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A NEW PERSPECTIVE ON TEMPORARY COPIES: THE FOURTH CIRCUIT'S OPINION IN *COSTAR v. LOOPNET*

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INTRODUCTION

¶1 During the course of routine operations, computers temporarily copy programs and other copyrighted material to their random access memory ("RAM"). In *MAI Systems Corp. v. Peak Computer, Inc.*,[1] the Ninth Circuit held that a temporary copy stored in a computer's RAM could constitute an infringement of the copyright owner's reproduction right. In the decade since *MAI*, numerous other courts have followed the Ninth Circuit's holding. The United States government has also exported this view in several free trade agreements. In June 2004, however, in *CoStar Group, Inc., v. LoopNet, Inc.*,[2] the Fourth Circuit suggested that a temporary copy made by an Internet service provider ("ISP") acting as a conduit of information might not be an unlawful copy after all—at least in some circumstances. This Perspective examines existing law on temporary copies and how it may be affected by the *CoStar* decision.

1. TEMPORARY COPIES UNDER U.S. LAW

¶2 Under § 106(1) of the Copyright Act, an act of infringement requires the copying or making of copies of a copyrighted work.[3] The issue whether loading a program into a computer's RAM constitutes a "copy" of that program has been debated for almost three decades. With the expansion of the Internet in recent years, this issue has become increasingly important because computer users copy copyrighted material into RAM every time they browse the Internet. How this issue is resolved has significant consequences: If the unauthorized loading of a program into RAM is treated as "copying" under the Act, the copier will potentially be liable for copyright infringement. At least one court has found that "[w]hen a person browses a website, and by so doing displays [copyrighted material], a copy of the [material] is made in the computer's [RAM], to permit viewing of the material. And in making a copy, even a temporary one, the person who browsed infringes the copyright."[4]

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[1] 991 F.2d 511 (9th Cir. 1993).

[2] 373 F.3d 544 (4th Cir. 2004).

[3] *See* 17 U.S.C. § 106(1) (2004).

[4] Intellectual Reserve, Inc. v. Utah Lighthouse Ministry, Inc., 75 F. Supp. 2d 1290, 1294 (D. Utah 1999) (citing MAI Sys. Corp. v. Peak Computer, Inc., 991 F.2d 511, 518 (9th Cir. 1993)).

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¶3 The Copyright Act defines "copies" as "material objects . . . in which a work is fixed . . . , and from which the work can be perceived, reproduced, or otherwise communicated, either directly or with the aid of a machine or device."[5] A work is "fixed" in a medium when it is embodied in a copy that "is sufficiently permanent or stable to permit it to be perceived, reproduced, or otherwise communicated for a period of more than transitory duration."[6] Unfortunately, the statute does not define "transitory duration" directly. This is unfortunate because the term has special applicability to the infringement analysis regarding copies made to a computer's RAM.

¶4 RAM is the "working memory of the computer," where a program resides for very brief periods while the program is being used to control the processing of data.[7] In contrast to RAM, where materials are stored temporarily, are storage media such as hard drives, floppy discs, or CDs where representations of a program may be stored permanently and stably. Representations in these forms clearly qualify as "copies" under the Copyright Act, and courts uniformly have held as much.[8] It is far less clear whether a representation in RAM, given the transient nature of its content and its dependence upon electrical power, is sufficient to meet the statutory definition of a "copy."

¶5 The legislative history of the 1976 Copyright Act suggests that representations stored in RAM are not copies. According to the House Report, "the definition of 'fixation' would exclude from the concept purely evanescent or transient reproductions such as those projected briefly on a screen. . .or captured momentarily in the 'memory' of a computer."[9] However, the Report of the National Commission on New Technological Uses of Copyrighted Works (CONTU), issued in 1978, concluded that "[because] works in computer storage may be repeatedly reproduced, they are fixed and, therefore, are copies."[10] This conclusion led CONTU to recommend that Congress adopt the language now found in 17 U.S.C. § 117(a)(1), which permits the owner of a copy of a computer program to make of a copy of the program "as an essential step in the utilization of the computer program in conjunction with a machine."[11] The existence of this section certainly implies a Congressional understanding that a RAM copy met the fixation requirement; otherwise, the section would have no effect. Still, legislative history does not definitively answer the question: do representations in RAM meet the statutory "fixation" requirement to be considered infringing copies?

A. MAI Systems Corp. v. Peak Computer

¶6 The Ninth Circuit, in *MAI Systems Corp. v. Peak Computer, Inc.*, answered this question in the affirmative.[12] Although the court noted that it was not aware of any prior cases holding that representations in RAM were copies, it found that "it is generally accepted that the loading of software into a computer constitutes the creation of a copy under the Copyright Act."[13]

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[5] 17 U.S.C. § 101 (2004).

[6] *Id.*

[7] DAVID BENDER, COMPUTER LAW § 4.04[4] (2004).

[8] *See, e.g.,* Williams Elecs., Inc. v. Artic Int'l, Inc., 685 F.2d 870 (3d Cir. 1982); Apple Computer, Inc. v. Franklin Computer Corp., 714 F.2d 1240 (3d Cir. 1983); Apple Computer, Inc. v. Formula Int'l Inc., 725 F.2d 521 (9th Cir. 1984); Tandy Corp. v. Personal Micro Computers, Inc., 524 F. Supp. 171 (N.D. Cal. 1981); Midway Mfg. Co. v. Strohon, 564 F. Supp. 741 (N.D. Ill. 1983).

[9] H.R. REP. NO. 94-1476, at 53 (1976), *reprinted in* 1976 U.S.C.C.A.N. 5659, 5666.

[10] NATIONAL COMMISSION ON NEW TECHNOLOGICAL USES OF COPYRIGHTED WORKS, FINAL REPORT OF THE NATIONAL COMMISSION ON NEW TECHNOLOGICAL USES OF COPYRIGHTED WORKS 22 (1978) [hereinafter CONTU REPORT]. Some authors are disinclined to treat the CONTU Report as true legislative history. *See* BENDER, *supra* note 8 ("to the extent the CONTU Report is considered legislative history, it would appear questionable whether it can serve as such for any provision of the original Act of 1976, enacted two years before the CONTU Report was published.").

[11] 17 U.S.C. § 117(a)(1) (2004).

[12] 991 F.2d 511 (9th Cir. 1993).

[13] *Id.* at 519.

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¶7 In the case, defendant Peak, an independent service organization, had run MAI's operating system on a user's computer when it performed maintenance services. Because Peak was able to view the operating system's error log in order to identify a problem with the computer, the court found that the representation in RAM was "sufficiently permanent or stable to permit it to be perceived, reproduced, or otherwise communicated for a period of more than transitory duration."[14] Therefore, the court found that Peak had infringed the copyright in the operating system. The court also found that section 117(a)(1)'s essential step exception did not apply because Peak's customer was a *licensee* of the MAI operating system, while section 117 is available only to "*owners* of a copy of a computer program."[15]

¶8 The foundations of the *MAI v. Peak* decision lie in the Fifth Circuit's decision in *Vault Corp. v. Quaid Software Ltd.*[16] Although the Fifth Circuit ultimately found that Quaid had not infringed Vault's copyright because its actions fell under the "essential step" exception in section 117(1) [now section 117(a)(1)], it nevertheless concluded, based on the CONTU Report, that loading software into RAM creates a copy of that software.[17]

¶9 Peak filed a petition for certiorari, asking the U.S. Supreme Court to review the Ninth Circuit's decision.[18] In its petition, Peak argued, *inter alia*, that the Ninth Circuit had erroneously held that a representation in RAM is "fixed" such that a "copy" is created under the Copyright Act.[19] Peak contended that the Ninth Circuit "ignored the fundamental difference between [its] case, which involves RAM memory, and every other case cited and relied upon by MAI."[20] The heart of Peak's argument was that representations in RAM are no more than "transitory" representations, and are thus not sufficiently "fixed" to qualify as "copies" under the Copyright Act. The Supreme Court denied Peak's cert petition.[21]

¶10 The decision in *Peak* has been criticized by a number of practitioners and academics. For example, Pamela Samuelson has likened the argument that a work in RAM is "fixed" because it can be perceived or reproduced as long as the computer is left on to claiming that the image of a book in a mirror is fixed "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."[22]

B. Post-MAI Court Decisions Regarding Temporary Copies

¶11 Following its victory against Peak, MAI sent a "cease and desist" letter to Advanced Computer Services of Michigan, a relatively small independent service organization ("ISO") that provided service and maintenance of MAI computers.[23] The letter cited the *MAI v. Peak* decision and demanded that all ISOs immediately cease and desist from any activity that involved copying MAI's operating system software, including the loading or booting of the software.[24] After receiving the letter, the ISO filed suit against MAI, charging monopolization and illegally tying the sale of maintenance and repair services to the sale of MAI's copyrighted operating system and diagnostic software.[25] MAI then counterclaimed, asserting that the plaintiffs infringed MAI's

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[14] *Id.* at 517-18 (citing 17 U.S.C. § 101).

[15] 17 U.S.C. §117 (2004) (emphasis added).

[16] 847 F.2d 255 (5th Cir. 1988).

[17] *Id.* at 260 (holding that "the act of loading a program from a medium of storage into a computer's memory creates a copy of the program").

[18] Petition for Writ of Certiorari, Peak Computer, Inc. v. MAI Sys. Corp., 1993 WL 13075427 (1993) (No. 93-809).

[19] *Id.* at iii.

[20] *Id.* at 15. ("It is undisputed that in every case relied upon by MAI, a copy was created at some point onto a medium of *permanent storage*, such as a disk, diskette, paper or ROM chip. These cases are therefore inapposite." (citations omitted)).

[21] Peak Computer, Inc. v. MAI Sys. Corp., 510 U.S. 1033 (1993).

[22] Pamela Samuelson, *Legally Speaking: The NII Intellectual Property Report*, COMMUNICATIONS OF THE ACM, at 21, (Dec. 1994).

[23] Advanced Computer Serv. of Mich., Inc. v. MAI Sys. Corp., 845 F. Supp. 356, 359-60 (E.D. Va. 1994).

[24] *Id.*

[25] *Id.* at 360.

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software copyrights and trademarks, misappropriated its trade secrets, and interfered with its business relations with present and prospective customers.[26]

¶12 The Eastern District of Virginia decided the case on a motion for summary judgment on the plaintiff's Sherman Act claims and the defendant's copyright infringement counterclaim. Because the validity of MAI's copyright was not disputed, the court framed the issue as "whether the transfer of a computer program from a storage device, whether an external disk or an internal hard disk, to a computer's RAM constitutes a copy for purposes of copyright law."[27] The plaintiffs argued that RAM is inherently so ephemeral and transitory as to preclude the finding that a "copy" of the program is actually made when it is transferred from a permanent memory source to RAM.[28] The court, however, followed the reasoning of *MAI v. Peak* and held that "where, as here, 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 [Copyright] Act."[29]

¶13 The Ninth Circuit had the opportunity to reevaluate *MAI v. Peak* in *Triad Systems Corp. v. Southeastern Express Co.*[30] Triad, a computer and software developer, sued Southeastern, an ISO, for copyright infringement based on a RAM copy theory.[31] In light of the favorable decision in *MAI v. Peak*, Triad moved for summary judgment on its copyright infringement claim and won.[32] The Ninth Circuit followed its precedent, and held that Triad had shown sufficient likelihood of success to merit a preliminary injunction.[33]

¶14 Since the decisions in *MAI v. Peak*, *Advanced Computer Services v. MAI*, and *Triad Systems Corp. v. Southeastern Express Co.*, numerous courts across the country have treated *MAI v. Peak* as controlling authority and endorsed the RAM copy theory.[34]

C. The Digital Millennium Copyright Act

¶15 While Congress was considering the legislation that ultimately became the 1998 Digital Millennium Copyright Act, Congressmen Boucher and Campbell introduced H.R. 3048, the

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[26] *Id.*

[27] *Id.* at 362.

[28] *Id.*

[29] *Id.* at 363. "This conclusion finds support in several decisions, most notably *MAI Sys. Corp. v. Peak Computer*. . . . The same reasoning is persuasive here." *Id.* at 363-64..

[30] 64 F.3d 1330 (9th Cir. 1995).

[31] *Id.* at 1333.

[32] *Id.* at 1334.

[33] *Id.* (granting injunction barring defendant from performing service or maintenance on Triad computer systems that contain licensed software). *See also* Triad Sys. Corp. v. Southeastern Express Co., No. C 92 1539-FMS, 1994 WL 446049 (N.D. Cal. Mar. 18, 1994).

[34] *See*, *e.g.,* Stenograph LLC v. Bossard Assoc., Inc., 144 F.3d 96, 101 (D.C. Cir. 1998) (holding that "the loading of software from some permanent storage medium . . . to the computer's [RAM] when the software is 'booted up' causes a copy to be made"); DSC Communications. Corp. v. DGI Techs., Inc., 81 F.3d 597, 600 (5th Cir. 1996) ("DGI does not dispute that a copy is made when the microprocessor cards are booted up."); NLFC, Inc. v. Devcom Mid-Amer., 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."); Storage Tech. Corp. v. Custom Hardware Eng'g & Consulting, Inc., No. 02-12102-RWZ, 2004 WL 1497688 (D. Mass. July 2, 2004) (order granting preliminary injunction); Tiffany Design, Inc. v. Reno-Tahoe Specialty, Inc., 55 F. Supp. 2d 1113 (D. Nev. 1999) (applying the reasoning of *MAI v. Peak* and its progeny, and finding that defendant's scanning and input of a copyrighted image into his computer in preparation for manipulation of that image constitutes copyright infringement); Intellectual Reserve, Inc. v. Utah Lighthouse Ministry, Inc., 75 F. Supp. 2d 1290 (D. Utah 1999) (citing *MAI v. Peak* as controlling authority); Wilcom Pty. Ltd. v. Endless Visions, 128 F. Supp 2d 1027, 1031 (E.D. Mich. 1998) (finding that a RAM copy is sufficiently fixed in a tangible medium of expression to constitute an infringing copy under the Copyright Act); Marobie-FL, Inc. v. Nat'l Ass'n of Fire Equip. Distribs., 983 F. Supp. 1167 (N.D. Ill. 1997) (holding that defendant ISP was not liable for direct copyright infringement, despite finding that "copies" were made in the RAM of its computers; rejecting defendant's argument that representations in RAM are not fixed); ProCD, Inc. v. Zeidenberg, 908 F. Supp. 640 (W.D. Wisc. 1996) (finding that RAM copies of a computer program are "copies" for the purposes of section 117, but the copy at issue in the case was found to be an "essential" copy and thus not infringing), *rev'd on other grounds*, 86 F.3d 1447 (7th Cir. 1996); In re Indep. Serv. Orgs. Antitrust Litig., 910 F. Supp. 1537 (D. Kan. 1995) (following MAI v. Peak); Religious Tech. Ctr. v. Netcom On-Line Communication Servs., Inc., 907 F. Supp. 1361, 1368 (N.D. Cal. 1995) ("Even though the [data] remained on [the defendant's] systems for at most eleven days, they were sufficiently 'fixed' to constitute recognizable copies under the Copyright Act.").

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Digital Era Copyright Enhancement Act.[35] Section 6 of their bill would have added a new subsection to section 117 intended to resolve the RAM copy problem:

> 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.[36]

This provision would have permitted the making not only of RAM copies of computer programs, but also of other copyrighted works used in conjunction with a computer. H.R. 3048 recognized that the use of computers had evolved significantly since the issuance of the CONTU Report in 1978, and that users routinely made RAM copies of a wide variety of works. At the same time, these RAM copies typically had no negative impact on the economic value of the work to the copyright owner.

¶16 This provision of H.R. 3048 did not gain sufficient support to be included in the DMCA. However, independent service organizations successfully lobbied Congress to provide statutory relief from the *MAI* and *Triad* decisions in the DMCA so that they could remain in business. Title III of the DMCA created a new subsection 117(c) that permits "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. . . ."[37] Congress thus permitted ISOs to make RAM copies when servicing hardware.

¶17 The Senate Judiciary Committee explained that when a computer is turned on, certain software is automatically copied into the computer's RAM. Citing *MAI v. Peak*, the committee stated:

> A clarification is necessary in light of judicial decisions holding that such copying is a "reproduction" under section 106 of the Copyright Act, thereby calling into question the right of an independent service provider who is not the licensee of the computer program resident on the client's machine to even activate that machine for the purpose of servicing the hardware components.[38]

Similarly, the House Judiciary Committee stated: "Because such copying has been held to constitute a 'reproduction' under section 106 of the Copyright Act, a person who activated the machine without the authorization of the copyright owner of that software could be liable for copyright infringement."[39]

¶18 Both the Senate and the House Judiciary Committees worded their descriptions very carefully. Neither endorsed the decisions that determined a RAM copy was a copy for copyright purposes; the Committees simply acknowledged that the courts had so found, and fashioned a narrow exception to cause a different result. At the same time, Congress declined to adopt broader approaches to the RAM copy problem. It did not proclaim that a RAM copy is not a copy, nor did it expand section 117(a)(1) to apply to *licensees* of copies of computer programs rather than only *owners*. And, as noted above, it did not enact section 6 of H.R. 3048.

¶19 Litigants have argued that by adopting section 117(c), Congress overruled the temporary copy holding in *MAI v. Peak*. A federal district court in Maryland recently rejected this contention in *PracticeWorks, Inc. v. Professional Software Solutions of Illinois, Inc.*[40] PracticeWorks

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[35] H.R. 3048, 105th Cong. (1997).

[36] *Id.* § 6.

[37] 17 U.S.C. § 117(c) (2004).

[38] S. REP. NO. 105-190, at 56-57 (1998) (citations omitted).

[39] *Id.* at 21.

[40] No. JFM-02-1205, 2004 U.S. Dist. LEXIS 11645 (D. Md. June 23, 2004).

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alleged that Professional Software Solutions of Illinois ("PSSI") infringed PracticeWorks' copyright in its software by making RAM copies of the software while providing technical support and services to customers after the termination of an agreement between PracticeWorks and PSSI. PSSI argued that section 117(c) had effectively repealed *MAI v. Peak*, and thus the RAM copies were not infringing. The court disagreed, concluding that "*Peak* and Section 117(c) can exist together. Indeed, this court has recently cited *Peak* as good law."[41] The court found that section 117(c) was a narrow exception to the Ninth Circuit's RAM copy decision in *Mai v. Peak*. In holding that the defendants' use was beyond the scope of section 117(c), the court found that "the loading of the software is only permissible under 117(c) if it is for the purpose of repairing the *machine* into which it is loaded, not the software itself."[42]

¶20 Another provision of the DMCA implicitly assumed that a temporary copy was a copy. Title II of the DMCA, as enacted at 17 U.S.C. § 512(a), provided a safe harbor for Internet Service Providers who engaged in the intermediate and transient storage of copyrighted material in the course of providing transmitting or routing services.[43] The Senate Judiciary Committee explained that "in the course of moving packets of information across digital online networks, many intermediate and transient copies of the information may be made in routers and servers along the way."[44] Congress would not have provided a safe harbor for these RAM copies if it had not believed such copies might trigger liability.

¶21 The DMCA offered one more contribution to the question of temporary copies. Section 104 directed the Copyright Office to study, *inter alia*, the creation of an exemption for temporary incidental copies. In its subsequent section 104 report, the Copyright Office discussed the legal status of temporary copies in general, and RAM copies in particular, at length. After reviewing the statutory language of the Copyright Act, its legislative history, and its judicial interpretation, the Copyright Office concluded that RAM copies that exist for a sufficient period of time to be capable of being "perceived, reproduced, or otherwise communicated" are copies within the scope of the reproduction right.[45] The Report added that a finding of copying does not lead inevitably to a finding of infringement: "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."[46] The report noted that Titles II and III of the DMCA, discussed above, were "adopted into U.S. law specifically to address RAM copying."[47]

¶*22* The Copyright Office report then discussed the option of a blanket exemption for incidental copies similar to that found in H.R. 3048. The Copyright Office concluded that "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."[48] At the same time, the Copyright Office found that "a blanket exception for incidental copies could have the unintended consequence of harming copyright owners and threatening new business models."[49]

2. TEMPORARY COPIES UNDER INTERNATIONAL LAW

¶23 When the World Intellectual Property Organization was deliberating its Copyright Treaty in 1996, the proposed treaty text included language that would treat a temporary copy as a copy:

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[41] *Id.* at 17 (citing Lowry's Reports, Inc. v. Legg Mason, Inc., 271 F. Supp. 2d 737, 745 (D. Md. 2003)).

[42] *Id.*

[43] 17 U.S.C. § 512(a) (2004).

[44] S. REP. NO. 105-190, at 41 (1998).

[45] *See* U.S. COPYRIGHT OFFICE, DMCA SECTION 104 REPORT 111 (2001).

[46] *Id.* at 122.

[47] *Id.*

[48] *Id.* at 130.

[49] *Id.* at 130-31.

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"[t]he exclusive right accorded to authors of literary and artistic works in Article 9(1) of the Berne Convention of authorizing the reproduction of their works shall include direct and indirect reproduction of their works, whether permanent or temporary, in any manner or form."[50] The proposed text would have permitted parties to adopt exceptions with respect 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."[51]

¶24 Representatives of user groups such as libraries opposed the extension of the reproduction right to temporary copies, and ultimately the language quoted above was not included in the treaty. Instead, the treaty contained a more neutral statement: "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."[52]

¶25 The issue was addressed again in the European Union Copyright Directive, adopted in 2001. Article 2 of the directive states that "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."[53] Article 5(1) then provides:

> Temporary acts of reproduction referred to in Article 2, which are transient or incidental and an integral and essential part of a technological process and 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 to be made, and which have no independent economic significance, shall be exempted from the reproduction right provided for in Article 2.[54]

Thus, the EU Copyright Directive treats temporary copies as copies under copyright, but provides an extremely broad exception for them. Indeed, the exception in article 5(1) bears a striking resemblance to the exception proposed by Congressmen Boucher and Campbell in H.R. 3048.

¶26 Recently, the United States has signed free trade agreements with numerous countries that specifically require the signatories to grant authors exclusive rights over the making of temporary copies. The United States-Singapore Free Trade Agreement, for example, states that "Each Party shall provide that authors, performers and producers of phonograms and their successors in interest have the right to authorize or prohibit all reproductions, in any manner or form, permanent or temporary (including temporary storage in electronic form)."[55] Other free trade agreements contain similar language. Through these agreements, the executive branch appears to be locking the United States into treating temporary copies—that is, "temporary storage in electronic form"—as reproductions within the scope of the reproduction right.

3. A NEW PERSPECTIVE: *COSTAR V. LOOPNET*

¶27 Until June 2004, the temporary storage language in the free trade agreements seemed consistent with U.S. law. However, the Fourth Circuit, in *CoStar Group, Inc. v. LoopNet, Inc.*,[56]

[50] *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*, at art. 7(1), WIPO Doc. CRNR/DC/4 (Aug. 30, 1996).

[51] *Id.* at art. 7(2).

[52] *Agreed Statement Concerning the WIPO Copyright Treaty, Concerning Art. 1(4)*, WIPO Doc. CRNR/DC/96 (Dec. 20, 1996).

[53] Council Directive 2001/29/EC of 22 May 2001 on the Harmonization of Certain Aspects of Copyright and Related Rights in the Information Society, art. 2, 2001 O.J. (L167/10).

[54] *Id.* at art. 5(1).

[55] United States—Singapore Free Trade Agreement, May 6, 2003, U.S.-Sing., Pub. L. 108-78.

[56] 373 F.3d 544, 555 (4th Cir. 2004).

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recently raised questions about the status of temporary copies, thereby casting doubt on the wisdom of basing international agreements on prior judicial interpretations.

¶28 CoStar owns numerous copyrights in photographs of commercial real estate. It brought a copyright infringement action against LoopNet for operating a real estate-related website where subscribers posted CoStar's copyrighted photographs. In district court, CoStar argued that LoopNet was both directly and secondarily liable. On cross motions for summary judgment, the district court ruled that LoopNet was not liable for direct infringement, but refused to dismiss the claims for secondary liability. The parties settled the secondary liability claims, and CoStar then appealed the direct infringement issue to the Fourth Circuit.

¶29 On appeal, CoStar argued that because its photographs were copied onto LoopNet's computer system, LoopNet was liable for direct infringement under section 106 of the Copyright Act, despite LoopNet's passive role in the uploading of the photographs onto the computer system. The Fourth Circuit found that the district court had correctly followed the Northern District of California decision in *Religious Technology Center v. Netcom On-Line Communication Services, Inc.*, which held that a person must engage in a volitional act of copying in order to be directly liable for infringement. It held that the reasoning of the *Netcom* decision survived Congress's enactment of the DMCA safe harbors for Internet service providers, discussed above. The Fourth Circuit further held that although LoopNet operated a system that allowed others to upload photographs, LoopNet itself had not engaged in any volitional act with respect to the CoStar photographs.

¶30 In the middle of its opinion, the Fourth Circuit included a few paragraphs of text that seem to chip away at the rule of *MAI v. Peak*.[57] It noted that an infringement of the reproduction right requires the making of copies. The Fourth Circuit observed that the term "copies" refers to material objects in which a work is "fixed," and quoted the definition that a work is "fixed" when it is "sufficiently permanent or stable to permit it to be perceived, reproduced, or otherwise communicated for a period of more than transitory duration."[58] It then made the following extraordinary statement:

> When an electronic infrastructure is designed and managed as a *conduit* of information and data that connects users over the Internet, the owner and manager of the conduit hardly "copies" the information and data in the sense that it fixes a copy in its system *of more than a transitory duration*. Even if the information and data are "downloaded" onto the owner's RAM or other component as part of the transmission function, that downloading is a temporary, automatic response to the user's request, and the entire system functions solely to transmit the user's data to the Internet. . . . While temporary electronic copies may be made in this transmission process, they would appear not to be "fixed" in the sense that they are "of more than transitory duration," and the ISP therefore would not be a "copier" to make it directly liable under the Copyright Act.[59]

The Fourth Circuit next distinguished the transitory copying of an ISP from the more permanent copying by a user who downloads software onto his or her computer:

> In concluding that an ISP has not itself fixed a copy in its system of more than a transitory duration when it provides an Internet hosting service to its subscribers, we do not hold that a computer owner who downloads copyrighted software onto a computer cannot infringe the software's copyright. *See, e.g.*, *MAI Systems Corp. v. Peak Computer, Inc.*, 991 F.2d 511, 518-519 (9th Cir. 1993). When the computer owner downloads copyrighted software, it possesses the software, which then functions in the service of the computer or owner, and the copying is no longer of a transitory nature. "Transitory duration" is thus both a qualitative and quantitative characterization. It is quantitative insofar as it describes the period during which the function occurs, and it is qualitative in the sense that it describes the status of transition.

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[57] *See id.* at 550-51.

[58] *Id.* at 550 (quoting 17 U.S.C. § 101).

[59] *Id.* at 550-51.

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Thus, when the copyrighted software is downloaded onto a computer, because it may be used to serve the computer or the computer owner, it no longer remains transitory. This, however, is unlike an ISP which provides a system that automatically receives a subscriber's infringing material and transmits it to the Internet at the instigation of the subscriber.[60]

¶31 At first glance, the Fourth Circuit's citation to *MAI v. Peak*—precisely where the Ninth Circuit held that a RAM copy is sufficiently fixed to constitute a copy within the meaning of the Copyright Act—seems perplexing. Yet the court in *CoStar* seems to ignore the Ninth Circuit's holding. The key to this passage lies in the Fourth Circuit's discussion of the quantitative *and* qualitative nature of "transitory duration." "Transitory duration," the court explains, can be quantitative to the extent that it refers to a very short period of time. But "transitory duration" can also be qualitative to the extent that it refers to the period in which content is in transit. According to the Fourth Circuit, then, third party content hosted on an ISP's server is in transit between the third party and the ultimate user, and thus is stored on the ISP's server only for a *qualitatively* transitory duration, even though the content might reside on the server far longer than a period of *quantitatively* transitory duration. In contrast, a program downloaded by a user onto his or her computer is stored for more than a *qualitatively* transitory duration because it is not in transit; rather, the program is at its destination, where it can be run by the user on his computer.

¶32 The Fourth Circuit then returned to its discussion of *Netcom*, noting that the court there had "made a particularly rational interpretation of § 106 when it concluded that a person had to engage in volitional conduct—specifically, the act constituting infringement—to become a direct infringer."[61] It stressed the importance of this interpretation in the context of cyberspace, where "[t]here are thousands of owners, contractors, servers, and users involved in the Internet whose role involves the storage and transmission of data in the establishment and maintenance of an Internet facility." The Fourth Circuit concluded that these individuals' "conduct is not truly 'copying' as understood by the Act."[62]

¶33 Thus, the Fourth Circuit appears to identify two reasons why ISPs are not direct infringers when, acting as conduits, they make copies of content. First, they do not engage in a volitional act with respect to specific content that moves across their systems; any copy made is an "automatic response to the user's request."[63] Second, the automatic copy is not a copy within the meaning of the Copyright Act because it is in transit between the subscriber and the Internet; the ISP "is itself totally indifferent to the material's content."[64]

¶34 The Fourth Circuit's notion of qualitatively transitory duration may help explain its conclusion that LoopNet's gatekeeping function did not render LoopNet liable for direct infringement. It noted that the ISP's employee's brief review of whether a photograph depicts commercial real estate or contains a copyright notice "does not amount to 'copying,'" even though the employee clicks on an accept button that allows the photograph to be uploaded onto the LoopNet server.[65] Presumably this is because the photograph is still in "transit" while it resides on the LoopNet server; it is not fixed until it reaches its destination—a user's computer.

¶35 The Fourth Circuit's holding that temporary copies made on an ISP's server are not copies under the Copyright Act does not render the DMCA's safe harbors superfluous. The ISP could still be secondarily liable for infringing copies made by users with the assistance of its system—for example, a song a user downloads onto his or her hard drive. Similarly, the ISP could be secondarily liable for a user's distribution, performance, or display of a work via its

[60] *Id.* at 551 (citation omitted).

[61] *Id.*

[62] *Id.*

[63] *Id.*

[64] *Id.*

[65] *Id.* at 556.

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system. In all these cases, the DMCA's safe harbors would limit the remedies available against the ISP.

4. CONCLUSION

¶36 In *CoStar*, the Fourth Circuit carved out a large exception to the prevailing rule, announced in *Mai v. Peak*, that a temporary copy made in the course of routine computer operations can be an an infringing copy under the Copyright Act. Specifically, it held that a temporary copy made by an ISP, acting as a conduit, is in transit and therefore is not sufficiently fixed to constitute a copy. The full implications of this holding remain to be seen, but in the short term, it provides ISPs with a welcome layer of insulation from secondary liability for infringement by third parties. Moreover, in light of the decision, pending further legal developments on this issue, U.S. trade representatives should refrain from inserting in bilateral trade agreements language concerning temporary copies that conflicts with evolving case law.

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