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¶1   In a move that is sure to send waves rippling through the legal arena, the Second Circuit overruled one of its district courts in the case of *Cartoon Network LP v. CSC Holdings, Inc.*[1] (*Cablevision II*) that governs the application of the Copyright Act in today's new era of digital technology.

¶2   In *Cablevision II*, the court evaluated the legal viability of a Remote Service–Digital Video Recorder (RS-DVR) device that was prospectively to be released by the Cablevision company in 2006. This new RS-DVR provided customers the ability to record various television programming, like a normal DVR, but instead of using the device to store the program, the storage of the programs would be housed by servers at Cablevision offices. Numerous television networks, such as Twentieth Century Fox and Cartoon Networks, brought suit against Cablevision to prohibit the unveiling of this new technology. The suit maintained that the process of the RS-DVR made illegal copies of the programming as prohibited under the Copyright Act, and Cablevision—not the consumer—was responsible for the illegal copies since the storage of the programming was being provided by Cablevision servers. The networks also alleged that the RS-DVR infringed upon the network's right to "perform the[ir] copyrighted work publicly" under § 106 of the Copyright Act.[2] The networks threatened Cablevision with an injunction to prohibit Cablevision's rollout of the service unless Cablevision purchased licenses from the networks for the shows to be recorded and played.

¶3   Part I of this paper will provide a detailed backdrop of the current state of the law concerning the Copyright Act and the presiding case on the topic.

¶4   Part II of this paper will describe the process used by the Cablevision RS-DVR and how it allows the consumer to record television programs. Part II will also describe how the RS-DVR differs from the VCR, the current DVR, and other technologies.

¶5   Part III will detail the analysis that the District Court used in reaching its conclusion that the RS-DVR is more like a service than a device, the RS-DVR makes illegal copies of copyrighted programming, and the playback of the programming infringes on the rights of television networks to show their material publicly.

¶6   Part IV will provide various stances on the outcome of the District Court's decision. Part V will also show how the Court of Appeals chose a different stance on this

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[*] Candidate for Juris Doctor, Northwestern University School of Law 2010. I would like to dedicate this article to my parents, Karl and Ruth Riley, for their unswerving support of all of my endeavors.

[1] 536 F.3d 121 (2d Cir. 2008).

[2] 17 U.S.C. § 106(4) (2006).

issue and analyze how its stance deviates from the presiding precedent that holds when something is copied to a computer's random access memory, a copy is made.

¶7   In Part VI, I will hypothesize what the Supreme Court will decide on this issue as to whether the RS-DVR violates the Copyright Act of 1976 should the Court grant *certiori*.

I. THE PAST BECOMES OBSOLETE

¶8   The seminal case that has provided the background for this case is *MAI Systems Corp. v. Peak Computer, Inc.*[3]

A. *MAI v. Peak*

¶9   In *MAI*, MAI Systems designed software to operate its computers, and Peak Computer, Inc. maintained MAI computers for various clients of MAI.[4] Peak's service of the computers included diagnosing routine problems and conducting necessary repairs using MAI's programs. In order to diagnose the computer problems while servicing a MAI computer, a Peak Technician would have to operate (turn on) the computer and utilize an unauthorized copy of MAI's operating system (OS) software which was originally licensed to Peak's customers.[5] As MAI asserted that running programs that are licensed to another amounted to copyright infringement (unauthorized use), MAI applied for an injunction to prohibit Peak from running MAI software licensed to Peak customers, using unlicensed software at its headquarters, and loaning MAI computers and software to its customers.[6]

¶10   The *MAI* court was confronted with the question: how do we ascertain whether a copy has been made? The court found that a claim of copyright infringement will prevail if a "'copying' of a protectable expression" goes beyond the scope of a license.[7] The Copyright Act defines "copies" as, "material objects, other than phonorecords, in which a work is fixed by any method now known or later developed, and from which the work can be perceived, reproduced, or otherwise communicated, either directly or with the aid of a machine or device."[8] The Copyright Act then explains, "a work is 'fixed' in a tangible medium of expression when its embodiment in a copy or phonorecord, by or under the authority of the author, is sufficiently permanent or stable to permit it to be perceived, reproduced, or otherwise communicated for a period of more than transitory duration."[9]

¶11   MAI's software license allowed only MAI customers to run its software; the license did not allow third parties, such as Peak, to use this software unless it was directly licensed to them.[10] When Peak ran the required maintenance on its customer's

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[3] 991 F.2d 511 (9th Cir. 1993).

[4] *Id.* at 513.

[5] *Id.*

[6] *Id.* at 517. The pertinent charge for the current analysis is the unauthorized use and copying of MAI's software.

[7] *Id.*

[8] 17 U.S.C. § 101.

[9] *Id.*

[10] *MAI*, 991 F.2d at 517.

computers, the technician used MAI's software to diagnose the problem. This intrinsically meant that MAI's software would be loaded onto the customer's computer's random access memory (RAM). Although Peak claimed that this copy created in RAM was not "fixed", the court found that the representation made in the RAM is "sufficiently permanent or stable to permit it to be perceived, reproduced, or otherwise communicated for a period of more than transitory duration;"[11] therefore, Peak's use of the software ventured beyond the scope of the software license and violated the Copyright Act.[12]

II. THE WAVE OF THE FUTURE – THE NEW DVR

¶12   Before the suit, Cablevision prospectively sought to offer the RS-DVR as part of Cablevision's cable service. In order to give a full operative view of the technology utilized by the RS-DVR, I will first need to describe the technology used to deliver cable television to Cablevision customers.

A. Cable

1. Television and Cable Generally

¶13   Television is the simultaneous transmission of video and audio signals.[13] As opposed to sending television waves in analog form that are received by an antenna, "Cable" television is transmitted in digital form via a coaxial cable that is connected to a television set via a "set-top box."[14] A digital television can directly receive digital signals whereas an analog television cannot unless the television is connected to a set top box which converts the digital signal to an analog signal.[15]

2. Delivery to Customers

¶14   Digital signals are transmitted from its source to the television in a compressed data form known as binary digits, or "bits."[16] Because of its compressed form, more signals can occupy the same space; therefore, the consumer has access to greater programming choices than with the analog signal. Digital signals also provide a better audio and video feed for the customer.[17]

¶15   Cable's programming begins with the network companies sending their television content (television programming) to the cable company's "head end" facility.[18] A head

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[11] *Id.* at 519.

[12] *Id.* at 517.

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

[14] *Id.*

[15] Wikipedia, *Set-top box*, http://en.wikipedia.org/wiki/Set-top_box (last visited Mar. 25, 2010). ("Special digital set-top boxes are available for receiving digital television broadcasts on TV sets that do not have a built in digital tuner.").

[16] *Cablevision I*, 478 F. Supp. 2d at 610.

[17] *Id.*

[18] *Id.*

end facility is a central facility that harbors much of the hardware and software that is needed to operate the cable company's system as a whole.[19]

¶16   The cable company collects the feeds in single stream called an "aggregated programming stream" (APS).[20] The APS is comprised of packets of data that are noted with a "program identifier" (PID) that denotes which network or program to which it belongs.[21] The APS is sent from the cable company's head end to its customers via a process called "Quadrature Amplitude Modulation" (QAM) by way of devices called QAM modulators.[22] The QAM converts the networks digital feed into radio frequency (RF) signals for easier transmission along the coaxial cable.[23] These RF signals are sent to the vast networks of smaller cable systems that are comprised of the cable company's homes.[24] The smaller cable systems or nodes are operated by a specific QAM modulator that transmits the RF signal to the customer's set-top box.[25]

¶17   The packets of the APS stream are then filtered and reassembled into a signal stream to be decrypted, decoded, and displayed.[26] Cable companies are able to regulate access to certain programming by encrypting certain packets in the APS, and the set-top box decrypts the packets in order to reveal the programming.

B. Old-School Recording

1. Video Cassette Recorder (VCR)

¶18   The first VCR, the Sony Betamax, was released in the 1970s.[27] The device adapted the television signals and recorded them onto the magnetic tape within the video cassette for later playback at the customer's discretion.[28] This format was a dominant form of recording television programming until DVDs exploded on scene in the early 2000s.[29]

2. Set-Top Storage DVRs (STS-DVR)

¶19   STS-DVRs can operate as a DVR and set top cable box; however, the STS-DVR can record the digital television programming directly without decoding the APS stream.[30] The STS-DVR records the programming onto the internal hard drive housed in the DVR. The device also may have two tuners that allow the customer to watch one television program while recording another program simultaneously, or record two channels at the same time.[31]

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[19] *Id.*

[20] *Id.* at 610.

[21] *Id.* at 610–11.

[22] *Id.* at 611.

[23] *Id.*

[24] *Id.*

[25] *Id.*

[26] *Id.*

[27] Wikipedia, *Videocassette Recorder*, http://en.wikipedia.org/wiki/Videocassette_recorder#Early_machines_and_formats (last visited Mar. 25, 2010).

[28] *Id.*

[29] *Id.*

[30] *Cablevision I*, 478 F. Supp. 2d at 611–12.

[31] *Id.* at 612.

¶20   Once the programming has been recorded, it is ready for playback. The customer can control the playback (i.e. pause, fast-forward, etc.) through different "trick modes."[32] The length of recordable space is limited by the size of the hard drive. The customer can only record programs for which the customer has paid; the STS-DVR does not allow the customer to record pay-per-view or Video-on-Demand programming.[33]

C. RS-DVR Technology

1. Generally

¶21   Cablevision's RS-DVR differs from the STS-DVR in one main way. It continues to record television programming for the customer, but the recorded programming is not saved to a hard drive within the DVR itself; the recorded programming is stored remotely on computer servers stationed at the cable company's head ends.[34] These servers are made up of multiple hard disks where every customer that subscribes to the service will be given a specific amount of storage space. Only that customer can access his own respective storage space.[35] The program would be stored indefinitely on the server until it is deleted by the customer or if it is overwritten by the customer on a "first in-first out" schedule.[36]

2. The RS-DVR technology

¶22   Since the RS-DVR does not record the program on-site (at the place of the box), a summary of the technology that is used to record the television programming is necessary.

¶23   The BarcoNet is a closed circuit network that transmits the APS for distribution for the cable company.[37] Instead of allowing the APS to flow from the BarcoNet to the QAM Modulators, the APS is split in two streams: one to the QAM modulator for distribution to the customers without the RS-DVR and the other to different device called the "Big Band Broadband Multimedia Router" (BMR).

¶24   Through a process called clamping, the BMR converts the RF signals to a stream that is even more efficient.[38] During this process, the stream is placed in the BMR's "buffer" memory.[39] Buffers are regions of memory that temporarily hold data. These buffers hold information as it moves to its destination. The BMR also splits the stream into User Datagram Protocol (UDP) packets. These packets are assigned a port number that identifies the respective television channel to which they belong.[40]

¶25   This stream is then fed to the cable company's servers that are at its head end. Each server can service up to ninety-six cable customers. The servers then store the streams into its "primary ingest buffer". Each packet of programming is stored in the

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[32] *Id.*
[33] *Id.*
[34] *Id.*
[35] *Id.*
[36] *Id.*
[37] *Id.* at 613.
[38] *Id.*
[39] *Id.*
[40] *Id.* at 614.

buffer for up to a tenth of a second. The primary ingest buffer can hold enough packets that amount up to 3 frames of video from any of the channels carried by Cablevision.[41] The buffering takes place automatically, so if a customer requests a specific program, the respective packets can be found and recorded to the customer's hard drive space.[42]

¶26   *a) How the RS-DVR records.*—The customer may record a program through two different ways. The customer may scroll through the on screen program and set a timer by pressing record on the remote control, or the customer may press record while watching the program. Once the customer has chosen the program, the remote sends a signal to the "Application Data Server" (ADS) to verify the following five components are available: (1) the program is within the customer's cable subscription package, (2) the program has not been previously requested by the customer, (3) the customer has sufficient space on the hard drive for the program to be recorded, (4) the request will not result in two programs being recorded at the same time, and (5) the customer is authorized to receive the program in question.[43] If any of these components are not met, an error message will display and ask the customer to take various steps to remedy the situation.

¶27   Once the above components have been satisfied, the ADS alerts the "Oracle Production Server" (OPRD) which maintains a list of programs that have been requested for recording.[44] If the program has been previously requested by another customer, the OPRD will send an "asset ID," which denotes the respective program, to the ADS; if the program has not been requested, the OPRD will generate a new asset ID.[45] This ID is added to the OPRD's list of programs.[46] The ADS then communicates with the "Vitria" server, which is the only server to communicate with the Arroyo server.[47]

¶28   When it is time to record, the Vitria server sends a list of all the program requests to the Arroyo server which is holding the packets of that program in its buffer memory.[48] The Arroyo server then searches for the respective packets of that program in the primary ingest buffer, and when found, it sends these packets to a secondary ingest buffer. The copy is made in this second buffer and sent to the hard drive of each requesting customer. The customer is then notified by the Arroyo server that the copy was made and is ready for playback.[49] If no request for the program is made by the customer, then no copy is made by the Arroyo server.

¶29   *b) Playback.*—When the customer is ready to view the program, the customer selects the program from the on-screen menu. This alerts the Arroyo server to begin interacting with the "Enterprise Session Resource Manager" (eSRM), which manages the playback process. The eSRM streams the program through the QAM to the set-top box. The Arroyo server locates the recorded program, and sends the stream to the customer's QAM. The stream is then transmitted to every node that the QAM services, but only the

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[41] *Id.*
[42] *Id.*
[43] *Id.*
[44] *Id.* at 615.
[45] *Id.*
[46] *Id.*
[47] *Id.* The Arroyo server is where the program is stored until deleted by the customer.
[48] *Id.* at 615.
[49] *Id.*

requesting set-top box is provided with the key for decrypting the stream for viewing.[50] The customer is then able to manipulate playback through various trick modes once playback has commenced. If too many customers are using their RS-DVR at the same time, the system will generate a "busy signal" and the streaming from the QAM and the Arroyo servers will be halted and an error message will be displayed suggesting another time to watch the recorded program.[51]

III. TAKE ONE –CABLEVISION I

¶30   The Copyright Act of 1976 allows copyright owners to "reproduce the copyrighted work in copies" and in the case of audiovisual works, "perform the copyrighted work publicly."[52]   In order to establish a claim of copyright infringement there are two requirements: (1) one must have ownership of a valid copyright and (2) unauthorized copying or a violation of rights given by the Copyright Act.[53] After the court ascertained that the plaintiffs held valid ownership of the television programming that Cablevision showed to its customers, it subsequently analyzed the plaintiffs' claims of whether Cablevision violated the Copyright Act by making unauthorized copies of the plaintiffs' programming and by making unauthorized transmissions of the same.[54]

A. RS-DVR copies

¶31   The plaintiffs asserted that Cablevision makes unauthorized copies by (1) making a copy of the program and storing it on the Arroyo servers and (2) temporarily storing the programs in Cablevision's buffer memory.[55]

1. Arroyo Server Copies

¶32   Cablevision does not deny that copies are made by the RS-DVR, but the ultimate question is who makes the copies.[56] The plaintiffs likened Cablevision's RS-DVR to a service and claimed that Cablevision is the entity who makes the copies. Alternatively, Cablevision compared the RS-DVR to a VCR or a photocopier and claimed that the customer does the copying.[57] The court sided with the plaintiffs for multiple reasons.[58]

¶33   The court reasoned that the RS-DVR is more like a service than a device and distinguished the product from a VCR. The court differentiated the RS-DVR from the VCR, because the RS-DVR cannot be disconnected from the set-top box, connected elsewhere, and *still* be able to record programming.[59] The district court noted that the

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[50] *Id.* at 615–16.

[51] *Id.* at 616.

[52] 17 U.S.C. § 106(1), (4).

[53] Byrne v. British Broad. Corp., 132 F. Supp. 2d 229, 232 (S.D.N.Y. 2001).

[54] *Cablevision I*, 478 F. Supp. 2d at 612.

[55] *Id.* at 617.

[56] *Id.*

[57] *Id.*

[58] *Id.* In *Sony v. Universal*, 464 U.S. 417 (1984), the Supreme Court held that time-shifting is "fair use," but according to the District Court, the plaintiffs waived any arguments on this basis. The court continued on to the merits of the plaintiffs' assertions.

[59] *Cablevision I*, 478 F. Supp. 2d at 618.

RS-DVR, like a VCR, is a machine, but it is linked to a network of different servers.[60] Furthermore, the court distinguished the present case from *Sony*, for unlike in *Sony,* where the only point of contact the customer had with Sony was at the point of sale, the customer must keep an ongoing relationship with Cablevision in order to use the RS-DVR as well.[61] Cablevision not only owns the RS-DVR, but also maintains that the network is properly working, the court noted.[62] Moreover, Cablevision determines which programming is available to the customer and how much memory to allocate to each customer.[63]

¶34   Cablevision, however, likened its RS-DVR to the STS-DVR, but the court did not give the argument much credence. Cablevision pointed out that there have been no prior cases against cable providers for providing STS-DVRs to their customers, and comparatively, cable companies should not be liable for copyright infringement by providing RS-DVRs.[64] The court found this claim unavailing because of the changes needed in order to allow the RS-DVR to work (i.e. reconfiguring the linear channel programming, reformatting the stream, routing the stream to the Arroyo servers, etc.).[65] The STS-DVR, however, does not need any reconfiguration, and can record directly to the hard drive located within the set-top box.[66] The court likened the RS-DVR to more of a Video-on-Demand service than a STS-DVR, as a Video-on-Demand service stores the copies at the network for on-demand viewing and is governed by licenses negotiated with copyright owners.[67]

¶35   Cablevision attempted to align itself with cases built on the premise that a company that makes a service available is not liable unless the company employees do the copying.[68] The court dismissed Cablevisions claim, and held that since Cablevision houses the machinery and systems, Cablevision would be "doing" the copying.[69]

¶36   Cablevision also relied on *Religious Technology Center v. Netcom On-Line Communication Services, Inc.*[70] In *Netcom*, an Internet Service Provider (ISP) server was not held liable for copyrighted material that was posted on a computer bulletin board service because "the court [did] not find a workable theory of infringement[71] that would hold the entire internet liable for activities that cannot reasonably be deterred."[72] The district court disagreed with Cablevision again. It adduced that Cablevision is not like an

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[60] *Id.*
[61] *Id.* at 618–19.
[62] *Id.* at 619.
[63] *Id.*
[64] *Id.*
[65] *Id.*
[66] *Id.*
[67] *Id.*
[68] *See* Basic Books, Inc. v. Kinko's Graphics Corp., 758 F. Supp. 1522 (S.D.N.Y. 1991); Princeton Univ. Press v. Michigan Documents Servs., Inc., 99 F.3d 1381 (6th Cir. 1996). In both of these cases, professors gave copyrighted materials to print shops and the employees then copied the materials without obtaining permission from the authors of the original work. The print shops were held liable under a theory that they actively committed the infringement as opposed to customers making prohibited copies on their own.
[69] *Cablevision I*, 478 F. Supp. 2d. at 620.
[70] 907 F. Supp. 1361 (N.D. Cal. 1995).
[71] *Id.* at 1372.
[72] *Cablevision I*, 478 F. Supp. 2d at 621.

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ISP, because it has more control over its programming and is not in as passive of a role as an ISP provider.[73]   Ultimately, the district court held that the Arroyo server copies constitute copyright infringement as a matter of law because the court determined that Cablevision made the copies of the television programming at the customer's request.[74]

2.   Buffer Copies

The Copyright Act states "copies" are:

> [M]aterial objects . . . in which a work is fixed by any method now known or later developed, and from which the work can be perceived, reproduced, or otherwise communicated, with directly or with the aid of a machine or device. The term "copies" includes the material object in which the work is first fixed. [75]

Cablevision claimed that the buffer copies are so transient that they could not be fixed and should be denoted as "otherwise de minimis."[76] However, the court found this claim lacking as well. It found two reasons to dismantle the Cablevision's assertion. First, the court found that if the buffer copies are able to be reproduced, then the copies could not be claimed to be "de minimus."[77] Also, the court viewed the RS-DVR system in the aggregate (the process in whole) and found that although only a few seconds of television programming were in the buffer memory at a time, the whole television program could be copied, and therefore, the system could not be termed as "de minimus."[78]

¶37   The court then analogized the RS-DVR copying to the copies that are made when software is uploaded into a computer's Random Access Memory (RAM). The court relied on precedent that has held that temporary copies of a work in RAM are generally "fixed" and meet the definition of copies as in the Copyright Act.[79] The district court then held that the buffer copies infringed on the plaintiffs' copyrights as well.[80]

B. RS-DVR infringes on networks right to display works publicly (transmission)

¶38   The Copyright Act states:
> To 'perform' a work means to recite render, play, dance, or act it, either directly or by means of any device or process or, in the case of a motion picture or other audiovisual work, to show its images in any sequence or to make the sounds accompanying it audible.[81]

Cablevision did not deny that the recording of a program is a performance, yet the question is, once again: who is doing the copying? Cablevision asserted that their role

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[73] *Id.*

[74] *Id.*

[75] 17 U.S.C. § 101 (2006).

[76] *Cablevision I*, 478 F. Supp. 2d at 621.

[77] *Id.*

[78] *Id.*

[79] *See* MAI Sys. Corp. v. Peak Computer, Inc., 991 F.2d 511, 517 (9th Cir. 1993); Stenograph L.L.C. v. Bossard Assoc., Inc., 144 F.3d 96 (D.C. Cir. 1998) (loading of software into RAM is copying).

[80] *Cablevision I*, 478 F. Supp. 2d at 621.

[81] 17 U.S.C. § 101.

was entirely passive, but the district court rejected it on the notion that the "operation of an array of computer servers" that cannot be considered passive.[82] Cablevision also argued that the performance was "fundamentally" private in nature. The Copyright Act defines a publicly performed work as:

> 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.*[83]

The court reasoned that a transmission is public "even if the members of the public receive the transmission at separate places at different times."[84] It also held that where a transmission is performed in a commercial relationship, the transmission is made "to the public".[85]

¶39   The court subsequently enjoined Cablevision from production of the RS-DVR and from using its system for "(1) copying plaintiff's copyrighted works and (2) engaging in public performance[s]" of the same unless it procures licenses from the owner.[86]

IV. DIFFERING OPINIONS

¶40   Various entities had differing opinions on the ruling of *Cablevision I*. This section is dedicated to eliciting these opinions and their bases.

A. *Amici for Cablevision*

1. Theory distinction of direct vs. secondary liability

¶41   In their brief,[87] the Center for Democracy and Technology attacks the *Cablevision I* decision on its categorization of Cablevision as a direct infringer.[88] The Center for Democracy and Technology argues Cablevision is not a direct infringer, because Cablevision does not control the use of recording by the customer.[89] Rather, Cablevision should at most be liable for secondary liability or contributory infringement, for Cablevision merely "owns an electronic facility that responds automatically to users' input."[90] In Cablevision's case, it argues that the volition or necessary "nexus" requirement is lacking.[91] Furthermore, *Sony* held that a person cannot be secondarily

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[82] *Cablevision I*, 478 F. Supp. 2d at 622. *Compare with* Columbia Pictures Indus., Inc. v. Redd Horne, Inc. 749 F.2d 154, 159 (3d Cir. 1984) (one who operates the controls "performs" because that activity results in the sequential showing of the movie's images accompanied by sound).

[83] 17 U.S.C. § 101 (emphasis added).

[84] *Cablevision* I, 478 F. Supp. 2d at 623.

[85] *See* On Command Video Corp. v. Columbia Pictures Indus., 777 F. Supp. 787, 790 (N.D. Cal. 1991) (performance may still be public even though it reaches members of the public at different times and places).

[86] *Cablevision I*, 474 F. Supp. 2d at 624.

[87] Brief for Ctr. for Democracy and Tech. et al. as Amici Curiae Supporting Appellants (Ctr. for Democracy Brief), Cartoon Network LP v. CSC Holdings, Inc., 536 F.3d 121 (2d Cir. 2008) (No.07-1480).

[88] *Id.* at 6.

[89] *Id.* at 8.

[90] Costar Group, Inc. v. LoopNet, Inc., 373 F.3d 544, 550 (4th Cir. 2004).

[91] *See*, *e.g.*, Hoehling v. Universal City Studios, Inc., 618 F.2d 972, 977 (2d Cir. 1980) (to prove

liable for infringement for technology that is "capable of substantial noninfringing uses."[92]   Since Cablevision's video programming is already licensed and legal, Cablevision should not need another license just because the company provides a system to allow customers to watch the programming at their leisure.[93]   The programming is the same whether the feed goes to the "customer's television set, cable box, VCR or home DVR," and therefore, Cablevision should not be liable as a direct or secondary infringer.[94]

2. Buffer copies are not copies

¶42   Many professors around the country took a different approach to vindicate Cablevision's claims. In their amicus curiae brief,[95] the law professors conclude the buffer copies that are made through Cablevision's system are not sufficiently fixed and argue that momentary reproductions that are "necessarily created" during digital processes and "which are destroyed almost immediately after they are created" are not fixed copies.[96]

¶43   The law professors disagree with the *Cablevision I* decision because it does not distinguish between the time the copies are made in the buffer and it does not follow the intent of the Copyright Act.[97]   A House of Representatives Report explicitly excludes from the definition of works that are fixed, "evanescent or transient reproductions such as those projected briefly on a screen, shown electronically on a television . . . or captured momentarily in the 'memory' of a computer."[98]   Moreover, the Copyright Office believes that the Copyright Act excluded from infringement all reproductions from which economic value can be derived.[99]   Since the district court held that 3 frames of video lasting less than one tenth of a second[100] satisfied the fixed threshold of the Copyright Act,[101] most digital devices would lose their use, and the Law Professors argue that the Copyright did not intend to exclude all copies such as Cablevision's.[102]

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infringement the plaintiff must demonstrate that the defendants themselves copied his work and that hey 'improperly appropriated' his expression); A & M Records, Inc. v. Napster, Inc*.,* 114 F. Supp. 2d 896, 911 (N.D. Cal. 2000) ("[T]o prevail on a contributory infringement claim, a plaintiff must show direct infringement by a third party.")

[92] Sony v. Universal, 464 U.S. 417, 442 (1984).

[93] *See* Ctr. for Democracy Brief, *supra* note 87, at 6–8.

[94] *Id.* at 6.

[95] Brief for Law Professors as Amici Curiae Supporting Appellants (Law Professors Brief), Cartoon Network LP v. CSC Holdings, Inc., 536 F.3d 121 (2d Cir. 2008) (No.07-1480).

[96] *Id.* at 3–4.

[97] *Id.* at 18.

[98] H.R. Rep. No 94-1476, at 53 (1976).

[99] U.S. COPYRIGHT OFFICE, DMCA Section 104 Report at 111 (Aug. 2001) (DMCA Report), *available at* http://www.copyright.gov/_reports/_studies/_dmca/sec- 104-_report-_ bol-_1.pdf.

[100] Law Professors Brief, *supra* note 95 at 5; Twentieth Century Fox Film Corp. v. Cablevision Sys. Corp. (Cablevision I), 478 F. Supp. 2d 607, 614 (S.D.N.Y. 2007).

[101] Law Professors Brief, *supra* note 95 at 7 ("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.*' 17 U.S.C. § 101.").

[102] *See* Law Professors Brief, *supra* note 95 at 17–26.

3. Policy arguments

¶44   The implications of the decision of *Cablevision I* would be drastic. The Center for Democracy and Technology claims that the innovation of remote servers[103] "reduces the need for local storage devices and offers greater security and better disaster recovery."[104] If *Cablevision I* is affirmed, the Center believes that this would curb beneficial innovation, like Cablevision's RS-DVR system, by making products too expensive due to increased licensing fees or make licensing software an "impractical impossibility."[105] The Copyright Act did not intend to chill technological advances.

B. *Amici against Cablevision*

1. Progress and Freedom Foundation

¶45   The Progress & Freedom Foundation (PFF) argues in its brief[106] that Cablevision should not escape liability as a direct infringer because they assert a substantial amount of control over the RS-DVR.[107] Cablevision "selects the content at issue as well as maintains physical control of the programming and the copies throughout,"[108] and PFF argues that Cablevision should not get to hide behind the customer.[109] Cablevision's control of the material, PFF argues, "take this case well out of the realm of cases involving photocopy machines, the VCR , and the Internet . . . it simply restore[s] the incentives of both sides to negotiate further licenses."[110]

¶46   PFF further argues that the need for licensure when new technologies develop does not leave one side winning and the other side losing.[111] The organization alludes that innovation and production of material could be halted if the District Court's decision were to be overturned.[112] PFF claims the *Cablevision I* decision keeps Cablevision's incentive to license quality material and also asserts the providers of quality material will be compensated and incentivized to continue to produce material.[113] Therefore, the holding in *Cablevision I* does not run contrary to the intent of the Copyright Act.

V. TAKE TWO

¶47   The Court of Appeals for the Second District reviewed the district court on three matters: (1) whether the copyrighted materials were "fixed" as defined under the

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[103] Examples include Apple's .mac, which allows consumer to back up the contents of the computers, and Google Docs, which allows for sharing of documents and information.

[104] Ctr. for Democracy Brief, *supra* note 87, at 23.

[105] *Id.* at 25.

[106] Brief for Progress & Freedom Foundation as Amici Curiae Supporting Appellees (PFF Brief), Cartoon Network LLP v. CSC Holdings, Inc., 536 F.3d 121(2d Cir. 2008) (No.07-1480).

[107] *See id.* at 4–8.

[108] *Id.* at 4.

[109] *Id.* at 4–5.

[110] *Id.* at 3.

[111] *See id.* at 8–9.

[112] *Id.* at 9–10 ("In a nutshell, content must be protected, or it will not be produced.").

[113] *Id.*

Copyright Act, (2) whether Cablevision made the copies, and (3) whether the transmissions were performed "to the public."[114]

A. Court of Appeals' Take on MAI

¶48   The court first addressed whether Cablevision makes the copies. It looked at the Copyright Act and determined that the language required satisfaction of two components: (1) the work must be embodied in a medium (embodiment requirement) and (2) it must remain embodied "for a period of more than transitory duration" (the duration requirement).[115] If both components are not met, then no copy has been made.

¶49   The court held that the district court's reliance on *MAI* was erroneous because the case did not discuss the duration requirement, and thus, the case was not applicable to the present situation.[116] Also, the court factually distinguished the present case from *MAI* because it assumed that the program was embodied in the RAM for "at least several minutes" whereas the television programs are held in the buffer stream for 1.2 seconds.[117] Ultimately, the appellate court interpreted *MAI* to hold that loading a copyrighted program *can, but does not always*, result in a copying of that program.[118] Similarly, the court found the district court's strict reliance on a Copyright Office's report was improper[119] as such a report is not binding and only persuasive authority. The appellate court found support in another MAI case, *Advanced Computer Services of Michigan, Inc. v. MAI Systems Corporation*,[120] which dealt with a similar matter. In *Advanced Computer Services*, the court stated a program may be too ephemeral if a computer had been shut down "within seconds or fractions of a second" after loading the copyrighted program.[121] Therefore, the court only gave the Copyright Office's report persuasive power.[122] Since there wasn't any precedent indicating that there was a duration requirement within the definition of "fixed," the court turned to evaluating the claims that the copyrighted material was "fixed" and therefore a copy within the meaning of the Copyright Act.[123]

¶50   Cablevision did not dispute that the works were embodied in the buffer, and the court found it so.[124] Relying on the notion that the data remains in the buffer for no longer than 1.2 seconds, the court factually distinguished this case from *MAI* and

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[114] *See* Cartoon Network LP v. CSC Holdings, Inc. (*Cablevision II*), 536 F.3d 121, 126 (2d Cir. 2008).

[115] *Id.* at 127.

[116] *Id.* ("[I]n general, those cases conclude that an alleged copy is fixed without addressing the duration requirement."); *id.* at 128 ("This omission suggests that the parties did not litigate the significance of the 'transitory duration' language, and the court therefore had no occasion to address it.").

[117] *Id.* at 129.

[118] *Id.* at 128.

[119] DMCA Report, *supra* note 99 (unless a reproduction manifests itself so fleetingly that it cannot be copied, perceived or communicated).

[120] 845 F. Supp. 356 (E.D. Va. 1994)

[121] *Id.* at 363.

[122] *Cablevision II*, 536 F.3d at 129.

[123] *Id.*

[124] *See id.* at 129 (when only a part of a work is in a buffer the result may be different, but when the whole work is placed second by second in the buffer, the work has been embodied in the buffer).

determined that the duration requirement was not met, and thus no copy was made.[125] The court did not rule on the question of whether the data would be "de minimus."

B. Court of appeals take on the playback copies

¶51   In answering the question of who makes the playback copies, the present court dissected the district court's analysis of the *Netcom* case. The district court limited this decision to the realm of the internet; however, the appellate court expanded its holding to apply in this instance, also relying on a Fourth Circuit concurrence.[126] The district court did not believe that Cablevision was sufficiently distinguishable from a "company that merely makes photocopiers available to the public or a VCR user."[127] The court validated this conclusion by stating there was a difference between "making a request to a human employee who then volitionally operates the copying system . . . and issuing a command directly to a system which automatically obeys commands."[128] Rather, the appellate court likened Cablevision to a copy store that charges its customers to make copies on its premises.[129]

¶52   The Second Circuit also disagreed with the district court's analysis regarding the discretion of programming by Cablevision. The court reasoned that Cablevision is more a conduit than a volitional decision maker.[130] Cablevision did not have any power over which programming would be shown on its channels; only the television networks had that discretion. Cablevision merely provides the opportunity for customers to watch. Using this analysis along with *Sony*,[131] the court reasoned that Cablevision should be liable on a theory of contributory liability, not direct liability.

¶53   Furthermore, to draw the distinction between direct and contributory liability, the appellate court contrasted the Patent Act and the Copyright Act. The Patent Act grants direct liability for the one committing the infringement and for the one who induces the infringement[132] while, "[t]he Copyright Act does not expressly render anyone liable for infringement committed by another."[133] Since Congress wrote this in the Patent Act and not in the Copyright Act, the court reasoned Congress did not intend direct liability for

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[125] *Id.* at 130 ("While our inquiry is necessarily fact-specific, and other factors not present here may alter the duration analysis significantly these facts strongly suggest that the works in this case are embodied in the buffer 'for only a 'transitory' period, thus failing the duration requirement.").

[126] Religious Tech. Ctr. V. Netcom On-Line Commc'n Serv., Inc., 907 F. Supp. 1361, 1370 (N.D. Cal. 1995) (direct liability should involve some form of volition or causation which is lacking where defendant's system is used to create the copy); *see also* CoStar Group, Inc. v. LoopNet, Inc., 373 F.3d 544, 551 (4th Cir. 2004) (The court found it "a particularly rational interpretation of § 106" rather than a special purpose rule applicable only to ISPs.).

[127] *Cablevision* II, 536 F.3d at 131.

[128] *Id.*

[129] *Id.*

[130] *See id.* at 132.

[131] Sony v. Universal, 464 U.S. 417, 418 (1984) (it is just to impose liability on a party in a "position to control" the infringing uses of another, but as a contributory, not direct, infringer).

[132] 35 U.S.C § 271(a)–(b) (2006) (gives direct liability to the person who "actively induces infringement of a patent and the person who induces that infringement).

[133] *Sony*, 464 U.S. at 434.

persons who induce a copyright infringement.[134]   Subsequently, the court held that Cablevision is not directly liable for the playback copies.[135]

C. Court of Appeals take on transmission of Playback

¶54   Lastly, the court addressed the theory that Cablevision infringes on the right to perform a work publicly. The court looked at the definitional section of the Copyright Act to determine what "publicly" means; there are two definitions under the Act, and the court determined that the first definition did not apply to Cablevision. The second part of the definition defines to perform a work publicly as:

> "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 of display receive it in the same place or in separate places and at the same time or at different times."[136]

Although the statute does not define the term "performance" or "to the public," the court found that a transmission of a performance is itself a performance, which was also supported by legislative history.[137]

¶55   The court then turned to determining who is "capable of receiving" a particular transmission or performance. Cablevision argued that the performance is not "to the public" because the customer is the only one capable of receiving the playback copy, and the appellate court agreed.[138]   Looking to the Copyright Act, the court criticized their reading of the Act because its reasoning would make every performance "to the public" and render the "to the public" language superfluous.[139]   Undoubtedly, the Copyright Act envisioned transmissions or performances that were not "to the public."[140]

¶56   The plaintiffs asserted that to perform a work publicly, Congress meant "transmit . . . the 'original performance' . . . to the public" and thus have to determine the audience of any transmission of the same underlying "original" performance, not just the performance of the unique performance.[141]   The court rejected this theory, and limited the determination of the audience to the transmission that occurred and not to the intended audience of the 'original' performance because it was not germane with prior interpretations of the transmit clause.[142]   Relying on *NFL* and limiting this holding to only

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[134] *Cablevision II*, 536 F.3d at 133.

[135] *Id.*

[136] 17 U.S.C. § 101.

[137] *Cablevision II*, 536 F.3d at 134 ("The fact the statues says 'capable of receiving a performance' instead of 'capable of receiving the transmission,' underscores the fact that a transmission of a performance is itself a performance.); see also Buck v. Jewell–La Salle Realty Co., 283 U.S. 191, 197–98 (1931).

[138] *See Cablevision II*, 536 F.3d at 135–137.

[139] *Id.* at 135–136 ("We cannot reconcile the district court's approach with the language of the transmit clause. That clause speaks of people capable of receiving a particular 'transmission' or 'performance', and not the potential audience of a particular 'work.' Doubtless the potential audience for every copyrighted audiovisual work is the general public.").

[140] *Id.* at 136.

[141] *Id.*

[142] In *National Football League v. Primetime 24 Joint Venture* (*NFL*), 211 F.3d 10, 13 (2d Cir. 2000), the same court held, "the most logical interpretation . . . is to hold that a public performance or display

transmissions whose final link was "to the public," the court held that *NFL* was inapplicable to the current case.[143] Similarly, the Court distinguished the district court's reliance on *Redd Horne*[144] and *On Command*[145] because it held Cablevision's performance is not by definition "to the public."

¶57   Ultimately, the court reversed and remanded all of district Court's holdings and absolved Cablevision of any liability theories asserted by the plaintiffs.

VI. THE END GAME

¶58   In order to ascertain what the Supreme Court will do, I will need to give a background of previous decisions by the Supreme Court on the topic.

A. Sony v. Universal

¶59   In *Sony v. Universal*,[146] Sony was sued by Universal and Disney for its sale of Video Tape Recorders (VTRs) that were able to record television programs that were broadcast on public airwaves. Universal claimed this recording infringed on the respondent's copyrights, and thus, Sony should be liable for the infringement.

¶60   The court held that the sale of VTRs to the general public does not constitute contributory infringement of the copyrights.[147] The holding was supported by various theories. The Court first reasoned that any individual may reproduce a copyrighted work for a "fair use" and the copyright owner does not possess the exclusive right to such a use.[148] The court also reasoned that the sale of the VTRs does not constitute contributory infringement if the product is widely used for legitimate purposes or is merely capable of substantial non-infringing uses.[149] Furthermore, the court found that any time-shifting that was completed would cause minimal harm, and thus should qualify for legitimate fair use.[150]

B. What the Supreme Court should decide?

¶61   Before I begin my analysis, I want to take a step back and think about one question: What is RS-DVR and what is its primary purpose?

¶62   The RS-DVR is a DVR that records television programming off-site. All the essential technological processes and equipment needed to store the programming off-site is quite similar to the processes needed for the DVR to store programming locally. The

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includes each step in the process by which a protected work wends its way to its audience." The court limited this holding to only performances that resulted in transmissions to the public.

[143] *Cablevision II*, 536 F.3d at 137.

[144] The court distinguished *Columbia Pictures Industries, Inc. v. Redd Horne*, *Inc.*, 749 F.2d 154 (3d Cir. 1984), because the contested performance was from one copy played multiple times to different people.

[145] The court distinguished *On Command Video Corp. v. Columbia Pictures Industries*, 777 F. Supp. 787, 790 (N.D. Cal. 1991), because it ruled any commercial transmission is a transmission "to the public" and the court invalidated this claim through earlier reasoning.

[146] 464 U.S. 417 (1984).

[147] *Id.* at 456.

[148] *Id.* at 433.

[149] *Id.* at 440.

[150] *Id.* at 496.

only difference between the DVR and the RS-DVR is the location of the storage of the programming. One can imagine the intricate network of equipment and processes needed for the RS-DVR to function as a DVR with a long universal serial bus (USB) cord to the head-end facility, or as an extension of the DVR itself. Therefore, inherent in this premise, if the RS-DVR violates the Copyright Act, then the DVR also violates the Copyright Act.

¶63   Since the RS-DVR can be considered one big machine or a DVR with a long USB cord, it can be used in the same analysis as the VTR in *Sony*. In *Sony*, the VTRs completed much the same function as the RS-DVR; the VTR recorded television programs, and created the ability for a customer to watch the show at its convenience. As reasoned by the *Sony* Court, the television networks benefit from the delayed viewing by the consumer,[151] and the same benefit should be obtained by the RS-DVR. Essentially, the RS-DVR only allows consumers the opportunity to watch television episodes at their leisure and the Supreme Court should deem this fair use.

¶64   As in *Sony* where the Court held that a maker of equipment that can be used to infringe copyrights cannot be held as a direct or contributory infringer if the equipment may be widely used for legitimate, unobjectionable purposes or substantial "fair use[s],"[152] the RS-DVR provides the customer the opportunity to view programming which the customer has already paid. The networks did not derive any further revenue from the copies made by the VTRs in *Sony*, and the networks should not derive any further revenue from a newer form of technology that completes the same task.

¶65   To bring this article full circle to the fixed medium and copy debate between the district court and the Second Circuit, their reliance on whether buffer copies are made, the playback copies violate the Copyright Act, and if the performance is "to the public" is misplaced. Their analysis could have simply been shortened had the courts took a step back to look at the bigger picture. After the courts verified that the copies that were made by the RS-DVR ensured that only the customer could watch his own recordings, the next step should have moved to *Sony* analysis. Yes, a copy is made—even with the VTR in the early 1980s—but like the Second Circuit noted, not all copies violate the Copyright Act.[153] Furthermore, all performances of copyrighted works are not "to the public."[154] Using this analysis, the Supreme Court should follow their *Sony* precedent, hold that the RS-DVR has substantial fair uses, and find Cablevision not directly liable for any infringement caused by the RS-DVR.

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[151] *Id.* at 443–47.

[152] *See id.* at 435–42.

[153] *Id.* at 443–57.

[154] *See* Cartoon Network LP v. CSC Holdings, Inc. (Cablevision II), 536 F.3d 121, 135–36 (2d Cir. 2008).