07-1480-cv(L), 07-1511-cv(CON)

United States Court of Appeals

for the

Second Circuit

THE CARTOON NETWORK LP, LLLP and
CABLE NEWS NETWORK L.P., L.L.L.P.,

Plaintiff-Counter-Claimant-Defendants-Appellees,

TWENTIETH CENTURY FOX FILM CORPORATION, UNIVERSAL CITY STUDIOS PRODUCTIONS LLLP, PARAMOUNT PICTURES CORPORATION, DISNEY ENTERPRISES INC., CBS BROADCASTING INC., AMERICAN BROADCASTING COMPANIES, INC., NBC STUDIOS, INC.,

Plaintiffs-Counter-Defendants-Appellees,

– v. –

CSC HOLDINGS, INC. and CABLEVISION SYSTEMS CORPORATION,

Defendants-Counterclaim-Plaintiffs-Third-Party Plaintiffs-Appellants,

(For Continuation of Caption See Inside Cover)

ON APPEAL FROM THE UNITED STATES DISTRICT COURT
FOR THE SOUTHERN DISTRICT OF NEW YORK

BRIEF OF *AMICI CURIAE* LAW PROFESSORS IN SUPPORT OF DEFENDANTS-COUNTERCLAIMANTS-APPELLANTS AND REVERSAL

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– v. –

TURNER BROADCASTING SYSTEM, INC., CABLE NEWS NETWORK LP, LLP, TURNER NETWORK SALES, INC., TURNER CLASSIC MOVIES, L.P., LLLP, TURNER NETWORK TELEVISION LP, LLLP,

Third-Party-Defendants-Appellees.

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STATEMENT OF INTEREST OF *AMICI CURIAE*

Amici curiae are a group of law professors who teach and write about copyright law and Internet law at law schools throughout the United States. *Amici* have no interest in the outcome of this litigation except insofar as they share a concern that the District Court's ruling below, if affirmed, would bring about a radical expansion of copyright protection over digital works that would undermine the core policies of the Copyright Act. All parties have consented to the filing of this brief.

SUMMARY OF ARGUMENT

It is a truism of the digital age that digital devices must copy information into transient "buffers" in random access memory (RAM) in order to process that information. None of the digital devices now available in the marketplace – computers, cell phones, personal digital assistants (PDAs), MP3 and compact disk players, fax machines, digital televisions, *etc*. – could function without the regular and automatic creation of such transient "buffer" copies. "*All* digital devices," as the District Court itself aptly noted, "utilize transient data buffers, which are regions of memory that temporarily hold data." *Twentieth Century Fox Film Corp. v. Cablevision Sys. Corp.*, 478 F.Supp.2d 607, 613 (S.D.N.Y. 2007) (emphasis added).

Despite recognizing the ubiquity of these transient "buffer" reproductions, the District Court reached the startling conclusion that each and every one of them is a "copy" within the meaning of the Copyright Act, and therefore a *prima facie* infringement of the copyright holder's exclusive right to "reproduce the [copyrighted] work *in copies*," 17 U.S.C. § 106(1) (emphasis added) – regardless of the length of time that the information is held in the transient buffer, and regardless of the amount of the copyrighted work stored in the buffer at any time. *See Twentieth Century Fox*, 478 F.Supp.2d at 613.

In so holding, the District Court ignored the plain text and legislative history of the Copyright Act, both of which make clear that such ephemeral, transitory reproductions are not sufficiently "fixed" to constitute "copies." Moreover, to the extent the Copyright Act does not expressly resolve the question of the legal status of transient RAM reproductions, the District Court's interpretation should be rejected because it would radically expand copyright protection over digital works without any justification or purpose for doing so. Under the District Court's ruling, each and every lawful use of a digital device of any kind – turning on a digital TV, or browsing a website on the Internet – becomes an act fraught with potential copyright liability: If the content involved is protected by copyright, the user will need some form

of "authorization," or some other defense, for creating the temporary buffer copies that these devices automatically and inevitably make when processing digital information. That rule would create, in effect, an exclusive monopoly over the "right to read" (or watch, or hear, or access in any way) digital information.

The Copyright Act should not be interpreted to create such sweeping – indeed, almost limitless – liability. Such an interpretation would severely limit the public's access to and use of digital information and undermine the basic policies of the Copyright Act – namely, to promote creative expression and the "Progress of Science and useful Arts." U.S. Const. art. I, § 8, cl. 8. For these reasons, *amici* urge this Court to reject the District Court's conclusion that all transient RAM reproductions – no matter how brief or fleeting – constitute fixed "copies" within the meaning of the Copyright Act. Instead, this Court should hold that momentary RAM reproductions that are automatically and necessarily created as digital devices processes digital data, and which are destroyed almost immediately after they are created – such as the buffer copies in Cablevision's RS-DVR system – are not fixed copies.

ARGUMENT

I. RAM "Buffer" Copies Are Not Sufficiently Fixed To Constitute "Copies"

The District Court held that Cablevision's RS-DVR system infringes Plaintiffs' copyrights because that system, in order to function, automatically creates and stores transient "buffer" copies in RAM memory.[1] The District Court acknowledged that "*all* digital devices . . . utilize transient data buffers." *Twentieth Century Fox*, 478 F.Supp.2d at 613 (emphasis added). Nonetheless, the court held that the buffer copies automatically created by Cablevision's RS-DVR system[2] – which contain snippets of data that are

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[1] In general, data stored in RAM memory lasts only so long as the digital device in which it is stored retains power. *See* U.S. Copyright Office, *DMCA Section 104 Report*, at 107 (Aug. 2001), *available at* http://www.copyright.gov /reports/studies /dmca/ dmca_study.html ("DMCA Report") ("Unlike flash memory, read-only memory (ROM) 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."). In fact, most RAM reproductions, like Cablevision's RS-DVR "buffer" copies, live an even shorter life, inasmuch as digital data is constantly overwritten by new digital information as it is processed and transmitted. *See* David L. Hayes, *Advanced Copyright Issues On the Internet*, 7 Tex. Intel. Prop. L.J. 1,7 (1998) (describing "dynamic" RAM use); Alan Jay Smith, *Cache Memory,* in *Encyclopedia of Computer Science* 180, 181-184 (Anthony Ralston, *et al*., eds. 4th ed. 2000) (for buffering technology to work, information must be constantly overwritten as the next batch of data is processed).

[2] The buffering in the RS-DVR system "takes place automatically – before any customer requests anything." *Id*. If (and only if) a customer requests that a particular program be recorded is the information in the buffer copies

destroyed almost immediately after they are created (some of the RS-DVR buffer copies contain as little as three frames of video lasting less than one tenth of a second, *id.* at 614) – must be deemed "copies" within the meaning of the Copyright Act. *Id.* at 621-22.[3] In the District Court's view, all transient RAM reproductions – no matter how brief or fleeting – are sufficiently "fixed" to constitute "copies." *Id.*

As we explain below, nothing in the Copyright Act supports that sweeping holding. In fact, the text and legislative history of the Copyright Act demonstrate that transient "buffer" copies of the sort at issue in this case are precisely the kind of fleeting, transitory reproductions that Congress intended to *exclude* from the Act's scope. Moreover, to the extent there is any doubt about this question, the Copyright Act should be interpreted in light of the Act's basic purpose, which is to promote creative expression, and the "Progress of Science and useful Arts." U.S. Const. art. I, § 8, cl. 8. Interpreting the Act to impose potential copyright liability for the kind of

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copied to the "secondary ingest buffer," from which it can be transferred to permanent storage on a "hard drive," *see id.* at 615, and, subsequently, transmitted to a subscriber's television for viewing.

[3] The court held that these transient buffer reproductions independently infringe Plaintiffs' copyrights – *whether or not* they are subsequently transmitted to the "secondary ingest buffer" or retransmitted to a subscriber. *Id.* at 621 (holding that the buffer copies "constitute 'copies' within the scope of the copyright owner's right of reproduction").

transient RAM reproductions created by every digital device in use today would award copyright owners with a virtually boundless monopoly over digital works and would frustrate – not promote – that purpose.[4]

a. Under the Express Language of the Copyright Act, The Duration of a RAM Reproduction Is Indispensable For Determining If That Reproduction is a "Copy"

Section 106(1) of the Copyright Act gives the owner of copyright the "exclusive right . . . to reproduce the copyrighted work *in copies*." 17 U.S.C. § 106(1) (emphasis added). "Copies," in turn, are defined as "[m]aterial 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." 17 U.S.C. § 101 (emphasis added). Finally, a work is "fixed" when its "embodiment in a copy" is "sufficiently permanent or stable to permit it to be perceived, reproduced or otherwise communicated *for a period of more than transitory duration.*" *Id.* (emphasis added).

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[4] We address only this portion of the District Court's ruling because we believe that, if affirmed, it would have the broadest impact on, and would most seriously undermine, the basic purpose and policies of copyright law. We do not address, and express no opinion on, the court's additional holding that subsequent uses of the RS-DVR buffer copies (*i.e.,* transfer to the secondary buffer in response to subscribers' request for copies, and transmission to subscribers) also constitute infringement. *See Twentieth Century Fox*, 478 F.Supp.2d at 617-21, 622-24.

As these interlocking definitions make clear, to make out a *prima facie* case of copyright infringement under § 106(1), the copyright holder must show that a "copy" has been made. And to do that, the copyright holder must show that the work has been reproduced in a "material object" from which it can be "perceived, reproduced or otherwise communicated," *and* that the material object is "sufficiently permanent or stable" so that it can be perceived, reproduced or otherwise communicated "*for a period of more than transitory duration.*"[5] 17 U.S.C. § 101.

The District Court simply ignored this express statutory command, holding that because the transient buffer copies automatically created by the RS-DVR system "are used to make permanent copies of entire programs" elsewhere in the RS-DVR system, they are "[c]learly . . . capable of being reproduced," and that, therefore, they are "copies" within the meaning of the Copyright Act. *Twentieth Century Fox*, 478 F.Supp.2d at 621. The

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[5] *See* 2 Melville B. Nimmer & David Nimmer, *Nimmer on Copyright* § 8.02[2] (2006) ("In order to constitute an infringing copy or phonorecord, the embodiment of the plaintiff's work must be not only tangible (a 'material object'); it must also be of some permanence. These are two separable concepts, which are not necessarily wedded. Writing in sand is tangible in form even if the next wave will erase it forever. The image that appears on a television or theater screen is embodied in a material object, but is evanescent."); *see also* 3 William F. Patry, *Patry on Copyright* § 9:63 ("*Patry*") (2007) (same, and noting the "irony" that "the definition of 'fixed' has been used to render infringing acts that Congress wished to exclude from the ambit of the Act").

statutory requirement that the work must be *fixed* in order to constitute a "copy" under the Act – "*sufficiently permanent or stable*" to allow it to be reproduced "*for a period of more than transitory duration,*" § 101 (emphasis added) – is nowhere to be found in the court's analysis.

There may be no better example of a reproduction that is *not* sufficiently permanent or stable to allow it to be perceived for a period longer than a "period of . . . transitory duration" than the transient reproductions that digital systems – such as Cablevision's RS-DVR system – necessarily and automatically make in RAM buffers as they process and transfer digital data, and which are destroyed almost immediately after they are created. The House of Representatives Report accompanying the 1976 Act expressly noted that "questions raised about computer uses" underscored the "need for a clear definition of 'fixation'":

> [T]he 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.*

H.R. Rep. No. 94-1476, at 53 (1976), *reprinted in* 1976 U.S.C.C.A.N. 5659, 5666 (emphasis added). The import of this legislative history is clear: A fleeting reproduction of information (such as an image on a television screen) is not a "copy," even though it obviously can be "perceived,"

because that reproduction cannot be perceived for a period of more than transitory duration.

Like an image "shown electronically on a television," the transient RAM copies automatically created by the RS-DVR system as it processes digital data do *not* meet the fixation requirement that they be perceptible or reproducible for more than a transitory period; that they have been "captured momentarily in the memory of a computer" does not make them "fixed" copies. Indeed, in a world of digital devices and digital information-processing, the distinction between information "captured momentarily in the memory of a computer" and information "shown electronically on a television" effectively disappears, inasmuch as digital televisions, like all other digital devices, utilize temporary RAM buffer copies in order to create the images displayed on the screen. The District Court's holding would, therefore, stand the House Report on its head. Henceforth, *both* the information stored momentarily in your (digital) computer, *and* the information appearing on your (digital) television screen, will be deemed sufficiently permanent to fall within the ambit of the exclusive rights of copyright holders under the Copyright Act simply because both devices utilize RAM buffers.

For the District Court, temporal duration is of no consequence in determining whether a particular reproduction meets the fixation requirement; projecting an image on a screen, or holding a book up to a mirror, would satisfy the "fixation" requirement because it is possible to perceive that image or reflection as long as it lasts.[6] The court defended this conclusion – which flies in the face of the plain text and legislative history of the Copyright Act – by pointing to "numerous courts [that] have held that the transmission of information through a computer's random access memory or RAM, as is the case with the buffering here, creates a 'copy' for purposes of the Copyright Act." *Twentieth Century Fox*, 478 F.Supp.2d at 621 (citing *Stenograph L.L.C. v. Bossard Assos., Inc.*, 144 F.3d 96, 101 (D.C. Cir. 1998); *Triad Sys. Corp. v. Southeastern Express Co.*, 64 F.3d 1330, 1335 (9th Cir. 1995); *MAI Sys. Corp. v. Peak Computer, Inc.*, 991 F.2d 511, 519 (9th Cir. 1993); and *Marobie-FL, Inc. v. National Ass'n of*

[6] *See* Pamela Samuelson, *Legally Speaking: The NII Intellectual Property Report*, Communications of the ACM, at 21 (Dec. 1994) (by such logic, holding a mirror up to a book would constitute 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").

Fire Equip. Distrib., 983 F. Supp. 1167, 1177-78 (N.D. Ill. 1997)); *id.* (citing and discussing DMCA Report).[7]

It is worth noting that only one of the cases cited by the District Court – *Marobie-FL* – involved a copyrighted work that was held only momentarily in a RAM buffer in the manner of the RS-DVR RAM reproductions.[8] More importantly, however, to the extent these authorities

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[7] Significantly, the District Court did not mention *CoStar Group, Inc. v. LoopNet, Inc*. 373 F.3d 544 (4th Cir. 2004), in which the Fourth Circuit held that an Internet Service Provider does not create fixed copies when it provides an Internet hosting service to its subscribers, even though it necessarily makes temporary RAM copies in the process. As the court explained:

> 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 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 . . . *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*" . . . .

Id. at 550-51 (second emphasis added); *see also* Pamela Samuelson, *The U.S. Digital Agenda at WIPO*, 37 Va. J. Int'l L. 369, 382-92, 436-37 (1997) (noting that U.S. proposal on treating RAM reproductions as "copies" was withdrawn from WIPO Copyright Treaty because of absence of international consensus on the question).

[8] *See Marobie-FL,* 983 F. Supp. at 1178 (RAM file "immediately transmitted" from host computer to the Internet was a fixed copy). In each

can be read to make the duration of a RAM reproduction legally irrelevant to the question of whether that reproduction is sufficiently "fixed," thereby eliminating the express statutory requirement that an infringing "copy" must exist for a "period of more than transitory duration," they are plainly inconsistent with the text of the Copyright Act and should not be followed by this Court.[9]

The Copyright Office position relies on precisely that sort of statutory excision:

> 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

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of the other cases – including, notably, the Ninth Circuit's influential decision in *MAI* – the copyrighted work was held in RAM for a considerably more extended period of time. *See MAI Sys. Corp.,* 991 F.2d at 518 (where computer maintenance technician loaded plaintiff's copyrighted operating system software into RAM for a period sufficient to "view the system error log and diagnose the problem with the computer," RAM reproduction was a fixed copy); *Stenograph*, 144 F.3d at 101 (defendant "used [plaintiff's copyrighted software] for the principal purposes for which it was designed – *i.e.*, to convert stenographic notes into English text and produce transcripts for sale"); *Triad Sys. Corp.*, 64 F.3d at 1333-35 (computer maintenance firm loaded copyrighted operating system software into RAM in order to perform servicing of customer computers, and, in addition, copied the software "onto the hard drive" and made backup copies).

[9] *See Patry*, §§3:24, 9:63 (criticizing the "profound" error and "semantic sleight-of-hand" in the "bellweather" Ninth Circuit decision in *MAI*).

> 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.

DMCA Report, at 111 (emphasis added). In other words, in the Copyright Office's view, which the District Court expressly adopted, *any* reproduction that can be copied, perceived, or communicated – no matter what its duration – has been "fixed" for purposes of determining infringement.[10]

Amici respectfully submit that this reasoning simply cannot be squared with the clear and unambiguous statutory text. The Copyright Act's fixation requirement *is* concerned – *expressly* – with temporal duration. The copyright owner's exclusive right does *not*, as the Copyright Office would have it, "extend to *all* reproductions from which economic value can be derived," DMCA Report, at 111 (emphasis added), but only to those lasting

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[10] Several of the cases also make explicit their deletion of the duration requirement from the definition of "fixation." *See Marobie-FL*, 983 F. Supp. at 1178 ("The fact that a copy is transmitted *after* it is created, or even *as* it is created, does not change the fact that once an Internet user receives a copy, it is capable of being perceived and thus 'fixed'") (emphasis in original); *Triad Sys. Corp. v. Southeastern Express Co.,* 1994 WL 446049, at *5 (N.D. Cal. Mar. 18, 1994) ("[T]he copyright law is not so much concerned with temporal 'duration' of a copy as it is with what the copy does, and what it is capable of doing while it exists."; thus, duration of copy "is not probative of the fixation question"), *aff'd in part, rev'd in part*, 64 F.3d 1330 (9th Cir. 1995).

"for a period of more than transitory duration." To hold otherwise reads the "fixation" requirement – one of the cornerstones of the modern law of copyright[11] – entirely out of the statute.[12]

We recognize that, in certain cases, drawing meaningful temporal distinctions between the lengths of various RAM reproductions for purposes of implementing the "fixation" requirement could be a difficult task.[13] But the difficulty of drawing the line, as Judge Learned Hand wrote for this Court many years ago in a related context, "is no excuse for not drawing it." *Nichols v. Universal Pictures Corp.,* 45 F.2d 119, 122 (2d Cir. 1930).

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[11] The concept of "fixation" was expressly included in the Copyright Act for the first time in the 1976 statute, and it plays two crucial roles in the statutory scheme: It is both a condition to copyright protection under §102 (copyright protection "subsists . . . in original works of authorship fixed in any tangible medium of expression," 17 U.S.C. § 102) and, as discussed in this brief, it limits the scope of the copyright holder's exclusive right to reproduce under § 106(1).

[12] In addition, the "economic utility" standard for determining whether a reproduction has been "fixed" is no standard at all. *All* RAM buffer reproductions made by digital devices have *some* economic utility insofar as they are necessary in order for those devices to work at all. Thus, a test focusing exclusively on economic utility hardly draws a sensible line – indeed it draws no line at all – between those reproductions falling within, and those falling without, the scope of the copyright holder's exclusive rights.

[13] *See* DMCA Report, at 113 ("[A]ttempting to draw a line based on duration may be impossible. . . . 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.").

Copyright law, as Judge Hand often noted, is replete with difficult line-drawing problems. *See, e.g., id.,* at 121-22 (though the question whether the defendant took a "substantial" or "insubstantial" portion of plaintiff's work "is a question such as courts must answer in nearly all cases," "[n]obody has ever been able to fix that boundary, and nobody ever can"); *Peter Pan Fabrics, Inc. v. Martin Weiner Corp.,* 274 F.2d 487, 489 (2d Cir. 1960) ("The test for infringement of a copyright is of necessity vague. . . . Decisions must therefore inevitably be *ad hoc*.").

Thus, this Court should reject the District Court's legal conclusion that *every* transient RAM reproduction created by a digital device – no matter how brief – is a "copy" under the Copyright Act because that rule would eliminate the statutorily mandated inquiry into the duration of the reproduction in question.[14] Moreover, this Court need not define for all time

[14] We also note that affirmance of the District Court's holding could further confuse and unbalance the statute's complex allocation of rights between holders of copyrights in musical compositions and sound recordings. Copyright owners of sound recordings, unlike the owners of copyright in musical works, do not obtain a general exclusive right to publicly perform their works, though they do have the right to reproduce and distribute fixed copies (or phonorecords) of the work, as well as rights in certain digital public performances, 17 U.S.C. § 114. *See, e.g., Agee v. Paramount Commc'ns.,* 59 F.3d 317, 325-326 (2d Cir. 1995) (holding that "merely transmitting a sound recording to the public on the airwaves does not constitute a 'distribution'; otherwise, sound recording copyright owners would have the performance rights expressly denied to them under the statute"); *see also United States v. ASCAP*, ___ F.Supp.2d __, 2007 WL

and all circumstances the boundary between RAM reproductions that are sufficiently stable to be considered "fixed" and those that are not in order to hold, as it should, that the RS-DVR "buffer" copies – which are created as an automatic by-product of the processing of digital data, and are destroyed almost immediately after they are created – are on the unfixed side of the line.[15]

1346568, at *1 (S.D.N.Y. Apr. 25, 2007) (holding that digital downloads of music files do not constitute public performances of those works). A holding that *all* digital processing necessarily creates fixed copies has the potential to unbalance this complex allocation scheme, inasmuch as it might could be deemed to bring all digital processing of musical works within the ambit of the sound recording copyright owners' rights – including acts such as "streaming" that should implicate only the public performance right.

[15] *See, e.g., CoStar Group, Inc.*, 373 F.3d at 551 (holding that an ISP's RAM reproductions are not "fixed [for] more than transitory duration" when it provides Internet hosting services to its subscribers, based upon a "qualitative and quantitative" assessment of the reproduction); *see also Advanced Computer Servs. of Michigan, Inc. v. MAI Sys. Corp.*, 845 F. Supp. 356, 363 (E.D.Va. 1994) (limiting holding to RAM reproduction lasting "minutes, if not, longer," and recognizing, in dicta, that RAM reproduction lasting "seconds or fractions of a second" would be too ephemeral to be considered a fixed copy); Mark A. Lemley, *Dealing with Overlapping Copyrights On the Internet*, 22 U. Dayton L. Rev. 547, 552 n.26 (1997) (noting that *Advanced Computer* "suggests a middle ground, under which only copies that exist for several minutes fall within the scope of the Act.").

b. Treating All RAM Reproductions As "Copies" Would Undermine the Basic Policies and Purposes of the Copyright Act

To the extent the text and legislative history of the Copyright Act do not conclusively resolve the question of whether transient RAM reproductions should be considered "copies," this Court should resolve that question in a way that furthers the basic policies of the Copyright Act and the Constitutional mandate that copyright protection "promote the Progress of Science and useful Arts." U.S. Const. art. I, § 8, cl. 8. As the Supreme Court explained in *Sony Corp. of America v. Universal City Studios, Inc.*, 464 U.S. 417 (1984):

> In a case like this, in which Congress has not plainly marked our course, we must be circumspect in construing the scope of rights created by a legislative enactment which never contemplated such a calculus of interests:
>
> "The limited scope of the copyright holder's statutory monopoly, like the limited copyright duration required by the Constitution, reflects a balance of competing claims upon the public interest: Creative work is to be encouraged and rewarded, but private motivation must ultimately serve the cause of promoting broad public availability of literature, music, and the other arts. The immediate effect of our copyright law is to secure a fair return for an 'author's' creative labor. But the ultimate aim is, by this incentive, to stimulate artistic creativity for the general public good. 'The sole interest of the United States and the primary object in conferring the monopoly,' this Court has said, 'lie in the general benefits derived by the public from the labors of authors'. . . . *When technological change has rendered its*

> *literal terms ambiguous, the Copyright Act must be construed in light of this basic purpose*."

Id. at 431-32 (quoting *Twentieth Century Music Corp. v. Aiken*, 422 U.S. 151, 156 (1975) (citations omitted) (emphasis added).

The District Court's holding that all transitory RAM reproductions are fixed "copies" under Sections 101 and 106 of the Copyright Act flouts this interpretive principle. Far from furthering the basic policies of the Copyright Act in the face of new technologies, the District Court's holding would bring about a vast expansion of the rights of copyright owners over digital works that Congress could not possibly have intended, and that has no evident purpose or justification.

i. Copyright Liability Should Not Turn On An Arbitrary Distinction Between Analog and Digital Technology

As the District Court correctly observed, *all* digital devices necessarily and automatically create temporary buffer copies in order to function.[16] In fact, this buffering process is an inherent part of creating a

[16] *See Twentieth Century Fox*, 478 F.Supp.2d at 613; *see also* DMCA Report, at 10 ("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."); Nat'l Research Council, Comm. on Intellectual Prop. Rights and the Emerging Information Infrastructure, *The Digital Dilemma: Intellectual Property in the Information Age* ("Digital Dilemma") 28-31 (2000) ("When information is represented digitally, access inevitably means making a copy, even if only an ephemeral (temporary) copy. This

device capable of processing digital, as opposed to analog, information.[17] Strikingly, the District Court seemed to assume that this observation somehow supported its ultimate conclusion that all such transient RAM reproductions necessarily fall within the scope of the Copyright Act. To the contrary, that observation compels the opposite conclusion: The Copyright Act cannot meaningfully be interpreted in a way that would subject everyone who makes a transient RAM reproduction of copyrighted material – everyone, in other words, who uses a computer, a CD player, an iPod, a digital phone, a digital television, or any other digital information-processing device – subject to liability for infringement.

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copying action is deeply rooted in the way computers work."); *see generally,* Alan Jay Smith, *Cache Memory,* in *Encyclopedia of Computer Science*, *supra*, at 180-186.

[17] Put simply, in an analog device, incoming voltage pulses are processed as a continuous stream – a sine wave, say, with a particular amplitude and frequency. *See* Per A. Holst, *Analog Computer,* in *Encyclopedia of Computer Science*, *supra*, at 53-54. A digital device, on the other hand, takes the same incoming voltage stream, divides it up into thousands of separate pieces ("bits"), and assigns a numeric value (a "1" or "0") to each segment based on the incoming voltage. *See* Mark A. Franklin, *Analog-to-Digital and Digital-to-Analog Converters*, in *id.*, at 59- 65. Because the time to process the incoming stream can often exceed the internal working speed of the digital computer, the data is stored in a "buffer," *see* Robert W. Taylor, *Buffer*, in *id.,* at 160. This buffering process enables the digital device to enhance the accuracy of its reproduction of the information in the incoming stream, and also allows the device to combine later-arriving data with that which has already been received for further processing. *Id.*

Given the ubiquity of transitory RAM reproductions, treating all transient RAM reproductions as "copies" under the Copyright Act would subject to potential copyright liability innumerable day-to-day activities that have always been – and should continue to be, absent clear statutory direction to the contrary – without any copyright significance whatsoever. Consider the following:

- Alice turns on her television set, which displays copyrighted programming;
- Bob and Carol have a telephone conversation during which Bob reads an excerpt from a copyrighted poem, and during which copyrighted music, from a radio playing in the background, can be heard;
- Donald plays a copyrighted song for a friend over the loudspeakers in his office;
- Ellen reads an electronic mail message.

Under the District Court's ruling, the question of whether the copyright holder could make out a *prima facie* case of infringement of the § 106(1) reproduction right in each of these cases would depend *entirely* on whether the devices in question were engineered to process analog or digital signals. If the devices are analog, these actions are – as they always have been – without copyright significance since no "copies" have been made. But if the devices are digital, Alice, *et al.* now will need to have a defense

prepared for a possible infringement action simply because the various devices' RAM buffers have created fixed "copies."

To allow identical activities to fall on different sides of the infringement line based solely on the choice of technological platform is hardly a sensible accommodation of law to new and emerging technologies. The choice between analog and digital platforms should be made in the marketplace based upon efficiency, convenience, and other functional considerations. It should not be dictated by an arbitrary application of copyright law principles. The District Court's indiscriminate approach to RAM reproductions could not be further from the kind of "circumspect[ion] in construing the scope of rights created by a legislative enactment which never contemplated such a calculus of interests" that the Supreme Court spoke of in *Sony*. *Sony*, 464 U.S. at 431.

ii. The District Court's Holding Would Create Monopoly Rights Over The "Right to Read" And Access Digital Information

As explained, the District Court's ruling has the potential to vastly expand the universe of copyright infringement liability to countless parties who do nothing more than operate digital devices or systems for otherwise lawful purposes, and who necessarily and automatically make transient

buffer copies simply to make those devices or systems function.[18] A particularly glaring example of the boundless reach of the District Court's holding is that it would transform the act of Internet browsing – perhaps our most powerful tool for the transmission and dissemination of knowledge – into a landmine of potential copyright violations. Because it is impossible to browse or view a website on the Internet without the browsing computer necessarily and automatically making transitory buffer copies in RAM,[19] a holding that all RAM reproductions are "copies" within the meaning of the

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[18] *See Religious Technology Center v. Netcom On-Line Communications Servs., Inc.*, 907 F. Supp. 1361, 1372 (N.D. Cal. 1995) (rejecting imposition of direct liability on ISPs that simply provide access to the Internet on the ground that it would "not make sense to adopt a rule that could lead to the liability of countless parties whose role in the infringement is nothing more than setting up and operating a system that is necessary for the functioning of the Internet. . . . The court does not find workable a theory of infringement that would hold the entire Internet liable for activities that cannot reasonably be deterred.")

[19] *See Intellectual Reserve, Inc. v. Utah Lighthouse Ministry, Inc.*, 75 F.Supp.2d 1290, 1294 (D. Utah 1999) ("When a person browses a website, . . . a copy of [what is displayed] is made in the computer's random access memory (RAM), to permit viewing of the material. And in making a copy, even a temporary one, the person who browsed infringes the copyright."); Lemley, *supra*, at 555 (under rule that RAM reproductions are copies, "anyone who browses the Net and unintentionally runs across infringing material is making infringing copies"); Wendy J. Gordon, *Fine-Tuning* Tasini*: Privileges of Electronic Distribution & Reproduction*, 66 Brook. L. Rev. 473, 500 n.65 (2000) ("[I]f appearance in RAM form would be considered a 'reproduction,' even private actions by individual consumers at their home computers would trigger a copyright owner's *prima facie* right.").

Copyright Act would subject these transitory RAM reproductions to copyright regulation as well – again, despite the fact that they are a necessary incident of browsing the Internet with a digital-processing device. Thus, the fundamental "right to read" – a right that has never been part of the copyright holder's bundle of rights – would, in the digital age, be brought for the first time within the copyright monopoly.[20]

Thus, the District Court's ruling would bring about a radical and unwarranted expansion of the rights of copyright owners over digital works – one that has the potential fundamentally to restrict the public's access to, and use of, digital information.[21] We are not aware of – and indeed cannot

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[20] *See Netcom,* 907 F. Supp. at 1378 n.25 ("The temporary copying involved in browsing is only necessary because humans cannot otherwise perceive digital information. It is the functional equivalent of reading, which does not implicate the copyright laws and may be done by anyone in a library without the permission of the copyright owner."); Jessica Litman, *The Exclusive Right To Read*, 13 Cardozo Arts & Ent. L.J. 29, 31-32 (1994) (RAM copy doctrine "would enhance the exclusive rights in the copyright bundle so far as to give the copyright owner the exclusive right to control reading, viewing or listening to any work in digitized form").

[21] *See* R. Anthony Reese, *The Public Display Right: The Copyright Act's Neglected Solution to the Controversy Over RAM "Copies*," 2001 U. Ill. L. Rev. 83, 142-43 (2001) (given prevalence of digital information, effects of treating RAM reproductions as copies "are dramatic and may represent a sizable shift in control over access to information."); Hayes, *supra*, at 63 ("[T]he fact that browsing, an activity akin to reading in traditional media, potentially constitutes literal infringement of so many copyright rights represents a significant shift in the balance between the rights" of copyright owners and purchasers and users).

even imagine – an argument that Congress intended to impose this kind of potential copyright liability on all users of digital information-processing devices.

iii. This Vast Expansion of Copyright Protection Cannot Be Justified Based On The Possibility of Fact-Specific Defenses

We recognize that users of digital devices will, in many cases, be able to overcome a *prima facie* showing of a "reproduc[tion] in copies" by arguing that their RAM reproductions are protected as "fair use," 17 U.S.C. § 107, or that they have an "implied license" to make such reproductions. *See* DMCA Report, at 121-22 ("Determining that a reproduction in RAM implicates the reproduction right does not mean that there is liability every time a RAM copy is made."). The existence of these defenses, however, does not mitigate the absurdity of subjecting a limitless number of innocuous activities to possible infringement liability, nor can it justify placing the burden upon users to demonstrate why their conduct is not infringing.

The "fair use" doctrine, for example, is notoriously fact-specific, making it virtually impossible to predict *ex ante* how a court in any particular case would apply the four statutory factors in deciding whether or not to immunize particular RAM reproductions from liability. A doctrine requiring a nuanced and multi-factor balancing test is hardly a sensible one

to rely upon to determine the lawfulness of events taking place automatically, millions or hundreds of millions of times each day.[22]

Likewise, the defense that most RAM reproductions are "impliedly licensed" by the copyright holder is a weak reed on which to build the legal foundation for the entire digital information-processing industry. To begin with, the implied license doctrine shares many of the uncertainties applicable to the fair use defense, and requires a similarly complex analysis of the facts surrounding any particular transaction in order to determine whether a license to reproduce can reasonably be implied from the circumstances. More troublingly, that doctrine will provide no shelter where the copyright owner expressly revokes the consent – perhaps by placing a prominent notice on its website stating that "no transient RAM reproductions are permitted."[23] Given these serious shortcoming, the possibility that

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[22] *See, e.g.,* DMCA Report, at 141 (relying on fair use to protect buffering "lacks the certainty of a specific exception" and thus "may be too uncertain a basis for making rational business decisions"); Jessica Litman, *Reforming Information Law in Copyright's Image*, 22 U. Dayton L. Rev. 587 (1997) (uncertainty over fair use defense will cause users to shy away from any conduct that is arguably unfair use); Matthew Sag, *God In The Machine: A New Structural Analysis of Copyright's Fair Use Doctrine*, 11 Mich. Telecomm. & Tech. L. Rev. 381, 408 (2005) (relying on fair use to make up for errors in determining whether there is actionable copying in the first place will "distort and confuse fair use analysis").

[23] A more familiar example illustrates the problem. As every baseball fan is aware, broadcasts of major league baseball games contain a disclaimer, read

individual users of digital devices *might* overcome a claim of copyright infringement based on the "implied license" doctrine cannot serve as the basis for subjecting such activities to copyright regulation in the first place.[24]

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during each broadcast, warning viewers that the broadcast "may not be reproduced or retransmitted in any form," and that the "accounts or descriptions of this game may not be disseminated without express written consent." Under the District Court's approach, viewers must obtain an express written license from Major League Baseball to watch any game broadcast on television – at least if they are using digital TVs, which make RAM reproductions in order to project the broadcast to the screen.

[24] *See* Lemley, *supra*, at 567 (implied license doctrine "work[s] well precisely in the situations . . . in which the copyright owner really does not object to the copying, and so has no inclination to sue"); *See* Joseph P. Liu, *Owning Digital Copies: Copyright Law and the Incidents of Copy Ownership*, 42 Wm. & Mary L. Rev. 1245, 1268 n.87 (2001) (implied license defense "provide[s] no theoretically satisfying answer to the question posed" by RAM copies because "[t]he potential existence of licensing does not help answer the underlying question of whether the copyright owner properly possesses a right that requires licensing").

CONCLUSION

In sum, *amici* respectfully urge this Court to reject the lower court's sweeping conclusion that all RAM reproductions – regardless of their duration – are "copies" within the meaning of the Copyright Act. Instead, this Court should hold that transient RAM reproductions – such as the buffer copies that are automatically and necessarily created in Cablevision's RS-DVR system as it processes digital data, and which are destroyed almost immediately after they are created – are not sufficiently fixed to be deemed copies.[25]

[25] We also believe that the District Court erred in holding that the evanescent snippets of digital data automatically created by the RS-DVR system are not protected by the *de minimis* doctrine. *See Twentieth Century Fox*, 478 F.Supp.2d at 621. For essentially the same reasons that such reproductions are not "copies" – *i.e.,* they are ubiquitous; they are produced as a necessary and automatic consequence of ordinary people using digital devices in daily life; they last for an extremely brief period; and they have no independent economic significance – we agree with Cablevision's position, Brief For Cablevision at 45-49, that such reproductions are, at most, a trivial violation that the law refuses to regulate under the *de minimis* doctrine. *See Ringgold v. Black Entm't Television, Inc.*, 126 F.3d 70, 74 (2d Cir. 1997) (*de minimis* doctrine "insulates from liability those who cause insignificant violations of the rights of others.") 2 Paul Goldstein, *Goldstein on Copyright* § 7.02, at 7:9 (3d ed. 2006) ("Ephemeral digital copies made and erased automatically in the course of a copyrighted work's transmission through a computer communications network presumably also qualify as 'technical' and 'trivial' violations that are '*de minimis*.'")

June 8, 2007

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