

SAFE HARBORING THE CLOUD ON AN EVOLVING DIGITAL PLATFORM

Comment

I.	INTRODUCTION AND OVERVIEW	80
II.	COPYRIGHT LAW IN THE UNITED STATES	81
	A. <i>CATV Decisions Under Copyright Act of 1909</i>	82
	B. <i>Copyright Act of 1976</i>	83
	1. VCR Cases	83
	2. Internet Cases	84
III.	DMCA SAFE HARBORS.....	86
	A. <i>Online Copyright Infringement Liability Limitation Act</i>	86
	B. <i>DMCA Case Law</i>	87
IV.	CLOUD BASED STORAGE	89
V.	FUTURE OF STREAMING SERVICES	91
VI.	KEEP CALM AND CLOUD ON	94

I. INTRODUCTION AND OVERVIEW

After decades of silence, the House Judiciary Committee has recently spent two years, and held twenty hearings, with a hundred witnesses as part of a comprehensive review of U.S. copyright law.¹ The next step in the effort, as recently announced in July 22, 2015, will be to seek feedback and proposals from interested parties, prior witnesses, and other stakeholders toward updating the current copyright law system.² Also in 2015, the Federal Communications Commission (FCC), an agency with rulemaking authority, has issued proposals that seek to modernize the interpretation of copyright terms defined in 47 C.F.R. pt. 76.³ The reality is that emerging digital technology has continued to outpace copyright law and the challenge remains to maintain the protections to copyright holders that promote innovation without improperly clogging information flow for the public interest and without unnecessarily stunting the growth of non-infringing businesses.

In particular, the Supreme Court decision in *American Broadcasting Companies v. Aereo, Inc. (ABC v. Aereo)* has brought a wave of public concern over what the future will hold for the clouding business.⁴ This note will carefully analyze what the concern is, whether the concern is legitimate, and identify other

1. See House Judiciary Committee Announces Next Step in Copyright Review, House Judiciary Committee (July 22, 2015), <http://judiciary.house.gov/index.cfm/press-releases?id=9F19560C-2FD0-41DF-8934-5B495ECA4EF2> (last visited Aug. 27, 2016) [<http://perma.cc/34FE-3KD6>].

Chairman Goodlatte: "Two years ago, the House Judiciary Committee began the first comprehensive review of our nation's copyright laws since the 1960's. The goal of our review is to ensure that our nation's copyright law keeps pace with the digital age... [and] consider updates to our nation's copyright laws."

Ranking Member Conyers: "Copyright plays an increasingly important role in the American economy. The two-year copyright review highlighted several areas where the copyright community can potentially find common ground. I look forward to hearing from all stakeholders about their additional views and proposals that will strengthen the copyright system."

Id.

2. See House Judiciary Committee Announces Next Step in Copyright Review, House Judiciary Committee (July 22, 2015), <http://judiciary.house.gov/index.cfm/press-releases?id=9F19560C-2FD0-41DF-8934-5B495ECA4EF2> (last visited Aug. 27, 2016) [<http://perma.cc/34FE-3KD6>].

3. Promoting Innovation and Competition in the Provision of Multichannel Video Programming Distribution Services, 80 Fed. Reg. 2078 (proposed Jan. 15, 2015) (to be codified at 47 C.F.R. pt. 76); 47 C.F.R. § 76.5.

4. *American Broadcasting Company, Inc. v. Aereo Inc.*, 134 S. Ct. 2498 (2014). For the purposes of this paper, the term "cloud business" or "cloud computing" means, in a broad sense, the business of or the platform by which information such as data or programming is stored and accessed over the internet. Eric Griffith, *What is Cloud Computing?*, PCMAG.COM (Apr. 17, 2015), <http://www.pcmag.com/article2/0,2817,2372163,00.asp> [<http://perma.cc/TQF9-BTG9>].

areas of law that may help pacify the anxieties of cloud enthusiasts. First, Part II will provide a copyright law primer beginning at the Constitutional protections on copyright ownership along with several relevant court decisions under the Copyright Act of 1909 and the Copyright Act of 1976. After some copyright history, Part III will then narrow the discussion to the DMCA safe harbor provisions and how the provisions have been interpreted by courts. Specifically liability limitations and tests that the courts have used to help with consistent applicability. Finally, Part IV and V will explore application of these current standards to current cloud computing. This should then shed some light on whether the clouding industry should rethink its business model with regard to guarding itself against potential liability.

II. COPYRIGHT LAW IN THE UNITED STATES

The United States Constitution provides Congress with the power “[t]o promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries.”⁵ The nation’s copyright law is contained in Title 17 of the United States Code that, for a limited amount of time, enables exclusive rights by law to creators of qualified original works.⁶ Such works include music, images, motion pictures, sculptures, literature, etc.⁷ The copyright owner not only has the exclusive right to reproduce, prepare derivative works or distribute the work, but the owner also has the exclusive right to display or perform the work publically.⁸ The monopolistic reach of the latter set of rights and particularly to *perform* the work is at the center of the remaining discussion.⁹

Unauthorized use of copyrighted material is considered infringement unless the use fits under a statutory exception such as “fair use” or is permissible under the 1998 Digital Millennium Copyright Act (DMCA).¹⁰

5. See U.S. CONST. art. 1 § 8, cl. 8.

6. 17 U.S.C. § 106 (2012) (providing details on exclusive rights of copyright owners).

7. *Id.*

8. *Id.* (stating that the exclusive right to perform publically is relevant to a subset of works including “literary, musical, dramatic, and choreographic works, pantomimes, and motion pictures and other audio visual works”).

9. 17 U.S.C. § 106.

10. Brian T. Yeh, *Copyright Licensing in Music Distribution, Reproduction, and Public Performance*, CRS REPORT 2 (Sept. 22, 2015), <https://www.fas.org/sgp/crs/misc/RL33631.pdf> [<http://perma.cc/CGU6-L839>]. Fair use as a defense to copyright infringement originated in common law. The doctrine recognized that in limited cases it should be permissible in a manner without the owner’s consent, notwithstanding the monopoly granted to the copyright owner. The doctrine was eventually codified by statute. CRAIG JOYCE ET AL., COPYRIGHT LAW 821 (10th ed. 2016). *Folsom v. Marsh*, 9 F. Cas. 342 (No. 4,901), 13 Copr. Dec. 991 (1841).

A. CATV Decisions Under Copyright Act of 1909

Before even considering the applicability of fair use or the DMCA safe harbors for liability, it is necessary to determine if an infringement of any rights of the copyright holder has occurred. Such a determination of whether use is considered infringement is not a straight forward assessment. Particularly the types of activity that meets the definition of “performance” has been further clarified over the years with updated legislation and case law decisions. In an early 1968 case, *Fortnightly Corp. v. United Artists Television, Inc.*, Fortnightly profited from two cable television (CATV) systems that transmitted the Plaintiff’s broadcasts by antenna over cables to hilly areas that would not have been able to catch broadcast otherwise.¹¹ The Supreme Court found that the CATV system did not constitute “performance” under the Copyright Act of 1909.¹² The reason was that Fortnightly did not *perform* the programs received, but merely *enhanced* ability to catch signal.¹³

The dissent penned by Justice Fortas emphasized that the Copyright Act of 1909 was enacted prior to the advancements to technology like CATV cable and was the improper tool for the job at hand.¹⁴ Rather than overturning past case law as the majority did in this case, Fortas suggested that “[the Court’s] major object, . . . should be to do as little damage as possible to traditional copyright principles and to business relationships, until the Congress legislates and relieves the embarrassment which [the Supreme Court and] the interested parties face.”¹⁵ The opinion foreshadowed the eventual actions taken by Congress. Similarly, in *Teleprompter Corp v. Columbia Broadcasting Systems*, the U.S. Supreme Court determined that capturing and transmitting T.V. by antenna and coaxial cable does not violate “performance” restrictions.¹⁶

The two cases illustrate that under the Copyright Act of 1909, the activities in question were not considered unauthorized performances of the works. This narrow interpretation of “public performance” made it apparent that the Act was antiquated with respect to emerging technologies. In response, Congress amended the definition of “performance” in the Copyright Act of 1976 in

11. See *Fortnightly Corp v. United Artists Television, Inc.* 392 U.S. 390 (1968), *superseded by statute*, Copyright Act of 1976.

12. *Id.* at 2090.

13. *Id.* at 2089.

14. *Id.* at 2091.

15. *Id.*

16. See *Teleprompter Corp v. Columbia Broad. Sys., Inc.*, 415 U.S. 394 (1974), *superseded by statute*, Copyright Act of 1976.

order to make the transmission an infringement.¹⁷ The new law overturned the two cable cases to capture back the protection for which copyright law is intended.

B. *Copyright Act of 1976*

The resulting Act of 1976 “clarified, redesigned, and updated copyright law and brought it into the era of the photocopier, the tape recorder, and cable T.V.”¹⁸ The Act redefined “public performance” in the new Transmit Clause which effectively required services to gain the permission of broadcasters when it profits from retransmitting the broadcaster’s signals.¹⁹

Another important clarification that resulted from the Copyright Act of 1976 was the doctrine of “fair use” which had long existed in common law and was finally explicitly incorporated into the Act as a defense to infringement.²⁰

1. VCR Cases

Upon the advent of videocassette recordings (VCR), the federal courts began to apply the newly revised Copyright Act of 1976 to the new technology. The United States Court of Appeals for the Third Circuit cited the new definition of “public performance” in *Columbia Pictures v. Aveco*, and in *Sony v. Universal City Studios*, the U.S. Supreme Court applied the newly penned statutory framework of fair use as a defense to infringement.²¹ In the latter case, the Court ruled that under the fair use doctrine, the technology of copying movies via VCR recording does not constitute a copyright infringement.²²

17. See 17 U.S.C. § 101 (2015) (defining “Public Performance,” as well as “Device” and “Process” to include unknown technologies).

To perform or display a work ‘publicly’ means –

(1) to perform or display it at a place open to the public or at any place where a substantial number of persons outside of a normal circle of family and its social acquaintances is gathered; or

(2) to transmit or otherwise communicate a performance or display of the work to a place specified by clause (1) or to the public, by means of any device or process, whether the members of the public capable of receiving the performance or display receive it in the same place or in separate places at the same time or at different times.

Id.

18. Edward J. Damich, *Our Copyright Code: Continue Patching or Start Rewriting?*, 68 U. MIAMI L. REV. 361, 361–62 (2014), <http://repository.law.miami.edu/cgi/viewcontent.cgi?article=1023&context=umlr> (last visited Sept. 11, 2016) [<http://perma.cc/XT35-RFT8>].

19. 17 U.S.C. § 101.

20. 17 U.S.C. § 107.

21. *Id.*

22. *Sony Corp. of Am. v. Universal City Studios, Inc.* 464 U.S. 417 (1984). The *Redd Horne* analysis comes from *Columbia Pictures Industries, Inc. v. Redd Horne, Inc.*, another

In *Columbia Pictures v. Aveco*, the Court determined that videocassette viewings in private rental rooms were considered unauthorized public performance and violated the Act.²³ The Court relied on the precedent *Redd Horne* analysis of the definition of public performance was satisfied under 17 U.S.C. § 106.²⁴ Aveco availed its facilities for the purpose of viewing unauthorized content.²⁵ The company could not claim that it was unaware of the infringing activity because it also provided equipment and the rented cassettes for patrons to view. Renting by the host company would have only been permissible if the viewing was for personal use by the renter in the privacy of their own home. Aveco's use of private viewing rooms was found to be public performance without the copyright holder's permission to publically perform.²⁶

The outcome of the case was predictable because there was obvious unauthorized use of the publishers' work, however, what is less clear is where the line is drawn on liability to the manager of the facilities in which the unauthorized use is taking place.

2. Internet Cases

As the internet increased in popularity, there became new ways to transmit information and motion pictures. *Cartoon Network LP v. CSC Holdings, Inc.* was among the first cases that dealt with the definition of performance with respect to online service providers.²⁷ There, the United States Court of Appeals for the Second Circuit held that providing ability for customers to save copies of TV programs to CSC Holdings (Cablevision) server for future playback did not result in a violation because the transmission was "unique" to each customer irrespective of when or where it was copied.²⁸

In contrast, the United States District Court for the Central California in *Warner Bros. Entertainment Inc. v. WTV Systems, Inc.*, "distinguished *Cartoon Network*, holding that it was [the defendant] rather than the customer who initiated the transmission because [the defendant] had purchased the DVD and

copyright infringement case heard by the Court of Appeals for the Third Circuit which found infringement for allowing in-store viewing of copied VCR cassettes. *Columbia Pictures Indus. v. Redd Horne, Inc.*, 749 F.2d 154, 162 (3d Cir. 1984).

23. *Columbia Pictures Indus., Inc. v. Aveco, Inc.*, 800 F.2d 59 (3d Cir. 1986).

24. *Id.* at 63.

25. *Id.* at 64.

26. *Id.*

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

28. *Id.* at 139.

reused it for multiple customers.”²⁹ By this time, there seemed to be some more guidance offered on what the law cannot hold providers liable for in terms of how the user uses their service.³⁰

More recently in 2014, the Supreme Court held that Aereo Inc., an over-the-internet streaming provider, was operating in violation of copyright law.³¹ Aereo allowed viewing of programs at nearly real time over the Internet on a complex platform which assigned individual antennas remotely to customers.³² The technology was designed in a way to comply with the semantics of copyright law. Notwithstanding the illusory compliance, the technology was a lot like CATV technology with an invisible cable.³³ Recall that part of the intent of the Copyright Act of 1976 was to overturn the CATV decisions as a violation of the Transmit Clause. The fact that the technology has changed does not create a loophole in the Transmit Clause generally. The end result is the unlicensed copyright protected material is being delivered to subscribers, which is all within the scope of public performance. Aereo had made a compelling argument that the difference between the CATV cases and Aereo’s “equipment rental” service, is that the user must affirmatively select a program to watch and stream to that program from “rented” antenna in a remote location nearly in real time.³⁴ This dynamic equipment sharing platform, Aereo argued, was different from the CATV technology which directly piggybacked off of broadcasting services to expand its servicing reach.³⁵ Instead, the innovative approach by Aereo attempted to create the perception of a passive conduit to avoid fitting the definition of “public performance” falling outside the reach of copyright law. Ultimately, Aereo filed for bankruptcy and auctioned to TiVo Inc.³⁶

29. *Warner Bros. Entertainment Inc. v. WTV Systems, Inc.*, 824 F. Supp. 2d 1003, 1011 n.7 (C.D. Cal. 2011).

30. See generally Mike Masnick, *Court Shuts Down Zediva: Apparently the Length of the Cable Determines if Something is Infringing*, TECHDIRT (Oct. 2, 2011, 11:09 AM), <https://www.techdirt.com/articles/20110802/02374615353/court-shuts-down-zediva-apparently-length-cable-determines-if-something-is-infringing.shtml> [http://perma.cc/YA7G-BTDX] (noting the seemingly arbitrary basis for determining infringement).

31. *Am. Broad. Co. v. Aereo, Inc.*, 573 134 S. Ct. 2498, 2511 U.S. (2014).

32. *Id.* at 2503.

33. *Id.* at 2507.

34. *Id.*

35. *Id.*

36. Sarah Perez, *TiVo Receives Approval to Acquire Aereo Assets*, TECHCRUNCH (Mar. 14, 2015), <https://techcrunch.com/2015/03/13/tivo-receives-approval-to-acquire-aereo-assets/> [http://perma.cc/3FXP-Y4H9].

There were four main issues raised in *ABC v. Aereo*. First, was related to the Supreme Court’s ruling that Aereo was a lot like a cable company and should not have been able to broadcast without a license. While Aereo did not dispute that it was transmitting content

Bloggers and other interested parties responded contending that the ruling exposed how “antiquated and unresponsive our regulatory and copyright framework has become in an increasingly digital age.”³⁷ The fear is that the ruling will have daunting consequences to clouding services generally.

III. DMCA SAFE HARBORS

Phone companies are not generally held liable for illicit activities that happen to be orchestrated over its lines. Similarly, it is unreasonable for providers to be held liable for unauthorized use of copyrighted material performed using its services. Congress has provided language in the Copyright Act of 1976, which explicitly defined the fair use doctrine to limit liability on providers.³⁸ In addition to the Copyright Act of 1976, Congress enacted the DMCA in 1998, not only to implement World Intellectual Property Organization (WIPO) treaties, but also to provide additional protections for copyright owners as well as limit secondary liability of internet providers.

A. *Online Copyright Infringement Liability Limitation Act*

Before discussing the DMCA provisions, it is important to consider the legislative history around the enactment of the Audio Home Recording Act of 1992 (AHRA) to fully appreciate the subsequent legislation enacted to keep in pace with the declining price and ease of copying. The AHRA greatly favored copyright holders as it made it “illegal to make and sell stand-alone digital audio recording devices with unrestricted functionality.”³⁹ The problem was the law also prohibited the construction and use of such apparatus for non-infringing purposes. Not only was the

for which it did not have licenses for, it stated that if the court believes it to be more like a cable company, then it should be able to get a compulsory license under § 111 of the Copyright Act. *Infra* note 64 (for FCC response to this position). The second issue, the focus of this paper, is even if Aereo should be protected by the safe harbor provisions of the Copyright Act, its liability should be limited through protections under the safe harbor provisions of the Copyright Act. The remaining two issues rest entirely outside the scope of this paper, particularly around the preliminary injunction imposed on the provider. See Tracy J. Willi, *The FCC's Response to American Broadcasting Companies, Inc. v. Aereo, Inc.*, AM. BAR ASS'N, (Feb. 20, 2015) http://www.americanbar.org/content/dam/aba/administrative/litigation/materials/2015_intellectual_property_lit/materials/2015_0220_the_fcc_response_to_aereo.authcheckdam.pdf [http://perma.cc/XVC9-YBS8].

37. Damon Root, *The Rise and Fall of Aereo*, REASON (Nov. 2014), <http://reason.com/archives/2014/10/01/the-rise-and-fall-of-aereo> [http://perma.cc/N2Q4-WE39].

38. 17 U.S.C. § 107 (2015).

39. Bill D. Herman, *THE FIGHT OVER DIGITAL RIGHTS, THE POLITICS OF COPYRIGHT AND TECHNOLOGY* 35 (Cambridge Univ. Press 2013).

AHRA “drafted in a way that it quickly became irrelevant”, but critics also claimed that it would “inconvenience customers, drive up prices, and prevent non-infringing uses, all while failing to prevent infringement to any significant degree. These battle lines grew more entrenched during the debate leading up to and following the passage of the Digital Millennium Copyright Act (DMCA).”⁴⁰ Despite becoming obsolete almost immediately upon enactment, the AHRA was the first time the “Copyright Act required a technological protection measure to prevent the proliferation of copies, and the beneficiaries of the statutory license created by the Act included performers.”⁴¹

The most important changes included in the DMCA include the anti-circumvention provisions contained in Title I as well as the Online Copyright Infringement Liability Limitation Act contained in Title II.⁴² The latter of which will be the focus of the remainder of this section and is more commonly known as the “Safe Harbor Provision” included in DMCA 512 Section C for online storage.⁴³ The safe harbors provide that online storage providers (OSP), must fit into one of several schemes of required “knowledge” in order to qualify for protection.⁴⁴ In addition to falling into one of the three knowledge schemes, the OSP is qualified for protection if it “does not receive a financial benefit directly attributable to the infringing activity, in a case in which the service provider has the right and ability to control such activity; and upon notification of claimed infringement . . . responds expeditiously to remove or disable access to, the material that is claimed to be infringing or to be the subject of infringing activity.”⁴⁵

B. *DMCA Case Law*

The key message gained from the enactment of the safe harbor provisions, is that use of provider’s system to create unauthorized copyright infringing material does not necessarily mean the provider’s actions are an infringement of reproduction rights.

40. *Id.* at 34–36.

41. Damich, *supra* note 18, at 362 n.4 (noting the AHRA was codified as amended in 18 U.S.C. §§ 1001–1010 (2012)).

42. *Id.* at 38.

43. 17 U.S.C. § 512.

44. 17 U.S.C. § 512(c). Scenario 1, the OSP must not have “actual knowledge” that the material or activity residing in its system is infringing. Scenario 2, the OSP is unaware of the “fact or circumstances from which infringing activity is apparent. Or in Scenario 3, if the OSP gains knowledge, it is obligated to get rid of the material in a timely manner. *Id.*

45. *Id.*

For Netcom in *Religious Technology Center v. Netcom*, the United States District Court for the Northern District of California emphasized that the issue is not whether there is unauthorized use of copyright protected material, but rather whether it is lawful to assign liability to the provider that unknowingly houses the illicit activity.⁴⁶ Fortunately for Netcom, the Court found that “although copyright is a strict liability statute, there [would] still be some element of volition or causation which [was] lacking where [the] defendant’s system is merely used to create a copy by a [third] party.”⁴⁷ In other words, the DMCA 512 provisions will protect cloud-computing companies from incurring secondary liability for content transmitted to the members of the public by applying the “volitional conduct test” from Netcom.⁴⁸ Consider further *CoStar Grp., Inc. v. LoopNet, Inc.*, where subscribers posted commercial real estate listings over the Internet with significant amounts of copyright protected images.⁴⁹ The United States Court of Appeals for the Fourth Circuit applied the volitional test and determined that the provider of “passive[] stor[age]” cannot be held liable where it is “[merely] a conduit” for the subscribers to post material.⁵⁰

The Second Circuit’s ruling in *Viacom v. YouTube* introduced additional guidance into how the DMCA defense qualification is determined.⁵¹ There, the Court clarified the knowledge disqualification from DMCA safe harbors to include “knowledge of specific and identifiable infringements” as well as willful blindness.⁵² YouTube was not expected to affirmatively seek out and take down infringing material. Moreover, the burden of identifying such works to be taken down should be shouldered by

46. *Religious Tech. Ctr. v. Netcom Online Commc’n Servs., Inc.*, 907 F. Supp. 1361 (N.D. Cal. 1995).

47. Devlin Hartline, *Why Aereo Should Lose and Why it Doesn’t Matter for the Cloud*, COPYHYPE (Feb. 27, 2014), <http://www.copenhype.com/2014/02/why-aereo-should-lose-and-why-it-doesnt-matter-for-the-cloud/> [<http://perma.cc/5NCS-XW6X>] (citing *Netcom*, 907 F. Supp. at 1370).

48. *See id.*

49. *CoStar Grp. Inc. v. LoopNet, Inc.*, 373 F.3d 544, 546 (4th Cir. 2004).

50. *Id.* at 550–51, 555.

51. *Viacom Int’l Inc. v. Youtube, Inc.*, 676 F.3d 19 (2d Cir. 2012) (expounding on the three knowledge-related scenarios in the DMCA Safe Harbor’s provision for “Information Residing on Systems or Networks At Direction of Users”); 17 U.S.C. § 512(c) (2015). The three scenarios are actual knowledge, red flag knowledge, and finally, the doctrine of Willful Blindness.

52. *Viacom Int’l, Inc. v. YouTube, Inc.*, 676 F.3d at 26 (citations omitted) (YouTube was accused of “direct and secondary copyright infringement based on public performance, display, and reproduction of ... audiovisual ‘clips’ that appeared on the YouTube website... [Viacom] demanded, *inter alia*, statutory damages pursuant to 17 U.S.C. § 504(c).”).

the copyright holder.⁵³ Ultimately, the case was remanded for further determination on whether YouTube possessed such disqualifying knowledge which was finally concluded in the negative.⁵⁴

IV. CLOUD BASED STORAGE

Ideally, under protection of the safe harbor provisions, companies may be able to operate without the unreasonable task of affirmatively ensuring all users comply with copyright laws as long as it takes down content flagged by copyright owners or other reasonable flagging mechanisms.

One example that appears to comply with DMCA takedown provisions is Dropbox. The service operated by Dropbox, Inc., allows users to upload content independently obtained from a third party source. On its website, Dropbox suggests to use the service as a way to access files from anywhere, back-up personal photos, and view content from any device. The scope of the sharing suggests a more private collaboration between close friends, family, and colleagues.⁵⁵ The company further supports this idea of limited sharing content in its DMCA Policy where it succinctly summarizes its goal to honor the rights of copyright owners as well as the privacy of its customers.⁵⁶

Contrast this form of sharing with the New Zealand operated website MegaUpload. MegaUpload was a foreign file-sharing service that was infamously shut down by the United States Department of Justice for multiple crimes, including criminal copyright infringement, in early 2012.⁵⁷ The volume of illicit

53. *Viacom Int'l Inc. v. YouTube, Inc.*, 940 F.Supp.2d 115 (S.D.N.Y. 2013) (discussing why the burden to disprove requisite DMCA knowledge does not reside with the accused. Although the accused is using the DMCA safe harbors as an affirmative defense, it is well established in Copyright law that the burden is on the copyright holders).

54. *Viacom Int'l Inc. v. YouTube, Inc.*, 940 F.Supp.2d at 123. *E.g.*, *Viacom Int'l Inc. v. YouTube, Inc.*, 676 F.3d at 41 (remanding the case to determine if disqualifying knowledge was present).

55. DROPBOX, <https://www.dropbox.com> (last visited Sept. 4, 2016) [<http://perma.cc/6DU5-PWHB>].

56. DROPBOX DMCA POLICY, <https://www.dropbox.com/terms#dmca> [<http://perma.cc/V4AA-SNPC>] (showing how Dropbox provides an easy way for copyright holders to register takedown requests, which are then reviewed and resolved if infringement is found and Dropbox takes the additional precaution by registering common copyright materials and searching for matches without actually violating user's personal files) (last visited Sept. 4, 2016); *see also* Greg Kumparak, *How Dropbox Knows When You're Sharing Copyrighted Stuff (Without Actually Looking at Your Stuff)*, TECHCRUNCH (Mar. 30, 2014), <http://techcrunch.com/2014/03/30/how-dropbox-knows-when-youre-sharing-copyrighted-stuff-without-actually-looking-at-your-stuff> [<http://perma.cc/E3LG-9Y9C>] (detailing how Dropbox disallows the sharing of copyrighted material).

57. *E.g.*, Larry McIntyre, *Cyber-Takings: The War on Crime Moves into the Cloud*, 14 PITT. J. TECH. L. & POL'Y 340 (2014) (comparing Dropbox and U.S. copyright law implications).

content was in the magnitude of \$500 million.⁵⁸ MegaUpload allowed users to search files globally from the MegaUpload servers for infringing content in a massive peer-to-peer sharing scheme.⁵⁹ The founder of MegaUpload, Kim Dotcom (Kim Schmitz), has dedicated a whitepaper written by his attorneys on his website about the issue.⁶⁰ The strongly-worded whitepaper touches on the DMCA protections as a defense.⁶¹ MegaUpload maintains that it complied with takedown requirements where possible and was not required to affirmatively seek out infringement as ruled in *Viacom*.⁶² Furthermore, the whitepaper insinuates that indictment was applying a stronger standard proposed by the Stop Online Piracy Act (SOPA) and Protect IP Act (PIPA) against foreign websites.⁶³ Both Acts were strongly lobbied by the Motion Picture Association of America and ultimately were not passed due to strong opposition by the global tech community, including Wikipedia and Reddit.⁶⁴ In December of 2015, a district judge of New Zealand ruled that Kim Dotcom and colleagues could be extradited to the U.S. to face charges, pending the New Zealand Appeals decision.⁶⁵ Kim Dotcom is not alone in feeling like he has been targeted in a larger effort to operate under “*de facto* SOPA/PIPA rules.”⁶⁶ If the company ends up getting extradited to the United States, the Court will need to address the nuance in the DMCA safe harbor provisions that makes a company like

58. Kim Zetter, *Judge Rules Kim Dotcom can be Extradited to US to Face Charges*, WIRED (Dec. 22, 2015) <http://www.wired.com/2015/12/kim-dotcom-extradition-ruling> [<http://perma.cc/36HA-BFUR>].

59. *See id.*

60. Robert R. Amsterdam & Ira P. Rothken, *MegaUpload the Copyright Lobby and the Future of Digital Rights*, KIM.COM, <http://kim.com/whitepaper.pdf> [<http://perma.cc/9G4G-S2CY>] (last visited Jan. 26, 2016).

61. *Id.*

62. *Id.* (arguing weakly that even if the U.S. is able to gain jurisdiction over Kim Dotcom, he should be protected by the DMCA safe harbors).

63. *Id.* at 8. *See also* Herman, *supra* note 39, at 1–5 (summarizing the proposed bills for SOPA (House) and PIPA (Senate), as well as the resulting dramatic strike that caused the Acts to the “shelved indefinitely” in early 2012). The MegaUpload indictment followed almost immediately after this which sparked some suspicions on the message it was meant to convey. *See, e.g.*, Timothy B. Lee, *If the Feds Can Shut Down MegaUpload, Why Do We Need SOPA?*, ARSTECHNICA (Jan. 23, 2012, 4:00 AM), <http://arstechnica.com/tech-policy/2012/01/if-the-feds-can-shut-down-megaupload-why-do-they-need-sopa/> [<http://perma.cc/6Q4M-PUTL>]; Ben Sisario, *7 Charged as F.B.I. Closes a Top File-Sharing Site*, N.Y. TIMES, Jan. 19, 2012, <http://www.nytimes.com/2012/01/20/technology/indictment-charges-megaupload-site-with-piracy.html> [<http://perma.cc/FJ9C-YVS2>].

64. Steve Brachmann, *Kim Dotcom Extradition Case Highlights De Facto SOPA, PIPA Rules*, IPWATCHDOG (Jan. 6, 2016), <http://www.ipwatchdog.com/2016/01/06/64430/id=64430/> [<http://perma.cc/9HLS-J3N6>].

65. Zetter, *supra* note 58.

66. Brachmann, *supra* note 64.

MegaUpload impermissible while other clouding companies like Dropbox permissible.

Intuitively, the difference between the two cloud storage providers is most notably in the overall business model. Dropbox and other similar companies, based on site bandwidth, are predominately used for “productive purposes” such as collaborating with colleagues on projects or sharing family photos, whereas MegaUpload serves “entertainment purposes” such as movies and TV shows.⁶⁷ The former company uses adequate measures that inhibit the volume of infringing content that makes it the site,⁶⁸ while the latter’s “bread and butter was making copyrighted content incredibly easy to access and share, combined with the many explicit wrongdoings outlined in the Justice Department’s 72-page report on the company.”⁶⁹ Irrespective of whether Kim Dotcom is extradited and whether any liability is found, the message has been clear that a cloud based company cannot automatically qualify for safe harbor protections by virtue of being “ignorant” of infringing activities.⁷⁰ Despite cases of disqualified companies, the DMCA safe harbor protections allow many cloud computing companies like Dropbox to continue operating as long as they continue to guard against user infringement. Many scholars have speculated on how cloud computing will fare in light of recent case law in the area of streaming services.⁷¹ The argument is not without merit, but overgeneralizes the impact to cloud computing overall rather than more appropriately and more narrowly to television streaming services.

V. FUTURE OF STREAMING SERVICES

Following the Supreme Court’s decision against Aereo, the company sought to be more like a cable company by applying for compulsory licenses provided by the Copyright Office.⁷² The

67. Seth Fiergerman, *How MegaUpload Differs from Dropbox (And Why It Matters)*, MAIN ST (Jan. 20, 2012), <https://www.mainstreet.com/article/how-megaupload-differs-dropbox-and-why-it-matters/page/2> [<http://perma.cc/PM4G-UMJH>].

68. DROBOX, *supra* note 56.

69. Fiergerman, *supra* note 67.

70. *Viacom Int’l, Inc. v. YouTube, Inc.* 676 F.3d 32 (2d Cir. 2012) (noting knowledge scenarios described in the DMCA Safe Harbor provision).

71. Samuel J. Dykstra, Note, *Weighing Down the Cloud: The Public Performance Right and the Internet After Aereo*, 46 LOY. U. CHI. L.J. 1050 (2015) (explaining that the Aereo case will generally have negative impact on liability of cloud computing companies generally).

72. Kristyn Fields, *Big Win for FilmOn in Battle for Compulsory License*, SPORTS & ENT. BEAT, Sept. 21, 2015, <http://www.sportsandentertainmentbeat.com/2015/09/big-win-for-film-on-in-battle-for-compulsory-license-2/> [<http://perma.cc/2T7U-2GXH>]. *See supra* note 36 (citing the four main issues in the Aereo case including the request to pay for a

application was ultimately declined on the basis that Internet streaming services do not qualify for such licenses.⁷³ It appeared, at the time, that similar streaming services could no longer be available at the prices that Aereo had once offered.

FilmOn X LLC (FilmOn), an Aereo copycat streaming company that has been brought to court by television networks, further tested this contention. In a district court decision, FilmOn argued that it was not “publically” performing under § 106(4). This argument was impaired by the final *Aereo* decision that such streaming activities were considered “public performances.”⁷⁴

The distinction between cloud storage and services of the kind provided by FilmOn are becoming increasingly foggy.⁷⁵ In light of *ABC v. Aereo*, FilmOn was not able to argue that it is merely providing the equipment for users to store infringing content. However, FilmOn was able to find a silver lining when it moved for (and won) the ability to qualify as a “cable system” that can stream content provided it pays for a compulsory license under 17 U.S.C. § 111 of the Copyright Act.⁷⁶ This is promising for

compulsory license and resume operation). *See generally* RAYMOND T. NIMMER, LICENSING OF INTELLECTUAL PROPERTY AND OTHER INFORMATION ASSETS 3 (2d ed. 2007) (“A license contract deals with rights, permissions and restrictions related to the use of information assets and intellectual property and with contractual and other obligations associated with the exchange in which these rights, permissions or restrictions are transferred.”).

73. *Id.*

74. *Fox Television Stations, Inc. v. FilmOn X LLC*, 150 F. Supp. 3d 30, 31 (D.D.C. 2015) (arguing that the service was nothing more than a “cloud-based storage provider[], in which the user dictates what material will be stored on the network, when copies will be made, and when the network will transmit that data”). The court differentiates FilmOn and clouding storage providers in that FilmOn saved individual copies of content to be later played back to individuals “who lack any prior relationship to the works [which] does so perform.” *Id.* at 32 (citing *Am. Broad. Cos. vs Aereo, Inc.*, 134 S. Ct. 2498, 2510 (2014)). Whereas clouding enables storage of lawfully acquired content by the user to be played back on command. *Id.* at 31–32. *See also Aereo*, 134 S. Ct. at 2511 (holding that Aereo was publicly performing, but refused to extend public performance to “remote storage of content,” also known as cloud storage providers).

75. *See generally* Ted Johnson, *FilmOn Not Entitled to License to Stream TV Stations, Federal Judge Rules*, VARIETY (March 6, 2016), <http://variety.com/2015/biz/news/filmon-streaming-aereo-compusory-license-1201652272/> [<http://perma.cc/Y48C-WF9E>] (“The real losers are the citizens, for whom free access to the airways that belong to them is once again restrained by a judge’s incorrect statutory interpretation favoring big business over technological advancement.”).

76. *Fox Television Stations, Inc. v. AereoKiller*, 115 F. Supp. 3d 1152, 1171 (C.D. Cal. 2015); *see also* Promoting Innovation and Competition in the Provision of Multichannel Video Programming Distribution Services, 80 Fed. Reg. 2082 (proposed Jan. 15, 2015) (showing that although the FCC refused Aereo the ability to obtain a compulsory license under current law, in early 2015, the FCC proposed a rule that will allow others like Aereo to seek such licenses). The proposal calls for modernizing the term “multi-channel video programming distributor” (MVPD) to “capture entities that provide service similar to or competitive with more traditional MVPD service but through new distribution methods, ... also wish to ensure that our rules do not impede innovation by imposing regulations on business models that may be better left to develop unfettered by the rules applicable to

FilmOn, but the issue has been appealed to the United States Court of Appeals for the Ninth Circuit and the decision may run concurrent with FCC efforts to modernize eligibility requirements for compulsory licensing.⁷⁷ Both the decision in *FilmOn* and the outcome of the FCC proposal could have favorable impacts on streaming technology at the price of licensing agreements.

With regard to “public performance,” TV streaming companies should no longer operate in their complex set-ups to skirt around copyright law without compensating the copyright holders (even via broadcasters). Reading carefully into the Supreme Court decision, other companies are *still* trying to find loopholes where Aereo and FilmOn failed, one of which is CloudAntenna.⁷⁸

This TV transmitting company will allow customers to purchase the equipment to be installed and activated at the customer’s private homes.⁷⁹ The customer will then use the privately situated equipment to receive TV signals. This distinction attempts again to avoid the semantics around “public performance.” The legality appears to be sound under copyright law. In Aereo’s situation, the definition of “public performance” from the Transmit Clause is satisfied because Aereo is transmitting to the individual.⁸⁰ Aereo is the sender and the customer is the receiver, which is a public relationship.

CloudAntenna insists it can provide the same service as Aereo using legal methods. The company is providing all the necessary equipment to the customer, but the customer is capturing the signals using the equipment all within their own home from the broadcaster directly.⁸¹ If CloudAntenna is found to infringe, the

MVPDs.” *Id.* Under the proposed interpretation of MVPD, providers like FilmOn will be able to negotiate with broadcasters for use of their signals. *Id.*

77. See, Press Release, Wash. Legal Found., WLF Calls on Ninth Circuit Court of Appeals to Protect the Rights of Copyright Owners (Feb. 2, 2016) (on file with the Houston Business and Tax Law Journal); see also Brief of Washington Legal Foundation as Amicus Curiae in Support of Plaintiffs-Appellants, Urging Reversal at 9, 23, Fox Television Stations, Inc. v. FilmOn X, LLC, (No. 15-56420), 2016 WL 463389 (9th Cir. Feb. 2, 2016) (arguing that “[t]his Court should honor the statutory balance Congress struck in § 111 of the Copyright Act” which disallows qualification for the license and that the interpretation by the Copyright Office should be entitled to *Chevron* deference or at the very least, *Skidmore* deference).

78. Oriana Schwindt, *Despite Aereo Supreme Court Ruling TV Cloud Service CloudAntenna Insists its Solid Legal Ground*, IBTIMES (Nov. 17, 2015), <http://www.ibtimes.com/despite-aereo-supreme-court-ruling-tv-cloud-service-cloudantenna-insists-its-solid-2188586> [<http://perma.cc/J34P-QKY9>].

79. *Id.*

80. See *supra* Section II (regarding the Transmit Clause).

81. *CloudAntenna OTA DVR and Cloud TV Features*, CLOUDANTENNA, <http://www.cloudantenna.tv/cloudantenna/features.html> [<http://perma.cc/JM7E-TUP6>] (last visited Sept. 25, 2016).

decision will need to precisely convey how this infringes while clouding services generally do not.

This question may turn on how CloudAntenna would fare in a volitional conduct test under *Netcom* in order to qualify for protection set forth under the limited liability provisions of the DMCA. Admittedly, the volitional conduct test is perceived to be quite arbitrary.⁸² Although CloudAntenna has found an additional means to remove itself from the actual infringement, if subjected to the volitional conduct test, CloudAntenna will likely be exposed as an infringer, like Aereo. The antennas may be at the homes of the customers and they can make a better argument that the technology is less controlled by the servicer, but in the end, all of the goods and services by CloudAntenna results in the infringing content being stored and performed publicly from CloudAntenna. Scholars have interpreted the *Aereo* decision to show that “the Court is sending a very clear signal that you can’t design a system to be the functional equivalent of cable.”⁸³

Despite the potential illegality of CloudAntenna, clouding more generally maintains the important distinction from that of these TV streamers, in that in a case by case basis it can argue that it is merely a “conduit” for the private use of its customers and will hence be protected under *Netcom* and the DMCA.⁸⁴

VI. KEEP CALM AND CLOUD ON

There is little doubt that copyright law is in need of reform to keep pace with the evolving digital platform. Regardless of whether Congress does take action and regardless of the timing, innovations around clouding technology will likely not be disincentivized in light of *Aereo*. This is strikingly obviated by the fact that despite the *Aereo* decision, other copycat streaming companies are emerging to provide potentially legal alternatives.

Even Aereo was acquired by TiVo with plans to repackage the company into a legally permissible service called Roamio.⁸⁵ Moreover, business models like that of Dropbox have a variety of

82. Hartline, *supra* note 47.

83. Alex Towers, *Dark Cloud on the Horizon: The Significance of American Broadcasting Companies, Inc. v. Aereo Inc., for the Future of Cloud Technology Regulation*, 14 HIBERNIAN L.J. 111, 139 (2015) (citation omitted).

84. Hartline, *supra* note 47.

85. See Brian J. Meli, *Roamio, Wherefore Art Thou Aereo: TiVo Picks Up the Pieces of a Once Promising Tech Disrupter*, LEGALMATTER BLOG (AUG. 3, 2015), <https://legalmatterblog.com/2015/08/03/aereo-wherefore-art-thou-roamio-tivo-picks-up-the-pieces-of-a-once-promising-tech-disrupter/> [http://perma.cc/Q83W-7R33] (explaining how TiVo could get licensing agreements that allow it to provide such services that Aereo could not).

permissible uses along with measures in place that protect copyright holders within their reasonable control.

It is unlikely that copyright law amendments will overrule *Aereo*. Congress was clear when it passed the Copyright Act of 1976 that it had reversed *Fortnightly* and *Teleprompter* for which there is little distinction between the CATV cases with that of *Aereo*; all of it is illegal without licensing. *Aereo* does not qualify for safe harbor protections or fair use. It was profiting from the illicit use of copyright material provided to subscribers for the sole purpose of performing the material in an infringing (public) manner. Not only does it fail the volitional test, but it also strikes at the very heart of why copyright protections exist. The only practical way to legitimize such conduct without changing the business model, is to allow the providers to engage in compulsory licensing negotiations with broadcasters.⁸⁶ This activity could be currently (albeit arguably) permissible under current law;⁸⁷ however, there is considerable discussion, along with proposed broader rules to affirmatively allow it.⁸⁸ The drawback to compulsory licenses will be an increase of price which will likely be transferred to end users.

Irrespective of where retransmissions of cable signals stand in legality, the clouding business as a whole boasts of a diverse portfolio of purposes that will remain permissible under current copyright protections. The fact that copyright infringement is possible on such environments, will not deter investments toward the technology. At the same time, fearing liability under the current regime is healthy. Businesses should affirmatively take reasonable efforts to “takedown” any content that is stolen from its proprietors.

Samie S. Leigh

86. Another option is to license directly with asset owners which would be similar to existing business models such as Netflix Inc. that has a variety of original content, exclusive, and non-exclusive licenses. See *Top Investor Questions*, NETFLIX, <http://ir.netflix.com/faq.cfm> (last visited Sept. 25, 2016) [<http://perma.cc/LH4T-UMC4>] (answering questions from investors about the licensing that Netflix engages in).

87. The issue is pending in the United States Court of Appeals for the Ninth Circuit. See *supra* note 77.

88. See *supra* note 77.

