THE PUBLIC PERFORMANCE RIGHT IN THE DIGITAL AGE: *CARTOON NETWORK LP V. CSC HOLDINGS*

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Technological innovations test the boundaries and enforceability of copyright protection. New digital technologies are expanding the well-established content-providers' market for broadcast media and creating opportunities for additional revenue for distributor-provided on-demand services. The latest battle between content providers and distributors involves the introduction of centrally housed Digital Video Recorder (DVR) technology. Cablevision Systems Corporation's (Cablevision) proposed remote storage DVR (RS-DVR) would allow customers to record broadcast programming at central servers maintained by Cablevision, rather than on in-home DVR boxes which operate much like a standard video cassette recorder (VCR).[1] RS-DVR customers would access their stored programming at the central facility through a cable box equipped with the RS-DVR software.[2]

Plaintiffs, owners of copyrights in various movies and television programs, brought suit for declaratory judgment that Cablevision's RS-DVR would infringe their copyrights and for an injunction barring the implementation of the RS-DVR system.[3] The plaintiffs alleged direct infringement of their reproduction and public performance rights.[4] The parties expressly declined to raise issues of fair use or contributory infringement,[5]

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1. Cartoon Network LP v. CSC Holdings, Inc., 536 F.3d 121, 123-24 (2d Cir. 2008).

2. *Id.*

3. *See* Twentieth Century Fox Film Corp. v. Cablevision Sys. Corp., 478 F. Supp. 2d 607, 609 (S.D.N.Y. 2007), *rev'd*, *Cartoon Network*, 536 F.3d 121.

4. *Id.* at 617. The plaintiffs alleged infringement of their rights "to reproduce the copyrighted work in copies" and "to perform the copyrighted work in public," as codified in 17 U.S.C. § 106(1), (4) (2006).

5. *Id.* at 616 (stating that plaintiffs agreed by stipulation that they were asserting "only claims of direct copyright infringement, and defendants agreed that they would not assert a 'fair use' defense"). For more on the "fair use" defense, see 17 U.S.C. § 107 (2006).

which would entail proving that the end-users were the copyright infringers.[6] It appears that the plaintiffs' decision to only pursue a direct infringement claim was influenced by desires to avoid the Sony Betamax precedent and prevent the type of backlash experienced by the music industry for targeting end-users.[7]

The plaintiffs filed a complaint in the Southern District of New York in May of 2006.[8] On cross-motions for summary judgment, the trial court found in favor of the plaintiffs.[9] On August 4, 2008, the Second Circuit reversed and held Cablevision's proposed RS-DVR would not directly infringe the copyrights in broadcast programs.[10] Content providers filed for certiorari in October of 2008.[11] In January of 2009, the Supreme Court invited the Solicitor General to file a brief in this case.[12]

While it is uncertain whether the Supreme Court will grant certiorari in this case, the issues raised in *Cartoon Network LP v. CSC Holdings* (*Cartoon Network*) warrant review. The case highlights the challenges of policing copyright's traditional protections in an era of ever-more sophisticated digital technologies. Part I of this Note explains the technical features of the proposed RS-DVR system, the business model of the content industry, the relevant legal principles and judicial precedent regarding the Copyright Act. Part II outlines the district court's opinion and the Second Cir-

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6. *See* Sony Corp. of Am. v. Universal City Studios, Inc., 464 U.S. 417, 435 (1984) ("[C]ontributory infringement is merely a species of the broader problem of identifying the circumstances in which it is just to hold one individual accountable for the actions of another.").

7. *See id* at 442-56 (1984) (holding no contributory liability for manufacturer of VCR that was capable of "substantial non-infringing uses" and allowed consumers to "time-shift" programming, which constituted fair use of copyrighted television programming); *see generally* Peter S. Menell & David Nimmer, *Unwinding Sony*, 95 CALIF. L. REV. 941 (2007) (arguing that the same result could have been achieved by reliance on traditional tort principles, which would have resulted in a more sound jurisprudential framework for new technologies).

The music industry's attempts to curtail internet peer-to-peer sharing of copyrighted music by initiating suits against private individuals has led to public backlash. John Schwartz, *In Chasing Movie Pirates, Hollywood Treads Lightly*, N.Y. TIMES, Dec. 25, 2003, at C1. *See* Metro-Goldwyn-Mayer Studios Inc. v. Grokster, Ltd., 545 U.S. 913, 963 (2005) (referring to the "thousands of suits" filed by the recording industry against private individuals).

8. *Twentieth Century Fox*, 478 F. Supp. 2d at 616.

9. *Id.* at 609.

10. Cartoon Network LP v. CSC Holdings, Inc., 536 F.3d 121, 123 (2d Cir. 2008).

11. Petition for a Writ of Certiorari, Cable News Network, Inc. v. CSC Holdings, Inc., No. 08-448, 2008 WL 4484597 (U.S. Oct. 6, 2008).

12. Cable News Network, Inc. v. CSC Holdings, Inc., No. 08-448, 2009 WL 56992 (U.S. Jan. 12, 2009).

cuit's reversal. It reflects on the treatment of three key issues addressed in Section I.C: fixation, volition in regards to automated systems, and public performance. Part III focuses on the public performance right, the least well-settled of the three issues. The Part explores how the Second Circuit's public performance analysis allows Cablevision to skirt copyright liability by designing a duplicative and inefficient process. In order to avoid sending a transmission "to the public," Cablevision's system makes multiple copies, each of which can only be decrypted by *one* cable-box. Part III also identifies the source of the disjunctive logic in the Copyright Act's ambiguous definition of the word "public." It discusses two possible resolutions, one judicial and the other legislative, while warning against possible pitfalls.

I. BACKGROUND

RS-DVR technology provides the customer with the same experience as a set-top DVR box. Section I.A distinguishes the technology and operations of the proposed RS-DVR system from the standard DVR service already offered. Section I.B explores the content providers' business model in order to highlight the particular threat RS-DVR poses to their revenue stream. Section I.C discusses the three key legal issues in *Cartoon Network*: whether buffer copies are sufficiently fixed to constitute a valid copy, whether the automated buffering process qualifies as a volitional act by Cablevision or its customers, and whether the playback of individualized copies to customers' homes constitutes a public transmission.

A. Digital Video Recorder Technology

ReplayTV and TiVo introduced set-top DVR technology in 1999 at the Consumer Electronics Show in Las Vegas.[13] DVRs enable customers to record programming from an on-screen program guide, to view one channel while recording another, to watch recorded programming at a later time of their choosing, and to use special features ("trick modes") such as fast-forward, to control playback.[14] Unlike a VCR, which captures pro-

13. *See ReplayTV Wins CES 1999 'Best of Show' Award; Honor Establishes Replay Networks, Inc. as Leader in Personal Television*, BUSINESS WIRE, Jan. 6, 1999; *TiVo to Unveil 1999's Hottest Consumer Electronics Breakthrough at CES with First Public Demo of Personal Television*, BUSINESS WIRE, Jan 7, 1999.

14. *Twentieth Century Fox*, 478 F. Supp. 2d at 612. One such "trick mode," the Automatic Commercial Advance feature, resulted in legal action against ReplayTV, *see* Paramount Pictures Corp. v. ReplayTV, 298 F. Supp. 2d 921 (C.D. Cal. 2004); Press Release, ReplayTV, ReplayTV Introduces New 5500 Series with Four New Powerful Fea-

gramming from television signals and stores this data on removable magnetic tape, DVRs digitally store the captured content as data on a hard-drive.[15]

Cablevision's proposed RS-DVR offers customers the same abilities as a set-top DVR, without the need for a box in the home to store content.[16] Instead, content is remotely stored on servers at Cablevision's central facility.[17] Cablevision customers access their stored programming remotely through a standard cable box equipped with the RS-DVR software. The RS-DVR can be likened to Video-on-Demand (VOD) service, in that the subscriber uses the remote and cable equipment to request transmission of content held at the cable company's facility. The difference between RS-DVR and VOD is that RS-DVR users can only play what they have previously recorded, whereas VOD customers have access to all programs the cable company licenses specifically for VOD use.[18]

With the RS-DVR, Cablevision splits the incoming data stream containing all programming into two.[19] One stream is routed immediately from content providers to customers subscribing to that channel.[20] This stream is available for customers to view shows at the regularly scheduled time.[21] It also allows customers to record requested programming on set-top DVRs. The RS-DVR recordings are made from the second data stream.[22] This stream flows into a Broadband Media Router which buffers data while reformatting it for storage on high-capacity hard disks at Cablevision's central facility.[23]

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tures (June 10, 2003) (addressing concerns of content owners by removing the Automatic Commercial Advance feature from the 5500 series of DVR).

15. *Twentieth Century Fox*, 478 F. Supp. 2d at 611.

16. Cablevision currently offers set-top DVR service for their cable customers for an additional monthly fee. Cablevision's DVR service, "Interactive Optimum", offers recording space for 100 hours of standard definition television for an additional $9.95 a month. Optimum, Interactive Optimum, http://www.optimum.com/io/dvr/index.jsp (last visited Nov. 13, 2008).

17. *Twentieth Century Fox*, 478 F. Supp. at 612.

18. It is noteworthy that content providers have not brought suit for Video-on-Demand services, which involve similar technology, because they are already receiving additional licensing fees. This highlights the reality that the purpose of the Cablevision litigation is to prevent "value skimming" by cable companies of this new stream of revenue.

19. *Twentieth Century Fox*, 478 F. Supp. 2d at 613.

20. *Id.*

21. *Id.*

22. *Id.*

23. *Id.*

The RS-DVR system involves a series of buffers before a requested program is placed on a customer's allotted remote hard drive storage space. The first buffer, referred to as the primary ingest buffer, automatically inquires as to whether any customers have requested a particular program.[24] The primary ingest buffer holds no more than a tenth of a second of each channel's programming at any moment, which amounts to approximately three frames of video.[25] Thus, the primary ingest buffer is constantly erasing and replacing three frames of programming from each channel carried by Cablevision automatically.[26] If a customer has chosen to record a particular program, the RS-DVR system will transfer content data for that program from the primary ingest buffer to a secondary ingest buffer before being placed on the customer's hard drive storage space.[27] An individual copy of the program is made for each request, and all copies are "uniquely associated by identifiers with the set-top box of the requesting customer."[28] Thus, the recording can only be retrieved through the requesting customer's cable box, preventing other customers from gaining access to the recorded programming.[29]

Although RS-DVR technology is more complex, the customer perceives no difference between an RS-DVR and a standard DVR unit when recording or playing-back requested content. To request recording on either system, customers use the remote control to (1) navigate an on-screen program guide to schedule future programming, or (2) record programming as it is being aired.[30] To watch a recorded program, the RS-DVR customer uses the remote control and the cable box to communicate with Cablevision's playback management server.[31] Once the customer chooses a recorded program to playback, a command is sent to the customer's allocated hard-drive space where the recorded program is read into the "streaming buffer" memory.[32] The stream containing the recorded program is then "transmitted to every home in the node where the requesting customer is located, but only the requesting set-top box is provided the

24. *Id.* at 614. Cablevision's RS-DVR "buffer" copies are equivalent to Random Access Memory (RAM) reproductions that are constantly overwritten by new data as it is processed and transmitted. *Id.* at 613; *see* David L. Hayes, *Advanced Copyright Issues on the Internet*, 7 TEX. INTELL. PROP. L.J. 1, 6-7 (1998).

25. *Twentieth Century Fox*, 478 F. Supp. 2d at 614.

26. *See id.*

27. *Id.* at 615.

28. *Id.*

29. *Id.* at 612.

30. *Id.* at 612, 614.

31. *Id.* at 615-16.

32. *Id.*

key for decrypting the stream for viewing."[33] During playback, the RS-DVR customer can use the same trick modes as set-top DVRs: pause, fast-forward, and rewind.[34]

There are some notable differences between DVR and RS-DVR systems. Unlike some set-top DVRs, the RS-DVR customer's data is limited in mobility. The RS-DVR system does not allow the recorded program to be copied onto an attached external disk drive or VCR.[35] A benefit to the set-top DVR is the local storage of recorded content. With the RS-DVR, a customer might not be able to watch their recorded programming at their desired time if there are too many customers requesting recorded content in the same node.[36] If Cablevision's system is in excess of capacity, it will send out an error message to customers.[37] Time-shifting is a central feature of any DVR service, a benefit that is lost if capacity restrictions prevent playback on-demand.

B. Effects on the Business Model of the Content Industry

The Copyright Act of 1976 aided the growth and development of cable television. The 1976 revision bill came after an impasse in 1967 over the question of copyright liability for cable companies.[38] By addressing the copyright issues attendant to the rapid growth of cable systems and developing a compulsory licensing model, Congress allowed cable television to grow without the chilling effects of uncertain copyright liability. Congress recognized the undue burden of requiring each cable system to negotiate with every copyright owner, and thus chose to create a compulsory licensing scheme.[39] In doing so, Congress was careful to avoid creating a scheme that did not comport with the rules and regulations already enforced by the FCC.[40]

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33. *Id.* "Nodes" are "smaller cable systems connecting a group of homes." *Id.* at 611.

34. *Id.* at 612, 616.

35. *Id.* at 615. If content was downloaded to a portable media player, it would implicate issues of "space-shifting," the ability to enjoy content in any desired location, in addition to "time-shifting." For a discussion of "space-shifting," see generally Adi Schnaps, *Do Consumers Have the Right to Space-Shift, as They do Time-Shift, Their Television Content? Intellectual Property Rights in the Face of New Technology*, 17 SETON HALL J. SPORTS & ENT. L. 51 (2007).

36. *Twentieth Century Fox*, 478 F. Supp. 2d at 616.

37. *Id.*

38. H.R. REP. NO. 94-1476, at 89 (1976).

39. *Id.*

40. *See id.*(noting that the amendments were not intended to affect "communications policy," such as "pay cable regulation or increased use of imported distant signals," and

At the time of enactment, Congress understood cable television systems as "commercial subscription services that pick up broadcasts of programs originated by others and retransmit them to paying subscribers."[41] The legislative history identified cable companies as "commercial enterprises whose basic retransmission operations are based on the carriage of copyrighted program material and that copyright royalties should be paid . . . to the creators of such programs."[42]

Today, however, cable television is no longer limited to homes that are beyond the reach of broadcast signals; it is found in over 58% of homes with a television set.[43] Data shows hard-drive based DVRs are gaining great popularity and DVR customers are choosing not to watch regularly scheduled programming.[44] When watching recorded shows, DVR users fast-forward or skip through commercials at a much higher rate than VCR users.[45] If this phenomenon is considered in the aggregate, it could abolish the "special market value of primetime."[46]

The ability to time-shift and use trick modes to skip commercials shakes the foundation on which television was built.[47] Content owners

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only imposed a compulsory copyright license on the signals that the FCC authorized cable systems to carry).

41. H.R. REP. NO. 94-1476, at 88.

42. H.R. REP. NO. 94-1476, at 89. The House Report recognized that cable television systems were increasingly becoming involved in content, charging additional fees for "pay-cable." H.R. REP. NO. 94-1476, at 88. Today, much of the most popular copyrighted television content is produced by cable networks. *See* Gary Levin, *Cable Shows Prove Able*, USA TODAY, Sept. 22, 2008, at 1D (noting the rise of awards received by television programs produced by cable networks); Lisa de Moraes, *Basic Ingredients: Cable Shows Join Emmy Elite*, WASH. POST, Sept. 21, 2008, at M3.

43. Introduced in the 1940s as community antenna television (CATV), cable television in the United States began as "a way of bringing broadcast signals to remote areas where they would not reach directly." Shyarmkrishna Balganesh, *The Social Costs of Property Rights in Broadcast (and Cable) Signals*, 22 BERKELEY TECH L.J. 1303, 1333 (2007) (stating that the National Cable & Telecommunications Association estimates national cable penetration levels at 58.9% as of September 2006).

44. At the end of 2007, approximately 65 million households subscribed to cable and 11 million of these subscribers used a DVR. National Cable & Telecommunications Association, 2008 Industry Overview, at 4-5, *available at* http://i.ncta.com/ncta_com/PDFs/NCTA_Annual_Report_05.16.08.pdf. *See* Matthew W. Bower, *Replaying the Betamax Case for the New Digital VCRs: Introducing Tivo to Fair Use*, 20 CARDOZO ARTS & ENT. L.J. 417, 424 (2002); *see also* Bagley & Brown, *supra* note 48, at 625 (noting TiVo has more than three million subscribers).

45. Bower, *supra* note 44, at 424.

46. Bower, *supra* note 44, at 424 (quoting Michael Lewis, *Boom Box*, N.Y. TIMES, Aug. 13, 2000, § 6 (Magazine), at 36).

47. When television technology was nascent, the network system was not "commercial" in the way we understand it today. The National Broadcasting Company (NBC) was

have shown great concern that the commercial skip and fast-forwarding features available in some of the new DVR technology could negatively affect advertising revenues.[48] However, the DVR could actually become a beneficial tool for advertisers. DVRs are part of a network which records and stores users' viewing habits. As discussed by Matthew Bower, this information could be used to provide a very complete and detailed profile of each individual user, giving advertisers the "Holy Grail" of market research.[49] Although viewers can use DVRs to skip commercials they do not like, they might willingly watch commercials perfectly tailored to their wants and needs.[50] Perhaps the development of alternative products and future income to supplant decreasing advertising revenue will prove fears about commercial skipping technology to be unfounded.[51]

Cablevision's proposed RS-DVR raises content owners' concerns that cable providers alone are capturing the value created by on-demand programming. Whatever revenue content owners sought to recapture through licensing agreements for VOD content, cable companies usurp through proliferation of DVR technology by foregoing any additional licensing agreements for those services. Advances in digital technology make RS-DVRs user-friendly and cost-effective for many cable subscribers. With increased memory capacity, RS-DVR users could potentially create a library of recorded programming which they could access on-demand.

At the heart of the litigation against Cablevision are the implications of RS-DVR on several important copyright issues. Since DVR technology undoubtedly involves digital data streams, the *Cartoon Network* decision may also have wider implications for digital content on other media channels (e.g., the Internet). The following section addresses the three central issues of fixation, volition, and public performance.

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started to encourage sales of equipment sold by its parent company, the Radio Corporation of America (RCA). Advertising was not included until the Columbia Broadcasting System (CBS), which was not in RCA's business of manufacturing and selling equipment, developed the current model: selling audiences to advertisers. *See* Steven S. Lubliner, Note, *I Can't Believe I Taped the Whole Thing: The Case Against VCRs That Zap Commercials*, 43 HASTINGS L.J. 473, 480 (1992).

48. It is noteworthy that Sonic Blue's ReplayTV 4000 generated controversy over its commercial-skip and digital-video redistribution capabilities, with 27 companies filing suit. *See* Andrew W. Bagley & Justin S. Brown, *The Broadcast Flag: Compatible with Copyright Law & Incompatible with Digital Media Consumers*, 47 IDEA 607, 632 (2007) ("One point of contention in today's DVR debate centers on consumers' new-found ability to bypass commercials during the playback of digital recordings.").

49. *Id.* at 425 (quoting Michael Lewis, *Boom Box*, N.Y. TIMES, Aug. 13, 2000, § 6 (Magazine), at 36).

50. *Id.*

51. *See* Lubliner, *supra* note 47, at 480.

C. Copyright Issues: Fixation, Volition, and Public Performance

The underlying purpose of the Copyright Act is to promote progress in the arts by granting exclusive rights to new works.[52] Section 106 of the Copyright Act grants copyright holders five exclusive rights: reproduction, adaptation, public distribution, public performance, and public display.[53] The statute assigns liability to those who infringe any of the copyright owners' exclusive rights.

Cablevision's RS-DVR technology raises three copyright questions: (i) Are the temporary copies in the buffers adequately "fixed" to constitute a violation of the copyright owner's exclusive right of reproduction? (ii) If volition is a requirement for liability, does the automated process of buffering qualify as a volitional act? (iii) Does the transmission of individualized copies to customers' homes constitute a transmission "to the public" in violation of the public performance right?

1. Fixation

A copyrighted work can be infringed by "reproducing it in whole or in any substantial part, and by duplicating it exactly or by imitation or simulation."[54] A reproduction must be sufficiently fixed to be considered a copy under the Copyright Act.[55] The fixation requirement was first expressly included in the Copyright Act of 1976, and defined as an "embodiment in a copy . . . sufficiently permanent or stable to permit it to be perceived, reproduced, or otherwise communicated for a period of more than transitory duration."[56] Congress intended to "exclude from the concept [of fixation] 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."[57]

In the digital era, it is difficult to define exactly what constitutes a sufficiently fixed copy. Digital devices must copy information into transient

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52. U.S. CONST. art. I, § 8, cl. 8.

53. 17. U.S.C. § 106 (2006). These five enumerated rights are referred to as the exclusive "bundle of rights" which comprises a copyright. The owner of a copyright can perform or authorize the activities in the bundle. *See* H.R. REP. NO. 94-1476, at 61 (1976).

54. H.R. REP. NO. 94-1476, at 61; *see also* 17 U.S.C. § 501(a) (2006) (stating that "[a]nyone who violates any of the exclusive rights of the copyright owner as provided in sections 106 through 122 . . . is an infringer").

55. 17 U.S.C. § 101 (2006).

56. 17 U.S.C. § 101.

57. H.R. REP. NO. 94-1476, at 53.

buffers in random access memory (RAM) in order to process that information.[58] If those buffer copies are considered sufficiently fixed, many digital devices could be found to be infringing copyrights.

The central fixation case for modern computer technology is *MAI Systems v. Peak Computer Inc.*, which has been widely followed although it has been criticized for its deviation from Congressional understanding of "fixation."[59] In *MAI*, a third-party computer repair service appealed an injunction preventing it from repairing computer systems when turning on the computer required copying copyrighted system software.[60] The Ninth Circuit found that loading MAI's copyrighted program to repair a customer's computer created a "copy" in the computer's RAM which amounted to a violation of copyright.[61]

In contrast, the leading treatise on copyright would have had the *MAI* court hold differently:

> In order to constitute an infringing copy . . . 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.[62]

If transient reproductions, such as those created in RAM buffers, were considered to be sufficiently "fixed" to constitute "copies," it would radically expand copyright protection. Digital works would be subject to purposeless protection, which might chill technological innovation.[63]

In 2004, the Fourth Circuit in *CoStar Group, Inc. v. LoopNet, Inc.* held that an Internet service provider (ISP) did not create fixed copies even though temporary RAM copies were made in its service.[64] CoStar owned

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58. Brief of Amici Curiae Law Professors in Support of Defendants-Counterclaimants-Appellants and Reversal at 1, Cartoon Network LP v. CSC Holdings, Inc., 536 F.3d 121 (2d Cir. 2008) (NO. 07-1480).

59. MAI Sys. Corp. v. Peak Computer, Inc., 991 F.2d 511, 513-14 (9th Cir. 1993); Jessica Litman, *The Exclusive Right to Read*, 13 CARDOZO ARTS & ENT. L.J. 29, 40 (1994) (arguing that reading a work into computer RAM is too transitory to satisfy the definition of copy in the Copyright Act).

60. *MAI*, 991 F.2d at 513-14.

61. *Id.* at 518-19.

62. 2 MELVILLE B. NIMMER & DAVID NIMMER, NIMMER ON COPYRIGHT § 8.02[B][2] (2008).

63. *See* Brief of Amici Curiae Law Professors, *supra* note 58, at 2.

64. 373 F.3d 544, 550-51 (4th Cir. 2004).

copyrights to numerous photographs of commercial real estate, which customers agree not to post on their own or third-party websites.[65] LoopNet is a web hosting service that allows customers to post listings of commercial real estate on the Internet.[66] LoopNet customers must agree to "Terms and Conditions" which prohibit posting copyrighted photos without authorization.[67] In the process of uploading photos, the image file is transferred to RAM in one of LoopNet's computers for a cursory review by an employee.[68] The court stated that "[e]ven if the information and data are 'downloaded' onto the owner's RAM . . . as part of the transmission function, that downloading is a temporary, automatic response to the user's request . . . [which] would appear not to be 'fixed' in the sense that they are 'of more than transitory duration.'"[69]

For over a decade, courts and academics have debated the issue of whether fixations in RAM for ordinary computer uses are legally cognizable copies under copyright law.[70] Although lower federal courts that have considered the issue have found fixation in RAM, there is no consensus among the circuits, and the Supreme Court has yet to address the issue.[71] Due to the unsettled nature of the fixation issue, it is not clear if the copies made in Cablevision's transient primary ingest buffer constitute sufficiently "fixed" copies violating the content owners' exclusive right to reproduction. The lower court in the case answered in the affirmative, but the Second Circuit disagreed.

2. Volition

Copyright infringement is a strict liability tort that "does not require intent or any particular state of mind."[72] Only a party who violates the

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65. *Id.* at 546.
66. *Id.* at 546-47.
67. *Id.* at 547.
68. *Id.*
69. *Id.* at 551.
70. *Compare* MAI Sys. Corp. v. Peak Computer Inc., 991 F.2d 511, 518-19 (9th Cir. 1993) (holding RAM copies fixed), *and* Twentieth Century Fox Film Corp. v. Cablevision Sys. Corp., 487 F. Supp. 2d 607, 621-22 (S.D.N.Y. 2007) (holding RAM copies fixed), *and* Advanced Computer Servs., Inc. v. MAI Sys. Corp., 845 F. Supp. 356, 362-64 (E.D.Va. 1994) (holding RAM copies fixed), *with* Litman, *supra* note 59. *See also* Matt Jackson, *From Broadcast to Webcast: Copyright Law and Streaming Media*, 11 TEX. INTELL. PROP. L.J. 447 (2003).
71. *See generally MAI Sys. Corp.*, 991 F.2d at 511; *Twentieth Century Fox*, 487 F. Supp. 2d at 607; *Advanced Computer Servs., Inc.*, 845 F. Supp. at 356.
72. Religious Tech. Ctr. v. Netcom On-line Commc'n Servs., Inc., 907 F. Supp. 1361, 1367 (N.D. Cal. 1995).

copyright holder's exclusive rights can be a direct infringer.[73] In determining liability, courts often consider who possessed requisite volition to cause the infringing act. "Providing consumers the means by which they implement their choice[]" to copy or publicly perform unauthorized copyrighted material cannot constitute grounds for direct liability.[74]

Religious Technology Center v. Netcom On-Line Communication Services, Inc. was one of the first cases dealing with digital networks.[75] The ISP Netcom faced a direct infringement suit for hosting a customer's copyright-infringing material on their bulletin board service (BBS).[76] The court recognized that Netcom did not create or control the content available to its subscribers or monitor posted messages.[77] Netcom's activities were categorized as passive: "Where the BBS merely stores and passes along all messages sent by its subscribers and others, the BBS should not be seen as causing these works to be publicly distributed or displayed."[78] The court held that some element of volition or causation is necessary for a finding of direct infringement.[79] The requisite volition was found "lacking where a defendant's system is merely used to create a copy by a third party."[80] The court distinguished *MAI* on the grounds that Netcom's systems operate without any human intervention, thus they could not find that Netcom "caused" the temporary copying of data.[81]

The Fourth Circuit in *CoStar* also dealt with a suit against an ISP.[82] CoStar brought suit against LoopNet for infringement of CoStar's exclusive rights, regardless of whether LoopNet was acting actively or passively.[83] The court endorsed the *Netcom* decision and required volition:

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73. *See* Sony Corp. of Am. v. Universal City Studios, Inc., 464 U.S. 417, 433 (1984); *see also* Hoehling v. Universal City Studios, Inc., 618 F.2d 972 (2d Cir. 1980) (holding that a historical hypothesis was not protectable, and thus defendant was not a direct infringer).

74. Brief of Amici Curiae Center for Democracy & Technology et. al. at 9, Cartoon Network LP v. CSC Holdings, Inc., 536 F.3d 121 (2d Cir. 2008) (NO. 07-1480); *see also Sony Corp. of Am.*, 464 U.S. at 434-35.

75. *See Religious Tech. Ctr.*, 907 F. Supp. at 1365.

76. *Id.* at 1365, 1367.

77. *Id.* at 1368.

78. *Id.* at 1372.

79. *Id.* at 1370.

80. *Id.*

81. *Id.* at 1368-69.

82. The facts of this case are discussed in the "fixation" section. *See supra* Section II.C.3.

83. CoStar Group, Inc. v. LoopNet, Inc., 373 F.3d 544, 546-47 (4th Cir. 2004).

> [T]o establish direct liability . . . something more must be shown than mere ownership of a machine used by others to make illegal copies. There must be actual *infringing conduct* with a nexus sufficiently close and causal to the illegal copying that one could conclude that the *machine owner himself trespassed* on the exclusive domain of the copyright owner. . . . [A service provider] who owns an electronic facility that responds automatically to users' input is not a direct infringer.[84]

The *CoStar* court interestingly alluded to *Sony*[85] for the proposition that manufacturers of machines capable of copying are not strictly liable for infringement, even though they possess "constructive knowledge that purchasers of its machine may be using them to engage in copyright infringement."[86]

Cablevision's proposed RS-DVR involves technology designed to "automatically and uniformly" create temporary copies of all data sent through it as in *Netcom*.[87] The primary ingest buffer temporarily holds three frames of every channel sent to cable customers without the need for any human volition. Under the *Netcom* and *CoStar* precedent, Cablevision could be considered an indirect infringer who provides nothing more than a service which may have infringing uses.

3. Public Performance

The difficulty with public performance analysis is the lack of clarity in the Copyright Act as to how to determine when a performance is public.[88] Although the 1976 Act defines what constitutes a performance, the definition of a public place "has been left obfuscated by statute, legislative history, and case law."[89]

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84. *Id.* at 550 (emphasis added).

85. Sony Corp. of Am. v. Universal City Studios, Inc., 464 U.S. 417 (1984). *See also* text accompanying *supra* note 7.

86. *CoStar Group, Inc.*, 373 F.3d at 549. *See also* Metro-Goldwyn-Mayer Studios Inc. v. Grokster, Ltd., 545 U.S. 913, 960 (2005) (Breyer, J., concurring) ("[T]he producer of a technology which *permits* unlawful copying does not himself *engage* in unlawful copying.") (emphasis in original); *Sony Corp of Am.*, 464 U.S. at 439-442 ("[T]he sale of copying equipment, like the sale of other articles of commerce, does not constitute contributory infringement if the product is widely used for legitimate, unobjectionable purposes. Indeed, it need merely be capable of substantial noninfringing uses.").

87. *See* Religious Tech. Ctr. v. Netcom On-line Commc'n Servs., Inc., 907 F. Supp. 1361, 1369 (N.D. Cal. 1995).

88. *See generally* John Kheit, *Public Performance Copyrights: A Guide to Public Place Analysis*. 26 RUTGERS COMP. & TECH. L.J. 1, 11-57 (1999).

89. *Id.* at 18.

During the 1976 revision, the definition of "perform" was modified to delete the term "represent" which appeared in earlier drafts. This specific deletion excluded from the definition of "performance" the reproduction of copies within computer systems.[90] A "performance" has a communicative element that must be met to establish an infringing act: the "mere act of input into a computer or other retrieval system would not appear to be a performance, nor would other internal operations of a computer, such as the scanning of a work to determine whether it contains material the user is seeking."[91]

The growth of cable television systems raised questions about the impact on content providers' exclusive right of public performance.[92] Two cases involving suits by copyright holders to assert their exclusionary rights against cable operators served as the direct impetus for the 1976 revision:[93] *Fortnightly Corp. v. United Artists Television, Inc.*[94] and *Teleprompter Corp. v. Columbia Broadcasting System, Inc.*[95]

In *Fortnightly*, owners of copyrights in motion pictures brought suit for violation of the exclusive right to public performance against Fornightly, the owner of community antenna television (CATV) systems.[96] Fortnightly's CATV system retransmitted signals from five television stations that had obtained licenses for certain copyrighted movies.[97] However, Fortnightly itself had not entered into any licensing deals with the copyright owners and some of the licenses obtained by the stations expressly prohibited carriage of the broadcasts by CATV systems.[98] The Supreme Court rejected the Second Circuit's "quantitative contribution" standard, which considered the central question to be how much the petitioner did to bring about the viewing and hearing of a copyrighted work.[99] Rather, the Court saw the television experience as resulting from the joint activities of

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90. *See* REGISTER OF COPYRIGHTS, 89TH CONG., SUPPLEMENTARY REPORT ON THE GENERAL REVISION OF THE U.S. COPYRIGHT LAW: 1965 REVISION BILL, at 22 (House Comm. Print 1965); *see also* NIMMER & NIMMER, *supra* note 62, § 8.14[B][1], n. 29 (noting that Congress removed "represent" to clarify that imperceptible "internal operations of a computer" were not performances).

91. NIMMER & NIMMER, *supra* note 62, §8.14[B]; *see also* 2 RAYMOND T. NIMMER, LAW OF COMPUTER TECHNOLOGY §15:54 (2008).

92. *See* 17 U.S.C. §111(f) (statutory definition of "cable system"); *see also* H.R. REP. NO. 94-1476 at 99 (1976).

93. Balganesh, *supra* note 43, at 1337-40.

94. 392 U.S. 390 (1968).

95. 415 U.S. 394 (1974).

96. *Fortnightly Corp.*, 392 U.S. at 391-92, 395.

97. *Id.* at 393.

98. *Id.*

99. *Id.* at 396-97.

two groups, drawing a distinction between the broadcasters who actively perform and the passive viewers who are passive beneficiaries.[100] Likening Fortnightly to passive viewers, the Court held that defendant was not liable under the 1909 Copyright Act because CATV systems simply carry unedited programming chosen by the broadcasters.[101] CATV systems were not found to "perform" the retransmission of content, but only to do "no more than enhance[] the viewer's capacity to receive the broadcaster's signals."[102]

Six years later in *Teleprompter*, the Court again found for the defendant cable operator, holding that retransmission of distant signals did not violate content provider's copyright.[103] In this case, copyright holders of television programs brought suit against CATV systems for intercepting broadcast transmissions and retransmitting them. The Supreme Court held that importation of distant signals from one community to another did not constitute a performance under the 1909 Act.[104]

In response to the decisions in *Fortnightly* and *Teleprompter*, Congress gave copyright holders rights against cable operators in the 1976 Act. The Act's legislative history expressly addresses cable television: "[A] cable television system is performing when it retransmits the broadcast to its subscribers."[105] However, the legislative history recognizes that there is no actionable infringement unless this performance is to the public.[106] The 1976 revision defines public performance of a work as:

> (1) to perform or display it at a place open to the public or at any place where a substantial number of persons outside of a normal circle of a family and its social acquaintances is gathered; or
>
> (2) to transmit or otherwise communicate a performance or display of the work to a place specified by clause (1) or to the public, by means of any device or process, whether the members of the public capable of receiving the performance or display receive it in the same place or in separate places and at the same time or at different times.[107]

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100. *Id.* at 397-99.
101. *Id*. at 395-402.
102. *Id.* at 399-401.
103. Teleprompter Corp. v. Columbia Broad. Sys., Inc., 415 U.S. 394, 408-09 (1974).
104. *Id.* at 411-13.
105. H.R. REP. NO. 94-1476, at 63 (1976).
106. *Id.*
107. 17 U.S.C. § 101 (2006).

The legislative history reflects Congressional intent to "cover not only the initial rendition or showing, but also any further act by which that rendition or showing is transmitted or communicated to the public."[108]

Two cases illustrate the conflicting views of what constitutes a performance in the context of television. In *National Football League v. PrimeTime 24 Joint Venture*, the professional football league brought suit against a satellite carrier making unauthorized retransmissions of NFL broadcasts to their customers in Canada.[109] The satellite carrier only had statutory licenses to retransmit to customers in the United States who did not have adequate over-the-air broadcast reception.[110] PrimeTime claimed to be free from liability because U.S. copyright laws could not reach any "public" performance in Canada.[111] The Second Circuit disagreed. The court held that "a public performance or display includes each step in the process by which a protected work wends its way to the audience."[112] Therefore, PrimeTime was liable in the United States for the uplinked transmission of signals.[113]

The Ninth Circuit held the opposite in *Allarcom Pay Television, Ltd. v. General Instrument Corp.*[114] Allarcom, the exclusive provider of English-language subscription television in Western Canada, brought suit against the manufacturer of a satellite signal descrambler that allowed customers in Allarcom's service area to receive American signals.[115] The court in *Allarcom* held that copyright infringement did not occur until the signal is received by the viewing public.[116] Without a Supreme Court decision on the matter, there is no definitive resolution to the circuit split.

In addition to ambiguities about what constitutes a "performance," there is no clear definition of what constitutes a performance "to the pub-

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108. H.R. REP. NO. 94-1476, at 63.

109. 211 F.3d 10, 11 (2d Cir. 2000).

110. *Id.*

111. *Id.*

112. *Id.* at 13 (internal quotations omitted) (quoting David v. Showtime/The Movie Channel, Inc., 697 F. Supp. 752, 759 (S.D.N.Y. 1988)); *see also* Sara K. Stadler, *Performance Values*, 83 NOTRE DAME L. REV. 697, 700 (2008) (claiming that "the reach of the performance right has become so broad that it now gives copyright owners the ability to charge for access to their works . . . at each step of the process") (internal quotations omitted).

113. *Nat'l Football League*, 211 F.3d at 13.

114. 69 F.3d 381, 387 (9th Cir. 1995); *see* 1 HOWARD B. ABRAMS, LAW OF COPYRIGHT § 5:196 (2008) (stating that *Allarcom* expresses the minority view); *infra* Section III.A for a discussion of who constitutes the "public."

115. *Allarcom*, 69 F.3d at 383-84.

116. *Id.*

lic." The statutory definition of public performance lacks a physical description of a public place, instead depending on amorphous conditions which results in inconsistent interpretation by the courts. Comparing *Columbia Pictures Industries v. Redd Horne, Inc.*,[117] *Columbia Pictures Industries v. Aveco, Inc.*,[118] and *Columbia Pictures Industries v. Professional Real Estate Investors, Inc.*,[119] public place analysis appears to be more related to the court's value judgments than statutory interpretation.[120]

The Third Circuit in *Redd Horne* found that small rental booths in video stores, seating up to four, were "open to the public" for purposes of public performance analysis.[121] Customers rented the private booths for a fee but defendant's employees operated the VCRs in the front of the store. The court determined that for purposes of public place analysis, the relevant location was not the private booth but rather the entire establishment.[122]

The Third Circuit in *Aveco* found more public performances under the *Redd Horne* reasoning, this time in a video store where customers controlled the VCRs in the private rented rooms.[123] The court stated, "[the Copyright Act] does not require that the public place be actually crowded with people. A telephone booth, a taxi cab, and even a pay toilet are commonly regarded as 'open to the public,' even though they are usually occupied only by one party at a time."[124]

In contrast, *PREI* involved a hotel which rented video laser discs to hotel patrons for use with disc players located in the guest rooms.[125] Copyright owners relied on *Redd Horne* for the proposition that the relevant "place" was the entire hotel which is held "open to the public."[126] The Ninth Circuit distinguished *Redd Horne* on the ground that the nature of a hotel is the provision of living accommodations, and individuals in rented guest rooms "enjoy a substantial degree of privacy, not unlike their own homes."[127] The differing results in *PREI* and *Redd Horne* can be attributed to how the courts determine the scope of the public place and the value judgments of how much privacy one is due in certain locations.

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117. 749 F.2d 154 (3d Cir. 1984).
118. 800 F.2d 59 (3d Cir. 1986).
119. 866 F.2d 278 (9th Cir. 1989) [hereinafter *PREI*].
120. *See* Kheit, *supra* note 88, at 20-23.
121. *Redd Horne*, 749 F.2d at 157-59.
122. *Id.* at 158-59.
123. *Aveco*, 800 F.2d at 63-64.
124. *Id.* at 63.
125. *PREI*, 866 F.2d at 279.
126. *Id.* at 280-81.
127. *Id.* at 281.

The amount of flexibility in judicial interpretation of the statutory public performance right could be seen as contrary to the legal values of fairness and predictability. Part III further discusses the issues raised by the ambiguities in public performance analysis, suggesting possible judicial and legislative remedies. In order to better understand the infirmities discussed in Part III, Part II examines the lower court and Second Circuit decisions in the *Cablevision* litigation.

II. *CARTOON NETWORK LP V. CSC HOLDINGS*

Cablevision operates primarily in the New York City metropolitan area, providing customers with a variety of copyrighted programs pursuant to negotiated and statutory licenses or affiliation agreements.[128] Cablevision, like most cable companies, offers customers set-top DVR service and VOD service.[129] In March of 2006, Cablevision announced its intention to launch a RS-DVR system for its cable customers.[130] Content owners challenged the legality of the proposed service and defendants agreed not to launch the RS-DVR service pending resolution of the suit.[131]

A. Southern District of New York

Owners of copyrighted programs brought suit in the Southern District of New York for declaratory judgment that Cablevision's RS-DVR would violate copyrights and an injunction preventing them from launching the service without proper licensing.[132] On cross-motions for summary judgment, the court granted plaintiffs' motion.[133] Plaintiffs agreed to only try the direct infringement claim, and defendants agreed to not assert fair use.[134] In declaring its holding, the court evaluated two central claims raised by the plaintiffs: (1) the making of unauthorized copies, and (2) the making of unauthorized transmissions.[135]

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128. Twentieth Century Fox Film Corp. v. Cablevision Sys. Corp., 478 F. Supp. 2d 607, 610 (S.D.N.Y. 2007).

129. Cablevision receives programming for VOD pursuant to licenses negotiated with program owners. VOD content is delivered on extra channel frequencies for each customer so they can communicate with the company to control playback. *Id.* at 611.

130. *Id.* at 609.

131. *Id.* at 616.

132. *Id.* at 609.

133. *Id.*

134. *Id.* at 616.

135. *Id.* at 617.

1. Fixation

Cablevision argued that the temporary buffering was not sufficiently fixed to constitute a "copy" under the Copyright Act.[136] The district court disagreed. Noting that buffer memory was capable of being copied into the hard drive, the court found that buffer memory met the statutory requirement of fixation by being sufficiently stable to allow for reproduction.[137] Thus, the court found the buffer copies, temporary copies in RAM, sufficiently fixed to constitute a "copy."[138] In holding Cablevision liable, the court declared that "[t]he aggregate effect of the buffering that takes place in the operation of the RS-DVR can hardly be called de minimis."[139]

2. Volition

The court found that "Cablevision, and not just its customers, would be engaging in unauthorized reproductions and transmissions of plaintiffs' copyrighted programs under the RS-DVR."[140] In enjoining Cablevision's RS-DVR system, the court relied on the "ongoing relationship between Cablevision and its customers," Cablevision's ownership and maintenance of the RS-DVR equipment, and the monthly fees received by Cablevision as indicators of direct infringement.[141]

Cablevision argued that the pertinent question was not whether copies were made, but rather *who* made the copies.[142] The judge agreed with the plaintiffs' characterization of RS-DVR as a service which "requires the continuing and active involvement of Cablevision."[143] By providing the service, the court found Cablevision had the requisite volition to be held directly liable.[144] The court distinguished *Sony* by the fact that the customer did not own the equipment and using the service required a continuing relationship with Cablevision.[145] The court found "little in common" be-

136. *Id*. at 621.

137. *Id.*; *see also* 17 U.S.C. §101 (2006) (defining "copies" as works "fixed" such that "the work can be perceived, *reproduced*, or otherwise communicated").

138. *Twentieth Century Fox*, 478 F. Supp. 2d at 621-22 (discussing MAI Sys. Corp v. Peak Computer, Inc., 991 F.2d 511, 519 (9th Cir. 1993) and its progeny, as well as U.S. COPYRIGHT OFFICE, DMCA SECTION 104 REPORT, at xxii, 110-11 (2001)).

139. *Twentieth Century Fox*, 478 F. Supp. 2d at 621.

140. *Id.* at 609.

141. *Id.*

142. *Id.* at 617.

143. *Id.* at 618.

144. *Id.*

145. *Id.* at 618-19.

tween a VCR and a RS-DVR apart from their time-shifting capabilities.[146] Instead, the court analogized Cablevision to copy centers which were directly liable for assembling copyrighted material into "coursepacks" at the behest of professors:

> Cablevision would have a similarly active role. Cablevision, through its RS-DVR, would not merely house copying machinery on its premises for customers to engage in copying. Rather, Cablevision would be "doing" the copying, notwithstanding that the copying would be done at the customer's behest, and Cablevision would provide the content being copied.[147]

The court also rejected Cablevision's reliance on cases brought against ISPs. Cablevision's "unfettered discretion in selecting programming" made available for recording was antithetical to the characterization of an ISP as a "passive conduit."[148]

3. Public Performance

The issue of public performance was also resolved in favor of the plaintiffs. The court held Cablevision would violate plaintiffs' public performance right by transmitting the recorded content from its central servers to the customer.[149] The court found that Cablevision's "operation of an array of computer servers at the head-end . . . actually make the retrieval and streaming . . . possible."[150]

The court rejected Cablevision's argument that any performance would be private and exclusively viewed by the customer at home.[151] Instead, the court relied on the transmit clause of section 101 of the Copyright Act to find that Cablevision transmitted the same program to "members of the public" who received the transmission at different times.[152]

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146. *Id*. at 618.

147. *Id*. at 620 (citing Basic Books, Inc. v. Kinko's Graphics Corp., 758 F. Supp. 1522 (S.D.N.Y. 1991), and Princeton Univ. Press v. Michigan Document Servs., Inc., 99 F.3d 1381 (6th Cir. 1996)).

148. *Id.*

149. *Id.* at 622-24.

150. *Id.* at 622.

151. *Id.* at 622-23.

152. 17 U.S.C. § 101 (2006) states:

> To perform or display a work "publicly" means . . . to transmit or otherwise communicate a performance or display of the work . . . to the public, by means of any device or process, whether the members of the public capable of receiving the performance or display receive it in the same place or in separate places and at the same time or at different times.

This interpretation, in addition to the commercial relationship between Cablevision and its customers, convinced the court that the transmission was one made "to the public."[153]

The court relied on *On Command Video Corp. v. Columbia Pictures Industries*,[154] for the proposition that a commercial relationship was determinative in finding a public performance.[155] In *On Command*, plaintiffs sought a declaratory judgment that their computer-controlled electronic delivery system of movies in hotels did not infringe the content provider's copyrights.[156] The centrally located bank of video cassette players (VCPs) acted as a switch and was connected by wires to televisions in every hotel room.[157] The televisions were equipped with a special microchip and allowed hotel guests to use a remote control to navigate an on-screen menu of available movies.[158] Each VCP contained a particular copyrighted work which would only be available to one guest at a time.[159] During the showing, the guest could not use any trick modes available on the VCP itself (i.e. rewind, fast-forward, or pause).[160] The court held that no public performances occurred under the public place clause of section 101 because hotel rooms were not public places, although it stated "[t]he non-public nature of the place of performance has no bearing . . . under the transmission clause."[161] Finding the lack of control over transmissions immaterial, the court held that the right to public performance was violated "because the relationship between the transmitter of the performance, On Command, and the audience, hotel guests, is a commercial, 'public' one regardless of where the viewing takes place."[162]

However, the legislative history addresses the performing rights and the "for profit" limitation.[163] Unlike the performing rights provisions in the 1909 Act which provided an outright exemption for "nonprofit" organizations, the legislative history to the 1976 Act expressly states that it "is not limited by any 'for profit' requirement."[164] The history noted blurring of the line between commercial and "nonprofit" organizations, due to the

153. *See Twentieth Century Fox*, 478 F. Supp. 2d at 623.
154. 777 F. Supp. 787 (N.D. Cal. 1991).
155. *Twentieth Century Fox*, 478 F. Supp. 2d at 623.
156. *On Command*, 777 F. Supp. at 788.
157. *Id.*
158. *Id.*.
159. *Id.*
160. *Id.*
161. *Id.* at 789-90.
162. *Id.*
163. H.R. REP. NO. 94-1476 at 62 (1976).
164. *Id.*

fact that many "nonprofit" organizations are highly subsidized and capable of paying royalties.

The district court therefore found for content providers on all three copyright issues: fixation, volition, and public performance. The court found the RS-DVR's temporary buffer memory was sufficiently fixed to meet the statutory requirement of "copy." Cablevision had sufficient volition to be directly liable, as evinced through the ongoing relationship between Cablevision and its customers, ownership and maintenance of RS-DVR equipment at Cablevision's head-end, and the monthly fees received by Cablevision. For the public performance right, the court relied on the transmit clause to find Cablevision transmitted the same program to members of the public who could view it at different times.

B. Second Circuit

Cablevision appealed the district court's grant of summary judgment to the Second Circuit, which reversed.[165] Cablevision made three arguments: (1) the brief storage during the buffering process did not qualify as a "copy" under the Copyright Act and thus did not infringe respondent's exclusive right of reproduction; (2) Cablevision did not directly infringe plaintiffs' reproduction right when the copy was played back because Cablevision did not do the copying; and (3) Cablevision did not directly infringe respondent's exclusive right of public performance by transmitting the data from the hard disks to customers.[166] The Second Circuit addressed each in turn.

1. Fixation

The Second Circuit overturned the district court's finding of infringement as to the buffer copies on the basis of fixation. The Second Circuit interpreted "copies" to have two necessary features: (1) the work must be embodied in a medium, and (2) must remain thus embodied "for a period of more than transitory duration."[167] The district court's determination that the work was "fixed" as a copy when buffered was primarily a result of limiting the analysis to the first feature.[168]

The Second Circuit disavowed *MAI*[169] and its progeny for failure to address the second requirement of fixation.[170] According to the Second

165. Cartoon Network LP v. CSC Holdings, Inc., 536 F.3d 121, 123 (2d Cir. 2008).
166. *Id.* at 125.
167. *Id.* at 127 (quoting 17 U.S.C. § 101 (2006)).
168. *Id.*
169. MAI Sys. Corp v. Peak Computer, Inc., 991 F.2d 511 (9th Cir. 1993).
170. *Cartoon Network*, 536 F.3d at 127.

Circuit, *MAI* holds that loading a program into a computer's RAM *can* result in copying but it does not necessarily always result in a copy.[171] The court similarly disregarded the Copyright Office's *DMCA Report*, which states that an embodiment is fixed "[u]nless a reproduction manifests itself so fleetingly that it cannot be copied, perceived, or communicated."[172]

Although the recording was admittedly embodied in the buffer, the Second Circuit found that the embodied works were not "fixed" as required to qualify as a "copy" under the Copyright Act because it failed to meet the duration requirement.[173] The court focused on the fact that Cablevision's buffers do not hold data for more than "a fleeting 1.2 seconds" before it is automatically overwritten.[174] The court held that any other interpretation would read the "transitory duration" language out of the Copyright statute, which would not logically explain why Congress included such language.[175]

2. Volition

The key question for the second challenge involving the hard drive copies was *who* made the copy.[176] The Second Circuit rejected the notion that it was Cablevision that made the copy, because it was the end-user's "volitional conduct that causes the copy to be made."[177] The only volitional conduct attributed to Cablevision was in "designing, housing, and maintaining a system that exists only to produce a copy."[178] The court analogized the Cablevision customer to the VCR user who supplies the necessary volition when pushing the record button.[179] The Second Circuit did not find "an RS-DVR customer [to be] sufficiently distinguishable from a VCR user to impose liability as a direct infringer on a different party for copies that are made automatically upon that customer's command."[180]

Similarly, the court distinguished Cablevision from copy shops assembling coursepacks.[181] A command directly issued to a system which automatically obeys was found not to be analogous to the volitional conduct of

171. *Id.* at 128.
172. *Id.* at 129 (quoting U.S. COPYRIGHT OFFICE, DMCA SECTION 104 REPORT 111 (2001)).
173. *Id.* at 129-30.
174. *Id.* at 130.
175. *Id.* at 128-29.
176. *Id.* at 130.
177. *Id.* at 131-33.
178. *Id.* at 131.
179. *Id.*
180. *Id.*
181. *Id.*

copying by a human employee.[182] Cablevision's discretion in selecting the available programming was not deemed "sufficiently proximate" to displace the customer's volition in making the copies for liability under the Copyright Act.[183] The discretion was limited to the channels made available and not the actual programming carried by the channels or the scheduling of the programming.[184] The court referenced section 271 of the Patent Act,[185] stating that if Congress had intended to assign direct liability not only to parties that commit the infringing act, but to those that actively induce it, they had the tools to do so.[186] As the Supreme Court in *Sony* held, the lack of such language in the Copyright Act indicated that the doctrine of indirect infringement, not direct infringement, would control in these situations.[187]

3. Public Performance

Cablevision raised two arguments to counter the allegation of unauthorized public performance: (1) the customer requests the RS-DVR playback, thus it is his volition that causes the transmission and resulting performance; and (2) the transmission is not one made "to the public" under the transmit clause.[188] The Second Circuit agreed with Cablevision's second argument and held that the RS-DVR playback did not infringe the public performance right.[189]

The court did not address whether Cablevision was the volitional actor in the first proffered argument because the transmission did not constitute a public performance under the transmit clause. However, the court did note that the RS-DVR playback was a transmission of a performance copied by the customer, but this fact did not "dictate a parallel conclusion that the customer, and not Cablevision, 'performs' the copyrighted work."[190] Instead, the court found it relevant to consider who is "capable of receiving" the transmitted performance when making a determination

182. *Id.* at 131-32.
183. *Id.* at 132.
184. *Id.*
185. 35 U.S.C. § 271(a)-(c) (2006).
186. *Cartoon Network*, 536 F.3d at 133.
187. Sony Corp. of Am. v. Universal City Studios, Inc., 464 U.S. 417 (1984). *But see generally* Menell & Nimmer, *supra* note 7 (arguing that the same result could have been achieved by reliance on traditional tort principles, which would have resulted in a more sound jurisprudential framework for new technologies).
188. *Cartoon Network*, 536 F.3d at 134.
189. *Id.* at 135-39.
190. *Id.* at 134.

of whether it was made "to the public."[191] Since each RS-DVR transmission is made using a single copy of a work, made by a single subscriber, exclusively through that subscriber's cable box, the court found only that one subscriber could receive any given RS-DVR transmission.[192] According to the Second Circuit, the error of the lower court was considering the potential audience of the underlying work, not the single copy of that work, in determining the individuals who might compose the viewing public.[193]

The Second Circuit's decision does not definitively resolve the public performance issue. Part III further explores the flaws in the court's analysis and offers some possible solutions.

III. PUBLIC PERFORMANCE ANALYSIS

As technology changes, "so have the ways in which people experience copyrighted works."[194] With the 1976 revision of the Copyright Act, Congress intended to "preserve the traditional privilege of the owner of a copy to display it directly, but to place reasonable restrictions on the ability to display it indirectly in such a way that the copyright owner's market for reproduction and distribution of the copies would not be affected."[195] The plaintiffs in *Cartoon Network* contend that the court's interpretation of the 1976 Act does not adequately protect their exclusive rights of reproduction and distribution. Digital technology allows consumers to make a perfect digital copy while decreasing the difficulty and cost related to mass infringement at exact or near exact quality as the original.[196] The fear for content providers is that these infringing copies will supplant the market for their authorized content and cut them out of the value created by new technologies:

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191. *Id.* (quoting 17 U.S.C. § 101 (2006)).

192. *Id.* at 135.

193. *Id.* at 135-36.

194. Stadler, *supra* note 112, at 700.

195. H.R. REP. NO. 94-1476, at 80 (1976).

196. Schnaps, *supra* note 35, at 54-55; *see also* Bagley & Brown, *supra* note 48, at 615-17 ("Hollywood has come to fear the possibility of end-users utilizing digital video recorders . . . to produce carbon copies of over-the-air content . . . . The digital dilemma of carbon copies proliferating online threatens next-generation home movie sales, broadcast network ratings, and television content availability."). Congress had mandated that the transition from analog to digital television be completed by Feb. 17, 2009. However, the House recently voted to delay the digital transition. Brian Stelter, *House Votes to Delay Switch to Digital TV*, N.Y. TIMES, Feb. 4, 2009 (TV Decoder Blog), http://tvdecoder.blogs.nytimes.com/2009/02/04/house-votes-to-delay-switch-to-digital-tv/.

> Content owners claim the right to control (and charge for) this new application of their material. Consumers claim that it is their right to change the way in which they consume the content they have already purchased. In the end, the resolution of these competing claims will depend on balance, control, and money.[197]

It is questionable if content owners can reach a balance through the workings of the free market. Despite consumer desire for greater freedom in receiving content, "the major copyright owners do not seem to be competing among themselves to offer less restrictive terms."[198]

Cable companies are in the middle of the distribution stream between content providers and consumers. With the popularity of third-party DVR services, the only reason for cable companies to stay out of the DVR market is the fear of possible copyright liability. Under the liability scheme of the 1976 Act, a system like the RS-DVR would be liable for great sums of money if found to be infringing the content owners' copyrights. The Copyright Act provides for either actual damages and profits, or statutory damages.[199] Under the statutory scheme, there could be a penalty of up to $30,000 per infringing work or $150,000 per willful infringement.[200] In addition, the court could allow recovery of full costs and reasonable attorney's fees.[201] In the face of large penalties, companies might pursue further licenses simply to avoid possible liability. This would raise operating costs, which would likely be passed on to consumers. The greater threat is the possible chilling of innovation for new time and space-shifting technologies in the face of uncertain liability.[202]

Analysis of the public performance right in the *Cartoon Network* context centers on the ambiguity of the word "public." The judiciary or legislature can act to provide predictability in an area of copyright law with conflicting precedents. This Part discusses the pros and cons of two op-

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197. Schnaps, *supra* note 35, at 55.

198. Julie E. Cohen, *Copyright and the Perfect Curve*, 53 VAND. L. REV. 1799, 1811 (2000) (referring to the Recording Industry Association of America's aggressive litigation strategy and the Secure Digital Music Initiative which it hopes will supply perfect metering capability for digital music files).

199. 17 U.S.C. § 504 (2006).

200. 17 U.S.C. § 504(c) (2006). In the 1976 Act, the maximum penalties were $10,000 and $50,000 respectively. The Berne Convention Implementation Act of 1988 increased those maximums to $20,000 and $100,000. The Digital Theft Deterrence and Copyright Damages Improvement Act of 1999 set the current maximum amounts.

201. 17 U.S.C. § 505 (2006).

202. Jonah M. Knobler, *Performance Anxiety: The Internet and Copyright's Vanishing Performance/Distribution Distinction*, 25 CARDOZO ARTS & ENT. L.J. 531, 577 (2007).

tions to resolve the ambiguity in the 1976 Act. The judiciary could provide a definitive interpretation of the scope of the word "public," through use of essential factors such as privacy, control, and nature of the location. Alternatively, the legislature could support the use of Digital Rights Management by content owners to limit the transmission and dissemination of copyrighted content to the public. The discussion of possible solutions begins with a study of the current ambiguities in understanding who constitutes the "public."

A. Identifying the Ambiguity: The Meaning of "Public"

The legislative report for the Copyright Act of 1976 states that cable operators "perform" when transmitting a broadcast to subscribers.[203] The definitions of the words "perform," "publicly," and "transmit" make "any reception and retransmission of a copyrighted work a performance."[204] Thus, the analysis of the public performance right for Cablevision turns on the question: What makes a transmission one *to the public*? A public performance merely requires that such performance be open or available to a substantial number of people, it is not necessary that they in fact attend or receive the performance:

> [I]f a transmission is only available to one person, then it clearly fails to qualify as 'public.' For it neither directly reaches 'a substantial number of persons' nor is it transmitted to a place where such a grouping is congregated. As such it does not implicate the copyright owner's rights.[205]

The public performance framework is limited in its applicability to the digital age because it was drafted at a time when today's wide dissemination of content through digital technology was unfathomable.[206] The legal categories present in the 1976 Act do not apply to the digital age, causing difficulties in meaningful regulation of the increasingly popular markets for time and space shifting.[207] Although the applicability of the existing framework has not yet been tested for cable television, it is instructive to examine similar difficulties for sound recordings.

The Digital Performance Right in Sound Recordings Act of 1995 (DPRA) drew a distinction between the public performance right and other

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203. H.R. REP. NO. 94-1476 at 63 (1976).

204. Abrams, *supra* note 114, § 5:196.

205. *See* NIMMER & NIMMER, *supra* note 62, §8.14[C][2].

206. *See id.* §8.24[B] ("[D]igital technology produces a breakdown and conflation of legal categories that were meaningful in the analog era.").

207. *See id.* §8.24[A]. For more on time and space shifting, see Schnaps, *supra* note 35.

copyright protections, such as reproduction or public distribution.[208] The DPRA created two separate schemes, the digital transmission right for public performances and compulsory licensing for digital phonorecord delivery to deal with reproduction and public distribution.[209] However, in drafting the statutory definition of "digital phonorecord delivery," Congress "cross[ed] categories with reckless abandon."[210] It would appear that liability in the DPRA is not tethered to the results of particular action, but rather careful classification of that action.[211] Practical application shows that the conflation of the legal categories of performance and reproduction/distribution can have absurd results. If a transmission is categorized as a "delivery," it would be exempt from performance fees even if it is at the volition of a paying customer; whereas a "performance" would be exempt from mechanical royalties even if a customer "play[ed] all night long the particular song ordered."[212]

The Second Circuit's public performance analysis, as discussed *supra* in Section II.B.3, results in a similarly impractical resolution of the issue. Cablevision is allowed to skirt copyright liability in part because its inefficient process of making individualized copies for each requesting customer is deemed contrary to the court's understanding of transmission "to the public."[213] Cablevision's redundant copies serve no technological purpose; their existence appears geared to support Cablevision's legal theory that it is exempt from copyright liability.

B. Judicial Resolution: A Workable Definition of "Public"

The questionable result of the Second Circuit's holding in *Cartoon Network* can be attributed to the lack of a physical definition of public place in the Copyright Act. The statutory definition makes a place "public" based on amorphous conditions.[214] Although the definition suffices for simple cases, the courts would be hard-pressed to identify an understanding that applies to all situations.[215] Judicial precedent reveals that reliance on the statutory definition produces results that depend "completely

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208. Digital Performance Right in Sound Recordings Act of 1995, Pub. L. No. 104-39.

209. NIMMER & NIMMER, *supra* note 62, §8.24[B]

210. *Id.* (noting that the definition includes reference to delivery by digital *transmission* of a recording resulting in an identifiable *reproduction*).

211. *See id.*

212. *Id.*

213. *See* Cartoon Network LP v. CSC Holdings, Inc., 536 F.3d 121, 135 (2d Cir. 2008).

214. *See supra* Section I.C.3.

215. Kheit, *supra* note 88, at 19-21.

on the court's chosen degree of focus or quantum time span . . . ignor[ing] other important factors like privacy, lack of control, and the nature of the place; factors that help courts arrive at what people feel are intrinsically fair outcomes."[216] The judiciary should strive for predictability and certainty in the public performance analysis by setting forth a workable definition of "public."

One option is to determine whether the place is "public" through a balancing of key factors: privacy, control, and the nature of the place.[217] A place would be considered "public" if there was no privacy afforded to the consumers, no consumer control over the method or mode of consumption, and if the place was commonly known to be open to the public.[218] Although the popular understanding of the nature of the place is important, it should not determinative. A transmission viewed in a home filled with 100 people is more in line with the concerns of content owners than a performance of a work in a stadium with only one viewer. If the balancing test were to be applied to *Cartoon Network*, Cablevision's RS-DVR would not infringe the "public" performance right. The home is the paradigm of privacy and control. The owner of the home, and arguably the cable subscriber, would expect a high level of privacy in his home and would control who was able to view any performances in his home.

The statute further confuses the public performance analysis by failing to provide any useful guidelines or numeric values for how many people qualify as a "substantial" number. The legislative history states performances in "semipublic" places constitute public performances subject to copyright liability because they represent a gathering of a "substantial number of persons."[219] However, without any limits, such statements are meaningless. The issue is more complicated for purposes of demonstrating a *transmission* to the public because there is no need to prove that a substantial number of persons actually viewed the challenged transmission.

In *Cartoon Network*, the Second Circuit faulted the district court's understanding of the transmit clause for "render[ing] the 'to the public' lan-

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216. *Id.* at 26-27 (noting the inconsistent application of §101(1) to achieve the disparate results in *Redd Horne*, where a small rental booth was considered public, and *PREI*, where a hotel room was considered private).

217. *See generally*, Kheit, *supra* note 88, at 27-30.

218. *See id.*

219. H.R. REP. NO. 94-1476, at 64 (1976) (stating that contrary to *Metro-Goldwyn-Mayer Distributing Corp. v. Wyatt*, 21 C.O. Bull. 203 (D. Md. 1932), "semipublic" places include clubs, lodges, factories, summer camps, and schools but not a gathering of an individual's social acquaintances, routine meetings of businesses and governmental personnel).

guage surplusage" by not accommodating non-public transmissions.[220] The clause reads that in determining who constitutes the public, it is not the potential audience of the work, but those capable of receiving a "particular transmission of a performance."[221] The legislative history states, "a performance made available by transmission to the public at large is 'public' even though the recipients are not gathered in a single place, and even if there is no proof that any of the potential recipients was operating his receiving apparatus at the time of the transmission."[222] This statement appears to predicate its definition of the "public" on an assumption that all receiving apparatuses would be able to receive the transmission if so desired.[223]

However, the encryption of recordings in the RS-DVR service would render this discussion moot. With the RS-DVR, only the requesting customer's cable box has the necessary code to receive the specific transmission. Therefore, even though every customer that requests a particular program would receive an identical digital copy of the contents of the program, the transmission of the requested copy could only be received by the single requesting customer. The encoded transmission cannot be decrypted by any other cable box in the node where the signal is sent.[224] Under *Cartoon Network*, the seemingly duplicative process protects Cablevision from liability by excluding individual transmissions from the definition of "public" performance.[225] The customer experiences no difference between having an individual copy of a requested program and accessing the same copy as all other requesting customers. This gives cable providers incentive to design systems solely for purposes of avoiding liability.

C. Legislative Resolution: Use of DRM to Control the Public Performance Right

Judicial action is not the only option to further the goal of copyright to promote creative works. Concerns over technological advances have

220. *Cartoon Network*, 536 F.3d at 135-36 (rejecting the lower court's reading of the transmit clause because it did not "contemplate[] the existence of non-public transmissions").

221. *Id.* at 135.

222. H.R. REP. NO. 94-1476, at 64-65.

223. *See id.*

224. *See supra* Section I.A.

225. Creating individualized copies involves multiplying storage space in the hard drive simply for the purpose of avoiding copyright liability. It would arguably be more cost efficient to have one recording for all of the requesting customers because this would decrease the amount of hard drive space necessary at Cablevision's facilities.

spurred legislative action in the past.[226] The 1976 Act was conceptualized in the broadcasting era in response to judicial decisions that highlighted the inadequacy of the 1909 Act.[227] The current Act reflects technical advances in methods for reproduction and dissemination, which changed the "business relations between authors and users."[228] With the advances of the digital age, "performance is replacing distribution as the means by which people experience copyrighted works."[229]

In altering the present tools of copyright protection, Congress must evaluate the technological evidence and the compelling policy issues. People today experience the same types of copyrighted works as in the past, but through different technology.[230] Technological differences increase the "reach of the performance right . . . turn[ing] ordinary experiences into acts with copyright significance."[231] This results in copyright owners' unprecedented rights to reach private enjoyment of content, as reflected in the now infamous dancing baby case where a 29 second home video of a toddler dancing to Prince's song was targeted for copyright infringement.[232] The convenience of digital technologies is coming at the expense of freedoms consumers took for granted.[233]

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226. In *Sony*, the four dissenting justices criticized the majority for acting outside judicial authority: "'[T]here can be no really satisfactory solution to the problem . . . until Congress acts'. . . . We must 'take the Copyright Act . . . as we find it,' and 'do as little damage as possible to traditional copyright principles . . . until the Congress legislates.'" Sony Corp. of Am. v. Universal City Studios, Inc., 464 U.S. 417, 500 (1984) (Blackmun, J., dissenting). The Act was comprehensively revised in 1831, 1870, 1909, and 1976. *See* H.R. REP. NO. 94-1476, at 47.

227. *See supra* Section II.C.3.

228. *See* H.R. REP. NO. 94-1476, at 47.

229. Stadler, *supra* note 112, at 718.

230. Plays are not limited to theatres but are now accessible to friends and family through YouTube; music at parties comes from recordings, not live bands; television is not limited to the home but can be watched on a personal media player on the bus. *See id. at* 727.

231. *Id.* at 727-28.

232. Lenz v. Universal Music Corp., 572 F. Supp. 2d 1150, 1152 (N.D. Cal., 2008) (Lenz claimed post was for private use of sharing son's dancing with friends and family).

233. Stadler, *supra* note 112, at 736. The use of digital rights management technology, such as the encryption protecting downloads from Apple's iTunes service, limited consumer ability to freely experience a purchased work. *See, e.g.*, Apple, I-Tunes Store Terms and Conditions, http://www.apple.com/legal/itunes/us/service.html (last visited Dec. 5, 2008) (limiting the number of times consumers can burn physical copies of purchased songs). However, Apple recently announced that they will no longer be imposing DRM controls. Eliot Van Buskirk, *iTunes Music Store Finally Ditches DRM, Adds New Prices*, WIRED, Jan. 6, 2009 (Listening Post Blog, http://blog.wired.com/business/2009/01/apple-promises.html).

Congress could act to enable use of Digital Rights Management (DRM) technologies, specifically the abandoned Broadcast Flags, for television content.[234] The popularity of consumer-controlled content mediums evinces consumer desire to use the emerging technologies to receive content when and where they desire.[235] The current state of performance rights encourage copyright owners to avoid providing the public with tangible copies, in favor of charging royalties for each experience of the work.[236] DRM can give copyright owners control over what features can be used in conjunction with DVR technology. The greater the number of consumer experiences enabled, the higher the pricing for copyrighted content.[237]

DRM could be an effective enforcement tool because the Digital Millennium Copyright Act's (DMCA) Anti-Circumvention clause gives copyright holders the right to sue anyone who circumvents copyright protection measures.[238] In *Cartoon Network*, the cable provider profited from enabling their DVR customers to record all transmitted programming without any additional licensing deals with content owners for providing the service. With the use of DRM, content owners could encrypt the digital transmissions sent to the cable providers in order to prevent unapproved copying. Content owners could subject cable companies to additional li-

234. Consumers who do not wish to have any constraints on their content would pay more than consumers who receive content with use limitations.

235. There has been a proliferation of new technologies that are vying for customers who desire to time-shift and space-shift content: YouTube, Slingbox, Hulu.com, Justin.tv, mobiTV, video iPod, etc. The increasing popularity of these services could render the debate over DVR technology moot.

236. Stadler, *supra* note 112, at 735 (noting a gradual shift in consumer preferences from ownership to "convenience," i.e. with "on demand" services). There is concern that widespread use of DRM technology would not preserve valuable copyright protections for fair use, though this topic is not covered in this Note. For further discussion of fair use, see generally Bagley & Brown, *supra* note 48.

237. *See* Stadler, *supra* note 112, at 743-44. There are several possible categories for price discrimination within DVR service which were not available for traditional works, and could provide additional profits for content providers. DVR technology could be modified to allow for price discrimination based on ability to use "trick modes," ability to "space shift" content by copying it to a portable hard disk device (i.e. video iPod), difference in quality of the programming (i.e. high definition, or blu-ray quality content), time restraints on how long a program can remain stored in a DVR, and viewing restraints on the number of times the recorded program can be accessed.

238. *See* 17 U.S.C. §§ 1201, 1203 (2006).

censing fees to receive DRM-free programming signals, which would allow the RS-DVR system to work as designed.[239]

With congressional support, content owners could control their copyrighted works through a DRM technology known as the Broadcast Flag. In 2003, content owners successfully lobbied the Federal Communications Commission (FCC) to mandate a Broadcast Flag which required consumer electronic devices that receive television signals to obey instructions embedded in broadcast signals that limit a viewer's ability to make use of the content received.[240] Although the Court of Appeals for the D.C. Circuit invalidated the FCC's Order in 2005 for lack of jurisdiction,[241] they could be a viable solution through congressional expansion of the FCC's jurisdiction.[242] Particular restrictions of a transmitting party could be based in contract law and DRM technology could be used to implement the contractually agreed-upon restrictions.[243]

The use of DRM to protect creative content is an imperfect solution to end-user desires for unrestricted consumption of copyrighted works. However, the system would allow content owners to capture the value of their creative works, while giving consumers the option to pay for use of the features available through new technologies. If this system is implemented, content owners could price the new features exorbitantly as to effectively deny their use. In order to prevent such counterproductive behavior, an independent body such as the FCC could set limits on pricing. The problem of ambiguity does not have to be resolved solely by one branch of government, cooperation with interested private parties can faithfully promote the goals of copyright: the progress of science and the promotion of the useful arts.

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239. Arguably, controlling cable providers, instead of end users, avoids the formidable Fourth Amendment barriers to investigating individual infringement of the DMCA. U.S. CONST. amend. IV.

240. Bagley & Brown, *supra* note 48, at 608-09; *see generally* Digital Broadcast Content Protection, 18 F.C.C.R. 23, 550 (2003).

241. Am. Library Ass'n v. FCC, 406 F.3d 689, 691-92 (D.C. Cir. 2005) (noting that the FCC has "never before asserted such sweeping authority" to regulate apparatuses "not engaged in the process of receiving a broadcast transmission").

242. *See generally* Molly Shaffer Van Houweling, *Communications' Copyright Policy*, 4 J. ON TELECOMM & HIGH TECH. L. 97 (2005).

243. *See* Knobler, *supra* note 202, at 591. A price discrimination model would allow for unrestricted content at a higher price. For more on the possible use of price discrimination, see Michael J. Meurer, *Copyright Law and Price Discrimination*, 23 CARDOZO L. REV. 55 (2001) and Cohen, *supra* note 198.

IV. CONCLUSION

The issue of public performance is becoming increasingly controversial. The Supreme Court has never interpreted the public performance provisions of the 1976 Act. If certiorari is granted in this case, there could soon be a definitive answer on the issues of fixation, volition, and public performance.

However, the judiciary is not the only body capable of resolving the copyright issues arising from the proliferation of digital technologies. Congress could empower copyright holders to use DRM technologies, such as Broadcast Flags, to increase control over how consumers enjoy copyrighted content. The resolution of the case in favor of Cablevision could herald similar automated technologies from other cable companies, further jeopardizing the content owner's exclusive rights.[244] Public performance is but one issue that is implicated by digital technologies. Positive action needs to be taken in order to dispel ambiguities in the current Act and support the continued growth of digital technology.

If the government fails to act, content owners can focus their efforts on modifying their business models to capitalize on the new technology:[245] "[I]f history is a predictor of future potential, past content owners' fears of technological advances have eventually been dispelled upon their acceptance of the technology as a possible lucrative new market."[246] The positive potential for DVR technology can be compared to the effects of VCR technology on content industries. Hollywood feared collapse after the *Sony* Betamax decision. However, what damage the studios may have sustained from the consumers who time-shifted live shows was clearly offset by huge profits based on the technology they fought against.[247] "Not long after the Court's ruling, the fact that one could . . . record television programs without penalty was taken for granted by all parties involved."[248]

It appears inevitable that consumer demand will force the current content-provider business model to change. Whether the change comes from

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244. It has been reported that Comcast and Time Warner Cable are also planning to introduce a networked DVR service if Cablevision wins its legal battles. Verizon, which offers TV service through its Fios service, has also said it would consider offering a similar service. Marguerite Reardon, *Supreme Court Declines to Hear Cable DVR Case*, CNET, Jan. 13, 2009, http://news.cnet.com/8301-1023_3-10141706-93.html?tag=mncol.

245. *See generally* Timothy Wu, *Copyright's Communications Policy*, 103 MICH. L. REV. 278, 343-57 (2004) (discussing copyright holders and advances in technology).

246. Schnaps, *supra* note 35, at 85.

247. Bower, *supra* note 44, at 419.

248. *Id.*

the judiciary, the legislature, or content providers, new lines need to be drawn to give effect to copyright protections. The lack of clear liability can chill innovation, contrary to the primary goals of copyright law. A concerted effort must follow in order to impose the rule of law in the digital realm.