

**The Reproduction Right and Temporary Copies:
The International Framework, the U.S. Approach and Practical Implications**

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The right of an author or other copyright (or related rights) owner to control the reproduction of his/her work (or object of related rights) is fundamental to the essence of author's rights/copyright. In this paper, I will discuss the scope of that right in relationship to copies made in the RAM of a computer (temporary or transient copies): first, at the international level, followed by how this issue is dealt with under U.S. copyright law and finally, I will set out a number of business models that are becoming of increasing commercial importance, and where full exploitation of the work (or object of neighboring rights) does not require the making of a permanent copy.

The Reproduction Right in the Berne Convention, under TRIPS and under the WIPO Copyright (WCT) and Performances and Phonograms (WPPT) Treaties

Any discussion of the reproduction right must distinguish between (1) what is a "reproduction" as such term is understood in the copyright conventions and treaties; (2) what might be permissible "exceptions" to the right of reproduction as allowed under those conventions and treaties; and (3) what is an "infringing" reproduction actionable under national law for purposes of achieving provisional or permanent cessation of the infringement, damages, or, where, as defined in national law, criminal remedies. It should not be thought that because an act implicates the reproduction right, this necessarily results in "liability" for infringement for that act. These three distinctions must always be kept in mind in determining how the international conventions -- the Berne Convention, the TRIPS Agreement (which incorporates the Berne Convention) and the WIPO Treaties -- deal with the reproduction right.

The Berne Convention: Article 9 of the Berne Convention provides:

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

While there were attempts at the Stockholm Conference leading up to the adoption of this provision of the Berne Convention to specifically define the term "reproduction," it was considered by a controlling number of delegations as either dangerous or unnecessary to be too

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specific, and that the present language of Article 9(1) was sufficient. This conclusion and theme was taken up by Claude Masouye, in his authoritative *Guide to the Berne Convention*, when he wrote on the meaning of Article 9(1)'s "in any manner or form" as follows:

The words "in any manner or form" are wide enough to cover all forms of reproduction: design, engraving, lithography, offset and all other printing processes, typewriting, photocopying, mechanical or magnetic recording (discs, cassettes, magnetic tape, films, microfilms, etc.) **and all other processes known or yet to be discovered.**²

The copies made in the RAM of a computer (or other device such as a cellphone, PDA, e-book reader etc.), as distinct from copies residing on a hard disc or other permanent storage device, because they are sufficiently "fixed" to permit the work to be indirectly communicated to others or to be further copied (reproduced) fit not only this condition noted by Masouye but, to conclude that these were not reproductions (even though technically they function to indirectly communicate or as the basis of further copying), would mean that the duration of the existence of the copy was a controlling condition of whether there is indeed a reproduction. While, as I argue below, duration may be one of many criteria determining whether, under Article 9(2) of the Berne Convention, an exception to the reproduction right may be appropriate, duration cannot and should not be a determinant of whether a particular act of copying is or is not a reproduction itself. Where would the line be drawn? It is clear that certain types of temporary reproductions have vastly different economic consequences (as discussed further below), consequences more aptly reviewed and judged under the three-step test for "exceptions" rather than as defining whether there is a reproduction in the first place. Indeed, even at the Diplomatic Conference leading up to the WCT and WPPT, I recall no delegation that believed that ALL RAM copies were NOT reproductions, just that some should not be so considered which had certain particular characteristics or functions. In short, the proper analysis of how to deal with RAM copies, or "transient/temporary" copies, is to conclude that ALL are reproductions, but that some such copies may be the subject of limitations or exceptions. Indeed, any attempt to decide whether a particular type of "transient" copy is a reproduction or not necessarily involves application of the three-step test, and is thus an exercise properly under Berne Article 9(2), not 9(1). I believe the Berne Convention obligation and this analytical framework is definitive on whether RAM or other transient copies are reproductions; the debate on the treatment of certain such copies properly belongs within the analytical scope of the "exceptions" analysis in Berne Article 9(2).³

TRIPS Agreement: The World Trade Organization's Agreement on Trade-Related Aspects of Intellectual Property Rights (the TRIPS Agreement) specifically incorporated Article 9(1) of the Berne Convention into its Article 9. It also incorporates Berne Article 9(2) dealing with exceptions in TRIPS Article 13. Countries which carve out certain transient reproductions

² Masouye, *Guide to the Berne Convention*, WIPO 1978 (emphasis added)

³ In June 1982, at the Second WIPO/UNESCO Committee of Governmental Experts on Copyright Problems Arising from the Use of Computers for Access to or the Creation of Works, a recommendation was issued stating: "Storage in and retrieval from computer systems (input and output) of protected works may, as the case may be, involve at least the following rights of authors provided for in either international conventions or national legislation on copyright or both:...(b) the right to reproduce any work involved." See, "Copyright" (WIPO's monthly review), September 1982, pp. 244-45. This early recommendation is simply inconsistent with the notion that duration is relevant to the scope of the reproduction right.

from the reproduction right per se (rather than analyzing this issue under Berne Article 9(2) and TRIPS Article 13 risk running afoul of their TRIPS obligations and becoming subject to dispute settlement.⁴

The decision of the WTO panel in the EU-US music licensing case⁵ is the first authoritative discussion of how TRIPS Article 13 (and Berne Article 9(2)) applies in a particular factual context. The panel exhaustively discussed how to properly apply the second test of Article 13 -- “conflicts with a normal exploitation of the work.” While this decision deals with the public performance right in Article 11 and 11bis of the Berne Convention, and not with the reproduction right, it does discuss applying this central test of whether an exception to any exclusive right is or is not permissible. The panel holds, for example, that the test of whether there is a “conflict with a normal exploitation of a work,” applies to each exclusive right in a work, including the separate exercise of the reproduction right.⁶ The panel noted that both actual and potential economic effects must be reviewed under this test and stated:

What is a normal exploitation in the market-place may evolve as a result of technological developments or changing consumer preferences. Thus, while we do not wish to speculate on future developments, we need to consider the actual and potential effects of the exemptions in question in the current market and technological environment.⁷

As is described more fully in the third part of this paper, there exist a number of business models currently in use in which customers are fully exploiting the value of works solely through making temporary/transient copies and copyright owners are licensing this right to such customers, either directly or through third parties. As noted above, the proper analytical framework within which to consider whether certain temporary copies should or should not be protected is not by artificially excluding them from the scope of the reproduction right, but by determining whether or not an exception to such right would be appropriate under the three-step test as that test was interpreted by the WTO’s dispute settlement panel. Only through this process, can the copyright owner be assured that economically important uses of the work remain under his/her control.

The WCT and WPPT: The issue of temporary/transient copies was again joined at the 1996 Diplomatic Conference which led to the adoption of the WCT and WPPT. Going into that conference, the draft Treaty contained a provision (Article 7) following Article 9(1) of Berne and specifically referencing the “direct and indirect reproduction of their works, either permanent or

⁴ While certain countries, including Japan, have discussed the notion that certain transient copies should not be treated as reproductions, we know of no country that has “expressly” done so in amending its copyright law. See, also, the discussion in Report of the Register of Copyrights Pursuant to Section 104 of the Digital Millennium Copyright Act, U.S. Copyright Office (August 2001) p. 127 (“U.S.C.O. 104 Report”); <http://www.loc.gov/copyright/reports/studies/dmca/sec-104-report-vol-1.pdf>

⁵ World Trade Organization, *United States – Section 110(5) of the US Copyright Act*, WT/DS160/R, (15 June 2000). http://www.wto.org/english/tratop_e/dispu_e/1234da.pdf

⁶ “We agree with the European Communities that whether a limitation or an exception conflicts with a normal exploitation of a work should be judged for each exclusive right individually.” Id. at 45

⁷ Id. at 50

temporary, in any manner or form.”⁸ A second paragraph laid out certain criteria for making exceptions to that right for certain transient copies. While this draft Article was not adopted, the reasons dealt principally with disagreement on the scope of the exceptions language, not on the main principal that temporary copies are within the scope of the reproduction right. Instead, the Diplomatic Conference adopted “Agreed Statements” bearing on the application of the reproduction right in an Internet world:

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.⁹

This language would appear to confirm the earlier conclusion that temporary copies “stored” in digital form are reproductions. Mihaly Ficsor, who was Secretary to the Diplomatic Conference and to the Main Committee I that considered this issue, in an article published shortly after the conclusion of the two Treaties, noted “[i]t 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 in digital form, through storage in an electronic memory, and just because a reproduction is of a temporary nature.”¹⁰ Even those countries that had difficulty with the issue of temporary/transient copies and were among the 13 delegations voting against the second sentence of the Agreed Statement in Main Committee I, (49 voted for) expressed their objections in a manner fully consistent with creating an exception for only certain transient copies, though their dissent was expressed as opposition to deeming these subject to the reproduction right at all.¹¹

The Reproduction Right and Temporary Copies: The U.S. Approach

In August 2001, The U.S. Copyright Office issued a comprehensive report on certain aspects of the Digital Millennium Copyright Act (DMCA) and certain other matters including an

⁸ While other panel members will discuss the recent EU Copyright Directive (Directive 2001/29/EC of the European Parliament and of the Council of 22 May 2001 on the harmonization of certain aspects of copyright and related right in the Information Society, OJ L 167/10 of 22 June 2001), it is noteworthy that Article 2 of this Directive, which expressly places temporary copies within the scope of the reproduction right, reads almost identical to draft Article 7, namely, “...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.” The text of the Copyright Directive can be found at <http://www.eurorights.org/eudmca/CopyrightDirective.html>

⁹ WIPO, *Agreed Statements Concerning the WIPO Copyright Treaty* (WIPO Doc. No. CRNR/DC/96) (1996) (Agreed Statement concerning Article 1(4). A conforming “Agreed Statement also appears in the WPPT.

¹⁰ Mihaly Ficsor, *Copyright for the Digital Era: The WIPO “Internet Treaties*, 21 Colum./VLA J. L. and the Arts 8 (1997)

¹¹ *Records of the Diplomatic Conference 785* (1996) (Statement of the delegation of Brazil). It should be noted, ironically, that Brazil’s Law on Copyright and Neighboring Rights (Law No. 9610 of 19 February 1998) contains a broad reproduction right which encompasses temporary copies of literary, artistic or scientific works or phonograms (see Article 5.VI).

extensive discussion of the issue of protection for RAM copies and other temporary copies made in the context of network transmissions. This complete study can be found at <http://www.loc.gov/copyright/reports/studies/dmca/sec-104-report-vol-1.pdf>.

The U.S. follows the international trend and its international obligations under the Berne Convention and the TRIPS Agreement by considering that temporary/transient copies are subject to the reproduction right under §106 of the Copyright Act. The Copyright Office reviewed the statutory provisions applicable to this topic and the case law interpreting these provisions. It concluded, correctly in my view, that temporary copies are covered by the reproduction right. The Copyright Office also concluded that protecting such copies as subject to the right of reproduction was an obligation of the United States under the Berne Convention and the TRIPS Agreement.

Discussing U.S. case law first, the seminal case on this question is *MAI Sys. Corp v. Peak Computer, Inc.*,¹² where the defendant loaded operating system and diagnostic software into RAM of a computer in violation of a license agreement. The court found that copying occurs for purposes of the copyright law and for purposes of the reproduction right when a computer program is transferred from a permanent storage device to the RAM of a computer. The Copyright Office Report went on to say,

Every court that has addressed the issue of reproductions in volatile RAM has expressly or impliedly found such reproductions to be copies with the scope of the reproduction right. We are aware of no cases that have reached a contrary conclusion.... 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 [citing other case law].¹³

The Copyright Office Report also reviews the U.S. Copyright Act itself which provides an exclusive right to the copyright owner to “reproduce the copyrighted work in copies.” (§106(1)). If a RAM copy is a “copy” then it is subject to the reproduction right. Copies are defined 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.¹⁴ (§101)

Since a RAM chip or other network medium for storing copies are “material objects” and such copies can be “perceived, reproduced, or otherwise communicated” with the aid of a computer or similar device, the issue is whether such reproduction is “fixed.”

“Fixed” is defined as follows:

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

¹³ U.S.C.O. 104 Report at 118-119

¹⁴ Phonorecords, which embody sound recordings, are treated the same for purposes of this analysis of the reproduction right.

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. (§101).

U.S. courts have never found a RAM copy that was not “sufficiently permanent or stable to permit it to be perceived, reproduced, or otherwise communicated.” Works shown through a cathode ray tube of a television are considered, for example, to fall outside the fixation requirement. As stated by the Copyright Office:

Although it is theoretically possible that information [or a work or object of neighboring rights] 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.¹⁵

The Copyright Office then goes on to note that while no U.S. court has ever reached a contrary result, some scholars have criticized the *MAI v. Peak* decision as mischaracterizing U.S. law. The Office notes that these scholars have generally made three types of arguments: first, that the statute and legislative history of the Copyright Act do not support this court’s interpretation; second, that taken to its logical extreme, absurd results would ensue; and third, that this is only one court and its decision should not be followed.

The first argument is dealt with above. Moreover, §117(a)(1) of the Copyright Act makes a specific exception to the reproduction right to permit a temporary RAM copy to be made in the course of using a computer program. There would be no need for Congress to make this exception if temporary copies were not already subject to the reproduction right under the above analysis.¹⁶

The second argument is dealt with in the Report by noting that these scholars confuse, as noted at the beginning of this paper, the issue of what is a reproduction with what is an “infringing” reproduction. Many temporary reproductions are expressly or impliedly licensed, or may, under U.S. law, be subject to a “fair use” or other defense (or exception to protection) when infringement is alleged. Indeed, as also argued above, the proper analytical approach to this issue is to carve out a specific, narrowly-tailored exception when, and if, the legislator determines that one is necessary, rather than deem these temporary/transient RAM copies not to be reproductions at all.¹⁷ Taking the “exceptions” approach also has the virtue of permitting the legislator to tailor the exception carefully, so as not to exempt copies that would damage the

¹⁵ *U.S.C.O. 104 Report* at 108.

¹⁶ The DMCA, in titles II and III, make additional exceptions to the reproduction right for temporary copies, exceptions that would not be necessary if they were not reproductions in the first place.

¹⁷ I would note in passing that increasingly computers may rarely ever be turned off, resulting in a RAM copy being fully the equivalent of a permanent copy, as a practical matter. This shows, again, that duration should not be a determining factor in whether a reproduction is involved.

copyright owner (or in Berne Convention and TRIPS Agreement terms “conflict with a normal exploitation of the work” or “unreasonably prejudice the legitimate interests of the author”).

The Copyright Office Report lastly deals with another objection that has surfaced in respect of network transmissions. This argument is that because networks transmit and temporarily store digital material in packets, it is only those packets, not the work itself, that is copied. The Copyright Office correctly responds that this focuses on the “quantity” of the work that is copied. To implicate the reproduction right, it is not necessary that the entire work be copied. While copying must be substantial to be infringing (but not necessarily to be a reproduction), it is also true that a single network computer or router may copy millions of separate packets seriatim which still will result in most cases with most of the work being copied on a single machine or device.

The Practical Need for Protection for Temporary/Transient Copies in a Networked Environment

In our new networked world, copyright protection against unauthorized “temporary copying” is critical to developing a safe environment for the conduct of e-commerce globally. It is axiomatic now that digital technologies and computer networks, like the Internet, provide the individual with the choice of enjoying or benefiting from protected material through the use of physical, permanent copies (e.g. CD-ROMs, DVDs or other optical or electronic media) or through the use of temporary copies. Indeed, from the user’s perspective, the permanent or temporary format may be indistinguishable – he/she can view a movie, play a piece of music, play a videogame, read an e-book or execute the commands of a computer program whether from a permanent copy or from having access to the work through creation of a temporary copy of it in the RAM of the user’s computer or similar device. The key is that a work or sound recording can be FULLY exploited by the user even if he/she has made no permanent copy of it. It is this critical revolution in technology and in the business models for using computer networks that creates the need for a copyright owner to be able to control both temporary as well as permanent copying and is the indispensable backdrop to the legal arguments that temporary copies are, and must be, considered reproductions that fall within the scope of the reproduction right.

The following scenarios explore this conclusion further:

Some Important Business Models

1. The Application Service Provider (ASP) and Terminal Service Business Models

Under the ASP model, the copyright owner directly or indirectly (through a third party) licenses end-users to obtain access to a computer program at the time they need it. ASP licensees may never obtain possession of a permanent copy -- on a carrier medium or on their hard drive -- of the licensed program. This business model, in increasing use worldwide, has the benefit of lowering transaction costs and increasing efficiency by delivering to the licensee the latest update of the program. It will also likely lower overall costs for end-users of software.

The licensee downloads the program from the licensor's site via the Internet into the RAM of his/her computer, only for the period of time that they need it, saving space on permanent storage media. The process is repeated within a company and over time, depending on the needs of the end-user. The program disappears when the computer is turned off or the end-user ceases to continue to retain a copy in the RAM of his/her computer. But what if one or more end users downloads such software without authorization in violation of a license and fully uses that software to operate its business, generating profits in the process? If the copy were made on the hard disk of the computer, an infringing reproduction would ensue and the end-user (more likely the company employing that end user) would be liable for infringement. Below, we provide an example which further illustrates this issue. The demand for ASP services is growing, with some experts estimating that this will be a US\$21 billion business in 2001.

The terminal service model, instead of using the Internet, uses Intranets. Usually single business units are involved with the business licensing both an operating system and applications programs from the licensor who grants permission for multiple client PCs in the business to access the software residing on the company's server. The client PCs never store the OS or applications software on their hard disks but load them into RAM and use them, through a browser. Again, from the ultimate end-user's viewpoint, there is only the creation of temporary/transient RAM copies.

2. Access to videogames online through arcades or Internet cafes.

In the very near future, broadband network platforms will exist which exploit the very great demand for game-playing services in which a game is downloaded from a server and placed into temporary storage in a device which the user can use to play the game either by himself/herself or with multiple other parties. When the user finishes playing the game, he or she can either shut off the device (and the copy disappears) or can migrate to another game (and the first game to have been played, because it is not permanently stored also disappears). Such a business model is likely to become very popular with enterprises like internet cafés, arcades and similar businesses which could illegally avoid the cost of investing in the purchase of legitimate permanent copies of digital videogames or avoid the need to pay costly license fees to access popular games on servers operated by videogame manufacturers or by their licensees. In this example, an internet cafe in Japan or another country or "virtual arcade" could simply access a "WareZ" or other Internet site containing unauthorized copies of the most popular single or multi-player games and download them into the RAM of a PC or other web-enabled game console set up for remote playing of games. If the Internet site is outside that country (which as the Internet becomes more global is increasingly likely), then the only infringing act in that country may involve the making of these temporary copies which, as noted, fully exploits the inherent economic value of the game, just as if the internet café used solely permanent copies of the games. But the server hosting such site could also be in the country where the internet café or "virtual arcade" is located. In this case, while legal action might be available against that server, there may be hundreds of them or they could be difficult to locate. Indeed for many of these reasons and the others detailed below, a remedy against the server only may not be as practical an alternative as obtaining an injunction or seeking damages from the proprietor of the

café that “encouraged” its patrons to play these games, or knew or should have known that they were doing so.

3. Delivery of music or videogames to mobile phones or other hand-held devices, iMode and streaming technology

The huge success of the iMode system and similar services illustrates the market demand, for example in Japan, for delivery of online services through mobile phones. As this market develops and bandwidth increases, delivery to mobile phones or other hand-held devices is sure to be an increasingly important means for the exploitation of copyrighted works. These reception devices, whether mobile phones or some other kind of device, are likely to have only limited permanent storage capacity. Thus, for many works and sound recordings, downloading permanent copies to these devices will not be a viable option. The applications that involve the making of temporary copies are already becoming popular and will likely grow more popular in the future. These include a variety of services in which a copy of a musical composition and sound recording, or portions thereof, are held temporarily in the device while the music is being played for the listener, and then erased. In this case, the unauthorized making of a temporary copy would be an almost complete substitute for other systems in which a copy of the recording would be downloaded into permanent storage in the device. A video service using PCs or other web-enabled device might also develop along these same lines. Similarly such model could apply to videogames and all types of literary material including e-books. Of course, where the temporary copies are made in the course of a transmission that is authorized by the relevant rightholders, these copies may be made subject to an exception to the exclusive reproduction right. It is important to note, however, that even in such instances, such copies should not cease to be treated as “reproductions. This is a very important distinction, and will preserve the ability of rightholders to prevent piracy while not interfering with legitimate commercial activities.

4. “Network-ready” Devices

This example resembles the mobile/hand-held scenario above in that it posits devices with little if any capacity for permanent storage. However, this example is not generally confined to the personal end-user environment: it is likely to develop in large, medium and small businesses that do not require locally available data or software which must be stored on a local device like a hard disc in a PC. While this example focuses on inexpensive hardware driving the business model, it closely resembles the ASP model where access to software (and to other types of works, e.g. original databases) from a remote source remains desirable even if there is local storage capability. As noted below, development of this technology and business model can result in significant harm to rightholders if the temporary copies involved are not subject to the reproduction right, whether or not the server providing the unauthorized copies (or authorized copies, but not licensed to these users) is located in or outside the country where the end-user resides. Again particular types of copies that are made in connection with this process might be made subject to an appropriate narrow exception (that would meet the TRIPS Article 13 three-step test), but should nevertheless be classified as reproductions.

All these business models are in use today and will grow in importance and scope. They all rely on the full exploitation of valuable protected works through only the making of temporary copies.

Damage to Copyright Owners from the Failure to Provide Protection for Temporary Copies: Examples of a website or server being inside or outside the jurisdiction and reach of the copyright law of the end-user's country

Since many countries, including Japan, have or will soon implement their WIPO Treaties obligation to create a broad public communication/ making available right that extends to interactive transmissions, it has been argued that this right alone is sufficient to protect copyright owners and there is no need to place temporary copies within the scope of the reproduction right. However, for this public communication/making available right to be applicable, the act must involve the offering of the work for transmission or the transmission of the work to the public. For example, it would be a violation of the Treaties "making available" right ("making transmittable" right in Japan; the "distribution to the public" right in the U.S.) if the work were posted on a server and access was invited for members of the public. However, in the case of the Internet café and the videogame example, the small business that merely "permits" its employees to access a server but does not itself "transmit" the accessed work to the employees' PCs, or the examples involving video or music or the e-book example, there is no public transmission being accomplished by the end user that actually benefits from the creation of the temporary copy. This problem is exacerbated by the narrower scope of rights extended to phonogram producers and performers in connection with the communication of their phonograms and performances by virtue of which the temporary copy may be the only legally cognizable act taking place within the jurisdiction of the end user's court system. Moreover, if the server copy is uploaded legally or resides on the copyright owner's server but is downloaded without authorization or by persons outside the scope of the license within the downloading entity, there is not even a violation of the public transmission right, e.g., the only possible cognizable infringement occurs at the location of the end user and that may only be the making of a temporary copy. The rightholder should have a copyright infringement remedy in these situations, even where, in particular cases, it may choose not to avail itself of that remedy e.g., against an individual end-user.

It is also understood that what amounts to a "public" communication may not be entirely clear under the laws of many countries, including Japan. This ambiguity might, in some countries, even extend, incorrectly in my view, to the situation involving a small-scale office in which a copyrighted computer program is posted to a server and that program is shared on the client side by only a very few people. We know of some countries, including Japan, where scholars have questioned whether this kind of use would implicate the "public" transmission right.

In more general terms, the public transmission right can apparently only cover instances where the person making the transmission has the intention to transmit the work to the public. If such a person only intends to let ONE PERSON view or listen, the public transmission right may not be applicable.

As the examples described above demonstrate, the argument for protection of temporary copies as reproductions does not rely only on the example of a server being beyond the reach of

the end-user's court, for example, outside the territory of Japan. However, it should be emphasized that the damage that can be done to local rightholders through unauthorized transmission of locally created software, music, phonograms, movies, games, books, databases and other protected subject matter from servers outside that country should not be underestimated. That damage is likely to multiply as globalization of the Internet expands.

Consider the following scenario. A Japanese company located in Tokyo (the XYZ Corporation) needs a particular computer program for certain business functions. (For example, a specialized program might be needed to carry out a particular accounting or finance function; or a particular computer-aided design program might be required for a particular project undertaken by an engineering or architectural firm.) The ABC Company (a Japanese firm) is the copyright owner in just such a program, and is fully prepared to license it to XYZ through legitimate channels. However, XYZ decides to cut costs by using a different method. Each day, an XYZ employee turns on his computer, connects to the Internet via a Japanese Internet service provider, and accesses a server located outside Japan. Residing on this server is an unauthorized copy of the particular computer program needed. The employee downloads the program (i.e., a copy of it is transmitted via the ISP to the XYZ site) and it is automatically stored in RAM of his computer. Throughout the day, as the employee needs this particular program to carry out his business duties, he accesses the RAM copy and uses it. At the end of the day, the employee turns off his computer. The RAM copy disappears. The next day, the same scenario is repeated.

Many variations on this scenario are possible. For instance, the employee could access the offshore server where the program resides several times throughout the day, each time he needs the program for the particular specialized function in question. In another variation, the employee's computer might remain on – with the copy of the program resident in RAM – for several days at a time, with the employee using the program as needed.

All these scenarios have two common features. First, ABC, the Japanese owner of copyright in the computer program, is economically disadvantaged. Instead of acquiring a license from ABC for the program, XYZ has obtained the full commercial benefit of the program without paying for it. XYZ's main need is to use the program to carry out the specialized functions for which it is designed, and which recur – either continually or intermittently – throughout XYZ's business operations. This need, which ABC seeks to satisfy through a licensing arrangement, is instead fully satisfied by making unlicensed temporary copies of the program when it is needed. ABC loses revenue it would otherwise have gained. To the extent that this scenario becomes widespread, the impact on ABC's revenues could lead it to curtail investment in improvements to the program and in support of legitimate users, or even to abandon the market altogether.

Second, unless the creation of the temporary copies in this scenario is recognized as an aspect of ABC's exclusive reproduction right under the Japanese copyright law (or law of the end-user's country), ABC may have no effective remedy for the economic injury it is suffering. Consider the roles of the three principal participants in the scenario.

(a) The operator of the offshore site is clearly committing an act that would constitute infringement of the making transmittable right under Japanese law, (or public

communication/making available right in other countries) and probably of other rights as well. However, since the server is located outside Japanese territory, Japanese law does not apply. The operator's acts might constitute an infringement under the law of the country where the server is located, but in many cases they would not, since most countries have not yet implemented the obligations of the WCT or WPPT. The server operation could also easily be moved to another jurisdiction if the law in the first jurisdiction became more stringent. In any event, it is not practical to require ABC to pursue infringers in (potentially) a large number of different overseas jurisdictions in order to obtain redress for an economic injury occurring in the forum country, in this case Japan.

(b) The ISP (or at least one of them, since several could be involved in a single transmission) would be a Japanese company or will likely have some connection to Japan, in order to serve a Japanese location like the XYZ offices. But whether the ISP will be liable for any infringement is difficult to determine. The ISP may be engaged in an unauthorized act of public transmission of ABC's program. In most cases, however, the ISP will be completely unaware of this. It will have no knowledge that the transmission that it is carrying from the offshore site to the XYZ premises includes unauthorized material protected by copyright, and in ordinary circumstances may have no reasonable grounds for suspecting this, either. The legal situation could change once the ISP is put on notice by ABC of its role in carrying out an unauthorized transmission. But there may well be practical difficulties in providing this notice: for instance, how will ABC determine which specific ISP is used by XYZ to communicate with the offshore server? In any event, the ISP, in most circumstances, is not the party primarily at fault in inflicting the economic injury on ABC, and should not be the primary target of an action for infringement under this scenario (though taking down the offending website, without seeking other remedies, may be, as a practical matter, an expeditious and effective remedy in such cases).

(c) While XYZ would presumably be held responsible for the acts of its employee, do those acts constitute infringement? In this scenario, neither the employee nor anyone else at XYZ has transmitted a copy of the program on the Intranet or LAN operated by XYZ for its employees (which would constitute an infringement of the public transmission right under the 1997 amendments to Japan's copyright law). The employee has simply caused a temporary copy of the program to be made and stored in RAM. If, in fact, such temporary storage is not considered a reproduction under the current copyright law, then the XYZ employee may have committed no act restricted by the copyright law, and thus is not liable for an infringement of ABC's exclusive reproduction right or any other of its rights. In other words, XYZ, the party that directly inflicts economic harm on ABC through unauthorized use of its copyrighted product, and that directly benefits from the act, escapes all legal responsibility for it.

The situation is not much better even if we assume that the server on which the unauthorized copy resides is located within the end-user's country, in our example, Japan. This makes the server operator liable for infringements of ABC's making transmittable right, and probably of its reproduction right as well, but as a practical matter it may be very difficult for ABC to locate the server and to determine who is responsible for operating it. XYZ may not even know this information, and the ISP may not be under any legal obligation to reveal it to ABC. Furthermore, these "warez" or similar sites frequently move their server locations, and can do so in a manner that is not easily detectable by any outside user. Thus, the server from

which the XYZ employee downloads the program at 10 a.m. may not even contain a copy of the program at 11 a.m. Finally, even if ABC is able to shut down the offending server (with considerable effort and expense, I might add), XYZ and/or its employees can simply get in touch with another server on which the same program resides, thus forcing ABC to start the process all over again. Japanese (or another country's) rightholders in this same or similar situation should not be forced into such an untenable and economically disadvantageous position.

In sum, it is unlikely that ABC will be able effectively to enforce its rights unless, as a practical matter, it can hold all three parties to the transaction responsible in the appropriate degree for the economic harm it has suffered. Recognizing temporary copies as part of the reproduction right is critical to advancing this goal.

Conclusion

This paper has sought to demonstrate that the protection of temporary copies is an obligation of all Berne/TRIPS member countries and that this issue is by no means a trivial or purely legal one. The failure of a country to protect temporary copies will have a profound negative impact on growth, employment and a country's overall ability to develop an e-commerce-based economy. The U.S. has long ago taken the steps to ensure this protection. The EU is in the process of doing so now – in both territories, of course, appropriate exceptions will be made that maintain the appropriate balance between exclusive rights and exceptions to those rights. These exceptions should, of course, be narrowly crafted to cover only those cases where the legislator has determined that an exception is absolutely necessary, and permissible under TRIPS. Casting those exceptions too broadly will leave authors and other copyright owners vulnerable to piracy and other infringements that will stunt creation of protected works and the economy as a whole, that is, in Berne Convention/TRIPS terminology, they will “conflict with a normal exploitation of a work or sound recording.” What is critical here is that many important e-commerce businesses will be based on the exploitation of works through temporary, not necessarily permanent, copies. Stated another way, if the particular reproduction is, for example, a temporary copy made in the course of a transmission authorized by the relevant rightholders, or is a transient copy made solely as part of a technologically necessary step to achieve the playback of materials as intended by the relevant rightholders, then that type of reproduction might be made subject to an exception or limitation on the exclusive right as is allowed under the Berne Convention, the WCT and the WPPT, provided that the reproduction does not interfere with the normal exploitation of the work, phonogram or performance, or prejudice the legitimate interests of the rightholders.