

Second Circuit Paints Digital Cloudscape Favoring Technology Firms' Use of Copyrighted Content

By Chad Woodford and Mitchell Zimmerman

The emergence of “cloud computing” and the universal digitization of consumer electronic devices, along with the unsettled legal status of the technical implementations of these trends, have given rise to renewed tensions between content owners and the firms that deliver these technologies to consumers. In *Cartoon Network LP v. CSC Holdings, Inc. and Cablevision Systems Corp.*, a major decision involving network digital video recording, the Second Circuit resolved a number of these issues in favor of technology companies, limiting the rights of copyright holders.¹

Cartoon Network posed a number of the challenges that courts, lawmakers, and regulators face as Web 2.0 further materializes and as mobile devices drive digitization: Should the line of decisions on RAM copying be extended to buffers and other temporary, fragmentary storage with expansive implications for myriad devices? How are the lines between primary and secondary copyright liability to be drawn in new technological contexts? Should storing content on a remote network be treated differently, for copyright purposes, from storage on a consumer's own equipment? Does the safe harbor of *Sony Corp. v. Universal City Studios, Inc.*,² apply to a network-based video recording service as well as to VCR or DVR devices?

Key Holdings

The Second Circuit's long-awaited decision in *Cartoon Network* included three important rulings.

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1. The court held that unauthorized reproductions of data in computer buffers, collectively comprising the entirety of movies and TV programs, are not infringing copies within the meaning of the Copyright Act because they were not embodied “for a period of more than transitory duration.”
2. Adopting the volition test for direct infringement of *Religious Technology Center v. Netcom On-Line Communication Services*³ and applying the test to devices as well as to Internet services, the Second Circuit held that Cablevision was not liable as a direct infringer because it was Cablevision's customers who engaged in the volitional acts that caused Cablevision's “Remote Storage” Digital Video Recording System (RS-DVR) to make copies of plaintiffs' programming in computer servers.
3. The court held that use of the RS-DVR system did not violate the public performance right because no *public* performances were created when distinct copies of programming were used for separate transmissions to each consumer.

Factual Background: The “Remote Storage” DVR System

Cablevision is an operator of cable television systems. Cablevision designed the RS-DVR System to allow customers who do not have their own digital video recorder device to record cable programming on central hard drives housed and maintained by Cablevision at a remote location. Customers can then receive playback of those programs through their home television sets.

Cablevision does not record all of its programming for possible later retransmission. Rather, when a customer indicates either in advance of a broadcast or when one is under way that he or she wants to record that broadcast, the system stores that programming onto a portion of one of the hard disks allocated to that customer.

As part of that process, a data stream consisting of the programming is routed through two buffers. (Buffers are forms of random access memory that hold data for a brief amount of time, usually shortly before use, typically to improve the performance of the computer or other digital device.) First, all available programming goes through the “primary ingest buffer.” If a customer

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has requested a particular program, the data for that program moves from the primary buffer into a secondary buffer and then onto the hard drive of certain Arroyo servers (where separate copies are made for each requesting customer).

As new data flows into the primary ingest buffer, it overwrites the data already on the buffer. The primary ingest buffer holds no more than 0.1 seconds of each channel's programming at any moment. Thus, every tenth of a second, the data residing on this buffer is automatically erased and replaced by the next tenth of a second of content. The secondary buffer holds no more than 1.2 seconds of programming at any time, before it is erased and replaced.

Plaintiffs' Claims and District Court Proceedings

Cablevision announced its plans to release the RS-DVR in March 2006. It notified the licensors of the content provided via its cable network of its plans to roll out the RS-DVR but did not seek a new license for the RS-DVR from the content owners. A number of copyright holders thereupon sued for declaratory and injunctive relief. Plaintiffs alleged three infringements:

1. That reproducing their entire works (albeit in small, transitory bites) in the buffers represented the creation of infringing copies;
2. That Cablevision was directly liable for the complete copies made on its hard drives; and
3. That Cablevision violated the copyright holders' exclusive right to publicly perform their works when Cablevision retransmitted their works to more than one customer.

Interestingly, plaintiffs alleged theories only of direct infringement, not secondary liability, and Cablevision waived any defense based on fair use. On cross-motions for summary judgment, the district court ruled for plaintiffs.

Buffer Copying: Limiting the RAM Copying Cases

Under the Copyright Act, a copyright holder has the exclusive right "to reproduce the copyrighted work in copies."⁴ The Copyright Act defines a copy as a material object in which the work is fixed, and fixation in turn requires embodiment in a tangible medium of expression "sufficiently permanent or stable to permit it to be perceived, reproduced, or otherwise communicated for a period of more than transitory duration."⁵

A substantial line of cases, beginning with *MAI Systems Corp. v. Peak Computer Inc.*,⁶ has held replications in the random access memory (RAM) of computers to constitute fixed copies, notwithstanding that RAM contents disappear when the computer is turned off. That conclusion was essentially confirmed when, in Title III of the Digital Millennium Copyright Act, Congress partially overturned the *result* in *MAI Systems* by creating an exception for unauthorized copying for computer maintenance, without disapproving the fixation analysis of *MAI Systems*.⁷ As mentioned, a buffer is a form of RAM that holds data for a brief amount of time; as here, buffers typically store fragments of a work or small sets of data that are quickly replaced by further data. *Cartoon Network* is the first case to consider whether buffer copies, like other forms of RAM, are fixed.

A ruling that buffer "copies" are fixed could have swept a wide range of technologies into the law of *prima facie* copyright infringement. As a law professors' *amicus* brief argued, since buffers are employed in all currently available digital devices—computers, cell phones, personal digital assistants, MP3 and compact disk players, fax machines, and digital televisions, for example—if buffers were held to create "copies" within the meaning of copyright law, then each "use of a digital device of any kind (turning on a digital TV or browsing a Web site on the Internet)" would "become an act fraught with potential copyright liability." While it is also true that many such "copies" would be lawful under the fair use or implied license doctrines, the uncertainty of application of these doctrines could present the users and manufacturers of essentially every kind of consumer electronic product, nowadays, with potential liability. Similarly, innovators of a wide range of new Internet and other applications and technologies could find themselves imperiled by a ruling that buffer copies impinge on the reproduction right of § 106(1). They will all, therefore, find much comfort in *Cartoon Network*.

The Second Circuit began its analysis of this issue by unpacking the fixation requirement. The court held that the statutory definition of fixation "plainly imposes two distinct but related requirements: The work must be embodied in a [tangible] medium ... (the 'embodiment requirement'), and it must remain thus embodied 'for a period of more than transitory duration' (the 'duration requirement')." The district court erred, the Court of Appeals held, by considering only the embodiment and not the duration requirement. Similarly, the court argued that *MAI Systems* addressed only the embodiment requirement, on the theory that the duration requirement was not analyzed and was not at issue in the case.

It is true that the Ninth Circuit did not explicitly parse fixation into the two requirements described in *Cartoon Network*. Nonetheless, *Cartoon Network's* suggestion that the Ninth Circuit did not address the duration issue seems a stretch, although *MAI Systems's* analysis of this point is certainly terse. Similarly, based on reports from counsel in *MAI Systems*, it appears that the Second Circuit erred in its speculation that the parties had not argued the issue of whether a RAM replication existed long enough for fixation. Indeed, when the Ninth Circuit explained in *MAI Systems* that the statutory fixation definition was satisfied because the program in RAM allowed defendant Peak to “diagnose the problem with the computer,” the court was likely indicating that the *duration* was sufficient for diagnosis.

Nevertheless, the Second Circuit was plainly correct in distinguishing copies in ordinary RAM from copies in buffers, and it is plain that the courts that have hitherto assessed RAM copies were not considering the key distinctions between such copies and buffer copies. Although a RAM copy, like a buffer copy, is volatile and will disappear when a computer is shut down or crashes, RAM copies can and commonly do include complete, full replications of works of authorship and are capable of persisting in RAM for days, weeks, or even months. Buffer copies, in contradistinction, typically comprise fragments that exist for seconds or less. The Second Circuit therefore correctly found that whether such replications should be considered fixed was not an issue foreclosed by *MAI Systems*:

[W]e construe *MAI Systems* and its progeny as holding that loading a program into a computer's RAM *can* result in copying that program. We do not read *MAI Systems* as holding that, as a matter of law, loading a program into a form of RAM *always* results in copying. Such a holding would read the ‘transitory duration’ language out of the definition

The district court had noted that § 101's fixation definition requires only that copies be sufficiently permanent or stable “to permit [the work] to be perceived, reproduced, or otherwise communicated for a period of more than transitory duration” and that court observed that the buffer copies were capable of being reproduced, since they were used to make the permanent copies in the Arroyo servers. But the court was silent on whether the *duration* requirement was met, and it proves too much if the ability to be perceived, reproduced, or communicated by itself meets the more-than-transitory-duration requirement. By the district court's logic, an extemporaneous speech could

equally be said to be fixed: Air is as tangible a medium of expression as the flow of electrons through a circuit, and speeches “fixed” in thin air are obviously sufficiently stable to be capable of being perceived, reproduced, or communicated.

Viewing the duration requirement as requiring more than this, the Second Circuit readily concluded that the requirement was not satisfied by Cablevision's use of buffers:

No bit of data remains in any buffer for more than a fleeting 1.2 seconds. And unlike the data in cases like *MAI Systems*, which remained embodied in the computer's RAM memory until the user turned the computer off, each bit of data here is rapidly and automatically overwritten as soon as it is processed [T]hese facts strongly suggest that the works in this case are embodied in the buffer for only a ‘transitory’ period, thus failing the duration requirement.

Cloud Computing and Equivalency for Consumer-Owned Devices

Cloud computing, which is placing programs and data in a “cloud” on the Internet, rather than on end-users' machines, represents a hot trend; indeed, even Microsoft has embraced this as a major shift in direction for the company.⁸ The advance of the cloud resurrects ideas put forth in the 1990s by Sun Microsystems (“The Network is the Computer”) and Netscape, that applications would live less at the “edge” (on the devices of the users in the periphery) and more in the network “cloud.” It is also reminiscent of the early days of computing when powerful mainframes did most of the computing and the user accessed data and processing through a simple dumb terminal. In a way, cloud computing is just a fancy name for the well-established “software as a service” (SaaS) model that makes up much of what we now call Web 2.0.⁹ And the RS-DVR simply embodies and applies that trend to the functions performed by a DVR.

For consumers, the shift to the cloud should (ideally) be sufficiently transparent that the end-user cannot tell whether the functionality that he or she is employing is stored on the user's own hard drive or on the network. But the shift necessarily means that various processing, such as reproduction and distribution, that have implications for copyright law are taking place in a technically different matter. Should this matter to the legal conclusion? When a shift to the cloud would have no significant impact on the content owners' revenue or business model, and barring some real and quantifiable impact on authors' incentives to create, then

(the authors suggest) the courts should start with the position that there is no reason to find liability for copyright infringement for the substantively and functionally equivalent activity. As Tim Wu pointed out in an *amicus* brief in *Cablevision*, whether the Cablevision customer stores recorded content on a DVR at his home or at Cablevision's premises using the RS-DVR service, the "putative lost revenue for the copyright owner" is the same, so the law should treat them the same.¹⁰ Let us next see how these principles play out with regard to Cablevision's technology and service.

Server Copying Claim and the Volition Requirement

As noted, after the second buffer effects the piecemeal replication of plaintiffs' programming, separate complete copies of each requested program are stored on Cablevision's Arroyo servers in separate places dedicated to each customer. These copies were neither fragmentary nor especially ephemeral, and the plaintiffs in *Cartoon Network* alleged that Cablevision was liable for direct copyright infringement for the copying of their programming to the Arroyo server hard drives as part of the RS-DVR recording process. After all, these copies were not authorized under Cablevision's existing licenses with the plaintiffs.

In adopting the Netcom volition standard in *Cartoon Network*, the Second Circuit . . . became the first federal appeals court to extend the rule to services not accessible via the Internet.

As we will see, whether the customer or Cablevision is deemed to have made the copies is a critical issue in determining which is the direct infringer. Because the plaintiffs did not plead any claims for secondary liability and because Cablevision waived its fair use defense, the direct infringement issue in this case turned solely on the volition question.

Although copyright is a strict liability regime, a line of Internet and BBS cases, beginning with *Religious Technology Center v. Netcom On-Line Communication Services*,¹¹ holds that some volitional act by the owner of an automated system is still required for direct liability to lie. In other words, the owner of an online system cannot be held directly liable for copyright infringement based on its passive ownership of a facility that, responding automatically to users' input, creates unauthorized copies. This rule has been adopted by courts in the Third, Fourth, and Ninth Circuits and is now, in substance,

codified in the first safe harbor under the DMCA, subject to various terms and conditions.¹²

Nonetheless, the volition rule is not 100 percent clear. Several district courts have found liability for direct infringement even when no volition was apparent, but in each case the defendant had played a more active role in the infringing activity, its involvement evidencing at least some knowledge of the infringement or intent to encourage the infringement.¹³ Most recently, the Fourth Circuit, in adopting the *Netcom* volition rule,¹⁴ pointed to the well-established practice of analyzing liability for user-directed copying under theories of secondary liability rather than direct infringement liability, an approach echoed by the Second Circuit in this case. In adopting the *Netcom* volition standard in *Cartoon Network*, the Second Circuit not only joined the Third, Fourth, and Ninth Circuits but also became the first federal appeals court to extend the rule to services not accessible via the Internet.

Can the Volition Cases Be Distinguished?

In *Cartoon Network*, the district court rested its decision on two seemingly plausible arguments against giving Cablevision the benefit of the *Netcom* rule, based on its view that Cablevision played a sufficient role in the creation of copies on the RS-DVR for direct liability. The court argued (1) that Cablevision was too different from an ISP to obtain the benefits of the *Netcom* rule, in part because of its ability to choose the programming, and (2) that Cablevision was sufficiently similar to a so-called copy shop to be subject to precedent from the copy shop cases.

First, the lower court reasoned that Cablevision is not "similarly situated to an ISP [because] Cablevision is not confronted with the free flow of information that takes place on the Internet, which makes it difficult for ISPs to control the content they carry."¹⁵ After all, Cablevision has complete knowledge of the content on its system and ultimate power to decide whether to carry it. Furthermore, the district court observed, in the *Netcom* line of cases the infringing copies were only part of a larger body of information flowing through the network at the behest of end-users; with the RS-DVR, on the other hand, the allegedly infringing copies are integral to the system's operation and represent the entirety of the system's content.

In the district court's view, the challenges faced by ISPs in policing content within the "free flow of information that takes place on the Internet"¹⁶ represented a primary justification for the *Netcom* volition principle. The district court therefore reasoned that Cablevision's role in selecting programming amounted to the opposite of the ISPs' situation and concluded that Cablevision's

power to decide what programming to make available to subscribers of the RS-DVR service (by selecting which of the 170 channels can be recorded with the service) distinguished *Netcom*.¹⁷

The Second Circuit rejected this analysis, finding that Cablevision's ability to select channels was not sufficiently proximate to the copying to constitute volition. As some of the *amici* also point out,¹⁸ this type of discretion regarding content channels or categories is not uncommon for ISPs and does not justify different treatment for Cablevision. In particular, ISPs that operate Usenet servers, such as *Netcom* itself, can select which Usenet groups and categories of groups are available to its subscribers. More generally, all ISPs have access to the tools and technology to filter content, although, like Cablevision, they typically choose not to do so.¹⁹

Although comparison between Cablevision's role in content delivery and the nature of an ISP's relationship with content highlights significant differences, it is not so clear why these considerations should matter to the issue of who is directly creating copies.

Further, the Second Circuit reasoned, the fact that Cablevision has the ability to choose the programming that is available for recording using its traditional, subscriber-based DVR devices²⁰ does not render Cablevision liable for its distribution of the DVRs; the same principle should apply to the Cablevision server-based service. Moreover, in the Second Circuit's view, the selection of entire programming channels is different from the selection of shows within those channels. Had Cablevision exercised that level of control, according to the court, this would make the RS-DVR service almost indistinguishable from video-on-demand and likely sufficiently proximate to find Cablevision directly liable.

Equally important, none of the volition cases explicitly restricted the application of the volition rule to the Internet context. Although the Second Circuit admitted that Cablevision's ability to select channels of content is "indeed more proximate to the creation of illegal copying than, say, operating an ISP or opening a copy shop, where all copied content [is] supplied by the customers themselves or other third parties,"²¹ because the volition requirement stems from a fundamental principle of copyright law—that an alleged infringer must do more than merely make copying mechanisms available to users—the court declined to limit *Netcom* to the Internet and held that Cablevision's provision of its

Remote-DVR-like service did not satisfy the volition requirement.

Although this comparison between Cablevision's role in content delivery and the nature of an ISP's relationship with content highlights significant differences, it is not so clear why these considerations should matter to the issue of *who* is directly creating copies. Certainly, these considerations, while arguably highly germane to secondary liability, do not affect the *Netcom* principle that, by offering an automated service that enables users to make copies of copyrighted content, the service provider is not itself deemed to make unauthorized copies. Here, the RS-DVR is a purely automated system in which server copies are made at the direction of users, so *Netcom*'s volition principle should apply.

Distinguishing the Copy Shop Cases

Finally, in deciding that Cablevision directly infringed, the district court relied on the so-called copy shop line of cases holding photocopying shops liable for making copies of college course packs and other works at the request of customers. For example, in *Princeton Univ. Press v. Mich. Document Servs.*,²² the Sixth Circuit held a copy center directly liable for making course packs of copyrighted material provided by professors and selling those course packs to students. But, as the Second Circuit pointed out, there is a significant difference between a human employee making copies at the request of a customer and an automated process. According to the *Cartoon Network* court, a more apt analogy is to a store proprietor who charges customers to use a photocopier on store premises, without any volitional role in the making of copies except the provision of the equipment and the facilities. Clearly, the proprietor of such a service should not be held directly liable for infringing activity of which he has no knowledge and no direct involvement. According to the Second Circuit, neither should Cablevision.

With these principles and issues in mind, the Second Circuit likened the RS-DVR to a VCR and a photocopier or copy shop, thereby further supporting its contention that secondary liability is the appropriate framework in which to assess Cablevision's liability. In comparing the RS-DVR with a traditional VCR the court found, for the purpose of the volition analysis, that the two technologies are not sufficiently distinguishable: Whether the consumer is pushing the record button on an RS-DVR or a VCR, that person is directing an otherwise automatic copying process. By choosing its analogy to the VCR, the Second Circuit downplayed the significance of Cablevision's ongoing relationship with its customers and its control over the recordable content offered. These factors, said the court, would potentially bear on secondary liability, but did not negate the limitation on

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Cablevision's direct responsibility as the passive owner of instrumentalities used for copying.

The Relevance of Secondary Liability

Clearly, the Second Circuit has concluded that secondary liability, and only secondary liability, represents the appropriate framework within which to assess Cablevision's liability for the unauthorized copying taking place on the Arroyo servers. The court relied heavily on the "existence and contours of the Supreme Court's doctrine of contributory liability in the copyright context" in concluding that Cablevision should not be liable for direct infringement: "[T]he doctrine of contributory liability [provides] adequate protection to copyrighted works" when volition cannot be found.²³ A well-developed jurisprudence around contributory and vicarious liability stretches from *Sony Corp. v. Universal City Studios, Inc.*,²⁴ through *A&M Records, Inc. v. Napster, Inc.*,²⁵ and *In re Aimster Copyright Litig.*²⁶ *MGM v. Grokster*²⁷ makes a third theory of secondary liability available. Importantly, as the Second Circuit pointed out, many of the factors relied upon by the district court, such as Cablevision's ongoing relationship with its RS-DVR customers and its control over the instrumentality of copying, are the very considerations that courts weigh in assessing secondary liability.

The plaintiffs in *Cartoon Network* did not allege any theories of secondary liability. How might the court have ruled, had they done so? To establish secondary liability, one must of course prove direct infringement by some third party, but Cablevision's customers would appear to have a robust (if not entirely certain) fair use defense.²⁸ Use of the RS-DVR for time-shifting would represent well-established, paradigmatic fair use under *Sony*, when consumers engage in the same behavior on a device they own.²⁹ It is not clear why the fact that they are engaging in the very same activity, for the same purpose, using functionally equivalent, "leased" remote equipment should make any difference.

Although the RS-DVR can be characterized as a service, the Second Circuit apparently did not see it as different in substance from a dual-use device similar to the VCR. The end-users' successful assertion of a fair-use defense to direct infringement would, of course, vitiate any secondary liability claims against Cablevision itself.³⁰ There is, therefore, no need to consider whether the further elements of contributory infringement, vicarious infringement, or inducement could be proven against Cablevision.

Cartoon Network's Significance on Volition

This appears to be the first volition case not involving a site or service accessible via the public Internet. Most

online service providers have concluded that the DMCA safe harbors provide sufficient comfort against liability for customer activity, so long as they observe § 512's prerequisites for immunity. Amazon.com can offer its S3 and EC2 cloud computing services, Google can provide image searching, and YouSendIt can provide its file-transfer services. These companies can generally not be held liable for the infringing acts of their customers and users. Although the safe harbors of the DMCA may extend to service providers like Cablevision,³¹ in light of current precedent interpreting the scope of the safe harbors and the absence of a single decision extending the safe harbors beyond the Internet, it is not clear to what extent a private network service like the RS-DVR would be covered.

How important is *Cartoon Network's* volition holding as a practical matter? First, the holding strongly bolsters the position of technology companies and entertainment conduits by walling off direct liability. While the DMCA safe harbors may make this protection redundant, for many enterprises there is significant uncertainty as to whether the DMCA adequately protects them from infringement claims, given the language and conditions contained in § 512. Insofar as direct infringement is precluded under *Cartoon Network* and end-users have viable fair use defenses, DMCA uncertainties become less relevant. Second, insofar as the DMCA is held to apply exclusively to the public Internet, the Second Circuit's holding on volition will provide comfort to and reduce uncertainty for companies offering (for example) automated computing or storage services where unauthorized copies are being made on a private network. Perhaps in light of *Cartoon Network*, parties will negotiate different licenses whose financial terms take into account such new uses. But, in such negotiations, technology companies will have *Cartoon Network* in their back pocket, ready to argue that certain copies are at the behest of customers and therefore not in need of an expanded license.

The Public Performance Claim

The Copyright Act grants copyright owners the exclusive right, "in the case of . . . motion pictures and other audiovisual works, to perform the copyrighted work publicly."³² Plaintiffs alleged that, because Cablevision's RS-DVR would stream, without authorization, performances of their copyrighted programming to multiple viewers, Cablevision would also be liable for infringing their right of public performance. But the Second Circuit held that the transmissions were not *public* performances and hence did not infringe.

Relying on what it deemed to be the plain meaning of the definition in 17 U.S.C. § 101 and several cases

interpreting the phrase “to the public,” the court held that the transmission of recorded programming using the RS-DVR was not a transmission “to the public.” The court so held because a distinct copy of each work was associated with each subscriber and because each such copy was to be transmitted only to that single subscriber; such transmissions were not *public* performances.

In relevant part, §101 of the Copyright Act defines public performance as follows:

2) to transmit or otherwise communicate a performance . . . of the work . . . to the public, by means of any device or process, whether the members of the public *capable of receiving* the performance . . . *receive it in the same place or in separate places and at the same time or at different times.*³³

The quoted portion of the definition is known as the transmit clause. Both the district court and the appellate court carefully parsed this definition and the language of § 106. The lower court also relied on the nature of Cablevision’s relationship with its customers, saying that courts have found performances within such a commercial relationship to necessarily be public.

The Second Circuit’s Analysis

Depending on whether or not you agree with it, the Second Circuit’s reasoning on this issue is either nuanced or obscure and in any event requires careful examination. The statute does not define “performance” or “to the public,” so the court relied on what it deemed the “plain meaning” of those terms within the overall context of the statute. As we will see, the plain meaning of the transmit clause is not all that plain, because the statutory definition is not a model of clarity.

Given the defendants’ assertion that the performances herein were not to the public and given the language of the transmit clause in § 101, the crux of the inquiry, the Second Circuit reasoned, was defining the scope of the audience that is “capable of receiving” the performance at different times and places. According to the court, this group of people, who are dispersed in space and time and capable of receiving some performance of the work, must be tethered to some *specific* performance. After all, the court reasoned, under the transmit clause, to perform a work publicly, one must transmit “a performance” to persons capable of receiving “the performance.” But how does one differentiate between performances?

As evidenced by the court’s difficulty in providing a succinct and clear explanation, this is a challenging issue. The answer may come down to whether the performance in question is synonymous with the transmission

referred to in the transmit clause. The plaintiffs argued that the transmission in the transmit clause was, potentially, a transmission of some “original performance.”³⁴ Conversely, the Second Circuit concluded that the “transmission of a performance is itself a performance.”³⁵ This conclusion underlies the remainder of the Second Circuit’s reasoning on the public performance issue, making it a linchpin of its public performance holding. Without it, the court’s holding on public performance comes out differently.

Before proceeding to the court’s analysis, let us first consider how a television show is transmitted to subscribers. In a cable television system, there are a multitude of transmissions of a given work; HBO transmits “Deadwood” to one or more intermediate programming services, which then transmit it to Cablevision, Comcast, and numerous other cable providers. Each of those providers then transmits “Deadwood” to each of its subscribers, via regional circuits within which further transmissions take place. Clearly, all such transmissions by Cablevision are public performances, for which Cablevision has a license from HBO. The plaintiffs’ basic question was whether a transmission from the RS-DVR to a subscriber should be treated differently.

The plaintiffs had argued on appeal that, because “Deadwood” was being transmitted to all Cablevision HBO subscribers and all RS-DVR customers who request a copy of that program at different times, this rendered recipients of the RS-DVR transmissions part of the same group capable of receiving the *original performance* by the programming service supplying HBO programming to Cablevision.³⁶ The plaintiffs’ argument has some fit with the language of the statute, which anticipates that a public performance can be received by different people at different times.

The plain meaning of the transmit clause is not all that plain, because the statutory definition is not a model of clarity.

In the Second Circuit’s view, however, a reading of public performance that is based on considering the audience for the original performance creates an excessively broad audience of those capable of receiving the performance, stretching beyond a single cable company and obviates any possibility of a purely private transmission; after all, says the court, such an “original performance” is being transmitted by any number of third parties at any given time, whether Cablevision is transmitting the work or not. Under this approach, the court argued, “to determine whether a given transmission of a performance is ‘to the public,’ [one] would

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consider not only the potential audience of that transmission, but also the potential audience of any transmission of the same underlying ‘original’ performance.”³⁷ Consequently, under the plaintiffs’ and the district court’s view, the public nature of a transmission is then determined by unrelated parties. For example, says the Second Circuit, if Cablevision chooses not to transmit a particular work to its subscribers but only to other Cablevision locations, under the plaintiff’s theory it would still be performing the work publicly because it is being transmitted to Comcast subscribers. Or, under this theory, a Cablevision customer transmitting the work from his den to a TV in his bedroom would be liable for publicly performing the work based on the transmission of Cablevision, despite the private nature of his actions.

Deducing such possibilities, the court cited Second Circuit precedent holding that “a public performance . . . includes each step in the process by which a protected work wends its way to its audience”³⁸ and held that each transmission was a separate performance whose public nature must be examined separately, without looking “upstream or laterally.”³⁹ In other words, each transmission must be considered distinctly and cannot be tied to any upstream transmission or public performance. If you accept the court’s conclusion that each transmission is the performance, then Cablevision’s activity represents a series or collection of private performances.

Despite its lengthy exposition in the opinion, the reason for the court’s reliance on copies as the determinative factor remains, at best, unclear, and the court’s analysis does not appear compelling.

Looking for a place to draw the line between public transmissions and performances and private transmissions and performances, the court settled on copies. Naturally, some basis of distinction is necessary, or the private transmission theory would prove too much, negating the express provision of the statute that a transmitted performance can be received at different times. With the RS-DVR, each RS-DVR transmission is made using a separate copy of any given work. So, in the words of the court, which was echoing Cablevision’s own argument, “because each RS-DVR transmission is made using a single unique *copy* of a work, made by an individual subscriber, one that can be decoded exclusively by that subscriber’s cable box, only one subscriber is capable of receiving any given RS-DVR transmission.”⁴⁰ Therefore,

reasoned the court, the RS-DVR transmissions are not “to the public.”

Despite its lengthy exposition in the opinion, the reason for the court’s reliance on copies as the determinative factor remains, at best, unclear, and the court’s analysis does not appear compelling. “Plain meaning” seems to go more than one way here, since on the one hand the statute obviously anticipates that there can be private transmissions, while on the other hand the mere fact that transmissions take place at different times cannot be enough to negate the possibility of a “public” performance even though distinct acts of transmission occur. Although there may be little support for this tack, perhaps a better route to this outcome on public performance would have been to consider who is doing the performing. In a sense, the Cablevision subscriber is doing the performing here, in the same way that the subscriber is doing the copying. The defendants in this case did argue that point, but the Second Circuit chose to rely on the public-private distinction instead.⁴¹

Although *Cartoon Network* is the first court to suggest that the source of the received performances (one copy or multiple ones) is the correct basis for distinguishing public and private performances in the digital context, there are a number of cases from the analog era supporting such reliance.

The Video Rental Cases

Placing the emphasis on whether separate copies are being transmitted accords with some of the video rental cases, *Columbia Pictures Industries v. Redd Horne*⁴² being the one relied upon by the court in this case. In *Redd Horne*, a video store named Maxwell’s rented small viewing booths that could accommodate two to four people for watching movies supplied by Maxwell’s. A Maxwell’s employee would play a copy of the movie selected by the patrons in a single VCR within a bank of VCRs at the front of the store, which would then transmit the movie to a TV located in the appropriate viewing booth. The Third Circuit in that case concluded that Maxwell’s conduct violated both clauses of the definition, relying on the legislative history of that definition and Professor Nimmer’s examination of it. According to the Third Circuit’s reading of the legislative history, “if a place is public, the size and composition of the audience is irrelevant.”⁴³ Professor Nimmer suggests that, “if the same copy . . . of a given work is repeatedly played . . . by different members of the public, albeit at different times, this constitutes a ‘public’ performance.”⁴⁴ Neither the prior cases nor Professor Nimmer explain the thinking behind this reliance on copies, but the Second Circuit found it persuasive, particularly because placing the emphasis on copies provides copyright owners with

the equally effective hook of reproduction in protecting their works.

The Second Circuit rejected the approach of *On Command Video Corp. v. Columbia Pictures Indus.*,⁴⁵ the video rental case relied upon by the lower court, because its reasoning was inconsistent with the Second Circuit's and it placed too much emphasis on the commercial nature of the relationship between the transmitting party and the audience. In *On Command Video*, defendant On Command had developed and sold to hotels a movie rental device enabling hotel guests to view movies streamed from the centralized hub to their hotel rooms. The way the system was designed, each videocassette copy of a movie could only service one showing at a time. The *On Command* court held that the transmissions made by this system were made to the public "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."⁴⁶ Because, in the Second Circuit's view, the *On Command Video* court's logic rules out any possibility for a nonpublic performance under the transmit clause and places too much emphasis on the commercial nature of the relationship, the Second Circuit found it unpersuasive. Had Congress intended to make all commercial transmissions public performances, said the court, "the transmit clause would read: 'to perform a work publicly means . . . to transmit a performance for commercial purposes.'"⁴⁷

The court's reliance on copies in deciding whether a transmission is a public performance may appear to some providers as a loophole, prompting such providers to make separate copies of each work and associate each copy with one subscriber, or allow subscribers to do so, in order to avoid liability. Anticipating this criticism, the court pointed out that such providers would still be subject to other forms of copyright liability, including infringement of the reproduction right or liability for contributory copyright infringement. Going forward, this is an argument that we may start seeing more frequently in copyright opinions involving digital technology. The court's reliance on the reproduction right shows how the nature of digital technology renders some of the rights in § 106 duplicative. Whereas in analog media one typically performed a work publicly using a single physical copy of a work, with the advent of digital technologies, it is nigh impossible to perform, display, or distribute a work without implicating the reproduction right in some fashion. In fact, perhaps it was this feature of digital media that motivated the court's reliance on copies as the limiting factor. In any case, the court's observation should assuage those who see its reliance on copies as excessively narrowing.

To be sure, the transmit clause in § 101 is not the model of clarity—for example, it is not at all clear why it refers to "members of the public *capable of* receiving the performance," rather than "the members of the public who have received the performance"—and the Second Circuit has done little to advance our understanding of its contours. No doubt, the Second Circuit's reasoning on the public performance issue contains some hard-to-follow leaps, leaving it open to attack by other courts. But, for now, it is the definitive word on this heretofore unexamined issue.

Conclusion

When you levy higher taxes on bigger houses based on the number of windows that a house has, you get darker houses; the rule distorts architectural decision-making. The issue posed by copyright rules that burden some technological implementations of a functionality, but not others, is whether they are benefiting interests that need to be protected as "rights" or are distorting the architecture of electronic systems or services when there is no substantive difference between the technologies. The test for whether there is "no substantive difference," in the context of copyright liability rules, should be whether the shift from one technical implementation to another causes monetary harm to the content holder or whether treating the new implementation differently from the older implementation better maintains the appropriate balance between incentives for creators and the public domain of free uses.

The Second Circuit's decision in *Cartoon Network* is consistent with a concern that a finding of liability would have favored certain DVR technologies over others, supplanting the market in deciding what technology should prevail, when these tests for relevant differences have apparently not been satisfied. The specific results in *Cartoon Network*, as well as the analytical approach to making these judgments, will reduce the legal obstacles to cloud computing, thereby enabling a trend that promises to make access to information and new technologies more broadly and efficiently available.

Notes

1. *Cartoon Network LP v. CSC Holdings, Inc.*, 2008 U.S. App. LEXIS 16458 (2d Cir. Aug. 4, 2008) (No. 07-1480), *reversing* *Twentieth Century Fox v. Cablevision*, 478 F. Supp. 2d 607 (S.D.N.Y. 2007).
2. *Sony Corp. v. Universal City Studios, Inc.*, 464 U.S. 417 (1984).
3. *Religious Technology Center v. Netcom On-Line Communication Services*, 907 F. Supp. 1361 (N.D. Cal. 1995).
4. 17 U.S.C. § 106(1).
5. 17 U.S.C. § 101.

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6. MAI Systems Corp. v. Peak Computer Inc., 991 F.2d 511 (9th Cir. 1993).
7. See 17 U.S.C. § 117(c) (setting forth this exception).
8. In addition to its existing “Live” services, Microsoft recently announced “Live Mesh,” a cloud computing service that synchronizes files across computers, phones, and other devices. See, e.g., “Ten Things to Know About Microsoft’s Live Mesh,” ZDNet, Apr. 22, 2008, available at <http://blogs.zdnet.com/microsoft/?p=1355>.
9. For an overview of the Web 2.0 concept and links to further reading on the topic, refer to the Wikipedia entry at http://en.wikipedia.org/wiki/Web_2.0.
10. Brief for amici curiae Law Professors re Asymmetry at 16-17, Cartoon Network, 2008 U.S. App. LEXIS 16458.
11. Religious Technology Center v. Netcom On-Line Communication Services, 907 F. Supp. 1361 (N.D. Cal. 1995).
12. 17 U.S.C. § 512(a). Of course the immunity provided by this safe harbor is available only to online service providers (OSPs). Because Cablevision provides its RS-DVR service via a private network, Cablevision does not qualify as an OSP under the DMCA.
13. See Playboy Enterprises, Inc. v. Frena, 839 F. Supp. 1552 (M.D. Fla. 1993), Playboy Enterprises, Inc. v. Webbworld, 968 F. Supp. 1171 (N.D. Tex. 1997), and Playboy Enterprises, Inc. v. Sanfilippo, 1998 U.S. Dist. LEXIS 5125 (S.D. Cal. 1998).
14. CoStar Group, Inc. v. LoopNet, Inc., 373 F.3d 544 (4th Cir. 2004).
15. Twentieth Century Fox v. Cablevision, 478 F. Supp. 2d at 620-621.
16. *Id.* at 620.
17. Twentieth Century Fox, 478 F. Supp. 2d at 613, 620.
18. Brief for amici Center for Democracy & Technology, et. al., at 16-18, *Cartoon Network*, (No. 07-1480), 2008 U.S. App. LEXIS 16458 (2d Cir. Aug. 4, 2008).
19. The filtering of certain Internet protocols by ISPs is a controversial and hotly debated subject at the moment. For more on the issue of network neutrality, the Wikipedia entry is a good starting point. See http://en.wikipedia.org/wiki/Network_neutrality. Also, CNET News has good coverage of the issue. See http://news.cnet.com/Net-neutrality-showdown/2009-1028_3-6055133.html.
20. *Cartoon Network*, 2008 U.S. App. LEXIS 16458 at 30-31.
21. *Cartoon Network*, 2008 U.S. App. LEXIS 16458 at 30.
22. Princeton Univ. Press v. Mich. Document Servs., 99 F.3d 1381 (6th Cir. 1996).
23. *Cartoon Network*, 2008 U.S. App. LEXIS 16458 at 31-32.
24. Sony Corp. v. Universal City Studios, Inc., 464 U.S. 417 (1984).
25. A&M Records, Inc. v. Napster, Inc., 239 F.3d 1004 (2001).
26. *In re Aimster Copyright Litig.*, 334 F.3d 643 (7th Cir. 2003).
27. *MGM v. Grokster*, 125 S. Ct. 2764, 2770 (2005).
28. *Netcom* at 1371 (citing what is now 3 Nimmer on Copyright § 12.04[D][1]).
29. *Sony*, 464 U.S. at 448.
30. Even if some RS-DVR users engaged in some archiving of programming, it would still be the case, under *Sony*, that the technology is capable of substantial non-infringing uses, which should be sufficient to bar liability.
31. In particular, § 512(a) is the only subsection of § 512 that is expressly not limited to online service providers. 17 U.S.C. § 512(k).
32. 17 U.S.C. § 106(4).
33. 17 U.S.C. § 101 (emphasis added).
34. *Cartoon Network*, 2008 U.S. App. LEXIS 16458 at 42.
35. *Id.* at 38.
36. *Id.* at 41-42.
37. *Id.* at 42.
38. *National Football League v. PrimeTime 24 Joint Venture (NFL)*, 211 F.3d 10, 13 (2d Cir. 2000).
39. *Cartoon Network*, 2008 U.S. App. LEXIS 16458 at 45-46.
40. *Id.* at 39-40 (emphasis added).
41. *Id.* at 37 (“[W]e note that our conclusion in Part II that the customer, not Cablevision, ‘does’ the copying does not dictate a parallel conclusion that the customer, and not Cablevision, ‘performs’ the copyrighted work.”).
42. *Columbia Pictures Industries v. Redd Horne*, 749 F.2d 154 (3d Cir. 1984).
43. *Id.* at 158.
44. 2 Nimmer, § 8.14[C][3].
45. *On Command Video Corp. v. Columbia Pictures Indus.*, 777 F. Supp. 787 (N.D. Cal. 1991).
46. *Id.* at 790. Although not discussed by the *Cartoon Network* court, the Second Circuit’s holding is also consistent with *Columbia Pictures Industries, Inc. v. Professional Real Estate*, an earlier video rental case predating *On Command Video* in which the Ninth Circuit held that hotel guests could view videos rented from the hotel without creating a public performance, despite the commercial nature of the relationship between the hotel and its guests. Arguably, the difference between a booth in a public store (albeit occupied “privately,” temporarily) and the true privacy of a hotel room provides a relevant distinction between *Columbia Pictures* and *Maxwell*.
47. *Cartoon Network*, 2008 U.S. App. LEXIS 16458 at 51.