erasure, damage or destruction in the ordinary course of its use is intended to avoid claims like that faced by the court in *Atari, Inc. v. J S & A Group, Inc.*,⁴⁷⁰ without unduly limiting the exemption to current technology.⁴⁷¹ The exemption would also not be limited, as the *Atari* court suggested, to damage or destruction by electrical or mechanical failure. Media that are subject to accidental erasure by human error would qualify as well. Digital media that are subject

⁴⁷⁰ 597 F. Supp. 5, 9-10 (N.D. Ill. 1983) (rejecting assertion that making of ‘backup’ copies of a videogame embodied in ROM is permitted under section 117 because ROM is not vulnerable to “damage by mechanical or electrical failure,” court holds device for copying videogames in ROM not to have substantial noninfringing uses under *Sony* analysis of contributory infringement)

⁴⁷¹ Currently, the exception would be limited primarily to backups made from copies on a hard drive, floppy disk, or other magnetic medium.

to accidental destruction outside the ordinary course of use (e.g., by fire or other catastrophe), however, would not qualify, since there would no longer be a basis for treating them any differently from traditional hard-copy media for purposes of archiving.

The proposal that archival copies may be made and used solely for archival purposes or for use in lieu of the original copy is derived from section 117(a)(2). It has been modified in recognition of the fact that, in certain instances, the original copy is used as the backup, and the backup becomes the use copy.⁴⁷²

The requirement that archival copies not be transferable (except as part of a lawful transfer of all of the transferor's rights in the work) is derived from section 117(b). This takes care of the concern addressed above regarding the intersection of sections 107 and 109 in the context of backup copies.

The requirement that archival copies not be used in any manner in the event that continued possession of the work ceases to be rightful is a substitute for the requirement in section 117(a)(2) that any such backup copies be destroyed. Since backup copies frequently include many works on a single medium, and since erasure or destruction of individual files on such a medium is often impossible, the proposal would not require destruction. It would instead require that the archival copies not be used in any manner.

⁴⁷² See Copyright Office, *The Computer Software Rental Amendments Act of 1990: The Nonprofit Library Lending Exemption to the "Rental Right"* 77-78 (1994).

4. Contract Preemption

Several commenters proposed that the Copyright Act should be amended to ensure that contractual provisions that override consumer privileges in the copyright law, or are otherwise unreasonable, are not enforceable.⁴⁷³ In essence, this is a request to amend section 301 of the Copyright Act, which governs the scope of federal preemption of state law (including state contract law). Section 301 states that

all legal or equitable rights that are equivalent to any of the exclusive rights within the general scope of copyright as specified by section 106 in works of authorship that are fixed in a tangible medium of expression and come within the subject matter of copyright as specified by sections 102 and 103, . . . whether published or unpublished, are governed exclusively by this title. . . . [N]o person is entitled to any such right or equivalent right in any such work under the common law or statutes of any State.

There appears to be consensus among courts that enforcement of contracts is not prohibited as a general matter.⁴⁷⁴ However, there is disagreement among courts respecting the degree to which the Copyright Act may preclude the enforcement of specific contractual provisions that would otherwise be enforceable under state law. At least one court has taken a nearly categorical approach to contract preemption, holding that rights created by contract are not “rights equivalent to any of the exclusive rights within the general scope of copyright.”

Rights “equivalent to copyright” are rights established by law – rights that restrict the options of persons who are strangers to the author. . . . A copyright is a right against the world. Contracts, by contrast, generally affect only their parties; strangers may do as they please, so contracts do not create “exclusive rights.”⁴⁷⁵

⁴⁷³ See, e.g., C-DFC, at 4; T-Library Ass’ns, Neal, at 16; T-DiMA, Greenstein, at 239.

⁴⁷⁴ *Architectronics, Inc. v. Control Systems, Inc.*, 935 F. Supp 425, 441 (S.D.N.Y. 1996); see also *Selby v. New Line Cinema Corp.*, 96 F. Supp. 2d 1053, 1059 (C.D. Cal. 2000) (a majority of courts have found that breach of contract claims generally are not preempted).

⁴⁷⁵ *ProCD, Inc. v. Zeidenberg*, 86 F.3d 1447, 1454 (7th Cir. 1996).

Consequently, “a simple two-party contract . . . may be enforced.”⁴⁷⁶

Other courts have found contract rights preempted to the extent that they essentially restate one or more of the exclusive rights under section 106 of the Copyright Act (e.g., reproduction) with no “extra element.”⁴⁷⁷ No case, however, has applied preemption broadly enough to nullify contractual provisions that vary or override exceptions and limitation in the Copyright Act.

Section 7 of the Boucher-Campbell bill would have amended section 301 to apply the broad scope of preemption of contract rights advocated by some of the commenters.⁴⁷⁸ Unlike the proposals concerning the first sale doctrine and temporary copies, however, section 104 of the DMCA does not include any statutory reference that arguably brings this proposal within the scope of the Report. Consequently, we conclude that the issue of preemption of contractual provisions is outside the scope of the Report.

⁴⁷⁶ *Id.*

⁴⁷⁷ *National Car Rental Sys. v. Computer Assocs. Int’l*, 991 F.2d 426, 433 (8th Cir. 1993); *Frontline Test Equip. v. Greenleaf Software, Inc.*, 10 F. Supp. 2d 583, 593 (W.D. Va. 1998).

⁴⁷⁸

SEC. 7. PREEMPTION.

Section 301(a) of title 17, United States Code, is amended by inserting the following at the end thereof:

“When a work is distributed to the public subject to non-negotiable license terms, such terms shall not be enforceable under the common law or statutes of any state to the extent that they—

“(1) limit the reproduction, adaptation, distribution, performance, or display, by means of transmission or otherwise, of material that is uncopyrightable under section 102(b) or otherwise; or

“(2) abrogate or restrict the limitations on exclusive rights specified in sections 107 through 114 and sections 117 and 118 of this title.”.

H.R. 3048, 105th Cong., 1st Sess., § 7 (1997).

We do note, however, that the issue is complex and of increasing practical importance, and, as such, may be worthy of further consideration at some point in the future.⁴⁷⁹ On one hand, copyright has long coexisted with contract law, providing a background of default provisions against which parties are generally free to order their own commercial dealings to suit their needs and the realities of the marketplace. On the other hand, movement at the state level toward resolving uncertainties that have existed about the enforceability of non-negotiated license agreements, coupled with legally-protected technological measures that give right holders the technical capability of imposing contractual provisions unilaterally, increases the likelihood that right holders, and not the copyright policies established by Congress, will determine the landscape of consumer privileges in the future. Although market forces may well prevent right holders from unreasonably limiting consumer privileges, it is possible that at some point in the future a case could be made for statutory change.

5. Miscellaneous Additional Issues Beyond the Scope of the Report

a. Impact of Section 1201 on Fair Use and other Copyright Exceptions

Several commenters expressed general opposition to the prohibitions on circumvention of technological protection measures contained in 17 U.S.C. § 1201, and noted their concerns about

⁴⁷⁹ We note that in Australia the CLRC published an issues paper in June 2001 seeking information regarding the prevalence, effects and desirability of contracts that purport to override copyright exceptions granted under the *Copyright Act 1968*. In particular, the CLRC is investigating the extent to which such agreements occur in the online and offline environments and whether these agreements are and should be valid and enforceable. In all, the CLRC seeks views on nine issues. Details can be found on the CLRC website at www.law.gov.au/clrc.

the adverse impact that section 1201 may have on fair use and other copyright exceptions.⁴⁸⁰ Given the express language of section 104, which requires an evaluation of the impact of, *inter alia*, section 1201 on the operation of two specific provisions of the copyright law – sections 109 and 117 – it seems unlikely that Congress intended this Report to delve into the general relationship between section 1201 and all of the other copyright exceptions and limitations. Moreover, the fact that Congress expressly directed us to evaluate this precise issue every three years as part of the rulemaking under section 1201(a)(1)(C), tends to support the conclusion that the impact of section 1201 on fair use and other copyright exceptions is outside the scope of this Report.

b. *Impact of Section 1201 on Users of DVDs*

Several sets of comments were focused on the litigation⁴⁸¹ concerning software tools for circumventing the CSS that is used to encrypt motion pictures distributed on DVD.⁴⁸² Some of these comments offered a point-by-point rebuttal of the plaintiffs' case; others expressed concern that section 1201 had an adverse effect on users of DVDs by limiting the playback of DVD movies to devices that are licensed by the consortium holding the rights to the CSS technology.

Only the courts have the authority to determine the outcome of the *Reimerdes* case; our mandate is to evaluate the impact of section 1201 on the operation of sections 109 and 117.

⁴⁸⁰ See, e.g., C-NARM/VSDA, at 37. See generally C-Fischer; C-Darr; C-Jones; C-Klosowski; C-Love.

⁴⁸¹ See *supra*, note 89.

⁴⁸² See, e.g., C-Arromdee; C-Thau and Taylor.

Although some of the comments tried to recast the DeCSS controversy as a first sale issue,⁴⁸³ this effort reflected a misconception of the nature of the first sale doctrine.⁴⁸⁴

Apart from the foregoing issue, the general questions concerning the relationship between section 1201 and users of DVDs are outside the scope of this Report.



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⁴⁸³ See, e.g., C-LXNY, at 1.

⁴⁸⁴ See *supra*, at 74.

Appendix 1

DEPARTMENT OF LABOR**Employment and Training Administration****Solicitation for Grant Applications (SGA) Work Incentive Grants**

AGENCY: Employment and Training Administration (ETA), Labor.

ACTION: Notice; Technical Assistance/Bidders' Conferences.

SUMMARY: The Employment and Training Administration published a document in the **Federal Register** of May 25, 2000, concerning the availability of grant funds designed to enhance the employability, employment and career advancement of people with disabilities through enhanced service delivery in the new One-Stop delivery system established under the Workforce Investment Act of 1998.

FOR FURTHER INFORMATION CONTACT: B. Jai Johnson, Grants Management Specialist, Division of Federal Assistance, Fax (202) 219-8739. Technical assistance/bidders' conferences will be held regarding the Department's Solicitation for Grant Application (SGA) for Work Incentive Grants at the following times and places:

June 6: 1 p.m. to 5 p.m.—Pierson Auditorium, University of Missouri at Kansas City, 5000 Holmes Avenue, Kansas City, Missouri 64110 (816) 235-1758. Contact for this location is Kelli Ellerbusch.

June 8: 9 a.m. to 1 p.m.—Oakland Federal Building, 1301 Clay St., Oakland, California 94612. Contact for this location is Chris Neilson at (510) 628-0665.

June 15: 9 a.m. to 1 p.m.—U.S. Department of Labor Auditorium, 200 Constitution Ave., N.W. 20210. Contact at this location is Paul Bennett at (202) 693-4937.

Specific information related to the SGA can be obtained from the following homepage: <http://wdsc.org/disability>. For general information on the technical assistance/bidders' conferences, please contact Paul Bennett at (202) 693-4927 or via e-mail at bennett-paul@dol.gov. Please contact Mr. Bennett to identify any special needs required at the technical assistance conference you plan to attend. If you are traveling from out of town, you will need to make hotel reservations on your own.

Signed at Washington, DC, this 25th day of May, 2000.

Laura Cesario,
Grant Officer.

[FR Doc. 00-14005 Filed 6-2-00; 8:45 am]

BILLING CODE 4510-30-U

LIBRARY OF CONGRESS**The United States Copyright Office****DEPARTMENT OF COMMERCE****National Telecommunications and Information Administration**

[Docket No. 000522150-0150-01]

RIN 0660-ZA13

Report to Congress Pursuant to Section 104 of the Digital Millennium Copyright Act

AGENCIES: The United States Copyright Office, Library of Congress; and the National Telecommunications and Information Administration, United States Department of Commerce.

ACTION: Request for public comment.

SUMMARY: The United States Copyright Office and the National Telecommunications and Information Administration invite interested parties to submit comments on the effects of the amendments made by title 1 of the Digital Millennium Copyright Act, ("DMCA") and the development of electronic commerce on the operation of sections 109 and 117 of title 17, United States Code, and the relationship between existing and emerging technology and the operation of such sections.

Section 104 of the DMCA directs the Register of Copyrights and the Assistant Secretary for Communications and Information of the Department of Commerce to submit to the Congress no later than 24 months after the date of enactment a report evaluating the effects of the amendments made by title 1 of the Act and the development of electronic commerce and associated technology on the operation of sections 109 and 117 of title 17, United States Code, and the relationship between existing and emerging technology and the operation of those sections. This **Federal Register** Notice is intended to solicit comments from interested parties.

DATES: Comments must be received by August 4, 2000. Reply comments must be received by September 5, 2000.

ADDRESSES: The Copyright Office and the National Telecommunications and Information Administration invite the public to submit written comments in electronic form by electronic mail or on diskette. See **SUPPLEMENTARY INFORMATION** for file formats and other information about electronic filing.

Comments submitted by electronic mail should be sent to both 104study@loc.gov and

104study@ntia.doc.gov. E-mail comments should be submitted as file attachments in one of the formats specified under **SUPPLEMENTARY INFORMATION** and should be sent to both the Copyright Office and National Telecommunications and Information Administration addresses.

Comments sent by regular mail may be sent to Jesse M. Feder, Policy Planning Advisor, Office of Policy and International Affairs, U.S. Copyright Office, Copyright GC/I&R, P.O. Box 70400, Southwest Station, Washington, DC 20024; and Jeffrey E.M. Joyner, Senior Counsel, Office of Chief Counsel, National Telecommunications and Information Administration (NTIA), Room 4713, U.S. Department of Commerce, 14th Street and Constitution Avenue, NW, Washington, DC 20230. Paper submissions should include a version on diskette in one of the formats specified under **SUPPLEMENTARY INFORMATION**. Comments should be sent to both the Copyright Office and National Telecommunications and Information Administration addresses.

FOR FURTHER INFORMATION CONTACT: Jesse M. Feder, Office of Policy and International Affairs, U.S. Copyright Office, Library of Congress (202) 707-8350 and Jeffrey E.M. Joyner, National Telecommunications and Information Administration (202) 482-1816.

SUPPLEMENTARY INFORMATION:**File Formats and Required Information**

Comments and reply comments may be submitted in electronic form, in one of the following formats:

1. If by electronic mail: Send to "104study@loc.gov" and "104study@ntia.doc.gov" a message containing the name of the person making the submission, his or her title and organization (if the submission is on behalf of an organization), mailing address, telephone number, telefax number (if any) and e-mail address. The message should also identify the document clearly as either a comment or reply comment. The document itself must be sent as a MIME attachment, and must be in a single file in either: (1) Adobe Portable Document File (PDF) format (preferred); (2) Microsoft Word Version 7.0 or earlier; (3) WordPerfect 7 or earlier; (4) Rich Text File (RTF) format; or (5) ASCII text file format.

2. If by regular mail or hand delivery: Send, to the appropriate address listed above, two copies of the comment, each on a 3.5-inch write-protected diskette, labeled with the name of the person making the submission and, if applicable, his or her title and organization.

Either the document itself or a cover letter must also include the name of the person making the submission, his or her title and organization (if the submission is on behalf of an organization), mailing address, telephone number, telefax number (if any) and e-mail address (if any). The document itself must be in a single file in either (1) Adobe Portable Document File (PDF) format (preferred); (2) Microsoft Word Version 7.0 or earlier; (3) WordPerfect Version 7 or earlier; (4) Rich Text File (RTF) format; or (5) ASCII text file format.

3. If by print only: Anyone who is unable to submit a comment in electronic form should submit an original and two paper copies by hand or by mail to the appropriate address listed above. It may not be feasible for the Copyright Office and the National Telecommunications and Information Administration to place these comments on their respective websites.

Background

On October 28, 1998, the Digital Millennium Copyright Act ("DMCA") was enacted into law (Pub. L. No. 105-304, 112 Stat. 2860). Section 104 of the DMCA directs the Register of Copyrights and the Assistant Secretary for Communications and Information of the Department of Commerce to submit to the Congress no later than 24 months after the date of enactment a report evaluating the effects of the amendments made by title 1 of the Act and the development of electronic commerce and associated technology on the operation of sections 109 and 117 of title 17, United States Code, and the relationship between existing and emerging technology and the operation of those sections. This **Federal Register** Notice is intended to solicit comments from interested parties on those issues.

The objective of title I of the DMCA was to revise U.S. law to comply with two World Intellectual Property Organization (WIPO) Treaties that were concluded in 1996 and to strengthen protection for copyrighted works in electronic formats. The DMCA establishes prohibitions on the act of circumventing technological measures that effectively control access to a work protected under the U.S. Copyright Act, and the manufacture, importation, offering to the public, providing or otherwise trafficking in any technology, product, service, device, component or part thereof which is primarily designed or produced to circumvent a technological measure that effectively controls access to or unauthorized copying of a work protected by copyright, has only a limited

commercially significant purpose or use other than circumvention of such measures, or is marketed for use in circumventing such measures. The DMCA also makes it illegal for a person to manufacture, import, offer to the public, provide, or otherwise traffic in any technology, product, service, device, component or part thereof which is primarily designed or produced to circumvent a technological measure that effectively protects a right of a copyright owner in a work protected by copyright, has only a limited commercially significant purpose or use other than circumvention of such measures, or is marketed for use in circumventing such measures. In addition the DMCA prohibits, among other actions, intentional removal or alteration of copyright management information and knowing addition of false copyright management information if these acts are done with intent to induce, enable, facilitate or conceal a copyright infringement. Each prohibition is subject to a number of statutory exceptions.

Section 109 of the Copyright Act, 17 U.S.C. 109, permits the owner of a particular copy or phonorecord lawfully made under title 17 to sell or otherwise dispose of possession of that copy or phonorecord without the authority of the copyright owner, notwithstanding the copyright owner's exclusive right of distribution under 17 U.S.C. 106(3). Commonly referred to as the "first sale doctrine," this provision permits such activities as the sale of used books. The first sale doctrine is subject to limitations that permit a copyright owner to prevent the unauthorized commercial rental of computer programs and sound recordings.

Section 117 of the Copyright Act, 17 U.S.C. 117, permits the owner of a copy of a computer program to make a copy or adaptation of the program for archival purposes or as an essential step in the utilization of the program in conjunction with a machine. In addition, pursuant to an amendment contained in title III of the DMCA, section 117 permits the owner or lessee of a machine to make a temporary copy of a computer program if such copy is made solely by virtue of the activation of a machine that lawfully contains an authorized copy of the computer program, for purposes of maintenance or repair of that machine.

Specific Questions

The United States Copyright Office and the National Telecommunications and Information Administration of the United States Department of Commerce

seek comment on the following specific questions. Parties need not address all questions, but are encouraged to respond to those for which they have particular knowledge or information.

1. Section 109

(a) What effect, if any, has the enactment of prohibitions on circumvention of technological protection measures had on the operation of the first sale doctrine?

(b) What effect, if any, has the enactment of prohibitions on falsification, alteration or removal of copyright management information had on the operation of the first sale doctrine?

(c) What effect, if any, has the development of electronic commerce and associated technology had on the operation of the first sale doctrine?

(d) What is the relationship between existing and emergent technology, on one hand, and the first sale doctrine, on the other?

(e) To what extent, if any, is the first sale doctrine related to, or premised on, particular media or methods of distribution?

(f) To what extent, if any, does the emergence of new technologies alter the technological premises (if any) upon which the first sale doctrine is established?

(g) Should the first sale doctrine be expanded in some way to apply to digital transmissions? Why or why not?

(h) Does the absence of a digital first sale doctrine under present law have any measurable effect (positive or negative) on the marketplace for works in digital form?

1. Section 117

(a) What effect, if any, has the enactment of prohibitions on circumvention of technological protection measures had on the operation of section 117?

(b) What effect, if any, has the enactment of prohibitions on falsification, alteration or removal of copyright management information had on the operation of section 117?

(c) What effect, if any, has the development of electronic commerce and associated technology had on the operation of section 117?

(d) What is the relationship between existing and emergent technology, on one hand, and section 117, on the other?

(e) To what extent, if any, is section 117 related to, or premised on, any particular technology?

(f) To what extent, if any, does the emergence of new technologies alter the technological premises (if any) upon which section 117 is established?

2. General

(a) Are there any additional issues that should be considered? If so, what are they and what are your views on them?

(b) Do you believe that hearings would be useful in preparing the required report to Congress? If so, do you wish to participate in any hearings?

Information collected from responses to this **Federal Register** Notice will be considered when preparing the required report for Congress.

Dated: May 16, 2000.

Marybeth Peters,

Register of Copyrights, United States Copyright Office.

Kathy D. Smith,

Chief Counsel, National Telecommunications and Information Administration.

[FR Doc. 00-14001 Filed 6-2-00; 8:45 am]

BILLING CODE 1410-30-P

NUCLEAR REGULATORY COMMISSION

Notice of Availability; NUREG-1700, "Standard Review Plan for Evaluating for Nuclear Power Reactor License Termination Plans"

The U.S. Nuclear Regulatory Commission is noticing issuance of NUREG-1700, "Standard Review Plan for Evaluating Nuclear Power Reactor License Termination Plans." The standard review plan (SRP) guides staff reviewers on performing safety reviews of license termination plans (LTPs). Although the SRP is intended to be used by the NRC staff in conducting reviews, it can be used by interested parties responsible for conducting their own licensing review or developing an LTP. The principal purpose of the SRP is to ensure the quality and uniformity of staff reviews and to present a well-defined base from which to evaluate the requirements. It is also the purpose of the SRP to make the information about regulatory matters widely available to improve the understanding of the staff's review process by interested members of the public and the nuclear industry.

For further details with respect to this action, the documents are available for inspection at the NRC's Public Electronic Room at <http://www.nrc.gov>.

Dated at Rockville, Maryland, this 11th day of May 2000.

For the Nuclear Regulatory Commission.

Robert A. Nelson,

Acting Chief, Decommissioning Branch, Division of Waste Management, Office of Nuclear Material Safety and Safeguards.

[FR Doc. 00-13949 Filed 6-2-00; 8:45 am]

BILLING CODE 7590-01-M

SECURITIES AND EXCHANGE COMMISSION

[Release No. 35-27179]

Filings Under the Public Utility Holding Company Act of 1935, as Amended ("Act")

May 26, 2000.

Notice is hereby given that the following filing(s) has/have been made with the Commission pursuant to provisions of the Act and rules promulgated under the Act. All interested persons are referred to the application(s) and/or declaration(s) for complete statements of the proposed transaction(s) summarized below. The application(s) and/or declaration(s) and any amendment(s) is/are available for public inspection through the Commission's Branch of Public Reference.

Interested persons wishing to comment or request a hearing on the application(s) and/or declaration(s) should submit their views in writing by June 19, 2000, to the Secretary, Securities and Exchange Commission, Washington, D.C. 20549-0609, and serve a copy on the relevant applicant(s) and/or declarant(s) at the address(es) specified below. Proof of service (by affidavit or, in the case of an attorney at law, by certificate) should be filed with the request. Any request for hearing should identify specifically the issues of facts or law that are disputed. A person who so requests will be notified of any hearing, if ordered, and will receive a copy of any notice or order issued in the matter. After June 19, 2000, the applicant(s) and/or declaration(s), as filed or as amended, may be granted and/or permitted to become effective.

Alliant Energy Corporation, et al. (70-9323)

Alliant Energy Corporation ("Alliant"), a registered holding company, its wholly owned intermediate nonutility holding company, Alliant Energy Resources, Inc. ("AER"), both located at 222 West Washington Avenue, Madison, Wisconsin 53703, and AER's nonutility subsidiary, Heartland Properties, Inc. ("HPI" and together with Alliant and AER, "Applicants"), 122 West Washington Avenue, 6th Floor, Madison, Wisconsin 53703, have filed an post-effective amendment, under section 9(c)(3) of the Act and rule 54 under the Act, to an application previously filed under the Act.

Under the terms of an order dated April 14, 1998 (HCAR No. 26856) ("1998 Order"), Alliant is currently authorized to hold passive investments,

through HPI, in low-income housing projects ("LIHTC Properties").¹ Under the terms of the 1998 Order, HPI indirectly owns a 1% general partnership interest in an investment fund, more particularly described below, that indirectly holds limited partnership interests in seventeen LIHTC Properties ("Fund Properties"), nine of which are located outside the Alliant service territory. In addition to the investments permitted in the 1998 Order, Applicants are authorized by order dated August 13, 1999 (HCAR No. 27060) to invest up to \$50 million ("Investment Limitation") from time to time over a five-year period to acquire additional LIHTC Properties in the Alliant Energy service territory.

The investment fund, Heartland Properties Equity Investment Fund I ("Fund"), is a limited partnership that holds limited partnership interests ranging between 88.9% and 99% in several other limited partnerships that own the Fund Properties. HPI's 1% general partnership interest in the Fund is held by its wholly owned subsidiary, Heartland Fund I, Inc. Minnesota Life Insurance Company ("MLIC") is the sole limited partner in the Fund with a 99% limited partnership interest.

HPI has been approached by MLIC about the possibility of selling its limited partnership interest in the Fund to HPI. In order to consummate the transaction, Applicants now propose to modify the existing limitation on investments in LIHTC Properties located outside of the year's service territory, for the specific purpose of acquiring MLIC's limited partnership interest in the Fund. The expected purchase price of approximately \$10.7 million, when combined with HPI's current investment level in LIHTC Properties, will be within the Investment Limitation.

For the Commission, by the Division of Investment Management, pursuant to delegated authority.

Margaret H. McFarland,

Deputy Secretary.

[FR Doc. 00-13953 Filed 6-2-00; 8:45 am]

BILLING CODE 8010-01-M

¹ The Commission determined in the 1998 Order that HPI's interests in 84 LIHTC Properties were retainable under section 9(c)(3) of the Act, because the interests were acquired to generate tax credits under section 42 of the Internal Revenue Code and they were being converted into passive investments.

Appendix 2

Appendix 2

Index of Initial Comments Filed in Response to 65 FR 35673

(In the order they were received by the Copyright Office)

1	Ray Van De Walker
2	Claus Fischer
3	Roger R. Darr
4	Dusty Jones
5	Przemek Klosowski
6	Michael L. Love
7	Computer Professionals for Social Responsibility
8	Bob Beard
9	Digital Future Coalition
10	Walter Charles Becketl
11	John M. Zulauf
12	Software & Information Industry Association
13	Stanford Linear Accelerator Center
14	Ken Arromdee
15	Robert S. Thau & Bryan Taylor
16	Mickey McGown
17	Bryan W. Taylor
18	American Library Association, American Association of Law Libraries, Association of Research Libraries, Medical Library Association, and Special Libraries Association
19	Computer & Communications Industry Association
20	Patrice A. Lyons
21	Digital Media Association
22	Home Recording Rights Coalition
23	Charles Lee Thomason

24	Future of Music Coalition
25	LXNY
26	American Film Marketing Association, Association of American Publishers, Business Software Alliance, Motion Picture Association of America, National Music Publishers' Association, and Recording Industry Association of America
27	National Association of Recording Merchandisers, Inc. and Video Software Dealers Association, Inc.
28	Interactive Digital Software Association
29	Time Warner Inc.
30	Ronald C.F. Antony

Appendix 3

Appendix 3

Index of Reply Comments Filed in Response to 65 FR 35673

(In the order they were received by the Copyright Office)

1	Michael A. Rolenz
2	Digital Commerce Coalition
3	Time Warner, Inc.
4	Walter Charles Becketl
5	Reed Elsevier, Inc.
6	American Film Marketing Association, Association of American Publishers, Business Software Alliance, Interactive Digital Software Association, Motion Picture Association of America, National Music Publishers' Association, and Recording Industry Association of America
7	Paul Fenimore
8	American Library Association American Association of Law Libraries Association of Research Libraries Medical Library Association Special Libraries Association
9	Software & Information Industry Association
10	Michael (Mickey) McGown
11	American Society of Composers, Authors and Publishers (ASCAP)
12	Bryan Taylor
13	Broadcast Music, Inc. (BMI)
14	Arnold G. Reinhold
15	National Music Publishers' Association
16	Digital Media Association

Appendix 4

their study topics for 2000 and for Leslie Kramerich, the acting Assistant Secretary for the Pension and Welfare Benefits Administration, to update members on employee benefits legislative and regulatory activities. Departing members also will be awarded certificates of appreciation.

Members of the public are encouraged to file a written statement pertaining to topics the Council studied for the year by submitting 20 copies on or before November 6, 2000 to Sharon Morrissey, Executive Secretary, ERISA Advisory Council, U.S. Department of Labor, Suite 5677, 200 Constitution Avenue, NW., Washington, DC 20210.

Individuals or representatives of organizations wishing to address the Advisory Council should forward their requests to the Executive Secretary or telephone (202) 219-8753. Oral presentations will be limited to ten minutes, time permitting, but an extended statement may be submitted for the record. Individuals with disabilities, who need special accommodations, should contact Sharon Morrissey by November 6 at the address indicated.

Organizations or individuals may also submit statements for the record without testifying. Twenty (20) copies of such statements should be sent to the Executive Secretary of the Advisory Council at the above address. Papers will be accepted and included in the record of the meeting if received on or before November 6, 2000.

Signed at Washington, DC this 19th day of October 2000.

Leslie Kramerich,

Acting Assistant Secretary, Pension and Welfare Benefits Administration.

[FR Doc. 00-27262 Filed 10-23-00; 8:45 am]

BILLING CODE 4510-29-M

LIBRARY OF CONGRESS

Copyright Office

DEPARTMENT OF COMMERCE

National Telecommunications and Information Administration

[Docket No. 000522150-0287-02]

RIN No. 0660-ZA13

Report to Congress Pursuant to Section 104 of the Digital Millennium Copyright Act

AGENCIES: The United States Copyright Office, Library of Congress; and the National Telecommunications and Information Administration, United States Department of Commerce.

ACTION: Notice of public hearing.

SUMMARY: The United States Copyright Office and the National Telecommunications and Information Administration announce a public hearing on the effects of the amendments made by title 1 of the Digital Millennium Copyright Act, ("DMCA") and the development of electronic commerce on the operation of sections 109 and 117 of title 17, United States Code, and the relationship between existing and emerging technology and the operation of such sections.

DATES: The public hearing will be held in Washington, DC on Wednesday, November 29, 2000, from 9:30 a.m. to 5 p.m. Requests to testify must be received by the Copyright Office and the National Telecommunications and Information Administration by 5:00 p.m. E.S.T. on November 24, 2000, and accompanied by a one page summary of the intended testimony.

ADDRESSES: The public hearing will be held at the Library of Congress, James Madison Building, 101 Independence Avenue, SE., Washington, DC 20540, Room LM-414. Any member of the public wishing to attend and requiring special services, such as sign language interpretation or other ancillary aids, should contact the Library of Congress or the National Telecommunications and Information Administration at least five (5) working days prior to the hearing by telephone or electronic mail at the respective contact points listed immediately below.

FOR FURTHER INFORMATION CONTACT:

Jesse M. Feder or Marla Poor, Office of Policy and International Affairs, U.S. Copyright Office, Library of Congress (202) 707-8350; or Jeffrey E.M. Joyner, National Telecommunications and Information Administration (202) 482-1816. E-mail inquiries regarding the hearings may be sent to jfed@loc.gov, mpoor@loc.gov, or jjoyner@ntia.doc.gov.

SUPPLEMENTARY INFORMATION: On June 5, 2000, the Copyright Office and the National Telecommunications and Information Administration published a Notice of Inquiry seeking comments in connection with the effects of the amendments made by title 1 of the DMCA and the development of electronic commerce on the operation of sections 109 and 117 of title 17, United States Code, and the relationship between existing and emerging technology and the operation of such sections. 65 FR 35673 (June 5, 2000). That **Federal Register** Notice was intended to solicit comments from interested parties on those issues. For a

more complete statement of the background and purpose of the inquiry, please see the Notice of Inquiry which is available on the Copyright Office's website at: <http://www.loc.gov/copyright/fedreg/65fr35673.html>.

In response to the Notice of Inquiry, the Copyright Office and the National Telecommunications and Information Administration received 30 initial written comments and 16 replies (to the initial comments) that conformed to the requirements set forth in the Notice of Inquiry. The comments and replies have been posted on the Office's website; see <http://www.loc.gov/copyright/reports/studies/dmca/comments/> and <http://www.loc.gov/copyright/reports/studies/dmca/reply/>, respectively.

Requirements for persons desiring to testify: A request to testify must be submitted in writing to the Copyright Office and to the National Telecommunications and Information Administration. All requests to testify must include:

- The name of the person desiring to testify;
- The organization or organizations represented by that person, if any;
- Contact information (address, telephone, and e-mail); and
- A one page summary of the intended testimony.

This request may be submitted in electronic form. The Copyright Office and the National Telecommunications and Information Administration will notify all persons wishing to testify of the expected time of their appearance, and the maximum time allowed for their testimony.

All requests to testify must be received by 5 E.S.T. on November 24, 2000.

Time limits on testimony at public hearings: There will be time limits on the testimony allowed for speakers. The time limits will depend on the number of persons wishing to testify. Approximately one week prior to the hearings, the Copyright Office and the National Telecommunications and Information Administration will notify all persons submitting requests to testify of the precise time limits that will be imposed on oral testimony. Due to the time constraints, the Copyright Office and the National Telecommunications and Information Administration encourage parties with similar interests to select a single spokesperson to testify.

File Formats: Requests to testify may be submitted in electronic form in one of the following formats:

1. If by electronic mail: Send to "104study@loc.gov" and "104study@ntia.doc.gov" a message containing the name of the person

requesting to testify, his or her title and organization (if the submission is on behalf of an organization), mailing address, telephone number, telefax number (if any) and e-mail address. The message should also identify the document clearly as a request to testify. The one page summary of the intended testimony must be sent as a MIME attachment, and must be in a single file in either: (1) Microsoft Word Version 7.0 or earlier; (2) WordPerfect 7 or earlier; (3) Rich Text File (RTF) format; or (4) ASCII text file format.

2. If by regular mail or hand delivery: Send to Jesse M. Feder, Policy Planning Advisor, Office of Policy and International Affairs, U.S. Copyright Office, Copyright GC/I&R, P.O. Box 70400, Southwest Station, Washington, DC 20024; and to Jeffrey E.M. Joyner, Senior Counsel, Office of Chief Counsel, National Telecommunications and Information Administration (NTIA), Room 4713, U.S. Department of Commerce, 14th Street and Constitution Avenue, NW., Washington, DC 20230. Please include two copies of the one page summary of the intended testimony, each on a 3.5-inch write-protected diskette, labeled with the name of the person making the submission and, if applicable, his or her title and organization. Either the document itself or a cover letter must also identify the document clearly as a request to testify and include the name of the person making the submission, his or her title and organization (if the submission is on behalf of an organization), mailing address, telephone number, telefax number (if any) and e-mail address (if any). The document itself must be in a single file in either (1) Microsoft Word Version 7.0 or earlier; (2) WordPerfect Version 7 or earlier; (3) Rich Text File (RTF) format; or (4) ASCII text file format.

Background: On October 28, 1998, the DMCA was enacted into law (Pub. L. No. 105-304, 112 Stat. 2860). Section 104 of the DMCA directs the Register of Copyrights and the Assistant Secretary for Communications and Information of the Department of Commerce to submit to the Congress no later than 24 months after the date of enactment a report evaluating the effects of the amendments made by title 1 of the Act and the development of electronic commerce and associated technology on the operation of sections 109 and 117 of title 17, United States Code, and the relationship between existing and emerging technology and the operation of those sections.

The objective of title I of the DMCA was to revise U.S. law to comply with two World Intellectual Property

Organization (WIPO) Treaties that were concluded in 1996 and to strengthen protection for copyrighted works in electronic formats. The DMCA establishes prohibitions on the act of circumventing technological measures that effectively control access to a work protected under the U.S. Copyright Act, and the manufacture, importation, offering to the public, providing or otherwise trafficking in any technology, product, service, device, component or part thereof which is primarily designed or produced to circumvent a technological measure that effectively controls access to or unauthorized copying of a work protected by copyright, has only a limited commercially significant purpose or use other than circumvention of such measures, or is marketed for use in circumventing such measures. The DMCA also makes it illegal for a person to manufacture, import, offer to the public, provide, or otherwise traffic in any technology, product, service, device, component or part thereof which is primarily designed or produced to circumvent a technological measure that effectively protects a right of a copyright owner in a work protected by copyright, has only a limited commercially significant purpose or use other than circumvention of such measures, or is marketed for use in circumventing such measures. In addition the DMCA prohibits, among other actions, intentional removal or alteration of copyright management information and knowing addition of false copyright management information if these acts are done with intent to induce, enable, facilitate or conceal a copyright infringement. Each prohibition is subject to a number of statutory exceptions.

Section 109 of the Copyright Act, 17 U.S.C. 109, permits the owner of a particular copy or phonorecord lawfully made under title 17 to sell or otherwise dispose of possession of that copy or phonorecord without the authority of the copyright owner, notwithstanding the copyright owner's exclusive right of distribution under 17 U.S.C. 106(3). Commonly referred to as the "first sale doctrine," this provision permits such activities as the sale of used books. The first sale doctrine is subject to limitations that permit a copyright owner to prevent the unauthorized commercial rental of computer programs and sound recordings.

Section 117 of the Copyright Act, 17 U.S.C. 117, permits the owner of a copy of a computer program to make a copy or adaptation of the program for archival purposes or as an essential step in the

utilization of the program in conjunction with a machine. In addition, pursuant to an amendment contained in title III of the DMCA, section 117 permits the owner or lessee of a machine to make a temporary copy of a computer program if such copy is made solely by virtue of the activation of a machine that lawfully contains an authorized copy of the computer program, for purposes of maintenance or repair of that machine.

Specific Questions: The principal purpose of the hearing is to inquire into points made in the written comments submitted in this proceeding, and not to raise new issues for the first time. Specifically, the public hearing will (and therefore the one page summary of intended testimony must) focus on the following questions:

- What are the policy justifications for or against an amendment to Section 109 to include digital transmissions, and what specific facts can you provide to support your position? What problems would an amendment to Section 109 address? What problems would an amendment to Section 109 not address? What problems would an amendment to Section 109 create? What problems would be averted by leaving this section unchanged? What would be the likely impact on authors and other copyright owners of an amendment to Section 109 modeled on Section 4 of H.R. 3048, 105th Cong., 1st Sess. (1997), and what is the basis for your assessment?

- Please explain in detail the impact an amendment to Section 109 to include digital transmissions would have on the following activities of libraries with respect to works in digital form: (1) Interlibrary lending; (2) use of works outside the physical confines of a library; (3) preservation and (4) receipt and use of donated materials. To what extent would an amendment to section 109 fail to have an impact on these activities? Please explain whether and how these activities should and can be accommodated by means other than amendment of Section 109?

- What are the policy justifications for or against an exemption to permit the making of temporary digital copies of works that are incidental to the operation of a device in the course of a lawful use of a work, and what specific facts can you provide to support how such an exemption could further or hinder electronic commerce and Internet growth? What problems would it address and what problems would a broad exemption not address? What problems would such an exemption create? How would your assessment differ if an exemption were limited to

temporary digital copies of works that are incidental to the operation of a device in the course of an authorized use of the work?

- What are the policy justifications for or against an expansion to the archival copy exception in section 117 to cover works other than computer programs, and what specific facts can you provide to support for your view? Would such an expansion of section 117 further or hinder electronic commerce and Internet growth? What problems would such a statutory change address and not address? What problems would such an expansion create?

- What are the policy justifications for or against expressly limiting the archival copy exception in section 117 to cover only those copies that are susceptible to destruction or damage by mechanical or electrical failure? What problems would such a statutory change address and not address? What problems would such a change create?

Marybeth Peters,

Register of Copyrights, United States Copyright Office.

Kathy D. Smith,

Chief Counsel, National Telecommunications and Information Administration.

[FR Doc. 00-27293 Filed 10-23-00; 8:45 am]

BILLING CODE 1410-30-P

OFFICE OF MANAGEMENT AND BUDGET

Office of Federal Procurement Policy

Notice of Solicitation of Public Interest

AGENCY: Executive Office of the President, Office of Management and Budget (OMB), Office of Federal Procurement Policy (OFPP).

ACTION: Notice of solicitation of public interest.

SUMMARY: OFPP is developing a new initiative to fundamentally examine the manner by which the Government develops and applies incentives to its contractual vehicles, and is seeking information and advice that would advance this effort.

COMMENTS DUE DATE: Comments and information regarding the proposed initiative must be received on or before December 26, 2000.

FOR FURTHER INFORMATION CONTACT: Comments and information should be sent to Stanley Kaufman, Deputy Associate Administrator, OMB, OFPP, 725 17th Street NW., Washington, DC 20503. He can be reached electronically at skaufman@omb.eop.gov or by phone at 202-395-6810.

SUPPLEMENTARY INFORMATION:

I. Background

Procurement reform initiatives such as the Federal Acquisition Streamlining Act of 1994, the Federal Acquisition Reform Act of 1996, the Information Technology Management Reform Act of 1996, and Performance-Based Service Contracting are significantly changing the way the Government acquires supplies and services, moving from a process-oriented, rules-based, risk avoidance culture to one emphasizing performance outcomes, business judgment, streamlined procedures, and risk management.

The rules-based culture constrained contracting officials' flexibility to serve as business advisors focusing on the overall business arrangements. While the cited acquisition reforms provided contracting officers increased flexibilities in negotiations and communication with contractors, research by the Army and studies by OFPP and industry found that innovative contracting methods are being used insufficiently, and effective incentives exist which are not being considered.

Consideration of incentives typically was limited to the fee portion of contracts to the detriment of other incentives that contractors would find more appropriate and meaningful, such as a consistent revenue flow and the promise of future business. In addition, incentives too often focused on the process of the work to be performed vs. the outcomes, thereby rewarding unnecessary and/or even counterproductive behavior. Furthermore, profit is not an effective incentive for non-profit entities such as universities and research laboratories. As a result, contractors often did not provide their best solutions and Government requirements were not fulfilled in as timely, quality-related, and cost-effective manner as possible.

II. The Project

OFPP is looking to develop a new contracting paradigm that will encourage acquisition officials to develop joint objectives with contractors and effectively incentivize both parties to create "win/win" business arrangements.

In pursuing this project, OFPP would like to pull together any experiences and literature regarding non-fee type incentives. Consultation with the private, non-profit, and public sectors is hereby sought. A review of current policy, regulatory and statutory guidance will be conducted to determine any barriers to achieving the

project's objective and the need for any additional guidance to facilitate compliance.

Accordingly, OFPP is seeking ideas, recommendations, practices, lessons learned, etc. on what works in industry, the non-profit environment, and state and local governments. Such information tailored to specific industries (e.g., manufacturing, services, construction), subsets of industries (e.g., information technology, advisory and assistance services, environmental remediation), types of contractors (e.g., universities, small businesses) and types of endeavors (e.g., research and development) would be welcomed. We also would welcome any studies or literature that analyzes, assesses, or validates these practices, as well as information on relevant training courses and materials.

In examining this information and developing any policy initiative, we will consider approaches that would fundamentally restructure our contractual relationships to accommodate improving our business arrangements, and so would welcome any appropriate recommendations as well as the identification of any impediments (legal, regulatory or policy). OFPP welcomes written comments and materials, and is willing to meet with individual companies, associations, and other organizations to hear their views and recommendations. OFPP is concurrently surveying Federal agencies to ascertain any ongoing innovative practices that could be used in this initiative.

We are also considering a public meeting to facilitate the exchange of information between the Government and general public to explore this issue if sufficient interest exists. Topics could include: developing alternative incentive strategies; providing recommendations; sharing best practices and lessons learned; reviewing existing literature; and identifying barriers and potential benefits and disadvantages for both agencies and contractors. Expressions of interest in such a meeting would be appreciated.

Kenneth J. Oscar,

Acting Deputy Administrator.

[FR Doc. 00-27117 Filed 10-23-00; 8:45 am]

BILLING CODE 3110-01-P

Appendix 5

Appendix 5

Joint Study on 17 U.S.C. Sections 109 and 117 Required Pursuant to DMCA Section 104

Public Hearing November 29, 2000

Schedule of Witnesses

- 9:30-9:45 Introduction
 Hon. Marybeth Peters, Register of Copyrights
 Hon. Gregory L. Rohde, Assistant Secretary of Commerce for
 Communications and Information
- 9:45-11:00 Panel 1
 James Neal and Rodney Peterson
 American Association of Law Libraries, American Library Association,
 Association of Research Libraries, Medical Library Association, and Special
 Libraries Association
 Allan Adler
 Association of American Publishers
 Bernard Sorkin
 Time Warner Inc.
 Fritz Attaway
 Motion Picture Association of America
- 11:00-12:30 Panel 2
 Keith Kupferschmidt
 Software and Information Industry Association
 Lee Hollaar
 Scott Moskowitz
 Blue Spike, Inc.
 Emery Simon
 Business Software Alliance
 Nic Garnett
 Intertrust Technologies Corporation
- 12:30-1:45 Lunch Break
- 1:45-3:10 Panel 3
 Susan Mann
 National Music Publishers' Association, Inc.
 Marvin Berenson
 Broadcast Music Inc.
 Gary Klein
 Home Recording Rights Coalition
 Pamela Horovitz
 National Association of Recording Merchandisers

John T. Mitchell (for Crossan Andersen)
Video Software Dealers Association

3:10-4:35 Panel 4

Professor Peter Jaszi

Digital Future Coalition

Seth Greenstein

Digital Media Association

Steven J. Metalitz

American Film Marketing Association, Association of American Publishers,
Business Software Alliance, Interactive Digital Software Association, Motion
Association of America, National Music Publishers' Association, and Recording
Industry Association of America

Daniel Duncan

Digital Commerce Coalition

Carol Kunze

Red Hat, Inc.

4:35-6:00 Panel 5

Cary Sherman

Recording Industry Association of America, Inc.

David Goldberg

Launch Media, Inc.

David Beal

Sputnik7.com

David Pakman

myPlay Inc.

Bob Ohweiler

MusicMatch Inc.

Alex Alben

RealNetworks, Inc.

Robert Nelson (for Charles Jennings)

Supertracks, Inc.