Note

Weighing Down the Cloud: The Public Performance Right and the Internet After Aereo

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In American Broadcasting Companies, Inc. v. Aereo, Inc., the Supreme Court concluded that Aereo’s streaming of broadcast television programs over the Internet to its subscribers was an infringing public performance under the Copyright Act of 1976 (“Copyright Act”). The Court interpreted the “Transmit Clause” of the Copyright Act to mean that when determining whether a performance created by a transmission is to “the public” the relevant audience is not that of a particular transmission, but of the work being transmitted. Thus, it did not matter that Aereo operated by creating unique copies and via separate transmissions available to only one subscriber when the same underlying work was being transmitted.

However, the Court’s interpretation has the strong potential of sweeping up formerly legal activities of the developing cloud computing industry due to key shared features between it and Aereo: the remote storage of unique copies of the same work, transmitted to subscribers through separate transmissions. The Court’s opinion offers lower courts and cloud developers little guidance on how to apply the new interpretation, thereby creating legal uncertainty for future cloud developments and copyright law generally.

This Note first reviews the development of copyright law, focusing on the revision to the public performance right, with special emphasis on how Supreme Court cases involving cable television influenced the passage of the Copyright Act and inclusion of the Transmit Clause. It then discusses subsequent technological developments that challenged

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989
the meaning of the public performance right, highlighting an earlier but similar case that reached the opposite interpretation of Aereo. Next, this Note turns to Aereo, analyzing the opinion and discussing alternatives to the Court’s interpretation that would still protect copyright holders. This Note concludes by arguing that the Court’s decision likely will reduce investment in cloud technologies as developers will be uncertain of the legality of their services, while likewise encouraging litigation against existing technologies that, following Aereo, might be construed as engaging in infringing public performances.

INTRODUCTION .......................................................................................... 991

I. BACKGROUND .................................................................................. 995
   A. Brief History of Copyright and the Public
      Performance Right ........................................................................... 996
   B. Cable Television and the Public Performance Right ............. 1000
   C. The Copyright Act of 1976 ........................................................... 1004
   D. The Transmit Clause and RS-DVRs: A Prelude to Aereo .... 1007
   E. Interpretive Questions and Determining Who is Liable .... 1010

II. DISCUSSION .................................................................................. 1014
   A. Aereo’s Technical Architecture and Case Facts .................... 1014
   B. The Lower Courts Follow Cablevision ..................................... 1017
   C. Aereo: Innovator or Cable Television-Redux? ...................... 1020
      1. The Parties’ Arguments ............................................................. 1021
      2. The Majority Opinion: Aereo’s Fatal Similarity to Cable ........ 1029
      3. Justice Scalia’s Dissent: Unnecessary Uncertainty .............. 1034

III. ANALYSIS ..................................................................................... 1036
   A. No Guidance for Future Technologies ................................ 1036
   B. Settling One Interpretive Challenge While
      Creating Many More ................................................................. 1040
   C. Viable Alternatives for Aereo that Still
      Protect Copyright Holders ........................................................... 1045

IV. IMPACT ........................................................................................ 1050
   A. Aereo’s Emphasis on Particular Transmissions in the
      Digital Age .................................................................................. 1051
   B. The Future of the Cloud ........................................................... 1052

CONCLUSION .......................................................................................... 1057
INTRODUCTION

New technologies consistently challenge existing copyright regimes as they create new modes of expression, distribution, reproduction, and consumption.1 Historically, these technological advances served as the catalyst for copyright reform as they changed the balance between the constitutional goals of promoting innovation and the spread of knowledge and those of protecting authors and inventors.2 Today copyright law guarantees a series of “exclusive rights,”3 two of which—the right to “reproduce”4 and the right to “perform a copyrighted work publicly”5—have repeatedly been challenged by technological innovations such as radio,6 cable television,7 home recording technologies,8 and, most recently, the Internet.9

1. See COPYRIGHT AND THE CHALLENGE OF THE NEW 1 (Brad Sherman & Leanne Wisemen eds., 2012) (describing copyright law as a “creature of technology” subject to change based on the challenges new technologies present); JESSICA REYMAN, THE RHETORIC OF INTELLECTUAL PROPERTY 57–58 (2010) (noting how technology has routinely been an impetus to copyright reform).
2. See U.S. CONST. art. 1 § 8, cl. 8. (commonly referred to as the “Copyright Clause,” it lays down the purpose of copyright protections as “[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”); see also GILLIAN DAVIES, COPYRIGHT AND THE PUBLIC INTEREST § 1-004 (2002) (relating how rapid technological change in recent decades has caused interested parties to call upon legislators to update laws to “keep pace with new technologies”). The Supreme Court has confirmed that the phrase “Progress of Science” is to be interpreted as referring to “the creation and spread of knowledge and learning.” Golan v. Holder, 132 S. Ct. 873, 888 (2012) (citation omitted) (internal quotation marks omitted).
4. Id. § 106(1); see, e.g., Swatch Grp. Mgmt. Servs. Ltd. v. Bloomberg L.P., 756 F.3d 73, 79 (2d Cir. 2014) (discussing whether an infringing reproduction occurred when a news service recorded and subsequently disseminated the recording of a discussion of Swatch Group’s recently released earnings report).
5. 17 U.S.C. §§ 106(4)–(5); see, e.g., Range Rd. Music, Inc. v. E. Coast Foods, Inc., 668 F.3d 1148, 1154 (9th Cir. 2012) (discussing whether the public performance right had been infringed in the context of musical performances and recordings played in a restaurant).
8. See, e.g., Sony Corp. of Am. v. Universal City Studios, Inc., 464 U.S. 417, 419 (1984) (discussing whether Sony facilitated the infringement of protected works by selling its video tape
Close to forty years ago, cable television’s challenge to existing copyright law culminated in the Supreme Court’s *Teleprompter Corp. v. Columbia Broadcasting Systems, Inc.* and *Fortnightly Corp. v. United Artists Television, Inc.* decisions. In these two cases the Court found that cable television systems did not infringe the public performance rights held by broadcast television providers when cable companies retransmitted protected broadcast television programs to cable subscribers. Arguably in response, Congress included in the Copyright Act of 1976 (“Copyright Act”) the “Transmit Clause,” which redefined the statutory characterization of a public performance to capture those retransmissions and other technologies not encompassed within the old definition. Thus, the Transmit Clause added a new analysis to the public performance right based on the existence of a transmission and whether the public was capable of receiving it, and expanded the right to include a new range of activity not previously protected: cable television retransmission, videocassette rental stores providing screening rooms, and hotels that transmitted movies to individual rooms upon a guest’s request.

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10. *Teleprompter*, 415 U.S. at 405 (extending the *Fortnightly* decision to situations where the CATV provider imported signals that would not be available to a consumer via analog broadcast); *Fortnightly*, 392 U.S. at 395 (finding that cable television systems “did not perform . . . in any conventional sense of that term, or in any manner envisaged by the Congress that enacted the law in 1909”).

11. See Am. Broad. Cos. v. Aereo, Inc., 573 U.S. —, 134 S. Ct. 2498, 2506 (2014) (citing to a legislative report complied after the passage of the Copyright Act of 1976 which contained a passage stating that the law “completely over[turn[s]” the prior decisions (H.R. REP. NO. 94-1476 at 87 (1976)). *But see* id. at 2515 (Scalia, J., dissenting) (noting the difficulty of determining congressional intent from “a single report issued by a committee whose members make up a small fraction of one of the two Houses of Congress”).

12. See Glynn S. Lunney, *Aereo and Copyright’s Private-Public Performance Line*, 162 U. PA. L. REV. 205, 208 (2014) (noting that Congress “expressly rejected” the Court’s findings that cable television did not infringe when Congress passed the Copyright Act of 1976 and included provisions to make cable television liable); Brad M. McBride, *Omission by “Particular Transmission”*: Preventing the Circumvention of the Transmit Clause, 18 UCLA J.L. & TECH. 1, 11–12 (2014) (discussing how Congress “sought to reverse” *Fortnightly* and *Teleprompter* and “create a statute that was adaptable” to new and changing technologies).

While the Copyright Act apparently resolved what constituted a public performance, a new technology, Remote Storage Digital Video Recorders (“RS-DVR”), would eventually challenge the meaning of the Transmit Clause.\footnote{Cartoon Network LP v. CSC Holdings, Inc., 536 F.3d 121 (2d Cir 2008) (discussing whether an infringing public performance occurred when remotely stored programs, individually copied by subscribers, were subsequently and separately transmitted to subscribers at different times and locations); see infra Part I.B (discussing this litigation in detail).} RS-DVRs allow multiple subscribers, independently, to choose to record a copyrighted television program for later viewing; store their subscriber copy remotely; and later discretely transmit said copies from a cable television facility to the subscriber at the subscriber’s request.\footnote{Cartoon Network, 536 F.3d at 124, 134; see Megan Cavender, RS-DVR Slides Past Its First Obstacle and Gets the Pass for Full Implementations, 10 N.C. J.L. & TECH. 145, 148 (2008) (“[S]everal major television networks have attempted to prevent [RS-DVR’s] implementation without proper licensing by filing suit against Cablevision (also referred to as CSC Holdings, Inc.) in federal court alleging direct copyright infringement.” (internal citations omitted)).} Television program providers, again confronted with a disruptive new technology, argued that this process was infringing their public performance rights.\footnote{Cartoon Network, 536 F.3d at 124 (noting that the plaintiffs argued that operators of the RS-DVR system directly infringed their public performance right).} In response, the Second Circuit in 2008 interpreted the Transmit Clause to mean that a public performance occurred only if a particular transmission was to “the public,” as opposed to whether the same underlying work (embodied in separate transmissions) was offered “to the public.”\footnote{Id. at 135; see Rebecca Giblin & Jane C. Ginsburg, We Need to Talk about Aereo: Copyright-Avoiding Business Models, Cloud Storage and a Principled Reading of the “Transmit” Clause 11 (Columbia Law Sch. Working Paper Series, Working Paper No. 480, 2014), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2443595 (discussing the Second Circuit’s analysis of the Transmit Clause in the RS-DVR litigation).}

In June 2014, the Supreme Court handed down its latest foray into defining the public performance right with its decision in American Broadcasting Companies, Inc. v. Aereo, Inc.\footnote{Am. Broad. Cos. v. Aereo, Inc., 573 U.S. —, 134 S. Ct. 2498 (2014).} Legal scholars anticipated that the Aereo decision could have significant repercussions for copyright law, the Internet, and particularly cloud computing, given Aereo’s shared features with cloud-based technologies: the remote storage and digital transmission of content.\footnote{See Brief of 36 Intellectual Property and Copyright Law Professors as Amici Curiae in Support of Respondent at 3, Am. Broad. Cos. v. Aereo, Inc. 134 S. Ct. 2498 (2014) (No. 13-461) (hereinafter Brief of 36 Law Professors) (describing how a ruling against Aereo could upset existing doctrines of copyright law such as direct and secondary liability); David Carr, Aereo
that Aereo directly infringed various copyright holders’ public performance rights, finding that the Aereo service—broadcast television streamed over the Internet—was “substantially similar” to cable television,20 and that a primary purpose of Congress in drafting the Copyright Act was to overturn Teleprompter and Fortnightly.21 Moreover, and at odds with prior lower court interpretations of the Transmit Clause, the Court found it did not matter that Aereo functioned via individual copies and separate transmissions, given that Aereo was still transmitting the same underlying work.22 This Note argues that the Court’s decision casts into uncertainty the legality of the rapidly evolving cloud computing industry by adopting an interpretation of the Transmit Clause that focused on the underlying performance rather than the particular transmission, coupled with its amorphous, sufficiently-similar-to-cable-television rationale.23

Case Will Shape TV’s Future, N.Y. TIMES, Apr. 21, 2014, at B4 (“[P]eople will be watching to see what Aereo means] for the broader media ecosystem.”); Giblin & Ginsburg, supra note 17, at 42 (discussing the “serious challenge” to copyright law that Aereo poses); Amy Howe, But What About the “Cloud”? The Aereo Argument in Plain English, SCOTUSBLOG (Apr. 24 2014, 2:49 PM), http://www.scotusblog.com/2014/04,but-what-about-the-cloud-the-aereo-argument-in-plain -english/ (describing the Justices’ pointed question about what effect a ruling against Aereo would have on “the cloud”). “Cloud Computing” is a generic term for many Internet-based technologies that provide remote storage of information among other services. The National Institute of Standards and Technology provides the following definition: “Cloud computing is a model for enabling ubiquitous, convenient, on-demand network access to a shared pool of configurable computing resources (e.g., networks, servers, storage, applications, and services) that can be rapidly provisioned and released with minimal management effort or service provider interaction.” NAT’L INST. OF STANDARDS & TECH., SPECIAL PUBLICATION 800-145, THE NIST DEFINITION OF CLOUD COMPUTING 2 (2011).

20. Am. Broad. Cos. v. Aereo, Inc., 134 S. Ct. 2498, 2506 (2014) (“Aereo’s activities are substantially similar to those of the CATV companies that Congress amended the Act to reach . . . .”). The Court referred to its decisions in the Fortnightly and Teleprompter cases discussed below. See infra Part I.B (discussing Fortnightly and Teleprompter in the context of the development of the public performance right).

21. Aereo, 134 S. Ct. at 2507, 2511. The Court cited to a legislative report complied after the passage of the Copyright Act of 1976 which contained a passage stating that the law “completely overturn[s]” the prior decisions. H.R. REP. NO. 94-1476 at 87 (1976). For a discussion of direct liability for copyright Infringement before Aereo, see WILLIAM PATRY, COPYRIGHT § 9:5.50 (2014) (reviewing the application of the volitional act requirement in direct infringement cases); see also infra Part I.E (discussing the application of direct versus contributory liability in the context of copyright infringement via automated digital systems).

22. Aereo, 134 S. Ct. at 2509; see Eleanor Lackman, Symposium: Preferring Substance Over Form and Nature Over Manner, Supreme Court Finds that Aereo runs afoul of the purpose of the Copyright Act, SCOTUSBLOG (June 26, 2014, 4:23 PM), http://www.scotusblog.com/2014/06/sy mposium-preferring-substance-over-form-and-nature-over-manner-supreme-court-finds-that-aere o-runs-afoul-of-the-purposes-of-the-copyright-act/ (discussing the Court’s determination that Aereo’s technological differences did not distinguish it from cable television in that they both share the same commercial objective).

23. For a discussion of Aereo’s possible effects on cloud computing see, e.g., Mitch Stoltz,
Part I of this Note discusses the history of copyright law leading up to the inclusion of the Transmit Clause into the Copyright Act, as well as relevant challenges to the Copyright Act based on subsequent technological developments.24 Part II discusses the Court’s reasoning in *Aereo* and explores the parties’ arguments.25 Part III analyzes the strengths and weaknesses of the majority opinion and explores viable alternative resolutions to the litigation.26 Finally, Part IV discusses the impact that the Court’s approach will have on interpreting the public performance right in the context of the Internet.27 Part IV explores the potential effect that the Court’s interpretation will have on evolving cloud computing networks that could, in the wake of *Aereo*, be interpreted as infringing copyright holders’ public performance rights.28

I. BACKGROUND

In order to understand the importance of the addition of the Transmit Clause to the Copyright Act’s public performance right, this Part first briefly reviews the development of copyright protection in the United States.29 This Part next discusses key Supreme Court cases interpreting the public performance right of the Copyright Act of 1909 that were instrumental to Congress inserting the Transmit Clause.30 Next, this Part discusses the passage of the Copyright Act of 1976, the insertion of the Transmit Clause and its immediate impact.31 Then this Part

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Symposium: *Aereo Decision Injects Uncertainty into Copyright*, SCOTUSBLOG (June 27, 2014, 2:18 PM), http://www.scotusblog.com/2014/06/symposium-aereo-decision-injects-uncertainty-into-copyright/ (“Defining the bounds of ‘similarity’ to a cable system will require much litigation, and cases comparing cloud storage systems and other new technologies against cable systems will be complex and expensive.”); see also infra Part IV.B (discussing the implications *Aereo* has for cloud computing systems).

24. See infra Part I (examining the history of the Transmit Clause and subsequent interpretive challenges to the Copyright Act of 1976 posed by new technologies).

25. See infra Part II (explicating the Court’s decision in *Aereo* as well as the parties’ arguments).

26. See infra Part III (analyzing the merits of Court’s holding that separate transmissions of the same underlying work constitutes a public performance and exploring viable alternative outcomes for the case).

27. See infra Part IV (discussing the *Aereo* decision’s impact on the development of cloud-based technologies).

28. See infra Part IV (discussing the *Aereo* decision’s impact on existing cloud technologies that arguably are publicly performing by separately transmitting the same underlying work to different subscribers).

29. See infra Part I.A (reviewing the history of copyright law in the United States, emphasizing the public performance right).

30. See infra Part I.B (discussing important Supreme Court cases leading up to the passage of the Copyright Act of 1976).

31. See infra Part I.C (reviewing the passage of Copyright Act of 1976 and focusing on the inclusion of the Transmit Clause).
discusses Metro-Goldwyn-Mayer Studios Inc. v. Grokster, Ltd. and Cartoon Network LP v. CSC Holdings, Inc., cases in which courts wrestled with how the developments of the remote storage of content, the Internet, and content sharing fit into the Copyright Act. Finally, this Part briefly reviews some interpretive modes, important to the Aereo litigation, that courts have developed to assess liability under the Copyright Act, including the distinction between secondary and direct liability and the volitional act test.

A. Brief History of Copyright and the Public Performance Right

The Constitution provides that authors and inventors should have, for a limited time, exclusive rights to their works, with the underlying purpose “To promote the Progress of Science and useful Arts.” This Copyright Clause provided Congress with the power to enact copyright legislation, which it did first in 1790 and periodically thereafter. However, because of these dual objectives, it has largely been perceived that that appropriate interpretation of this clause requires the balancing of its protectionist elements, which ensure the author receives the fruits of her labor, and the interest of the public to have access to such discoveries in order to further innovate and better society as a whole. As such, the original act of 1790 was quite limited, granting only authors of books, maps, or charts exclusive rights to print, reprint, etc.
publish, or vend for a period of fourteen years.\textsuperscript{38} Pushes by rights holders gradually increased the duration of copyright protection as well as expanded the scope to encompass musical works, paintings, drawings, chromolithographs, photographs, statues, and statuaries, so by the time of the second general revision of the law in 1870, the exclusive rights period lasted twenty-eight years, with a fourteen-year renewal period.\textsuperscript{39} Particularly relevant here was the amendment of 1856, which granted the first limited public performance right to dramatic compositions.\textsuperscript{40} Previous attempts, as early as 1841, to include a public performance right did not even make it to the Senate floor for a vote.\textsuperscript{41}

The next revision of the copyright laws came with the Act of 1909 ("1909 Act"), which, among other things, expanded the public protection already afforded to dramatic works and musical compositions to lectures, sermons, addresses, and similar productions, so long as they were for profit.\textsuperscript{42} One other addition introduced in the 1909 Act was the concept of the compulsory license,\textsuperscript{43} which would later be adopted for cable television as well.\textsuperscript{44} This

\begin{itemize}
  \item \textsuperscript{38} Act of May 31, 1790, 1 Stat. 124 § 1; see 2 \textsc{William \textsc{F.} \textsc{Patry,} Copyright Law and Practice} 30–34 (1994) (discussing the 1790 law).
  \item \textsuperscript{39} Act of July 8, 1870, 16 Stat. 198, 212–16 §§ 85–111; see 2 \textsc{Patry, supra note 38, at 36–45} (discussing the developments and proposed amendments leading up to the Act of 1870). In particular, during the first session of the Eighteenth Congress, a famous painter, Rembrandt Peale, requested that the senator from Pennsylvania introduce a bill to extend copyright to paintings in order to protect his famous equestrian portrait of George Washington. \textit{Id.} at 45. This push was not successful in 1824 and it was not until the Act of 1870 before paintings would receive protection. \textit{Id.}
  \item \textsuperscript{40} 2 \textsc{Patry, supra note 38, at 41} (noting that the 1856 amendment granted "the first right of public performance"); see \textit{Act of August 18th, 1856, 11 Stat. 138–39} ("That any copyright hereafter granted . . . to the author or proprietor of any dramatic composition . . . shall be deemed and taken to confer upon . . . the sole right . . . to act, perform, or represent the same, or cause it to be acted, performed, or represented, on any stage or public place during the whole period for which the copyright is obtained . . . ").
  \item \textsuperscript{41} See \textsc{Davies, supra note 2, § 5-005} (discussing developments in United States copyright law from 1790 to 1909); 2 \textsc{Patry, supra note 38, at 41} (discussing the passage of the 1856 amendment).
  \item \textsuperscript{42} Act of March 4, 1909, Pub. L. No. 349, 35 Stat. 1075; see 2 \textsc{Patry, supra note 38, at 56–60} (discussing the revisions to copyright included in the 1909 Act).
  \item \textsuperscript{43} 2 \textsc{Patry, supra note 38, at 59} (noting that the 1909 Act "introduce[ed] a new concept into U.S. copyright law, the compulsory license"); see \textit{Act of March 4, 1909, Pub. L. No. 349, 35 Stat. 1075 § 1(e)} (setting out the ability of an owner to authorize initial reproduction of a work, subject to a requirement that subsequent reproductions by other persons must pay to the copyright proprietor a specified royalty amount). In general, a "compulsory license" is defined as "a statutorily granted license to do an act covered by an exclusive right, without the prior authority of the rightowner." \textsc{J. A. L. Sterling, World Copyright Law} § 32.03 (3d ed. 2008).
  \item \textsuperscript{44} See \textsc{17 U.S.C. § 111} (2012) (creating the compulsory license for cable television). For the development of the compulsory license for cable television, see \textit{infra Part I.D} (discussing the use of the compulsory license to ensure that cable television providers paid fees to broadcast
addition to the copyright protection scheme was a response to the Supreme Court’s decision dealing with a new technological innovation in *White-Smith Music Publishing Co. v. Apollo Co.*[^45] *White-Smith* involved the manufacture of piano rolls, which, when placed into the piano-roll player, would produce music. The question before the Court was whether the use of the piano roll constituted an infringing reproduction of a protected work.[^46] The Court concluded that a music roll, which, in conjunction with a mechanical device, made music, was dissimilar from a copy of sheet music, and that under the definitions of the 1870 revisions to the copyright law the piano roll did not constitute a “copy” of a protected work.[^47] The 1909 Act, however, instead of directly overturning the *White-Smith* opinion, instituted a compulsory license whereby manufacturers of the piano rolls did not have to seek permission from the rights holder beforehand, but instead were required to pay a royalty to them on each manufactured piece.[^48]

Nevertheless, the limits of the public performance right contained in the 1909 Act were soon put to the test by the widespread adoption of the radio.[^49] This occurred in part because the terms “public” and “performance” were not defined in the 1909 Act.[^50] Chiefly, in *Buck v. television providers*).


[^47]: *White-Smith*, 209 U.S. at 18; see Wagman & Kopp, supra note 46, at 284 (discussing how in *White-Smith* “the Supreme Court determined that player piano rolls did not constitute reproductions of musical compositions, and therefore, they were not infringing upon the copyright owners’ rights in those compositions”).

[^48]: Act of March 4, 1909, Pub. L. No. 349, 35 Stat. 1075 § 1(e); see 2 PATRY, supra note 38, at 59 (discussing *White-Smith* and the addition of the compulsory license); Wagman & Kopp, supra note 46, at 284 (“The result in *White-Smith* was overturned by the 1909 Act, which granted musical work copyright owners the right to control the ‘mechanical reproduction’ of their works”).

[^49]: See Graeme Austin, *Radio: Early Battles over the Public Performance Right, in COPYRIGHT AND THE CHALLENGE OF THE NEW*, supra note 1, §§ 5.01 to 5.03 (discussing the development of radio technology and the resultant courtroom battles over radio and the public performance right); 2 PATRY, supra note 38, at 879–84 (discussing the development of the Copyright Act of 1909 and the challenges to it posed by radio).

[^50]: Act of March 4, 1909, Pub. L. No. 349, 35 Stat. 1075 § 1(e) (in relevant part the Act stated “[t]o perform the copyrighted work publicly for profit if it be a musical composition and for the
Jewell-LaSalle Realty Co., the Supreme Court was asked to address whether a hotel’s wiring to each room radio broadcasts captured on its master receiver constituted an infringing performance under the 1909 Act. The hotel argued that there could be only one performance each time a “performance was rendered” (i.e., the one made by the radio broadcaster), and the one who received or distributed that transmission could not, therefore, be said to perform.

The Court disagreed, holding that there was nothing in the 1909 Act that limited the definition of performance to a single “rendition” and, furthermore, the novelty of the hotel’s technological innovation did not abrogate the Court’s duty to protect rights holders. Moreover, the Court characterized the process of receiving radio waves and translating them into sound as more than simply listening to another performance, but “essentially a reproduction.” This decision settled, for a time, whether retransmission constituted a separate performance and helped establish the multiple performance doctrine.

For an enlightening discussion of the public performance right as codified in the Copyright Act of 1909, see supra note 38, at 881–83 (noting in particular “[s]ince the 1909 Act did not define the terms ‘performance,’ ‘public performance, and public performance ‘for profit,’ it was left to the courts to determine the legal meaning of these terms”).

The parties agreed on the issue of whether, if there was a performance, it was to the public. See supra note 51, at 200; see Larry Earl Kelly, Copyright, Performance and CATV, 25 BAYLOR L. REV. 637, 638–40 (1973) (discussing the public performance right and the Buck decision); Stadler, supra note 51, at 719 (“[T]he Court declared itself ‘satisfied that the reception of a radio broadcast and its translation into audible sound is not a mere audition of the original program. It was, instead, ‘essentially a reproduction.’” (footnotes omitted)).

See supra note 51, at 200; see Jerome H. Remick & Co v. Gen. Elec. Co, 16 F.2d 829 (S.D.N.Y. 1926), which held that a radio station’s broadcast of an orchestra’s performance did not engage in a separate performance; Kelly, supra note 54, at 639–40 (noting this case settled the point that reproduction of any broadcast by means of a receiving set was a separate and distinct performance).

See supra note 51, at 719; see also infra Part I.B (discussing the Court’s treatment of separate performances in the context of cable television retransmitting broadcast television shows).
The next major case interpreting the 1909 Act’s application to radio was *Jerome H. Remick & Co. v. American Automobile Accessories Co.*, in which the Sixth Circuit addressed whether a radio broadcast was to the “public” within the meaning of the Act. The Sixth Circuit, in finding that such a broadcast was public, disregarded the contention that the performance was not public because the listeners were in separate places. Instead, the court focused on how radio broadcasts are intended to reach a number of people as well as the commercial nature of a radio enterprise. Nonetheless, as new technologies developed different modes of performance throughout the twentieth century, novel legal challenges continued to arise, pushing against the meaning and limitations of the 1909 Act.

**B. Cable Television and the Public Performance Right**

The advent of cable television—somewhat surprisingly given the functional similarities between radio and television as well as similarities in user experience—gave rise to an opportunity for the Supreme Court to reassess the meaning of “public performance” under the 1909 Act. At the time of the *Fortnightly Corp. v. United Artists Television, Inc.* case, existing cable television—or community antenna television—had not yet developed to the extent that it could be considered a commercial enterprise similar to radio. The rationale is that radio stations are profit-making organizations that derive income from advertising. They earn money by playing music; therefore, the performance is for profit.

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57. 5 F.2d 411 (6th Cir. 1925); see 2 PATRY, supra note 38, at 886 (noting that the issue of whether a performance was to the public under the 1909 Act was not widely litigated, but citing to *Jerome H. Remick* as one instance of the issue actually being litigated).

58. *Jerome H. Remick*, 5 F.2d at 412 (“A performance, in our judgment, is no less public because the listeners are unable to communicate with one another, or are not assembled within an inclosure [sic], or gathered together in some open stadium or park or other public place.”).

59. Id. (“It suffices, as there held, that the purpose of the performance be for profit, and not eleemosynary; it is against a commercial, as distinguished from a purely philanthropic, public use of another’s composition, that the statute is directed.”); see Bart A. Lazar, *Mere Reception in Public Under the Copyright Act of 1976: Exempt or Extinct?*, 1 ALB. L.J. SCI. & TECH. 97, 104 n.30 (1991) (“The rationale is that radio stations are profit-making organizations that derive income from advertising. They earn money by playing music; therefore, the performance is for profit.”).

60. See Register of Copyrights, 87th Cong., Rep on the General Revision of the U.S. Copyright Law (House Comm. Print 1961) [hereinafter Report of the Register of Copyrights] (“Commercial radio and television [was] unknown in 1909... These and other technical advances have brought in new industries and new methods for the reproduction and dissemination of the literary musical, pictorial, and artistic works that comprise the subject matter of copyright. ... [And a] general reexamination and revision of copyright law have been urged on all sides.”); 2 PATRY, supra note 38, at 883–95 (discussing the courts’ interpretations of the 1909 Act and attempted legislative responses, culminating in the Copyright Act of 1976).

61. See Kelly, supra note 54, at 641–43 (discussing the similarities between radio and television and suggesting that a similar legal reasoning should apply in assessing copyright liability); Daniel E. Nester, *Is CATV Infringing Proprietary Rights in Television Broadcasts?*, 15 COPYRIGHT L. SYMP. (ASCAP) 153, 166–67 (1965) (assessing CATV’s potential liability through comparison to the copyright-radio litigations).
television ("CATV") as it was known at the time—functioned by erecting large cooperative antennas capable of receiving distant broadcast signals, capturing those signals and transmitting them, via coaxial cables, to the home televisions of each subscriber. The copyright holders to several motion pictures brought suit alleging that the CATV systems were infringing their exclusive right of public performance.

In a surprising departure from the Court’s earlier holding about radio retransmissions in *Buck*, the Court held that the activity that the CATV systems engaged in did not constitute a performance as contemplated under the 1909 Act. The Court rejected the court of appeals’ logic, based on *Buck*, that the relevant question was how much the alleged infringer did to bring about the hearing or viewing of the copyrighted work and adopted its own function-oriented analysis. The Court drew a bright-line distinction between broadcasters and viewers, noting that it is the broadcaster who selects, procures, and transmits the program to be viewed, while the viewer merely receives the transmission and reconverts it to sound and image. This distinction led the Court to conclude that the broadcaster was the active performer, while the viewer

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63. *Fortnightly*, 392 U.S. at 393; see *Recent Cases, Copyrights—Radio and Television—Cable Television Operator Subject to Liability for Copyright Infringement When Distant Signals Are Imported*, 87 HARV. L. REV. 665, 666 (1974) (noting that the copyright “owners had claimed that Fortnightly’s operation of cable systems which enabled subscribers to receive programs which were otherwise unavailable due to mountainous terrain infringed the owners’ exclusive rights under the Copyright Act ‘to play or perform’ the copyrighted programs publicly” (footnotes omitted)).

64. Compare *Fortnightly*, 392 U.S. at 395 (holding that CATV retransmissions were not a public performance), with *Buck v. Jewell-La Salle Realty Co.*, 283 U.S. 191, 198 (1931) (holding that radio retransmissions resulted in a public performance).

65. *Fortnightly*, 392 U.S. at 396 (“The Court of Appeals thought that the controlling question in deciding whether the petitioner’s CATV systems ‘performed’ the copyrighted works was: ‘[H]ow much did the [petitioner] do to bring about the viewing and hearing of a copyrighted work?’” (alterations in the original)); see *Twentieth Century Music Corp. v. Aiken*, 500 F.2d 127, 133 (3d Cir.1974), aff’d, 422 U.S. 151 (1975) (discussing the *Fortnightly* Court’s rejection of the *Buck* quantitative test in determining whether a performance had occurred and the adoption of a functional standard).

66. *Fortnightly*, 392 U.S. at 397. This analytical lens—determining who “performed”—would have a revival with the advent of digital and automated systems. See, e.g., *Cartoon Network LP v. CSC Holdings, Inc.*, 536 F.3d 121, 131–32 (2d Cir. 2008) (discussing who “performed” when an automated RS-DVR system housed with the cable provider initiated a recording at the subscriber’s command).
was merely a passive beneficiary.\textsuperscript{67} With this distinction in mind, the Court found that the CATV systems fell on the viewer side of the broadcaster-viewer divide because their equipment functioned similarly to that of the ordinary television viewer, if only more powerfully.\textsuperscript{68}

The Court went on to confirm its \textit{Fortnightly} conception of a performance, as it pertained to cable television systems, in \textit{Teleprompter Corp. v. Columbia Broadcasting System, Inc.}\textsuperscript{69} There the Court held that it did not convert a CATV system’s activities into a performance under \textit{Fortnightly} even if it began retransmitting programs that would otherwise be unavailable (via analog broadcast) to a subscriber.\textsuperscript{70} However, the Court sidestepped the issue of how CATV did not engage in a broadcaster-type function by choosing to import programs not otherwise available; it declared only that, for copyright purposes, such an activity did not alter cable television’s function.\textsuperscript{71}

Thus, after over a half-century of interpreting the 1909 Act’s public performance right, the Court found itself in the position where a retransmission of a radio broadcast constituted an infringing performance (\textit{Buck});\textsuperscript{72} yet, the retransmission of television broadcast programs over coaxial cable, did not (\textit{Fortnightly} and \textit{Teleprompter}).\textsuperscript{73} Finally, the Court was forced to confront the disparate \textit{Fortnightly} and

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  \item\textsuperscript{67} \textit{Fortnightly}, 392 U.S. at 397 (“Broadcasters perform. Viewers do not perform.” (citations omitted)). The Court cited \textit{Buck v. Debaum}, a district court case in which that court indicated “[o]ne who manually or by human agency merely actuates electrical instrumentalities, whereby inaudible elements that are omnipresent in the air are made audible to persons who are within hearing, does not ‘perform’ within the meaning of the Copyright Law.” \textit{Fortnightly}, 392 U.S. at 398 n.24 (quoting \textit{Buck v. Debaum}, 40 F.2d 734, 735 (S.D. Cal. 1929)).
  \item\textsuperscript{68} \textit{Fortnightly}, 392 U.S. at 399.
  \item\textsuperscript{70} \textit{Teleprompter}, 415 U.S. at 408 (“By importing signals that could not normally be received with current technology in the community it serves, a CATV system does not, for copyright purposes, alter the function it performs for its subscribers . . . .”); 2 PAUL GOLDSTEIN, GOLDSTEIN ON COPYRIGHT § 7.8.1 (3d ed. 2014) (noting that in \textit{Teleprompter} “the Court reached the same result as it did in \textit{Fortnightly} even though the cable system’s activities . . . made it look more like a broadcaster”).
  \item\textsuperscript{71} \textit{Teleprompter}, 415 U.S. at 407; see 2 PATRY, supra note 38, at 885 (discussing how \textit{Teleprompter} recasts \textit{Fortnightly} “in circular, legal terms”).
  \item\textsuperscript{72} See supra Part I.B (discussing \textit{Buck v. Jewell-La Salle Realty Co.}).
  \item\textsuperscript{73} Compare \textit{Fortnightly}, 392 U.S. at 395 (CATV transmissions are not a public performance), and \textit{Teleprompter}, 415 U.S. at 408 (extending the \textit{Fortnightly} decision and reconfirming that CATV retransmissions are not to the public), with \textit{Buck v. Jewell-La Salle Realty Co.}, 283 U.S. 191, 198 (1931) (holding that radio retransmissions resulted in a public performance).
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2015] Weighing Down the Cloud 1003

Buck standards in Twentieth Century Music Corp. v. Aiken.74

In Aiken, copyright holders sued the owner of a restaurant for infringing their public performance rights when he would play copyrighted music received on a radio throughout his restaurant using speakers.75 The district court had ruled in favor of the copyright holders following Buck,76 and the Third Circuit reversed in favor of the restaurant owner following Fortnightly.77 The Supreme Court expressed concern about overruling its recent Fortnightly and Teleprompter decisions, so it decided to limit Buck to its particular facts and follow the functional test of Fortnightly when it held that the restaurant owner had not engaged in a performance.78 Also present in the Court’s decision was a concern for the inequitable result that would arise if “listeners” were subject to liability for infringement, finding such an expansion of protection to the rights holders to go beyond what was required to ensure them adequate compensation.79

Therefore, by the end of 1975, the Court had adopted and reaffirmed

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75. 422 U.S. at 152; see Stadler, supra note 51, at 721 (“[T]he proprietor of George Aiken’s Chicken . . . was sued for playing the radio through ‘four speakers in the ceiling’ of his restaurant.”).

76. Twentieth Century Music Corp v. Aiken, 356 F. Supp. 271, 274–75 (W.D. Pa 1973), rev’d, 500 F.2d 127 (3d Cir. 1974), aff’d, 422 U.S. 151 (1975). The district court noted that a strict following of the Fortnightly logic would lead to a result stating no performance occurred, but because the Court did not overturn Buck in Fortnightly, the district court followed the precedent in Buck. Aiken, 356 F. Supp. at 274–75.

77. Twentieth Century Music Corp. v. Aiken, 500 F.2d 127, 137 (3d Cir. 1974), aff’d, 422 U.S. 151 (1975) (following the functional test set forth in Fortnightly and holding that the function of the restaurant owner was to extend the “range of audibility” and did not constitute a separate performance).

78. Aiken, 422 U.S. at 160–62. The Court was also concerned about the public interest and wrote that the limited scope of copyright “reflects a balance of competing claims upon the public interest: Creative work is to be encouraged and rewarded, but private motivation must ultimately serve the cause of promoting broad public availability of literature, music, and the other arts.” Id. at 156; see Stadler, supra note 51, at 721–22 (discussing the Court’s decision in Aiken as a “fight about philosophy” and that in Aiken the Court took a “utilitarian view”).

79. Aiken, 422 U.S. at 162–63 (commenting that “[t]he exaction of such multiple tribute would go far beyond what is required for the economic protection of the copyright owners, and would be wholly at odds with the balanced congressional purpose behind” the public performance right (footnote omitted)). The Court here was wrestling with the dual principles of the Constitution’s copyright clause, protecting copyright holders and promoting the public interest by not extending such protections too far. See Stadler, supra note 51, at 721–22 (describing the Court’s concern “that a multiplicity of royalties . . . was unnecessary to encourage creation”); supra Part I.A (discussing the paired goals of the Constitution’s aims for providing protections for authors and encouraging inventors).
an analysis to determine whether a possible infringing performance had occurred which focused on the function that new technological developments were performing.\textsuperscript{80} Cable television providers functioned as viewers and could not be said to perform, because they lacked the selection and control over programming broadcasters had; likewise, a restaurant owner who played music to his customers over the radio functioned as a listener, merely extending the audibility of an existing performance.\textsuperscript{81} However, Congress would soon disagree.\textsuperscript{82}

\textbf{C. The Copyright Act of 1976}

As Supreme Court precedent interpreting the 1909 Act grew, so too did calls for major reform.\textsuperscript{83} One of the foremost sources of this plea for reform was Congress's recognition of tremendous developments in technology that had occurred since 1909 and how they affected the operation of copyright law.\textsuperscript{84} Of particular concern for Congress, and subject to reform efforts beginning in the 1960s, was the growing prevalence of cable television, coupled with the Supreme Court's

\textsuperscript{80} See 2 Patry, \textit{supra} note 38, at 883–87 (discussing the Court's evolution in interpreting the 1909 Act and the development of the \textit{Fortnightly} analysis); Stadler, \textit{supra} note 51, at 722–23 (noting that "by 1975, the law seemed to side with the utilitarians" by embracing a view of copyright protection as a balance of interests and rejecting the dissents' view in \textit{Fortnightly} and \textit{Aiken} that Congress intended to give rights holders "the right to capture the value they had created— not some of it, but all of it" (emphasis added)).


\textsuperscript{82} See Stadler, \textit{supra} note 51, at 723 ("[E]verything changed by the end of 1976, when Congress enacted the new Copyright Act."); \textit{infra} Part I.C (discussing the legislative intent behind the passage of the Copyright Act of 1976).

\textsuperscript{83} See Davies, \textit{supra} note 2, § 5-007 (discussing the reform efforts culminating in the Copyright Act of 1976); 2 Patry, \textit{supra} note 38, at 888–95 (discussing the preliminary efforts and drafts for reforming the 1909 Act).

\textsuperscript{84} H.R. REP. NO. 94-1476, at 47 (1976) ("During the past half century a wide range of new techniques for capturing and communicating printed matter, visual images, and recorded sounds have come into use, and the increasing use of information storage and retrieval devices, communications satellites, and laser technology promises even greater changes in the near future. . . . [A]nd the business relations between authors and users have evolved new patterns."); Davies, \textit{supra} note 2, §§ 5-007 to 5-008 (discussing the influence of technological developments and the push for copyright reform).
decisions that held that these systems were not engaging in infringing performances and thus did not need to compensate copyright holders.\textsuperscript{85}

It was in part from these concerns that Congress drafted the Copyright Act of 1976.\textsuperscript{86} The Copyright Act sets out six exclusive rights—including the public performance right—that are guaranteed to copyright holders.\textsuperscript{87} Pursuant to the Copyright Act, performing or displaying a work “publicly” is defined as follows:

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

(2) to transmit or otherwise communicate a performance or display of the work to a place specified by clause (1) or to the public, by means of any device or process, whether the members of the public capable of receiving the performance or display receive it in the same place or in separate places and at the same time or at different times.\textsuperscript{88}

While the first clause is essentially a plain meaning definition of public performance, it is the second clause, the “Transmit Clause,” that provided a new definition of performance, departing from the \textit{Fortnightly}, \textit{Teleprompter}, and \textit{Aiken} definitions of the right.\textsuperscript{89} Thus, under this new statutory definition, something is a public performance if it occurs in a place open to the public, a non-public place where the

\textsuperscript{85} See H.R. Rep No. 94-1476, at 88–89 (noting the rapid growth of cable systems, their expected revenue of $770 million in 1975, and how the Supreme Court’s \textit{Fortnightly} and \textit{Teleprompter} decisions prevented broadcast television producers from collecting copyright royalties from the cable television industry’s retransmission of their programs yet “urged the Congress . . . to consider and determine the scope and extent of such liability in the pending revision bill”); see also Report of the Register of Copyrights, supra note 60, at ix–x (describing developments in copyright law and reform efforts that would lead to the 1976 Act).

\textsuperscript{86} 17 U.S.C. §§ 101–810 (2012); see Stadler, supra note 51, at 723 (describing how Congress rejected the cable television cases handed down by the Supreme Court when, in the Copyright Act “Congress defined ‘performance’ broadly, explicitly stating that a multiplicity of royalties was no more than copyright owners were due” (footnote omitted)). This represents a departure from what Professor Stadler called the “utilitarian” approach of \textit{Fortnightly} and \textit{Teleprompter}, which emphasized balancing the copyright holders protections with the public interest. Id. at 721–23.

\textsuperscript{87} 17 U.S.C. § 106. The exclusive rights are: the right to reproduce; the right to prepare derivative works; the right to distribute copies to the public; the right to perform the copyrighted work publicly; and “in the case of sound recordings, [the right] to perform the copyrighted work publicly by means of a digital audio transmission.” Id.

\textsuperscript{88} Id. § 101.

\textsuperscript{89} See Am. Broad. Cos. v. Aereo, Inc., 573 U.S. —, 134 S. Ct. 2498, 2504 (2014) (discussing how Congress rejected the \textit{Fortnightly} and \textit{Teleprompter} holdings in the Copyright Act of 1976); 2 PATRY, supra note 38, at 886 (discussing how Congress reversed \textit{Fortnightly}, \textit{Teleprompter}, and \textit{Aiken} with the 1976 Act).
public is gathered, or when a performance is transmitted to individual members of the public, regardless of how many people actually receive the transmission or whether the recipients are in separate places. The legislative history made clear that the intent behind the new clause was to fashion a standard broad enough to tackle the challenges presented by new technologies to copyright law (such as CATV systems) and that the Supreme Court had so far allowed to escape liability.

Further evidence of Congress’s intent to protect broadcast television from the activities of cable television systems was the inclusion into the Copyright Act of section 111. This section instituted a compulsory license scheme, similar to the one created by the 1909 Act for piano rolls, for qualified secondary transmissions of a primary transmission that embodied a performance of a copyrighted work. In relevant part, the section defined a primary transmission as a “transmission made to the public by a transmitting facility whose signals are being received . . . regardless of where or when the performance or display was first transmitted” and a secondary transmission as “the further transmitting of a primary transmission simultaneously with the primary transmission.” The significance of these twin definitions was to bring

90. See HALPERN, supra note 13, § 1.06[D] (discussing the Transmit Clause in terms of the public performance right); MARY LAFRANCE, COPYRIGHT LAW IN A NUTSHELL § 7.5 (2008) (discussing how the Transmit Clause changed the public performance right).
91. H.R. REP. NO. 94-1476, at 63 (1976) (“Under the definitions of ‘perform,’ ‘display,’ ‘publicly,’ and ‘transmit’ in section 101, the concepts of public performance and public display cover not only the initial rendition or showing, but also any further act by which that rendition or showing is transmitted or communicated to the public”); see 2 PATRY, supra note 38, at 895 (noting that “[c]able television issues dominated hearings held in the House in 1975” in the lead up to the passage of the new copyright act).
92. 17 U.S.C. § 111; see 2 PATRY, supra note 38, at 939–40 (“The basic concept underpinning Section 111 is that contrary to the Supreme Court’s Fortnightly and Teleprompter decisions, cable operators and others . . . who retransmit copyrighted works are engaging in a performance.”).
93. See supra Part I.A (discussing the Copyright Act of 1909 and the compulsory license for piano roll technology); see also 2 PATRY, supra note 38, at 59 (discussing White-Smith and the addition of the compulsory license).
94. 17 U.S.C. § 111(c). The statute states:
Subject to the provisions of paragraphs (2), (3), and (4) of this subsection and section 114(d), secondary transmissions to the public by a cable system of a performance or display of a work embodied in a primary transmission made by a broadcast station licensed by the Federal Communications Commission or by an appropriate governmental authority of Canada or Mexico shall be subject to statutory licensing upon compliance with the requirements of subsection (d) where the carriage of the signals comprising the secondary transmission is permissible under the rules, regulations, or authorizations of the Federal Communications Commission.
95. Id. § 111(f)(1)–(2); see Hubbard Broad., Inc. v. S. Satellite Sys., Inc., 777 F.2d 393, 400–01 (8th Cir. 1985) (commenting that, under section 111 a broadcast “signal is a ‘primary
within the compulsory license the simultaneous retransmission of broadcast television being performed by cable television providers. Moreover, under section 111(c), such transmissions are to the public and potentially actionable as infringing public performances. Therefore, to protect the broadcast television producers, those transmissions subject to section 111—that is, the retransmissions by cable television—were required to pay licensing fees to the broadcast provider whose content they were retransmitting.

D. The Transmit Clause and RS-DVRs: A Prelude to Aereo

As hinted at above, amending copyright law to address issues presented by today’s technologies leaves open the door for tomorrow’s innovations to exploit unforeseen ambiguities, and the same is true of the Transmit Clause. Given how cable television and radio transmissions functioned at the time, an ambiguity in the text of the Transmit Clause was not exposed until the advent of another technology: the RS-DVR.

RS-DVRs allow subscribers to record a transmission, ... [and] that its retransmission by cable systems is a ‘secondary transmission to the public’” (citation omitted); Aaron M. Cooper, Mass Media Mess: The Optimistic Deregulatory Goals of the “Next Generation Television Marketplace Act,” 23 DEPAUL J. ART, TECH. & INTELL. PROP. L. 201, 206 n.19 (2012) (noting that under section 111 “[a] primary broadcaster broadcasts directly to viewers (such as a local station does) while a secondary broadcaster must first pick up a signal from a primary broadcaster before retransmitting that signal to viewers (such as most cable and satellite companies do”).

96. 2 PATRY, supra note 38, at 940 (“The effect of these definitions is to limit the compulsory license to simultaneous retransmissions of broadcast programing: the license does not generally cover off-the-air taping of broadcast programming, delayed retransmissions, or cable-originated programming.” (footnotes omitted)); see HALPERN, supra note 13, § 1.06[D][h][i] (discussing the compulsory license and its effect for cable television’s retransmission of primary transmissions).

97. 17 U.S.C. § 111(c); see LAFRANCE, supra note 90, § 8.4 (discussing how section 111 attaches liability to cable television’s retransmissions); see 2 GOLDSTEIN, supra note 70, § 7.8.2.2 (discussing the compulsory license for cable television under the Copyright Act of 1976).

98. See 2 GOLDSTEIN, supra note 70, § 7.8.2.2 (discussing how cable television’s simultaneous secondary transmissions are subject to the statutory licensing structure of section 111); 2 PATRY, supra note 38, at 956 (outlining the licensing schedule that the cable systems are subject to). See generally NIMMER, supra note 37, § 8.18 (discussing the doctrine of secondary transmissions and the development of the compulsory license scheme in the Copyright Act of 1976).

99. See McBride, supra note 12, at 6 (noting that new technologies are attempting to exploit a “loophole” within the Transmit Clause created by the courts); see also infra Part I.A–C (reviewing how new technologies—radio and cable television—attempted to avoid liability from copyright laws written prior to their invention).

copy of a television program, which is stored at a cable company’s facilities, and then, on request, play the program using the stored copy. The critical feature of RS-DVR technology is its use of multiple discrete copies, each being transmitted to individual subscribers and not, as with previous technologies, merely transmitting one copy to all subscribers. Therefore, to determine if a copyright holder’s exclusive public performance right was infringed, it became necessary to interpret whether the Transmit Clause meant that a court should look to the potential audience of the particular transmission played from a unique copy, or, conversely, the potential audience of the underlying performance, aggregated from all the separate transmissions.

The Second Circuit did so in Cartoon Network LP v. CSC Holdings, Inc. (“Cablevision”). Cablevision began by looking to the text and legislative history of the Copyright Act, and found that in both, a transmission is itself a type of performance. Because the Second
Circuit concluded that the Copyright Act defined a transmission as a performance, and that the Transmit Clause refers to whether the public is capable of “receiving the performance”—as opposed to the receiving the particular work—the court interpreted the clause to mean that it should look to the potential audience of the particular transmission (the transmission-performance) to see if a public performance occurred.106

The Second Circuit bolstered its interpretation by reasoning that RS-DVR transmissions may not be made without a copy of the work, which in turn allows an injured copyright holder to seek redress both for the infringing performance and for the unauthorized reproduction.107 Therefore, because the two rights reinforce each other by providing protection under one right if the other failed, the Second Circuit determined that it was consistent with the Act to look to both the identity of the transmitter, and whether the same copy is being used in determining whether a transmission was to the public.108 Thus, in the Second Circuit’s view, transmissions of the same underlying work made from a single copy are fundamentally different from transmissions of the same underlying work made from different copies.109 With this interpretation in hand, the court held that RS-DVRs did not infringe the public performance right because each transmission-copy was transmitted to only one subscriber, and thus, not to the public.110

The Second Circuit would follow this reasoning in its decision in the Aereo litigation.111 However, even before the Supreme Court’s
decision in *Aereo*, other courts disagreed with this interpretation and instead looked to Congress’s intent in the Copyright Act to ensure a commercial enterprise that profited from carrying copyrighted material did not do so without remunerating copyright holders with appropriate compensation.112

### E. Interpretive Questions and Determining Who is Liable

A set of legal issues that developed as a confluence between copyright law and new technologies were the interrelated questions of who is performing the infringing activity, and how to assign liability when the activities of two or more individuals combine to create the infringing act.113 These issues cut across many of the rights granted under the Copyright Act, including reproduction and public performance rights.114 Courts have consequently developed alternative theories of liability (secondary liability or contributory infringement)115 and modes of analysis (volitional act test).116

112. See Fox Television Stations, Inc. v. FilmOn X LLC, 966 F. Supp. 2d 30, 48 (D.D.C. 2013) (“This system, through which any member of the public who clicks on the link for the video feed, is hardly akin to an individual user stringing up a television antenna on the roof.”); Fox Television Stations, Inc. v. BarryDriller Content Sys., PLC, 915 F. Supp. 2d 1138, 1146 (C.D. Cal. 2012) (noting, while interpreting the Transmit Clause, that “Congress found that ‘cable systems are commercial enterprises whose basic retransmission operations are based on the carriage of copyrighted program material and . . . copyright royalties should be paid by cable operators to the creators of such programs’” (citation omitted)); see supra Part I.C (discussing the compulsory license for cable television retransmissions).

113. See 2 GOLDSTEIN, supra note 70, § 8.0 (discussing the growing importance of secondary liability for copyright holders as more content becomes digitized and subject to automated systems while at the same time reducing the effectiveness of going after the direct infringers); LAFRANCE, supra note 90, § 9.4, at 277 (recognizing “[c]oncepts of secondary liability for copyright infringement are well-established in the case law, even though they are not expressly recognized in the copyright statutes. . . . [Secondary liability theories] permit a defendant to be found liable for infringement even though the defendant did not personally engage in one of the infringing activities” described in section 106 of the Copyright Act of 1976).

114. See Cartoon Network, 536 F.3d at 134 (noting that there is an unresolved question as to whether Cablevision or the subscriber “performs,” but assumes for its decision that Cablevision is the one performing). See generally Sony Corp. of Am. v. Universal City Studios, Inc., 464 U.S. 417 (1984) (discussing whether the manufacturer of video tape recorders could be liable if its customers used the device to make infringing reproductions of television shows).

115. See 2 GOLDSTEIN, supra note 70, § 8.0 (reviewing the theories of contributory infringement and vicarious liability that have been developed). Professor Goldstein also noted how digital technologies have shifted the performance and selection of protected works away from public places and into private homes, which in turn leads to “diminishing returns from the pursuit of direct infringers” and causes copyright holders to “increasingly turn[ ] to theories of secondary liability . . . to stem their losses.” Id. § 8:2; see 2 PATRY, supra note 38, at 1147–51 (reviewing theories of contributory infringement).

116. See 2 GOLDSTEIN, supra note 70, § 7.0.2, at 7:4 to 7:5 (stating that “[t]he copyright principle of strict liability presents a particular doctrinal challenge in an electronic environment where the servers of a single Internet service provider may automatically reproduce, perform and
Secondary liability is the inducing or facilitating of infringing conduct by someone else. One of the first technologies to broach these issues after the passage of the Copyright Act was video tape recorders (“VTR”), which allowed consumers to record and re-watch programs received on their television sets. In the litigation arising out of VTR technology, copyright holders claimed that the VTR manufacturer was liable for contributing to the actual, or “direct,” infringing that consumers engaged in by copying protected works.

Prior Supreme Court precedent had recognized a form of liability in contributing to the infringing activity of another and lower courts had routinely found liability where an ongoing relationship existed between the contributor and the infringer. However, the only relationship between the VTR manufacturer and the consumer was at the point of sale, and if liability were to be found, the Supreme Court found it must be because the manufacturer sold the product with constructive knowledge that the VTR would be used for infringing purposes.
Borrowing from theories found in patent law and trying to strike a balance between the copyright holder’s need for protection and the public’s interest in gaining access to legitimate innovations, the Court found that there could be no contributory infringement if the product had substantial, non-infringing uses. In the context of VTR technology, the Court found, using a copyright law theory known as “fair use,” that private, noncommercial time-shifting (i.e., recording a program for later viewing) was a substantial non-infringing use.

Additionally, another context in which the courts have had to address theories of contributory infringement has been with infringement over the Internet; perhaps most well known in the context of peer-to-peer file sharing technologies. Like with VTR technology, copyright holders alleged that the developer of the technology should be liable for users’ infringing file sharing. The Court admitted that non-infringing uses
of peer-to-peer sharing were possible, but nevertheless found the software developer liable for contributory infringement, because the purpose and intent behind the software were so obviously attempts to encourage infringing activity by the consumers.126

As technology has increasingly become more automated, many lower courts have also adopted a volitional act test before holding an entity directly liable for copyright infringement.127 Particularly in the context of the Internet, where service providers have little control over the activities of their users on systems that are largely automated, courts have expressed concern that if they were to find service providers directly liable for users’ copying done through the service providers’ hardware, they “would hold the entire Internet liable for activities that cannot reasonably be deterred.”128 As a result of this concern, many courts look to whether any volitional act on the part of the service provider or equipment provider caused the infringing use. For example, in the Cablevision litigation, the Second Circuit looked to whether the cable company providing the RS-DVR engaged in any volitional act (i.e., actively participated), when allegedly infringing reproductions were made at its subscribers’ requests, to determine if the cable provider was directly liable; finding no volitional act, the court moved on to discuss whether there was a public performance.129

...
All of the issues discussed above—including single versus separate copy transmissions, direct and secondary/contributory infringement, and the volitional act test—were central to the copyright litigation brought against Aereo that the Court decided in the summer of 2014.

II. DISCUSSION

This Part discusses how the Supreme Court determined copyright liability for the Internet-based television-streaming service Aereo, Inc., under the Transmit Clause in the recent case American Broadcasting Companies v. Aereo, Inc. First, this Part outlines the facts of Aereo. Second, this Part discusses the procedural history of the litigation, focusing on the Second Circuit’s interpretation of the Transmit Clause. Finally, this Part discusses the parties’ arguments as well as the Court’s majority and dissenting opinions in depth.

A. Aereo’s Technical Architecture and Case Facts

Aereo, Inc. launched in February 2012 as an Internet-based television company offering a subscription service that enabled subscribers to watch local broadcast television over their Internet-connected devices for $12 dollars per month. Aereo provided its subscribers with access to two pieces of equipment: an antenna and a digital video request to a human employee, who then volitionally operates the copying system to make the copy, and issuing a command directly to a system, which automatically obeys commands and engages in no volitional conduct.”); see LAFRANCE, supra note 90, § 9.5 (discussing the volitional act test and theories of secondary liability in the context of Internet service providers).

131. See infra Part II.A (reviewing the pertinent facts of the Aereo litigation and focusing on the technological architecture of Aereo’s service).
132. See infra Part II.B (discussing the procedural history of the litigation with a particular emphasis on the Second Circuit’s decision).
133. See infra Part II.C (discussing the parties’ arguments and the majority and dissenting opinions, focusing on the perceived effect the decision could have on cloud computing).
134. Brief for Respondent at 9, Am. Broad. Cos. v. Aereo, Inc., 573 U.S. —, 134 S. Ct. 2498 (2014) (No. 13-461); see Brian Stelter, New Service Will Stream Local TV Stations in New York, N.Y. Times (Feb. 14, 2012, 10:58 AM), http://mediadecoder.blogs.nytimes.com/2012/02/14/new-service-will-stream-local-tv-stations-in-new-york/?smid=tw-nytimestv&sei=auto (discussing the introduction of Aereo to New York and its features). One interesting fact is the head executive of Aereo also helped create the Fox television network over thirty years ago. Id. Aereo’s own description of its technology, other than what is preserved in its briefs for the case, is currently unavailable via its website. After the Court’s ruling in June, visitors to the website are greeted by a letter which states: “The U.S. Supreme Court decision effectively changed the laws that had governed Aereo’s technology, creating regulatory and legal uncertainty. And while our team has focused its energies on exploring every path forward available to us, without that clarity, the challenges have proven too difficult to overcome.” Chet Kanojia, A Letter to Our Consumers, AEREO (Nov. 21, 2014), https://www.aereo.com/.
recorder ("DVR"). Similar to the Cablevision litigation, the key feature of Aereo’s DVRs was that they were located at Aereo facilities and accessible remotely, in a cloud-service arrangement. Thus, unlike traditional DVR or antenna arrangements that are wired directly to a consumer’s television set, Aereo’s service involved the transmission of content from Aereo to the subscriber. Whenever a subscriber wanted to watch a program, he or she was assigned a unique antenna, and so even if multiple subscribers decided to watch the same program, they each received the broadcast from their own antenna.

Upon logging in to their account, a subscriber would be presented with a guide listing channels available in her broadcast market. At

135. See Cartoon Network LP v. CSC Holdings, Inc., 536 F.3d 121, 124 (2d Cir. 2008) ("[T]he RS–DVR allows Cablevision customers who do not have a stand-alone DVR to record cable programming on central hard drives housed and maintained by Cablevision at a ‘remote’ location."); Brief for Respondent, supra note 134, at 9 ("[Aereo’s] equipment differs from traditional antennas and DVRs in that it is remotely located and accessible via the Internet ‘cloud,’ rather than located in the user’s home."). What distinguishes Aereo’s service from Cablevision’s DVRs is Aereo’s offering of access to live television without a Cable TV-style licensing agreement with the broadcasters to retransmit their programs under section 111 of the Copyright Act of 1976. See Brief for the United States as Amicus Curiae Supporting Petitioners at 33, Am. Broad. Cos. v. Aereo, Inc., 573 U.S. —, 134 S. Ct. 2498 (2014) (No. 13-461) [hereinafter Brief for the United States] ("In Cablevision, the cable company already possessed the necessary licenses to transmit copyrighted television programs to its subscribers. The RS-DVR system simply allowed subscribers to engage in ‘time shifting’ by recording, for later viewing, programs they received through their authorized cable subscriptions.").


138. See Brief for Respondent, supra note 134, at 10 ("The user’s selection of a program activates and tunes an antenna assigned solely to that user, which picks up the signal from the local station broadcasting the program."); Brief for the United States, supra note 135, at 6–7 (describing how each subscriber is given access to an antenna for his or her individual use).

139. Brief for Respondent, supra note 134, at 10. Aereo apparently went to great lengths to limit the broadcast channels available via its service, likely to avoid other copyright issues; in its brief Aereo notes:

Aereo imposes several geographic controls to ensure consumers can make and access their recordings only when they are physically located within the original broadcast area. Those include: confirming a home address within the market through credit card checks; IP address verification; further checks using GPS, cell tower triangulation, and other methods; and reminders that Aereo’s Terms of Use prohibit attempting to access
this point a subscriber could choose to “Record” a program airing on an available channel to watch later, or “Watch” a program nearly live. The “Watch” feature was “nearly live” because the program was briefly delayed while Aereo’s system created a user specific copy and then transmitted that copy to the subscriber. For either the “Record” or “Watch” functions, however, Aereo’s system remained dormant until commands were relayed to it from the subscriber. Furthermore, throughout the process, from when the subscriber’s antenna tuned to the selected broadcast, the user copy was saved, and when the copy was transmitted to the consumer, the specific data transmitted was only available to the one subscriber. The effect of this design, and what led the plaintiffs to call Aereo’s system a gimmick, was that if 10,000 subscribers wanted to watch the same program, 10,000 different antenna-DVR combinations would individually receive the broadcast and make 10,000 copies, which were then transmitted to the users via 10,000 separate transmissions. Nonetheless, Aereo offered this service without paying the copyright holders who owned the broadcast television programs Aereo allowed its subscribers to access.

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140. See WNET, 712 F.3d at 681 (“Thus the user can watch the program nearly live, that is, almost contemporaneously with the over-the-air-broadcast.”); Brief for Respondent, supra note 134, at 10 (describing the different “Watch” and “Record” functions Aereo offered); Brief for the United States, supra note 135, at 6 (noting these two different functions of Aereo’s service).

141. See WNET, 712 F.3d at 681 n.3 (“The technical operation of Aereo’s system . . . results in a slight delay in transmitting the program, which means that an Aereo subscriber using the ‘Watch’ feature sees the program delayed by approximately ten seconds.”); Giblin & Ginsburg, supra note 17, at 4 (noting the “near-live” nature of Aereo’s “Watch” feature).

142. Brief for Respondent, supra note 134, at 10 (“Aereo’s equipment does not receive or record any broadcast programming except in response to user commands; when not in use by consumers, it is dormant.”); Giblin & Ginsburg, supra note 17, at 4 (describing how Aereo’s servers do not initiate a recording until a subscriber inputs a command).

143. Brief for Respondent, supra note 134, at 12 (“From beginning to end, the data received by an antenna are available only to the individual user.”); Giblin & Ginsburg, supra note 17, at 4 (“[N]o two users are ever assigned the same antenna simultaneously, and recordings made while an antenna is assigned to a particular user are never available to any other subscriber.”).

144. See Am. Broad. Cos. v. Aereo, Inc., 874 F. Supp. 2d 373, 385 (2012) (“Plaintiffs . . . argu[e] . . . [that] the Court should view Aereo’s system as a technological gimmick . . . .”); Reply Brief for Petitioners at 1, Am. Broad. Cos. v. Aereo, Inc., 573 U.S. —, 134 S. Ct. 2498 (2014) (No. 13-461) (deriding, once again, Aereo’s system as a “gimmick” in their reply brief). The point the copyright holders are arguing is that Aereo’s system was not a technological advancement, but merely an inefficient workaround to avoid copyright liability. See Giblin & Ginsburg, supra note 17, at 4–5 (“Viewed in technical isolation, Aereo’s design looks clumsy and wasteful.”). Professors Giblin and Ginsburg also utilize the 10,000 different subscribers example to illustrate Aereo’s functionality. Id. at 4.

The Aereo plaintiffs were various corporations that held copyrights in a number of broadcast television programs that Aereo made available for viewing to its subscriber network.\(^{146}\) The initial lawsuits alleged several alternative theories of how Aereo infringed the plaintiffs’ copyrights, including infringing the public performance right and the right of reproduction, and contributory infringement theories for both of these rights.\(^{147}\) However, the plaintiffs quickly moved for a preliminary injunction solely on whether Aereo was directly liable for infringing their public performance right by allowing subscribers to view copyrighted works simultaneously with the over-the-air broadcasts.\(^{148}\)

**B. The Lower Courts Follow Cablevision**

The District Court for the Southern District of New York’s opinion was mostly a comparison of Aereo’s service to the RS-DVR system at issue in *Cablevision*, which was the controlling precedent for the court.\(^{149}\) Finding that Aereo functioned remarkably similarly to an RS-DVR (both involved remote storage and transmission of protected...
works at the user’s request), the district court determined that Aereo made distinct user copies and created its own separate and distinct performance via transmissions to the subscriber. This interpretive lens permitted the district court to dismiss other cases supporting the plaintiffs’ position, on the grounds that those cases dealt with transmissions of single “master copies” and not user-specific copies. Finding itself bound by Cablevision, the district court denied the plaintiff copyright holders’ request for a preliminary injunction.

On appeal, the Second Circuit picked up right where it left off in Cablevision by focusing on the meaning of the Transmit Clause. Under its interpretation, when determining whether a performance is “to the public,” a court looks to the potential audience of the particular

150. Aereo, 874 F. Supp. 2d at 386 (“[T]his Court finds that on the key points on which Cablevision actually relied, Aereo’s system is materially identical to that in Cablevision, suggesting that the copies Aereo creates are as significant as those created in Cablevision.” (citation omitted)). At issue here is that the plaintiffs in both Cablevision and Aereo attempted to cast what the defendants’ technologies were doing as “facilitating the transmission of a single master copy.” Id. at 385; see Cartoon Network LP v. CSC Holdings, Inc., 536 F.3d 121, 139 (2008) (discussing whether the RS-DVR likewise involves the transmission of a “single copy of a given work”). The importance being that if the courts view the technology as the same copy being performed (or transmitted) to multiple subscribers, such activity easily falls into traditional concepts of public performance under the Transmit Clause. See, e.g., Columbia Pictures Indus., Inc. v. Redd Horne, Inc., 749 F.2d 154, 159 (1984) (finding that in the context of a video rental store that allowed patrons to take the same single copy of a movie and view it in a private booth, the Third Circuit found “[a]lthough Maxwell’s has only one copy of each film, it shows each copy repeatedly to different members of the public. This constitutes a public performance”).


152. Aereo, 874 F. Supp. 2d at 392 (“Such cases, however, have generally not considered the impact of the creation of unique copies—the focus of Cablevision’s analysis—on whether internet streaming transmissions involve a public performance and thus did not address the question currently before the Court.”). For a sampling of the cases the plaintiffs relied on for their proposition, see, e.g., Am. Soc’y of Composers, 627 F.3d at 74 (finding that “[a] stream is an electronic transmission that renders the musical work audible as it is received by the client-computer’s temporary memory” and that “all parties agree [such stream transmissions] constitute public performances”); WPIX, 765 F. Supp. 2d at 601 (in the context of unauthorized Internet streaming of television programs “it is undisputed that they own valid copyrights and that ivi is making public performances of their works without their consent”).

153. Aereo, 874 F. Supp. 2d at 405. The Court however did express trepidation over wholeheartedly embracing Aereo’s position, noting “[t]his position would eviscerate the transmit clause given the ease of making reproductions before transmitting digital data, and Cablevision does not require such a far sweep.” See id. at 396.

154. WNET, Thirteen v. Aereo, Inc., 712 F.3d 676, 686 (2d Cir. 2012), rev’d, 573 U.S. —, 134 S. Ct. 2498 (2014); see Denniston, supra note 149 (noting that in the Second Circuit’s Aereo opinion “[t]he majority relied heavily upon its decision in the Cablevision case”); see also infra Part I.D (discussing the Second Circuit’s decision in Cablevision).
transmission, not the potential audience of the underlying work.\textsuperscript{155} Unsurprisingly, the Second Circuit focused on the unique copies created by Aereo’s system and how each copy was only available to a single user.\textsuperscript{156} Moreover, the Second Circuit rejected arguments by the plaintiffs attempting to distinguish Cablevision from Aereo’s system; in particular, the court refused to give any weight to the fact that Cablevision initially obtained a license under the compulsory licensing regime set out in the Copyright Act for cable providers, whereas Aereo had not, finding that this had no bearing on whether Cablevision (and now Aereo) was authorized to retransmit stored copies or whether it was publically performing via its own transmissions.\textsuperscript{157}

Another argument that the Second Circuit rejected, and that the Supreme Court ultimately embraced, was the plaintiffs’ argument regarding the legislative intent behind the Copyright Act.\textsuperscript{158} The plaintiffs argued that Congress intended to define a public performance to include cable television retransmissions, and that Aereo was the functional equivalent of a cable system, so it too should be liable.\textsuperscript{159} The Second Circuit, however, found this interpretation of the legislative

\textsuperscript{155} \textit{WNET}, 712 F.3d at 687 (returning to its concern that alternative interpretations would be unworkable, the court noted that ‘[g]iven that ‘the potential audience for every copyrighted audiovisual work is the general public,’ [the alternative interpretation] would render the ‘to the public’ language of the Clause superfluous and contradict the Clause’s obvious contemplation of non-public transmissions” (quoting Cartoon Network LP v. CSC Holdings, Inc., 536 F.3d 121, 135–136 (2nd Cir. 2008))). \textit{But see, e.g.}, Fox Television Stations, Inc. v. BarryDriller Content Sys., PLC, 915 F. Supp. 2d 1138, 1143–44 (C.D. Cal. 2012) (regarding a technology analogous to Aereo, and rejecting the \textit{Cablevision} reasoning, the district court noted “[t]hat is not the only possible reading of the statute. The definition section sets forth what constitutes a public performance of a copyrighted work, and says that transmitting a performance to the public is a public performance. It does not require a ‘performance’ of a performance”).

\textsuperscript{156} \textit{WNET}, 712 F.3d at 689.

\textsuperscript{157} \textit{Id.} at 690 (“This argument fails, as the question is whether Aereo’s transmissions are public performances of the Plaintiffs’ copyrighted works. If so, Aereo needs a license to make such public performances; if they are not public performances, it needs no such license.”). Interestingly enough, after the Supreme Court ruled against Aereo, this distinction would be argued by many as an alternative to the interpretation the Supreme Court gave the Transmit Clause (discussed \textit{infra} Part II.C), and that by folding Aereo into the compulsory license, copyright holders would still be protected. \textit{See} Stolz, \textit{supra} note 23 (noting that the cable television compulsory license scheme set forth in section 111 of the Copyright Act could be a viable avenue for Aereo in the wake of the Court’s decision); \textit{infra} Part III.C (discussing the compulsory license option as an alternative to the Court’s decision).

\textsuperscript{158} Compare \textit{WNET}, 712 F.3d at 694 (noting that the plaintiffs’ “reading of the legislative history is simply incompatible with the conclusions of the \textit{Cablevision} court”), with Am. Broad. Cos. v. Aereo, Inc., 573 U.S. —, 134 S. Ct. 2498, 2506 (2014) (finding that Congress amended the Act in 1976 “in large part” to overturn the Court’s \textit{Fortnightly} and \textit{Teleprompter} decisions and bring cable television’s activities within the public performance definition of the new Act).

\textsuperscript{159} \textit{WNET}, 712 F.3d at 694; \textit{see infra} Part II.C (discussing the Supreme Court’s treatment of this issue which tracks the copyright holders view of Congress’s intent).
history of the Act too narrow, and instead focused on another intent of
Congress, limiting the performance protections to public performances
only.160 Noting that technological developments during the intervening
years had made it more difficult to distinguish between public and
private transmissions, the Second Circuit nonetheless found Aereo not
liable and more closely resembling a private transmission created from
a rooftop antenna into a consumer’s living room than an infringing
CATV-esque public performance.161 Ultimately, it was on these exact
issues that the Supreme Court decided the case: whether Aereo
resembled a cable television system or a private in-home transmission;
and what was the legislative intent behind the Act.162

C. Aereo: Innovator or Cable Television-Redux?

When the Supreme Court granted certiorari to Aereo there was hope
that its decision would provide clarity for what constituted a public
performance over the Internet.163 Specifically, many were concerned
what a Court decision for the copyright holders would mean for cloud

160. WNET, 712 F.3d at 694–95. The Second Circuit here quoted from the House Report on
the passing of the Act, that under the new definition “any individual is performing whenever he
or she plays a phonorecord embodying the performance or communicates the performance by
turning on a receiving set.” H.R. Rep. No. 94-1476, at 63 (1976). The court went on to note:
But because Congress did not wish to require everyone to obtain a license from
copyright holders before they could “perform” the copyrighted works played by their
television, Congress was careful to note that a performance “would not be actionable as
an infringement unless it were done ‘publicly,’ as defined in section 101.” “Private”
performances are exempted from copyright liability. This limitation also applies to
performances created by a “transmission,” since, as the Cablevision court noted, if
Congress intended all transmissions to be public performances, the Transmit Clause
would not have contained the phrase “to the public.”

161. Id. at 695 (“New devices such as RS–DVRs and Slingboxes complicate our analysis, as
the transmissions generated by these devices can be analogized to the paradigmatic example of a
‘private’ transmission: that from a personal roof-top antenna to a television set in a living room.
As much as Aereo’s service may resemble a cable system, it also generates transmissions that
closely resemble the private transmissions from these devices.”).

162. See Aereo, 134 S. Ct. at 2504 (the Court frames the issue presented by Aereo as two
questions: “[f]irst, in operating in the manner described above, does Aereo ‘perform’ at all? And
second, if so, does Aereo do so ‘publicly’?”). In answering these questions the Court looked to
the Copyright Act and the prior CATV litigations, and concluded “read in light of its purpose, the
Act is unmistakable: An entity that engages in activities like Aereo’s performs.” Id.; see infra
Part II.C.2 (discussing the Supreme Court’s comparison of Aereo to cable television).

163. See Lunney, supra note 12, at 205 (noting upon the granting of certiorari that “[b]y doing
so, the Court has seized an opportunity to bring some rationality to copyright’s line between
public and private performances”); Sam Méndez, Aereo and Cablevision: How Courts are
Struggling to Harmonize the Public Performance Right with Online Retransmission of Broadcast
Television, 9 WASH. J.L. TECH. & ARTS 239, 241 (2014) (“The Court’s eventual decision has the
potential to change our conception of what it means to publicly perform. Specifically, the Court
must address what constitutes an online public performance.”).
Weighing Down the Cloud

1. The Parties’ Arguments

The petitioners characterized Aereo as nothing more than a retransmission business utilizing a complex technological scheme to get

164. See Brief of 36 Law Professors, supra note 19, at 26–29 (discussing why cloud storage technologies should not be swept up into the Transmit Clause’s definition of public performance); Brief of Computer & Communications Industry Ass’n and Mozilla Corp. as Amici Curiae In Support of Respondent at 19, Am. Broad. Cos. v. Aereo, Inc., 573 U.S. —, 134 S. Ct. 2498 (2014) (No. 13-461) [hereinafter Mozilla Brief] (“[The] petitioners propose a standard premised on aggregating ‘prior’ performances. But that test would threaten cloud computing without changing how consumers can receive today’s over-the-air broadcasters.” (citation omitted)); Brief of Amici Curiae The Electronic Frontier Foundation, Public Knowledge, The Consumer Electronics Ass’n, and Engine Advocacy in Support of Respondent at 5, Am. Broad. Cos. v. Aereo, Inc., 573 U.S. —, 134 S. Ct. 2498 (2014) (No. 13-461) [hereinafter EFF Brief] (“[T]he predominant interpretative approach suggested by petitioners and their amici—that the Court should construe exclusive rights to include all financially valuable uses of copyrighted works—would strip away the commercial freedom . . . [of] many Internet-based services.”); Giblin & Ginsburg, supra note 17, at 23 (“[T]he broadcasters’ interpretation raises concerns about its possible effect on other technologies, particularly those providing cloud storage services.”). The main focus of the concern is that if the Court were to adopt an interpretation that focuses on the potential audience of the underlying work and not the audience of the particular transmission, many seemingly private and non-infringing uses may get swept up under the theory of public performance because of a consumer’s use of the cloud. Professors Giblin and Ginsburg provide the following example: “Imagine that a user records a broadcast of a particular NFL football game, and, intending to watch it at a more convenient time, uploads that recording to her private Dropbox account. When she later streams the recorded broadcast from her Dropbox, is Dropbox engaging in an infringing public performance?” Id. at 24.

165. See infra Parts III–IV (discussing the Court’s interpretation of the Transmit Clause and its effect on cloud computing).

166. See infra Part III (discussing the ambiguity and uncertainty the Court’s decision creates).

167. See infra Part III.C.1 (discussing the arguments of the parties).

168. See infra Part III.C.2 (discussing the majority opinion).

169. See infra Part III.C.3 (discussing Justice Scalia’s dissent).
around copyright law in order to offer a cheap product. The petitioners particularly took issue with the Second Circuit’s interpretation of the Transmit Clause, instead arguing that Aereo’s configuration of devices (individual antennas and RS-DVRs) should not allow it to circumvent a clause that clearly contemplates members of the public being able to see the transmitted performance in separate places or at separate times by any means or device.

In the petitioners’ view, the legal issue that Aereo’s service provided—third party retransmission of broadcast television signals to customers without compensating the copyright holder—was exactly the same one cable television posed in the 1960s and 1970s and which Congress firmly decided by enacting the Copyright Act that included the Transmit Clause. According to the petitioners, the key distinction Congress made when it rejected the Supreme Court’s holdings from *Fortnightly* and *Teleprompter* was the difference between private individuals receiving television programming for free and commercial entities profiting from carrying those same signals. The petitioners further argued that Congress, while incapable of foreseeing a technology like Aereo, intended the Transmit Clause to prevent technological workarounds that avoid liability by purposely including in the statute that it reached transmissions “by any device or process.”

170. Brief for Petitioners, supra note 137, at 18. This strain of argument has a long history in copyright law. See, e.g., Buck v. Jewell-La Salle Realty Co., 283 U.S. 191, 198 (1931) (discussing how the Court found that technological innovation did not absolve it of its duty to protect copyright holders); see also Part I.C (discussing how Congress intended to encapsulate similar retransmission functions of cable television in to the ambit of the Copyright Act).

171. Brief for Petitioners, supra note 137, at 19 (“Congress could not have been clearer that it does not matter whether members of the public receive these unauthorized retransmissions ‘in the same place or in separate places,’ or, for that matter, ‘at the same time or at different times.’ And the precise technical details of how Aereo provides this service—with one big antenna, thousands of little ones, or in some other manner—likewise are irrelevant. The transmit clause is expressly indifferent to technical details; it reaches transmission by ‘any device or process,’ whether ‘known’ in 1976 ‘or later developed.’” (quoting 17 U.S.C. § 101 (2012)); see supra Part I.C (discussing the language of the Transmit Clause and its intended purpose to be technologically neutral).

172. Brief for Petitioners, supra note 137, at 26–27; see supra Parts I.B–C (discussing the Court’s decisions regarding cable television and how Congress reacted against those decisions when passing the Copyright Act of 1976 to ensure such activities constituted infringement).

173. Brief for Petitioners, supra note 137, at 27; see H.R. Rep. No. 94-1476, at 89 (1976) (“[T]he Committee believes that cable systems are commercial enterprises whose basic retransmission operations are based on the carriage of copyrighted program material and that copyright royalties should be paid by cable operators to the creators of such programs.” (emphasis added)).

174. Brief for Petitioners, supra note 137, at 30 (“Congress did not want to risk any possibility that changes in technology would render the transmit clause a nullity.” (quoting H.R. Rep. No. 94-1476, at 64)); see H.R. Rep. No. 94-1476, at 64 (“Each and every method by which the images
Advocating a specific view of the legislative intent informing the Copyright Act, the petitioners argued that the Second Circuit’s interpretation of the Transmit Clause must be incorrect.\(^{175}\) In the petitioners’ minds, the Second Circuit’s view that the statute’s focus is on the potential audience of the particular transmission and not the underlying performance rendered the language of the statute—making a transmission to the public even if the members of the public are “capable of receiving the performance . . . at different times”—superfluous.\(^{176}\) Such a reading would go against longstanding canons of statutory interpretation.\(^{177}\) Moreover, the petitioners argued that the Second Circuit fundamentally misread the Transmit Clause, which only referred to whether the public is “capable of receiving the performance or display,” not a transmission.\(^{178}\) The petitioners likewise dismissed the Second Circuit’s transmissions-from-the-same-copy distinction as having no basis in the text of the Transmit Clause.\(^{179}\) The heart of the Aereo petitioners’ argument was that the Second Circuit had completely

\(^\text{175}\) Brief for Petitioners, supra note 137, at 31. The petitioners argued that “[n]otwithstanding the obvious reality that Aereo offers exactly the kind of service that Congress enacted the transmit clause to reach, the Second Circuit concluded that when Aereo simultaneously retransmits the same broadcast . . . it is engaged in thousands of ‘private’ performances that do not implicate” the public performance right. Id. This view was also reflected by the United States in its amicus brief, noting “[t]he Second Circuit’s reasoning in Cablevision, which treated the performance created by the act of transmission as the only relevant performance for purposes of the infringement analysis, reflected an erroneous interpretation of the Transmit Clause.” Brief for the United States, supra note 135, at 32–33.


\(^\text{177}\) See 2A Norman J. Singer & J.D. Shambie Singer, Sutherland Statutory Construction § 46:6 (7th ed. 2007) (“It is an elementary rule of construction that effect must be given, if possible, to every word, clause and sentence of a statute. A statute should be construed so that effect is given to all its provisions, so that no part will be inoperative or superfluous, void or insignificant, and so that one section will not destroy another unless the provision is the result of obvious mistake or error. No clause, sentence or word shall be construed as superfluous, void or insignificant if a construction can be found which will give force to and preserve all the words of the statute.” (footnotes omitted) (internal quotation marks omitted)).

\(^\text{178}\) Brief for Petitioners, supra note 137, at 33 (emphasis added) (internal quotation marks omitted) (quoting 17 U.S.C. § 101); see id. at 10 (discussing how “according to the Second Circuit, when Congress wrote ‘capable of receiving the performance or display,’ 17 U.S.C. § 101 (emphasis added), it actually meant ‘capable of receiving the transmission’”).

\(^\text{179}\) Brief for Petitioners, supra note 137, at 36. But see Nimmer, supra note 37, § 8.14[C][3][a] (discussing the meaning of the Transmit Clause and concluding that the “at different times” language of the Clause could refer to a single copy of a work offered to the public and which is repeatedly played).
misread a statute that Congress had intentionally drafted to cover commercial entities using new technology to avoid liability.\(^{180}\)

The petitioners also dismissed Aereo’s arguments that a ruling adopting petitioners’ interpretation of the Transmit Clause would imperil the future of new technology platforms, such as cloud computing.\(^{181}\) In the petitioners’ view, Aereo was easily distinguishable from cloud computing: Aereo transmitted unauthorized copyrighted reproductions to the public for free, and cloud computing simply offers storage and remote access to content users have legally obtained.\(^{182}\) The petitioners analogized Aereo to a copy shop providing access to a machine preloaded with protected works.\(^{183}\) In such an instance the shop owner would still be liable even though the customer actually made the copy; this is in contrast to the copy shop that allows a customer to copy a protected work the customer had previously obtained.\(^{184}\) In fact, the petitioners further argued that Congress had already passed legislation limiting the liability of cloud-like entities for storing protected works uploaded by their users with the safe-harbor provisions incorporated into the Digital Millennium Copyright Act (“DMCA”) via the Online Copyright Infringement Liability Limitation Act.\(^{185}\) The petitioners went on to contrast Aereo with services like

\(^{180}\) Brief for Petitioners, supra note 137, at 37; see H.R. Rep. No. 94-1476, at 89 (1976) (discussing Congress’ intent to ensure commercial entities, as represented by the cable television providers, were not avoiding paying the broadcast television providers); supra Part I.B–C (reviewing how new technologies taking advantage of gaps in existing copyright law have been a catalyst for copyright reform).

\(^{181}\) Brief for Petitioners, supra note 137, at 45–46; see Brief for the United States, supra note 135, at 31–32 (arguing that the Court adopting an interpretation of the Transmit Clause favored by the petitioners would not likely harm developments in cloud computing).

\(^{182}\) Brief for Petitioners, supra note 137, at 46. In the petitioners’ Reply Brief they further argued: “There is an obvious difference between providing storage for content that the end-user independently possesses and making the content itself available to anyone who pays a fee,” and further noted that other entities who engage in the latter activity pay licensing fees or royalties. Reply Brief for Petitioners, supra note 144, at 3.

\(^{183}\) Reply Brief for Petitioner, supra note 144, at 18.

\(^{184}\) Id.; see Anderson J. Duff, Aereo: Car Dealership or Copy Shop?, WIRED (July 16, 2014, 5:33 PM), http://www.wired.com/2014/07/aereo-car-dealership-copy-shop/ (discussing the petitioners’ copy shop analogy). The petitioners go on to argue that “[b]ecause Aereo is offering not just a piece of equipment, but an integrated service that includes access to copyrighted content, its efforts to suggest that it is a mere equipment supplier and only its subscribers perform are doomed.” Reply Brief for Petitioner, supra note 144, at 18.

\(^{185}\) Online Copyright Infringement Liability Limitation Act, 17 U.S.C. § 512(c)(1) (2012). Passed as part of the Digital Millennium Copyright Act, this Act contains a section entitled “Limitations on liability relating to material online,” which limits a service provider’s potential liability if they neither know nor have constructive knowledge of a user’s infringing activity engaged, but when the service provider discovers such infringing content, it acts expeditiously in removing it. Id. For an example of the safe harbor provision in effect, see Ellison v. Robertson, 357 F.3d 1072 (9th Cir. 2004).
iTunes that offer content, as well as storage, because the latter have previously obtained licenses from the copyright holders that permit them to offer the content.\(^{186}\) The petitioners concluded that a decision adopting Aereo’s interpretation of the Transmit Clause would have far reaching and disruptive implications for copyright law and the Internet, including whether media-streaming businesses like Netflix or Hulu would still have to seek licenses at all from rights holders.\(^{187}\)

In contrast, Aereo’s argument began by paralleling the Second Circuit’s: by its own terms, the Copyright Act finds a performance infringing only if it is to the public, and further states that a transmission is itself a performance, so therefore Aereo could infringe only if a particular transmission-performance was cable of being received by the public.\(^{188}\) Because a particular Aereo transmission was only available to one subscriber, it therefore could not be to the public.\(^{189}\) Furthermore, Aereo, in agreement with the Second Circuit, argued that nothing within the Transmit Clause allowed for the aggregation of the private transmissions to transform them into a public performance.\(^{190}\)

Aereo further argued that the petitioners were wrong in asserting that

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\(^{186}\) Reply Brief for Petitioner, supra note 144, at 22; see Brief for the United States, supra note 135, at 33–34 (making a similar argument).

\(^{187}\) Reply Brief for Petitioner, supra note 144, at 22. This argument ignored the Second Circuit’s distinctions between multiple transmissions stemming from a single copy and multiple transitions stemming from multiple copies. See Cartoon Network LP v. CSC Holdings, Inc., 536 F.3d 121, 138 (2d Cir. 2008); see also supra Part I.D (discussing the Second Circuit’s rationale in Cablevision).

\(^{188}\) See Brief for Respondent, supra note 134, at 22–23 (outlining its interpretation of the Transmit Clause and the relevant framework for determining liability); see also NIMMER, supra note 37, § 8-14[B][1] (noting that under the Copyright Act of 1976 “[t]he act of broadcasting a work is itself a performance of that work”).

\(^{189}\) See Brief for Respondent, supra note 134, at 23; see also NIMMER, supra note 37, § 8-14[C][2] (“If a transmission is only available to one person, then it clearly fails to qualify as ‘public.’”). Aereo illustrates the difference as follows:

A theater company’s performance of “Rent” in a locked and empty theater would not be a public performance, but, if it were broadcast to the public live, the transmission would be a public performance. If a transmission encoding the images and sounds were further transmitted by Defendant A to Defendant B, that would be a private performance; if Defendant B retransmitted the sounds and images to the public, that transmission would be a public performance. In each case, the audience capable of receiving a particular transmission is what determines whether the transmission is a “public performance.”

Brief for Respondent, supra note 134, at 23.

\(^{190}\) Brief for Respondent, supra note 134, at 25; see WNET, Thirteen v. Aereo, Inc. 712 F.3d 676, 688 (2d Cir. 2012), rev’d, 134 S. Ct. 2498 (2014) (rejecting the argument that the Transmit Clause allows for the aggregation of separate transmissions); see also supra Part II.B (discussing the Second Circuit’s opinion in Aereo and noting how the appellate court rejected focusing on the availability of the underlying work to the public for a focus on the availability of the particular transmission to the public).
Aereo’s interpretation of the Transmit Clause read out of the statute the at “different times” language.\textsuperscript{191} As its basis for this, Aereo cited to the legislative history that provided an example of a transmission\textit{capable} of reaching the public at different times as media stored on an information system that is then performed repeatedly, at separate times, at the initiation of individual members of the public.\textsuperscript{192} However, because Aereo’s system did not store content that any member of the public could request (each copy was unique to a subscriber), Aereo argued that it was not reading the “different times” language out of the statute.\textsuperscript{193} This analysis of the statutory text tracked the Second Circuit’s distinction between single and multiple copy transmissions: a single copy of a work stored on an information system and held out to the public is a transmission capable of being received by the public at different times; whereas multiple unique copies of the same work available to only one individual, are not.\textsuperscript{194}

Moreover, Aereo argued that, even assuming the Transmit Clause is directed at the underlying performance (and not that of the particular transmission-performance), the petitioners’ argument still fails because the relevant underlying performance was each unique recording, not the original, freely available broadcast.\textsuperscript{195} According to Aereo, the manner

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\item \textsuperscript{191} Brief for Respondent, \textit{supra} note 134, at 25.
\item \textsuperscript{192} \textit{Id.} at 26; see \textit{H.R. REP. NO.} 90-83, at 29 (1967) (\textit{“[A] performance made available by transmission to the public at large is ‘public’ even though . . . the transmission is capable of reaching different recipients at different times, as in the case of sounds or images stored in an information system and capable of being performed or displayed at the initiative of individual members of the public.”}). This same quotation was instrumental for the Second Circuit’s \textit{Cablevision} decision as well. \textit{Cartoon Network LP v. CSC. Holdings, Inc.}, 536 F.3d 121, 135 (2008) (using the same quotation in the analysis of the case). Professor Nimmer, in his treatise on copyright likewise provided a similar example of this, \textit{supra} note 109.
\item \textsuperscript{193} Brief for Respondent, \textit{supra} note 134, at 26. In order to make this argument Aereo adopted the master or “single copy” distinction that the Second Circuit utilized in \textit{Cablevision}. \textit{See} \textit{Cartoon Network LP v. CSC. Holdings, Inc.}, 536 F.3d 121, 139 (2008) (concluding there was a fundamental difference between multiple transmission stemming from a single copy and those stemming from separate copies).
\item \textsuperscript{194} \textit{Cartoon Network}, 536 F.3d at 137 (arguing that if a particular transmission is not available to the public, no public performance occurs); Brief for Respondent, \textit{supra} note 134, at 27. For the Second Circuit’s discussion of this in \textit{Cablevision}, see \textit{supra} note 104 and accompanying text.
\item \textsuperscript{195} Brief for Respondent, \textit{supra} note 134, at 27. Aereo construes its position thusly: “[a] broadcaster could perform a movie by showing its images and sounds to the audience by means of a transmission; an individual could record the movie and play it the next day, thereby separately performing the work.” \textit{Id.} at 28. This is the distinction between a retransmission and the theory of “multiple performances.” \textit{See NIMMER, supra note} 37, \textit{§ 8-18[1]} (commenting on the doctrine of multiple performances: “The phenomenon is seen most clearly in the case of phonorecords. One performance occurs at the time the rendition is recorded. This instance may or may not be a public performance, but it is nevertheless surely a performance. It is clear, under the Act, that, if and when the phonorecord thus created is “played,” an additional performance of
in which its service functioned—a subscriber initiated a command allowing her DVR to make a user-specific copy and that copy was then transmitted to her—coupled with the user’s ability to pause and rewind, created a separate performance than that which the broadcaster transmitted to the public.\textsuperscript{196} Aero argued that the import of this is that it is not offering “retransmissions,” and therefore does not implicate section 111 of the Copyright Act, which established the compulsory license for cable television’s retransmission of broadcast television.\textsuperscript{197}

Aereo also argued that, because its subscribers were the ones who “performed” the underlying work, Aereo could not be found to have directly infringed copyright holders’ public performance right.\textsuperscript{198} Comparing itself to the technologies from the Court’s precedent in \textit{Sony} (VTRs) and \textit{Grokster} (peer-to-peer file sharing software),\textsuperscript{199} Aereo argued that it only provided equipment that allowed its users to engage in infringing activity; so, at most, if at all, it could be found liable for contributory infringement.\textsuperscript{200} Relying on lower-court decisions that the same rendition occurs, which will constitute an infringement if it is unauthorized and is public.” (footnote omitted)).

\textsuperscript{196} Brief for Respondent, supra note 134, at 29. Aereo analogizes the distinction as follows:

\textit{[T]he difference between the user’s playback and the broadcaster’s performance may not be apparent when the user simply plays her recording without interruption… .

The difference becomes obvious, however, the moment the user hits “pause” (or “rewind”): the user controls the images and sounds she receives – it is her act of showing that she views through a transmission from Aereo’s equipment to her device.}

\textit{Id. at 29–30; see Brief of Cablevision Syst. Corp. as Amicus Curiae In Support of Petitioners, at 22–24, Am. Broad. Cos. v. Aereo, Inc., 573 U.S. —, 134 S. Ct. 2498 (2014) (No. 13-461) (arguing that the relevant performance is a separate performance created by the act of transmission and not the underlying broadcast performance).}

\textsuperscript{197} Brief for Respondent, supra note 134, at 34 (“The distinction between retransmission of a broadcaster’s performance and transmission of a performance from an individual copy of the broadcast is strongly reinforced by § 111, which draws that very distinction.”); see 17 U.S.C. § 111 (2012) (laying out the compulsory license).

\textsuperscript{198} Brief for Respondent, supra note 134, at 40. As discussed above, this debate over which participant “performs” has been of increasing importance, and subject of litigation. See supra note 115 and accompanying text (quoting Professor Goldstein in his discussion of the diminishing returns copyright holders receive for pursuing direct infringers in the context of the Internet).

\textsuperscript{199} See Metro-Goldwyn-Mayer Studios Inc. v. Grokster, Ltd., 545 U.S. 913, 920–921 (2005) (discussing whether the distributor of a file sharing software was liable under a theory of contributory infringement); Sony Corp. of Am. v. Universal City Studios, Inc. 464 U.S. 417, 439 (1984) (discussing whether the manufacturer of a VTR was liable for the infringing acts of its customers). At issue in both the \textit{Sony} and \textit{Grokster} litigations were the contentions, ultimately adopted by the Court in both instances, that what those two companies were engaged in could not be said to be direct infringement at all, but, if anything, only contributory infringement. See supra Part I.E (discussing these two cases).

\textsuperscript{200} Brief for Respondent, supra note 134, at 41. Again, the Court in the \textit{Sony} litigation adopted similar arguments with respect to VTRs. See \textit{Sony}, 464 U.S. at 439 (discussing whether Sony, and equipment provider whose only contact with the direct infringer was the point of sale, could be liable under a theory of contributory liability).
refused to find direct liability in the absence of volitional conduct, Aereo argued that it could not be held directly liable for its service’s automated response to a subscriber’s command. Moreover, Aereo argued that the Digital Millennium Copyright Act’s safe harbor provisions evince Congress’s intent to limit liability in the absence of volitional conduct. Given the amount of subscriber control, the passivity and automation of Aereo’s service, Aereo concluded it did not fall within the contemplated framework of direct liability.

Aereo’s final argument was that a ruling against it would have devastating consequences for cloud computing technologies. If the petitioners’ view of the Transmit Clause (that the relevant framework is the potential audience of the underlying protected work and not that of the subscriber specific copy-transmission) were to be adopted, Aereo argued that (for example) Google would become liable for an infringing public performance when two users of Google Drive individually play the same song from two distinct copies that are stored on Google’s servers. Furthermore, Aereo argued that the petitioners’ attempt to distinguish Aereo from cloud technologies—because, in the latter, the users had previously obtained licensed copies—failed, as it actually has no basis in the statute. Moreover, such an interpretation would still

201. Brief for Respondent, supra note 134, at 42–43. For a discussion regarding the volitional act test, see supra Part I.E; see also Cartoon Network LP v. CSC Holdings, Inc., 536 F.3d 121, 131 (2d Cir. 2008) (“The person who actually presses the button to make the recording[] supplies the necessary element of volition, not the person who manufactures, maintains, or . . . owns the machine.”).

202. Brief for Respondent, supra note 134, at 43. For the text of safe harbor provisions of the Digital Millennium Copyright Act, which limit liability for Internet service providers when their users engage in infringing activity, see text accompanying supra note 185.

203. Brief for Respondent, supra note 134, at 43; Brief of 36 Law Professors, supra note 19, at 6 (arguing that the activity that Aereo engages in lacks the necessary element of volition for direct infringement).

204. Brief for Respondent, supra note 134, at 48–49. Many shared this concern. See, e.g., supra notes 163–64 and accompanying text (noting the shared concern of many that the Court’s decision in Aereo could alter cloud computing’s legality).

205. Brief for Respondent, supra note 134, at 49. Google describes Google Drive as follows: “With Google Drive, you can store your files in the cloud, share them with your team members or external partners and access the files from any device.” Google Apps for Work, Easy and Secure File Sharing, GOOGLE, https://www.google.com/a/signup?hl=en&source=gafb-drive-canvas-en-drivesignup&enterprise_product=DRIVE&ga_region=noram&ga_country=us&ga_lang=en#0 (last visited Apr. 26, 2015). Therefore, Aereo argued, two users may store or record the same content independently on Google Drive, and when they stream that content back to themselves, they will be engaging in the same “infringing” activity as Aereo would be if the petitioners’ view were adopted. Brief for Respondent, supra note 134, at 49.

206. Brief for Respondent, supra note 134, at 50–51. This is an analogous argument to the one made by the Second Circuit in its Cablevision decision, in which the court found it did not matter whether the cable companies had obtained licenses in the first instance because this did not affect whether its subsequent actions were infringing. See WNET, Thirteen v. Aereo, Inc. 712
leave cloud-service providers open to liability if their users uploaded unlawful copies, which a provider could not determine without costly monitoring systems to ensure each uploaded copy was noninfringing.\textsuperscript{207} In Aereo’s estimation, this would destroy the cloud industry.\textsuperscript{208}

2. The Majority Opinion: Aereo’s Fatal Similarity to Cable

The limited question before the Supreme Court was whether Aereo directly infringed the public performance rights held by the television producers when protected works were transmitted to subscribers over Aereo’s system.\textsuperscript{209} Because protected works were not transmitted until a subscriber initiated the transmission and each subscriber had a subscriber-specific copy, the interpretive challenge for the Court was whether Aereo “performed”—as defined by the Copyright Act—and if so, whether it did so publicly.\textsuperscript{210} The Court responded to both of these issues in the affirmative and adopted the interpretation of the Transmit Clause put forth by the petitioners.\textsuperscript{211} First, the Court used Aereo’s similarity to cable television providers to find that Congress intended for the Copyright Act to cover Aereo’s activities.\textsuperscript{212} Second, the Court

\[\text{F.3d 676, 694 (2nd Cir. 2013), rev'd, 134 S. Ct. 2498 (2014) (concluding that the license for the initial retransmission did not affect whether subsequent (unauthorized) transmissions were infringing). Aereo also made an argument that is beyond the scope of this Note regarding the “fair use” doctrine. See Brief for Respondent, supra note 134, at 20. In brief, however, under the doctrine of fair use a consumer can make a non-infringing personal copy of lawfully obtained content. Thus, because Aereo’s subscribers were in effect making personal copies of freely available broadcasts for legitimate time-shifting purposes under a theory of fair use, then its subscribers were likewise transmitting non-infringing copies to themselves. Id.} \]

\[\text{207. Brief for Respondent, supra note 134, at 51; see infra Part IV.B (discussing how the Court’s decision will affect cloud computing in greater detail).} \]

\[\text{208. Brief for Respondent, supra note 134, at 51 (“No industry could operate under such an obligation.”).} \]

\[\text{209. Am. Broad. Cos. v. Aereo, Inc., 573 U.S. —, 134 S. Ct. 2498, 2503 (2014); Brief for Petitioner, supra note 137, at i (describing the limited question on appeal).} \]


\[\text{211. Aereo, 134 S. Ct. at 2511; see Brief for Petitioners, supra note 137, at 33 (setting forth their interpretation of the Transmit Clause).} \]

\[\text{212. Aereo, 134 S. Ct. at 2506. But see WNET, Thirteen v. Aereo, Inc. 712 F.3d 676, 690 (2d Cir. 2013), rev’d, 134 S. Ct. 2498 (2014) (in which the Second Circuit, citing to the same House} \]
determined that Aereo performs “publicly” by interpreting the Transmit Clause along the lines advocated by the petitioners.\(^{213}\) Third, the Court dismissed, in general terms, the concerns its ruling would have on cloud computing and other technologies.\(^{214}\)

The Court began its decision by reviewing the *Fortnightly* and *Teleprompter* cases and determined that one of the primary purposes of the Copyright Act was to overturn these rulings.\(^{215}\) The Court used an oft-cited House Report to show that the Copyright Act dismissed the Court’s previous distinction between broadcaster and viewer.\(^{216}\) Moreover, the *Aereo* Court noted that the Copyright Act also introduced the Transmit Clause, which made it a “public performance” to transmit a performance to the public.\(^{217}\) Finally, the Copyright Act introduced the compulsory license that forced cable companies to pay fees for the retransmission of broadcast television.\(^{218}\) The Court in *Aereo* determined that all of these changes clearly show Congress’s intent to make cable television subject to liability under copyright law.\(^{219}\)

Turning to Aereo, the Court found that its “activities are substantially similar to those of the CATV companies that Congress amended the Act to reach.”\(^{220}\) Just like those systems, Aereo provided a service that allowed paying subscribers to watch broadcast television (nearly) live via its equipment.\(^{221}\) The Court, however, did recognize that Aereo’s system remained inactive until a subscriber input a command initiating an automatic response on the part Aereo’s system, whereas cable

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Report the Court referred to, perceived a different legislative intent. For the Second Circuit’s discussion that Congress’s primary intent was to only capture public performances while still leaving room for private, non-infringing performances, see supra note 160 and accompanying text.

\(^{213}\) *Aereo*, 134 S. Ct. at 2507–10; see Brief for Petitioners, supra note 137, at 19 (setting forth its argument that Aereo performs publically); supra Part II.C.1 (discussing the petitioner’s arguments).

\(^{214}\) *Aereo*, 134 S. Ct. at 2510–11; see Brief for Petitioners, supra note 137, at 45–46 (discussing the petitioners’ argument for why a ruling favoring them would not harm cloud computing); see also supra Part III.C.1 (discussing Aereo and others’ contention that the Court’s ruling could irreparably harm cloud computing).

\(^{215}\) *Aereo*, 134 S. Ct. at 2505.

\(^{216}\) Id.; see H.R. REP. No. 94-1476 at 87 (1976) (noting that the Copyright Act “completely overturned” *Aiken, Fortnightly, and Teleprompter*).


\(^{218}\) 17 U.S.C. § 111.

\(^{219}\) *Aereo*, 134 S. Ct. at 2506; see supra Part I.C (reviewing Congress’s intent to overturn the Court’s *Fortnightly* and *Teleprompter* decisions by passing the Copyright Act).

\(^{220}\) *Aereo*, 134 S. Ct. at 2506.

\(^{221}\) Id.; see H.R. REP. No. 94-1476, at 89 (1976) (discussing Congress’s concern of allowing commercial entities to get away with not compensating broadcast television providers for the retransmission of their protected works).
television transmitted constantly, without user initiation.\textsuperscript{222}

It was this distinction that Aero claimed meant that the subscriber, not Aereo, did the performing.\textsuperscript{223} However, the Court found no significance in this distinction in light of the high degree of similarity between Aereo and the cable television services Congress intended to bring under the Act.\textsuperscript{224} Noting that the CATV subscriber could also select what program to view, the Court found the user experience was practically the same, despite how Aereo functioned behind the scenes.\textsuperscript{225} The Court noted that in other situations, the user’s participation in operating a provider’s equipment could influence the determination of who performs, but not here, in light of Aereo’s substantial likeness to cable television.\textsuperscript{226} The Court, however, offered no guidance on how or when to make this determination.

Having concluded that Aereo “perform[ed]” under the Act, the Court then addressed whether Aereo performed “publicly.”\textsuperscript{227} The Court assumed \textit{arguendo} that Aereo transmitted a new performance (the performance created by the transmission) and was not retransmitting the prior performance of the broadcasters.\textsuperscript{228} However, by proceeding under this theory the Court undermined its earlier conclusions that
Aereo’s similarity to cable television meant it fell within the Act given Congress’s intent to ensure liability for cable television providers’ retransmissions of broadcast television programs.229 Nonetheless, the Court found the fact that each particular performance-transmission was available to only one subscriber did not mean that Aereo was not transmitting a performance “to the public,” as defined under the Copyright Act.230 Again, the Court refused to give any weight to the functional or technological architecture of Aereo’s system, concluding “the behind-the-scenes way in which Aereo delivers television programming to its viewers’ screens” did not modify the viewing experience of the subscriber, nor Aereo’s fundamental profit-making purpose.231 Of particular concern to the Court was if modern cable television providers could get around Congress’s intent merely by substituting Aereo’s technological configuration for their old antenna and coaxial cable set up; a result Congress would not have intended.232

Turning to the text of the Transmit Clause, the Court found that it contemplates that “to transmit a performance” may be done by multiple transmissions because it is possible to “‘transmit’ or ‘communicate’ something through a set of actions.”233 Siding with the petitioners, the Court concluded that the Copyright Act must be interpreted this way because it explicitly includes transmissions available to the public “at different times,” which would be impossible if the language was limited

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229. See Brief of 36 Law Professors, supra note 19, at 26 (arguing that there are salient differences between cable television and Aereo); EFF Brief, supra note 164, at 17 (“Unlike a cable or satellite system, [Aereo’s] video signal is never shared among subscribers anywhere between its capture from the public airwaves and its viewing.”); infra Part II.C.3 (discussing Justice Scalia’s dissent and his concern that the Court ignored fundamental differences between how these technologies function).


231. Aereo, 134 S. Ct. at 2508. This concern clearly echoed the perceived intent of Congress to prevent the cable television commercial enterprises from avoiding paying broadcast television providers as well. See supra note 173 and accompanying text (distinguishing between commercial and private actors). However, the Court did not explain how this potential outcome would mean cable television systems could avoid the compulsory license, which they would still be subject to under the Act. See 17 U.S.C § 111 (2012) (requiring cable television’s secondary retransmission of primary broadcast transmission to be part of the compulsory license).

232. Aereo, 134 S. Ct. at 2509.

233. Id. (quoting 17 U.S.C. § 101). The Court provided the following example of what it means by a “set of actions”:

Thus one can transmit a message to one’s friends, irrespective of whether one sends separate identical e-mails to each friend or a single e-mail to all at once. So can an elected official communicate an idea, slogan, or speech to her constituents, regardless of whether she communicates that idea, slogan, or speech during individual phone calls to each constituent or in a public square.

Aereo, 134 S. Ct. at 2509.
to a single act of communication. Therefore, Court adopted the petitioners’ interpretation of the Transmit Clause by finding that when an entity transmits the same underlying work to multiple people, it is transmitting a performance to the public, notwithstanding that this is accomplished by a number of discrete transmissions and copies. Moreover, the Court concluded that Aereo was transmitting to the “public” because it was not argued, nor evident from the record, that Aereo’s subscribers were receiving transmissions “in their capacities as owners or possessors of the underlying works.” The Court indicated that whether or not a performance is “to the public” could be influenced by viewer’s relationship to an underlying work.

Finally the Court addressed Aereo’s and many amici’s concern that this interpretation of the Transmit Clause will have on cloud computing. The Court, noting that it was not Congress’ intent to stifle technological innovation by inserting the Transmit Clause, did not believe that its ruling would have such a negative impact. Oddly enough, the Court’s first justification for this belief was that its decision is limited to Aereo and did not decide whether other entities with similar frameworks likewise “perform”—as if lingering questions over legality should resolve the concerns over cloud technology.

234. Id.

235. Id. (“So whether Aereo transmits from the same or separate copies, it performs the same work; it shows the same images and makes audible the same sounds. Therefore, when Aereo streams the same television program to multiple subscribers, it ’transmit[s] . . . a performance’ to all of them.”). For the petitioners’ articulation of their conception of the Transmit Clause, see Brief for Petitioners, supra note 137, at 31 (arguing that the relevant performance at issue is whether the underlying performance is viewable by the public).

236. Aereo, 134 S. Ct. at 2510.

237. Id. at 2510 (“[A]n entity that transmits a performance to individuals in their capacities as owners or possessors does not perform to ‘the public,’ whereas an entity like Aereo that transmits to large numbers of paying subscribers who lack any prior relationship to the works does so perform.”); see Brief for the United States, supra note 135, at 31 (arguing that what makes Aereo liable is that it provides subscribers with access to content “in the first instance” when there is no prior existing relationship between the content and the subscriber).

238. Aereo, 134 S. Ct. at 2510.

239. Id. This is an apparent nod to the Copyright Clause’s other provision, that of securing these protections for authors and inventors with the end goal of promoting science and the public interest. See supra Part I.A (discussing the foundational principles of United States copyright law).

240. Aereo, 134 S. Ct. at 2510. But cf. Jeff Pulver, Freedom to Innovate Key to Internet Future, USA TODAY (Sept. 16, 2014, 7:34 PM), http://www.usatoday.com/story/opinion/2014/09/16/jeff-pulver-net-neutrality-open-internet-column/15663385/ (discussion by founder of Vonage of how “legal uncertainty was the single greatest impediment to innovation” in regards to whether Title II of the Communications Act of 1934 would apply to VoIP (internet telephony)); infra Part IV.B (discussing in greater detail the relation between legal certainty and increased investment in cloud computing).
Additionally, the Court specifically stated that its definition of “to the public” did not extend to those acting as owners or possessors of the relevant product.241 The Court also stated that its opinion did not consider whether the public performance right is implicated if a service primarily exists for the remote storage of lawfully obtained conduct.242 Ultimately though, the Court concluded it could not provide a clearer answer for how the Transmit Clause would apply to cloud technologies without a more applicable case before it and suggested that Congress could address the issue.243 However, because the Court found that Aereo “performed,” and did so “publicly,” when it transmitted the same underlying performance to the public, regardless of the number of discrete transmissions, the Court held that Aereo had directly violated the petitioners’ public performance rights under the Copyright Act.244

3. Justice Scalia’s Dissent: Unnecessary Uncertainty

Justice Scalia’s dissent began by arguing that the volitional act test should govern in cases involving claims of direct infringement.245 He argued this was the correct interpretation of the Copyright Act, which utilized active, affirmative verbs when defining what it means to perform.246 Moreover, Justice Scalia noted every appellate court that had considered direct liability for automated-service providers had embraced the volitional act test.247 Finally, he argued that, though not

241. Aereo, 134 S. Ct. at 2510.
242. Id. at 2511. However, whether this is a fair distinction is unclear; it would seem to only insulate a cloud provider whose users refrained from streaming the content they stored. For certain types of content stored in the cloud this is unlikely. See infra note 349 and accompanying text (noting how most audiovisual works stored in the cloud are streamed).
243. Aereo, 134 S. Ct. at 2511 (“[T]o the extent commercial actors or other interested entities may be concerned with the relationship between the development and use of such technologies and the Copyright Act, they are of course free to seek action from Congress.”). Similar concerns were likewise present in the Sony litigation, but from the perspective that the Court should be circumspect in interpreting the law when Congress’ intent is unclear. Sony Corp. of Am. v. Universal Studios, Inc., 464 U.S. 417, 431 (1984) (“In a case like this, in which Congress has not plainly marked our course, we must be circumspect in construing the scope of rights created by a legislative enactment which never contemplated such a calculus of interests.”).
244. Aereo, 134 S. Ct. at 2511.
245. Am. Broad. Cos. v. Aereo, Inc., 573 U.S. —, 134 S. Ct. 2498, 2511 (2014) (Scalia, J., dissenting); see 2 PATRY, supra note 21, § 9:5.50 (discussing how courts have required an element of volitional conduct before attaching liability to an alleged direct infringer); see also supra Part I.E (discussing the use of the volitional act requirement).
246. Aereo, 134 S. Ct. at 2512 (Scalia, J., dissenting) (providing the following examples “[o]ne ‘perform[es]’ a copyrighted ‘audiovisual work,’ such as a movie or news broadcast, by ‘show[ing]’ its images in any sequence’ or ‘mak[ing]’ the sounds accompanying it audible.” (quoting 17 U.S.C. § 101 (2012))).
247. Id. at 2512 (citing cases from the Ninth Circuit (Fox Broad. Co. v. Dish Network LLC, 747 F.3d 1060, 1066–68 (9th Cir. 2014)), the Second Circuit (Cartoon Network LP v. CSC.
Weighing Down the Cloud

2015

explicitly embracing the volitional act analysis, prior Court precedent was consistent with it.\textsuperscript{248} Likening Aereo to a “copy shop that provides its patrons with a library card,” Justice Scalia found Aereo did not perform; instead, Aereo, like the copy shop, only provided the opportunity for the volitional (infringing) acts of its subscribers.\textsuperscript{249} However, he did not assert that Aereo should not be held liable at all; the original complaint contained alternative theories of liability, and so affirming the Second Circuit’s decision would remand the case for determination on those issues.\textsuperscript{250}

Next, Justice Scalia took issue with the Court’s “guilt by resemblance” reasoning.\textsuperscript{251} While he began by noting the ambiguities inherent in legislative history,\textsuperscript{252} he quickly turned to how the Court ignored important functional differences between Aereo and the cable television providers of Fortnightly and Teleprompter.\textsuperscript{253} Most significant for Justice Scalia was that the Court’s decision, in effect, abandoned the volitional act test and created a “this looks like cable TV” standard.\textsuperscript{254} Justice Scalia concluded that the Court’s decision would create uncertainty because if the volitional conduct requirement was not outcome determinative in Aereo, than it probably was not (and

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\item \textsuperscript{248} Aereo, 134 S. Ct. at 2512 (Scalia, J., dissenting).
\item \textsuperscript{249} Id. at 2514. This is an apparent contrast to the petitioners’ analogy of Aereo as a copy machine preloaded with protected works. \textit{See} Reply Brief for Petitioner, supra note 144, at 18 (“Aereo is more like a copy shop that provides access to a copy machine fully pre-loaded with copyrighted works ready to copy at the push of a button.”).
\item \textsuperscript{250} Aereo, 134 S. Ct. at 2514–15 (Scalia, J., dissenting); see Am. Broad. Cos. v. Aereo, Inc., 874 F. Supp. 2d 373, 376 (2012) (describing how the complaint alleged direct and contributory liability for both the public performance and reproduction protections); see also supra Part II.B (discussing the procedural history of the Aereo litigation).
\item \textsuperscript{251} Aereo, 134 S. Ct. at 2515 (Scalia, J., dissenting).
\item \textsuperscript{252} Id. (noting of the Court’s use of legislative history to determine Congressional intent: “First, it is built on the shakiest of foundations. Perceiving the text to be ambiguous . . . the Court reaches out to decide the case based on a few isolated snippets of legislative history . . . . The Court treats those snippets as authoritative evidence of congressional intent even though they come from a single report issued by a committee whose members make up a small fraction of one of the two Houses of Congress. Little else need be said here about the severe shortcomings of that interpretative methodology.”). \textit{But see} Aereo, 134 S. Ct. at 2506 (majority opinion) (wherein the majority also pointed to the creation of the compulsory license as evidence that Congress intended to overturn the CATV rulings).
\item \textsuperscript{253} Aereo, 134 S. Ct. at 2515 (Scalia, J., dissenting); see Brief for Respondent, supra note 134, at 46–47 (arguing that Aereo’s subscribers initiate the potentially infringing transmissions whereas cable television systems broadcast to consumers without the consumer initiating); see also supra Part II.C.1 (discussing Aereo’s arguments for how its technology is distinguishable from cable television).
\item \textsuperscript{254} Aereo, 134 S. Ct. at 2516 (Scalia, J., dissenting).
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will not be) elsewhere.\textsuperscript{255} Secondly, by finding Aereo liable because it “looks like cable TV,” the Court created a new standard of copyright liability, but left the lower courts no criteria for how, and to whom, it applies.\textsuperscript{256} The end result will be years of expensive litigation to sort out how this new standard should be applied and to which type of online (cloud) services.\textsuperscript{257} Instead, Scalia thought the case should be decided on the other forms of copyright infringement initially pleaded, and, if those options were insufficient, to leave it for Congress to fix the loophole in copyright law—as the Court has permitted previously.\textsuperscript{258}

### III. Analysis

This Part examines the interpretive difficulties resulting from the Court’s decision. First, this Part reviews the strengths and weaknesses of the Court’s reasoning.\textsuperscript{259} Second, this Part describes the interpretative challenges created by the Court’s interpretation of the Transmit Clause.\textsuperscript{260} Finally, this Part discusses viable alternatives the Court could have adopted to avoid the uncertainty its decision created while still protecting copyright holders’ interests.\textsuperscript{261}

#### A. No Guidance for Future Technologies

The Court’s decision in \textit{Aereo} attempted to prevent different

\textsuperscript{255} \textit{Id.; see infra} Part IV.A–B (discussing in greater detail the potential effect of the majority’s interpretation of the Transmit Clause).

\textsuperscript{256} \textit{Aereo}, 134 S. Ct. at 2516 (Scalia, J., dissenting). Justice Scalia casts the problem in these terms: “[m]aking matters worse, the Court provides no criteria for determining when its cable-TV-lookalike rule applies. Must a defendant offer access to live television to qualify?” \textit{Id.; see} Stoltz, \textit{supra} note 23 (arguing that the decision “injects” uncertainty into copyright law).

\textsuperscript{257} \textit{Aereo}, 134 S. Ct. at 2517 (Scalia, J., dissenting) (“It will take years, perhaps decades, to determine which automated systems now in existence are governed by the traditional volitional-conduct test and which get the \textit{Aereo} treatment. (And automated systems now in contemplation will have to take their chances.)”); \textit{see} Schruers, \textit{supra} note 225 (noting the “uncertainty” with which the decision leaves lawyers of cloud computing companies).

\textsuperscript{258} \textit{Aereo}, 134 S. Ct. at 2517 (Scalia, J., dissenting). Justice Scalia argued that the Court “need not distort” copyright law to stop Aereo because of the existence of the alternative theories of liability, and that, even if those theories were insufficient to protect copyright holders, Congress, and not the Court, is “better informed” to fashion a solution to plug the “loophole.” \textit{Id.; see} Sony Corp. of Am. v. Universal City Studios, Inc., 464 U.S. 417, 500 (1984) (“Like so many other problems created by the interaction of copyright law with a new technology, ‘[t]here can be no really satisfactory solution to the problem presented here, until Congress acts.’” (citation omitted)); \textit{see also supra} Part LB–C (noting that the CATV cases are another example of when the Court left it to Congress amend the law to better protect copyright holders).

\textsuperscript{259} \textit{See infra} Part III.A (examining the merits and difficulties of the Court’s opinion).

\textsuperscript{260} \textit{See infra} Part III.B (reviewing the interpretive uncertainties that the Court’s interpretation of the Transmit Clause creates).

\textsuperscript{261} \textit{See infra} Part III.C (proposing alternatives to the Court’s decision that protect copyright holders while limiting the negative effect to new innovative Internet technologies).
configurations of technology offering similar features from varying the level of protection rights holders are afforded under copyright law. While the Court’s decision prevents Aereo and others from crafting multiple-copy, multiple-transmission designs to avoid making public performances—as the Second Circuit’s interpretation allowed—it arguably will still result in different technologies being treated differently, even though they provide similar functions. Moreover, the Court based its decision on the substantial similarity between Aereo and cable television, yet it ignored significant differences in function between these two technologies. Finally, in its quest to ensure Aereo’s liability, the Court favored existing technology over new innovations, at the expense of the Constitution’s other goal of promoting innovation and the public interest.

The Court had legitimate concerns for rejecting Aereo’s particular transmission interpretation of the Transmit Clause. The digital environment makes it virtually cost-free to create unique copies and provide multiple transmissions, thus providing Aereo, or presumably

262. See Aereo, 134 S. Ct. at 2508 (“In terms of the Act’s purposes, these [technological] differences do not distinguish Aereo’s system from cable systems. . . . Viewed in terms of Congress’ regulatory objectives, why should any of these technological differences matter?”); see also supra Part II.C.1 (discussing the Court’s opinion).

263. See Aereo, 134 S. Ct. at 2508–09 (discussing how Aereo’s use of personal copies still results in a public performance); Mozilla Brief, supra note 164, at 12–13 (discussing how technology similar to Aereo’s could be treated differently if the Court were to adopt Petitioners’ interpretation of the Transmit Clause).

264. Compare supra Part II.C.1 (the majority dismissing these differences), with supra Part II.C.2 (Justice Scalia’s accounting of how Aereo and cable television differ).

265. Mozilla Brief, supra note 164, at 21 (arguing that the position that Court would go on to adopt, “[i]n real-world terms . . . is far from a ‘technology neutral’ copyright principle, favoring as it does in-home devices over cloud-based equivalents based on where a hard drive or antenna happens to be located”). For a discussion of United States copyright law’s other aim: promoting science and the useful arts, see generally DAVIES, supra note 2 (discussing the public interest elements and themes of United States’ copyright right regime).

266. See supra Part III.C.1 (discussing the Court’s concerns of allowing Congress’ intent to be sidestepped); see also McBride, supra note 12, at 22 (“[O]ver 50 million Americans still rely on the free, over-the-air broadcast as their only source of television. Considering the widespread availability of cable and satellite service providers, it can be reasonably assumed that a large portion . . . who use over-the-air broadcasts do so out of financial necessity.”).

267. See Mark A. Lemley & R. Anthony Reese, Reducing Digital Copyright Infringement Without Restricting Innovation, 56 STAN. L. REV. 1345, 1349 (2004) (discussing, in the context of peer-to-peer file sharing over the Internet, that “[t]here is of course a good reason copyright owners are suing facilitators. They see themselves as under threat from a flood of cheap, easy copies and a dramatic increase in the number of people who can make those copies.”); Don E. Tomlinson, Intellectual Property in the Digital Age: The Piracy/Counterfeiting Problem and Antipiracy and Anticounterfeiting Measures, 8 CURRENTS: INT’L TRADE L.J. 3, 3 (1999) (noting that the technological innovations of the Internet “have made the life of the intellectual-property pirate much better” because of their increased ability to copy and store pirated works).
anyone else, an easy means to circumvent the law.\textsuperscript{268} However, the Court’s refusal to look behind the scenes at how technology functions may yet still lead to differing results based on technological design.

Take for example, Simple.tv. Like Aereo, Simple.tv provides its users with an antenna and a DVR, offering them the ability to stream live or recorded television programs to their Internet-connected devices.\textsuperscript{269} The main difference between Aereo and Simple.tv is that Simple.tv’s equipment is stored in the user’s home.\textsuperscript{270} Even after the Aereo decision it is unlikely that Simple.tv is liable for violating copyright law; personal DVRs and VTRs have been found not to infringe, and Simple.tv’s added feature of allowing a user to transmit his or her personal copies, stored on hard drives in their home, to their own Internet-connected devices elsewhere, can hardly be said to transform it to be “to the public.”\textsuperscript{271} Thus, given the technological and functional difference between Aereo and Simple.tv, and despite offering an

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\item \textsuperscript{268} See Am. Broad. Cos. v. Aereo, Inc., 573 U.S. —, 134 S. Ct. 2498, 2509 (2014) (presenting the question, if the Court were to adopt Aereo’s view, “why, if Aereo is right, could not modern CATV systems simply continue the same commercial and consumer-oriented activities, free of copyright restrictions, provided they substituted such new technologies for old?”); Méndez, supra note 163, at 266 (arguing that if Aereo were to win “[o]ther companies in other industries may well follow this reasoning and further circumvent broadcasters’ profit avenues. As the law stands [under the Second Circuit’s interpretation], there is little stopping cable and satellite companies from setting up ‘purely private transmissions’ of their own and circumventing any compensation to the broadcast industry.”). Again, see text accompanying supra note 231, this argument ignores that cable television providers are legally required to participate in the compulsory license for what they do, not how they do it. See 17 U.S.C. § 111 (2012) (requiring cable television services to pay broadcast television providers).

\item \textsuperscript{269} The Whole Planet DVR, SIMPLE.TV, https://us.simple.tv/#overview (last visited Apr. 26, 2015); see Questions & Answers, SIMPLE.TV, https://us.simple.tv/faq?q1 (last visited Apr. 26, 2015) (“Simple.TV is a personal DVR that streams live and recorded TV programs to web-connected devices like the iPad, Roku media streamer, and PCs and Macs. Depending on the model, it includes either one or two HDTV tuners that record TV to a [sic] external storage that you provide. In a nutshell, you get free HDTV on your computer, tablet or connected TV without a cable subscription.”).

\item \textsuperscript{270} The Whole Planet DVR, supra note 269 (describing Simple.tv as “a lovely little box that sits on your home network, connects to an aerial antenna (or ClearQAM cable), and streams TV to your devices, plus records to storage that you attach”); see Mozilla Brief, supra note 164, at 13 (discussing the difference between Aereo and Simple.tv).

\item \textsuperscript{271} Cf. Sony Corp. of Am. v. Universal Studios, Inc. 464 U.S. 417, 454–55 (1984) (discussing the litigation over VTR technology and whether consumer’s reproduction of copyrighted works were infringing, the Court found that “[w]hen these factors are all weighed in the ‘equitable rule of reason’ balance, we must conclude that this record amply supports the District Court’s conclusion that home time-shifting is fair use”); see supra Part I.E (discussing the Court’s prior decision in Sony as well as the Second Circuit’s Cablevision decision). As of this writing, it does not appear that suit has been brought against Simple.tv. In fact as one amicus stated during the Aereo litigation, “[n]either petitioners nor the United States offer an explanation as to why Aereo is liable when it stores the antenna and hard drive off-site, but the Simple.tv user is not liable . . . .”). Mozilla Brief, supra note 164, at 17.
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identical user experience, the former is liable and the latter is likely not.

Likewise, the Court’s decision was based on Aereo’s similarity to cable television providers,272 but this conclusion dismissed salient differences between these two technologies: Aereo’s inactivity until a subscriber initiated a transmission, and the possibility of Aereo’s system resulting in two distinct transmissions, whereas cable television was merely retransmitting a prior performance.273 Most importantly, Aereo’s system remained entirely inactive until the subscriber directed a copy to be made or a transmission to begin.274 Furthermore, it is the cable provider that chose what programs to capture, and then retransmit to a user, whereas Aereo did not make take such actions because it merely provided access to programs broadcasted by others.275 Even more inexplicable was that the first half of the Court’s discussion followed the logic that if Congress intended to bring cable providers retransmission of protected works into the realm of liability, then Aereo’s retransmission of those same works must also fall within the Copyright Act, but the second half of the opinion assumed that Aereo was not retransmitting, but in fact was transmitting a new performance.276 Thus, even within the Court’s opinion it implicitly recognized that Aereo and cable television could be engaged in different activities, but the Court did not apply this difference when arguing

272. Am. Broad. Cos. v. Aereo, Inc., 573 U.S. —, 134 S. Ct. 2498, 2506 (2014) (“Aereo’s activities are substantially similar to those of the CATV companies that Congress amended the Act to reach . . . .”). For further discussion, see supra Part II.C.1 (discussing the Court’s decision).

273. Aereo, 134 S. Ct. at 2515 (Scalia, J., dissenting) (“[T]he Court’s reasoning fails on its own terms because there are material differences between . . . cable systems . . . on the one hand and Aereo on the other.”).

274. See id. (discussing the differences between Aereo and cable television); Brief for Respondent, supra note 134, at 18 (recounting Aereo’s functionality); Giblin & Ginsburg, supra note 17, at 4 (describing the same). For a more detailed discussion of these differences, see supra Part II.C.1 (discussing Aereo’s arguments distinguishing it from cable television).

275. Aereo, 134 S. Ct. at 2515 (Scalia, J., dissenting). This analysis is actually quite similar to how the Court in Fortnightly distinguished CATV from broadcasters—“Broadcasters perform, viewers do not.” Fortnightly Corp. v. United Artists Television, Inc., 392 U.S. 397 (1968). However as discussed above, supra Part I.C, Congress eliminated this distinction with the Copyright Act. Presumably Justice Scalia is alluding to Aereo’s argument that the subscriber performs, Aereo does not. See Brief for Respondent, supra note 134, at 27 (arguing that Aereo’s users perform); Brief of 36 Law Professors, supra note 19, at 6 (discussing how this “should have been a case about infringement by consumers”).

276. Compare Aereo, 134 S. Ct. at 2506–08 (describing Aereo’s likeness to the CATV retransmission systems in Fortnightly and Teleprompter), with id. at 2508–11 (assuming that the performance Aereo transmits “comes into existence when Aereo streams” it to a subscriber). Admittedly the Court does this arguendo, but the fact that the Court chose to proceed under this assumption, instead of rejecting it and finding, as Petitioners urged, that Aereo was in fact retransmitting, hints that a real difference exists.
Aereo’s substantial similarity to the technologies of *Fortnightly* and *Teleprompter*.277  

Finally, much of the Court’s opinion was informed by a concern that technological innovations could circumvent and erode the protections afforded copyright holders by the Act if the Second Circuit’s interpretation prevailed.278 However, very little of the opinion expressed concern about the effect of its ruling on promoting “the progress of science and useful arts.”279 As other Supreme Court copyright cases have noted “[i]t may seem unfair that much of the fruit of the [rights holder’s] labor may be used by others without compensation . . . . [but] this is not ‘some unforeseen byproduct of a statutory scheme’ . . . [i]t is, rather, ‘the essence of copyright,’ and a constitutional requirement.”280 As discussed below, the Court’s lack of attention to this latter constitutional requirement has the serious potential to impede the development of cloud technologies.281

**B. Settling One Interpretive Challenge While Creating Many More**

The Court’s opinion concluded that, under the Transmit Clause, a transmission-performance is “to the public,” if the underlying work is capable of being received by members of the public and not, alternatively, the potential audience of particular transmissions, regardless of the number of copies supplying those transmissions.282 First, the Court’s ruling calls into question the need for a volitional conduct analysis and therefore potentially upsets numerous cases decided on those grounds.283 Second, the Court muddied the water of

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277. *Id.* at 2507; see Brief for Respondent, supra note 134, at 27 (arguing that Aereo’s users transmit a separate performance than the one initially broadcast).

278. *Aereo*, 134 S. Ct. at 2507–09 (discussing how, “in light of Congress’ basic purposes” in passing the Copyright Act, Aereo’s technological configuration and commercial intent should not allow it to avoid the protections for copyright holders Congress put in the act).

279. U.S. CONST. art. I § 8, cl 8. Even when the Court addressed the potential effect its decision might have on the development of new technologies, see *supra* Part I.C.2, it only offered up some limiting language that has been viewed as ineffective. See, e.g., Lackman, *supra* note 22 (“The Court took efforts to limit its holding to just the technology at bar, but the question remains as to whether the opinion is as narrow as the Court hoped. Notably, the court in the decision that inspired Aereo’s architecture (known as the *Cablevision* decision) also said that the holding was limited to its facts. It may be the end of Aereo, but if history repeats itself, *Aereo* may live on.”).


281. See *infra* Part IV (discussing how the Court’s decision will affect cloud computing).


283. The Court’s opinion is actually completely silent on the issue of the volitional act requirement. See *id.* at 2512 (Scalia, J., dissenting) (noting its absence in the Court’s opinion).
how to determine when transmissions are private. And third, the Court’s decision breeds uncertainty in what standard applies when a new technology allegedly infringes a public performance right.

Prior to Aereo, each court of appeals that had addressed direct-infringement claims against the providers of automated digital systems applied the volitional act test before liability was assigned. This was seen as a common sense rule in an era of digitized, automatic services in which system providers typically do not know what their users are doing. The Court, however, did not utilize this rule. In fact, it made no reference to it when it found that Aereo “performs” publicly under the Copyright Act. As Justice Scalia reasoned, if the volitional act requirement is not dispositive for Aereo, then it likely was not in other contexts as well. For example, one prong of the RS-DVR case

284. This is meant only in the context of the Internet where such determinations were harder to begin with. See Giblin & Ginsburg, supra note 17, at 23–27 (discussing the implications of Petitioners’ interpretation and what it could mean for the determination of public versus private performances in the context of cloud computing); Shalini Ramachandrea & Shira Ovide, Aereo Ruling Muddies the Picture on Cloud Storage, WALL ST. J. (June 25, 2014), http://online.wsj.com/articles/aereo-ruling-muddies-the-picture-on-cloud-storage-1403736175 (noting that many legal professionals stated that the Court’s decision creates uncertainty).

285. This is essentially the bulk of Justice Scalia’s dissent. See supra Part II.C.3 (discussing Justice Scalia’s dissent).

286. Aereo, 134 S. Ct. at 2512 (Scalia, J., dissenting); see 2 GOLDSTEIN, supra note 70, § 7.0.2 (discussing the use of the volitional act requirement by the lower courts to determine liability for Internet-based entities).

287. See Aereo, 134 S. Ct. at 2512–13 (Scalia, J., dissenting) (discussing the volitional act requirement); 2 PATRY, supra note 21, § 9:5.50 (“Although copyright is a strict liability statute . . . ‘there should still be some element of volition or causation which is lacking where a defendant’s system is merely used to create a copy by a third party.’” (internal citation omitted)).

288. See Aereo, 134 S. Ct. at 2516 (Scalia, J., dissenting) (noting that the majority opinion “greatly disrupts settled jurisprudence” by not utilizing the volitional act test); Andrew S. Fraker et al., Am. Broad. Cos. v. Aereo, Inc.: Supreme Court Departs from Volitional Act Test for Copyright Infringement, NGElaw (July 3, 2014), http://www.ngelaw.com/abc-aereo-ip-alert (“[The] Court declined to . . . [analyze] that direct infringement must involve an act of volitional conduct directed at the copyrighted work.”).

289. Instead the Court adopted a functional approach, assessing whether Aereo was “substantially similar” to cable television. See Aereo, 134 S. Ct. at 2506 (assessing whether Aereo is the functional equivalent of cable television and thus should be subject to liability under the Copyright Act as Congress intended cable television to be); Peter Menell & David Nimmer, Symposium: Aereo, Disruptive Technology, and Statutory Interpretation, SCOTUSBLOG (June 26, 2014, 11:12 AM), http://www.scotusblog.com/2014/06/symposium-aereo-disruptive-technology-and-statutory-interpretation/ (“The majority applied a functional lens to vindicate Congress’s intent in crafting what constitutes a public performance [in the Copyright Act] . . . .”)

290. Aereo, 134 S. Ct. at 2516 (Scalia, J., dissenting) (discussing the effect of the Court’s ruling in regards to the use of the volitional conduct requirement); Schruers, supra note 225 (noting “the majority leaves unclear when technology services are regulated under rules of standard secondary liability, with its well-established requirement of volitional conduct” and when they are viewed under Aereo’s functional lens).
Cablevision was that the cable provider did not “perform” when its users recorded programs and subsequently watched them because the cable provider engaged in no volitional act.291

Aereo possibly did away with this prong of that decision. Therefore, if the Court did not need to look to whether the RS-DVR provider engaged in a volitional act, and it can argue that subscribers’ individual recordings of the same work, when independently transmitted aggregate to a public performance, then providers of RS-DVR technology may be infringing now as well.292 So if the volitional act test no longer limits liability for RS-DVRs, it is conceivable then to arrive at the bizarre result that the use of at-home DVRs is a non-infringing private use, but when the DVR is relocated offsite it suddenly becomes an infringing, “public” performance even though nothing has changed except the distance between the television and the DVR.293

Likewise, under the Court’s Aereo analysis, a public performance may be found to exist by aggregating individual transmissions from separate copies transmitted through the same entity (a service provider) to unrelated recipients. 294 This begs the question: Can multiple

291. Cartoon Network LP v. CSC Holdings, Inc., 536 F.3d 121, 132 (2d Cir. 2008). In describing Cablevision’s lack of a volitional act in copying the material the court noted: Here, by selling access to a system that automatically produces copies on command, Cablevision more closely resembles a store proprietor who charges customers to use a photocopier on his premises, and it seems incorrect to say, without more, that such a proprietor “makes” any copies when his machines are actually operated by his customers. Id.; see Bodner, supra note 104, at 515–19 (discussing the use of the volitional act test in the Cablevision decision).


293. The legality of VTR and VHS technology has long been settled. See Sony Corp. of Am. v. Universal Studios, Inc. 464 U.S. 417, 431 (1984) (ruling on the legal use of VTR and VHS technology); supra Part I.E (providing an expanded discussion). DVRs without remote storage have also been found to be non-infringing. See generally Fox Broad. Co., Inc. v. Dish Network L.L.C., 747 F.3d 1060 (9th Cir. 2013) (finding a DVR technology offered by Dish Network to be non-infringing and citing heavily from Sony); 2 PATRY, supra note 21, § 10:87 (discussing DVR litigations).

294. This is the direct opposite conclusion that the Second Circuit found. Compare Aereo, 134 S. Ct. at 2509 (focusing on whether the underlying work is offered to the public), with WNET, Thirteen v. Aereo, Inc., 712 F.3d 676, 689–90 (2d Cir. 2012), rev’d, 134 S. Ct. 2498
transmissions of the same work, from separate copies, and originating from a single provider (such as is routinely done in cloud computing) be private? Or more pointedly, when are they ever not “to the public”? The Court did not directly deal with this question, but suggested that one’s “relationship to the underlying work” or if one “acts as [an] owner[] or possessor[]” may be influential in making this determination. However, the Court’s dicta serves only to create more questions: What is a sufficient “relationship” and when is one acting as “an owner or possessor” to make a particular transmission private and non-infringing? Because the Court did not explain its meaning, it invites litigation and creates uncertainty for cloud developers and copyright law generally.

Finally, in addition to the above confusion, the Court’s decision created a new manner in which to infringe: being sufficiently similar to cable television. Recall, at the heart of the Court’s decision was the

(2014) (arguing against the proposition that individual transmissions can be aggregated for a single performance “to the public,” and instead focusing on the audience of a particular transmission).

295. See Mozilla Brief, supra note 164, at 20 (regarding Petitioners’ view of the Transmit Clause: “This view offers little clarity to the cloud music industry or its investors. If multiple users uploaded and later accessed the same sound recording, even if those files were separately stored and made accessible solely to the uploading user, the relevant copyright owner could point to the aggregation theory to argue that a public performance has occurred”).

296. Aereo, 134 S. Ct. at 2510–11; see Brief for the United States, supra note 135, at 31–32 (also arguing that a ruling in favor of the petitioners need not affect individuals accessing “lawfully-owned copies” and could be limited to situations like Aereo, that offers access to content in “the first instance”).

297. While this is certainly an easy question in the context of physical reproductions of copyrighted works, the question becomes less clear as copyrighted work is digitized. See Brief of 36 Law Professors, supra note 19, at 32 (discussing how Petitioners’ interpretation could sweep up legally acquired content stored in the cloud as well). Professors Giblin and Ginsburg also provide an illustrative example of this issue in their paper. See supra note 164 and accompanying text (quoting in full Giblin and Ginsburg’s example of how cloud storage providers could be infringing public performance rights when users upload legitimately reproduced works); see also Alex Barinka & Caitlin McCabe, Aereo Ruling Sidesteps Cloud Computing Copyright Question, BLOOMBERG (June 25, 2104, 10:00 PM), http://www.bloomberg.com/news/2014-06-26/aereo-ruling-sidesteps-cloud-computing-copyright-question.html (“While the court may have prevailed in its intentions to avoid ruling on cloud computing, companies are still left without guidance on whether their technology is legal.”); Lackman, supra note 22 (“While the architecture of cloud-based “lockers” must have been on the Court’s mind when describing the “relationship” distinction, what may constitute a “relationship”—be it a cable subscription, a prior purchase of the specific work, or something else—is left unexplained.”).

298. See Aereo, 134 S. Ct. at 2512 (Scalia, J., dissenting) (describing this new standard as “guilt by resemblance”); Stoltz, supra note 23 (commenting on the Aereo decision that “[i]f the statutory language can’t be relied on, what rule will apply? The opinion sets out guidelines that more closely resemble the open-ended fair use analysis, or perhaps the proximate cause analysis in a tort case. A system makes public performances if a court determines that it falls in the “context” of cable and has “substantial similarity” to that business.”).
idea that Aereo had to be infringing because it was too similar to cable television—a technology that Congress clearly intended to make liable.\textsuperscript{299} Thus, how will courts know when other technologies are similar enough to cable television to warrant inclusion? Is RS-DVR technology similar enough? What about Simple.tv?\textsuperscript{300} The Court only addressed Aereo’s “Watch” feature, but Aereo’s service included playback of previously recorded material as well.\textsuperscript{301} If Aereo prevented the transmission of a program until after it finished airing, would Aereo avoid the Court’s similarity-to-cable scrutiny?\textsuperscript{302} If the answer is no, then Aereo becomes unsettlingly close to basic “time shifting,” with the only difference being the location of the recording that the user made,\textsuperscript{303} and that the Court, since Sony, has found to be non-infringing fair use.\textsuperscript{304} As of yet, the above questions have no answers; the Court did not provide any and the litigation such uncertainty invites has not occurred.\textsuperscript{305}

299. See Aereo, 134 S. Ct. at 2504–07 (discussing the Court’s cable television decisions, the passing of the Copyright Act, and Aereo’s similarity to the CATV systems); supra Part II.C.2 (reviewing the Court’s reasoning in Aereo).

300. See Mozilla Brief, supra note 164, at 19–27 (discussing how rejecting the Second Circuit’s approach for some other standard would create uncertainty for certain cloud computing models, including Simple.tv); Stoltz, supra note 23 (“Defining the bounds of “similarity” to a cable system will require much litigation, and cases comparing cloud storage systems and other new technologies against cable systems will be complex and expensive.”).

301. See WNET, Thirteen v. Aereo, Inc. 712 F.3d 676, 681 (2d Cir. 2012), rev’d, 134 S. Ct. 2498 (2014) (describing the two distinct “Watch” and “Record” features that Aereo offered); Howe, supra note 19 (noting the live and future playback options Aereo offered).

302. This question was posed by Justice Scalia in his dissent:

If similarity to cable-television service is the measure [of liability]. . . . consider the implications of that answer: Aereo would be free to do exactly what it is doing right now so long as it built mandatory time shifting into its “watch” function. Aereo would not be providing live television if it made subscribers wait to tune in until after a show’s live broadcast ended. A subscriber could watch the 7 p.m. airing of a 1–hour program any time after 8 p.m. Assuming the Court does not intend to adopt such a do-nothing rule (though it very well may), there must be some other means of identifying who is and is not subject to its guilt-by-resemblance regime.

Aereo, 134 S. Ct. at 2516 (Scalia, J., dissenting).

303. See Aereo, 134 S. Ct. at 2516 (Scalia, J., dissenting) (noting that of the possible interpretations of the Court’s ruling “[o]ne would cover any automated service that captures and stores live television broadcasts at a user’s direction. That can’t be right, since it is exactly what remote storage digital video recorders (RS–DVRs) do . . . and the Court insists that its “limited holding” does not decide the fate of those devices . . . .” (citations omitted)).

304. See Sony Corp. of Am. v. Universal City Studios, Inc., 464 U.S. 417, 442 (1984) (discussing how at-home recordings of programs are legitimate fair use time-shifting by consumers and do not result in copyright infringement).

305. It should be noted that since the Aereo litigation has been remanded, the district court judge granted the preliminary injunction to prevent Aereo from rebroadcasting television shows while those shows are still airing live, but rejected the copyright holders plea for an order that would prevent Aereo from copying and storing shows for rebroadcast until after the original
C. Viable Alternatives for Aereo that Still Protect Copyright Holders

As the law stood before Aereo, a few alternatives would have likely protected the petitioners’ interests without creating the uncertainty of Aereo. First, because Aereo was found to be the functional equivalent of cable television, it could be part of the same compulsory licensing scheme to which the actual cable television providers are subject.306

Second, the Court could have remanded the case and let Aereo’s liability be determined using the other theories of liability the petitioners’ originally alleged.307 Third, even if the existing law is insufficient to protect the interests of the petitioners, Congress is better equipped to amend the Copyright Act—a solution the Court has allowed previously when new technology caused troublesome results.308

Much of the Court’s opinion was spent detailing how similar Aereo was to cable television, and how Congress intended to overturn the Court’s earlier Fortnightly and Teleprompter decisions when they transmissions were finished. Am. Broad. Cos. v. Aereo, Inc., 12-cv-1540, 2014 WL 5393867 (S.D.N.Y. Oct. 23, 2014) (order and opinion granting preliminary injunction); see Lyle Denniston, Aereo Blocked from Real-Time TV Rebroadcasts, SCOTUSBLOG (Oct. 23, 2014, 7:27 PM), http://www.scotusblog.com/2014/10/aereo-blocked-from-real-time-tv-rebroadcasts/ (noting that the judge “rejected, at least for now, a plea by the over-the-air broadcasting industry for an order to also prohibit Aereo from copying and storing copyright video for later viewing).

306. See Stoltz, supra note 23 (noting that the section 111 compulsory license “remains [an option] to Aereo as a result of the Court’s new approach”). It even appears that at least some of the Petitioners’ would be open to this idea or something similar to it. See Adam Liptak & Emily Steel, Aereo Loses at Supreme Court, in Victory for TV Broadcasters, N.Y. TIMES, June 26, 2014, at B1 (“Mr. Moonves of CBS [one of the Petitioners in Aereo] said that he would welcome a discussion with Aereo about a deal to distribute CBS programming if the start-up was prepared to pay.”).

307. See Aereo, 134 S. Ct. at 2516 (Scalia, J., dissenting) (“I share the Court’s evident feeling that what Aereo is doing . . . to the Networks’ copyrighted programming out not to be allowed . . . [but] Aereo’s secondary liability for performance infringement is yet to be determined, as is its primary and secondary liability for reproduction infringement.”); Brief of 36 Law Professors, supra note 19, at 12 (commenting that Aereo is proceeding under the wrong theory of liability and that the litigation should be over the secondary or contributory infringement theories).

308. The Court was confronted with a similar situation in the Sony VTR litigation and noted:

“The direction of Art. I is that Congress shall have the power to promote the progress of science and the useful arts. When, as here, the Constitution is permissive, the sign of how far Congress has chosen to go can come only from Congress.” . . . It may well be that Congress will take a fresh look at this new technology, just as it so often has examined other innovations in the past. But it is not our job to apply laws that have not yet been written.

Sony Corp. of Am. v. Universal Studios, Inc. 464 U.S. 417, 456 (1984) (quoting Deepsouth Packing Co. v. Laitram Corp., 406 U.S. 518, 530 (1972)); see EFF Brief, supra note 164, at 15 (arguing that Congress is best able to answer the questions with which Aereo confronts existing copyright law).
drafted the Copyright Act.\textsuperscript{309} While mentioned in passing, the Court in \textit{Aereo} did not dwell on one important provision that Congress included to accomplish this goal: the compulsory license of section 111.\textsuperscript{310} To ensure that the copyright holders were protected, Congress required cable providers to report on the number of broadcast television channels they retransmitted to the Register of Copyrights and pay royalties to the copyright holders.\textsuperscript{311} While the Second Circuit had previously rejected an argument by an Internet-television provider that it fell within section 111,\textsuperscript{312} given the Court’s conclusion that Aereo is so similar to these cable providers, it is unclear under \textit{Aereo} why section 111 should not apply.\textsuperscript{313} Not only would this protect the petitioners’ interests, but it would also allow Aereo to continue to operate, thus encouraging innovation and thereby serving both goals of the Copyright Clause.\textsuperscript{314}

Alternatively, the petitioners in \textit{Aereo} initially alleged multiple forms of infringement, including: secondary liability for both the public performance and reproductions rights, as well as direct liability for making unauthorized reproductions.\textsuperscript{315} However, the petitioners’

\textsuperscript{309} \textit{Aereo}, 134 S. Ct. at 2505–07 (comparing Aereo to cable television); see supra Part II.C.2 (reviewing the Court’s determination that Aereo is similar to cable television).

\textsuperscript{310} \textit{Aereo}, 134 S. Ct. at 2506 (mentioning that Congress included section 111 in the context of providing evidence that Congress intended to overrule prior Court decisions relating to cable television); see 17 U.S.C. § 111 (2012) (setting out the compulsory license).

\textsuperscript{311} 17 U.S.C. § 111; see supra Part I.C (discussing the structure of the compulsory license).

\textsuperscript{312} WPIX, Inc. v. ivi, Inc., 691 F.3d 275, 282 (2d Cir. 2012) (finding that “Congress did not . . . intend for § 111’s compulsory license to extend to Internet transmissions”).

\textsuperscript{313} See Schruers, supra note 225 (“If an Internet service has an “overwhelming likeness” to cable companies, it should presumably be entitled to the compulsory license crafted for cable companies.”); see also supra Part II.C.2 (discussing how the Court’s decision is premised on Aereo being the functional equivalent to, and sharing substantial similarities with, cable television).

\textsuperscript{314} Apparently, in the aftermath of the Supreme Court’s decision, Aereo has tried to argue this position in the lower courts. See Andrew L. Deutsch et al., \textit{Following Loss Before Supreme Court, Aereo “Astonishes” Broadcasters with New Legal Strategy}, DLA Piper (July 22, 2014), http://www.dlapiper.com/en/us/insights/publications/2014/07/following-loss/ (noting that in the federal district court, Aereo asserted that it was entitled to the compulsory license). However, the district court has since rejected Aereo’s argument because it found that the Supreme Court’s decision did not overturn Second Circuit precedent, see supra note 312 and accompanying text (discussing that the holding of \textit{WPIX} remains valid), which concluded that section 111 did not apply to transmission via the Internet. See Am. Broad. Cos. v. Aereo, Inc., 12-cv-1540, 2014 WL 5393867, at *7–8 (S.D.N.Y. Oct. 23, 2014) (order and opinion granting preliminary injunction); Denniston, supra note 305 (“Judge Nathan, however, concluded that, even though the Supreme Court had compared Aereo’s service to cable TV for purposes of deciding whether it was ‘performing’ the shows (instead of just letting its customers use its equipment to view them), the Supreme Court had not said that Aereo was a cable TV operator. The judge went on to rule that Aereo cannot qualify for that status, legally.”).

request at the district court level was for a preliminary injunction based on Aereo’s alleged direct infringement of the public performance right, and this was the only issue before the Court. Therefore, even if the Court declined to impose liability for direct infringement of the public performance right, Aereo’s liability for direct infringement of the reproduction right and contributory infringement for both the reproduction and public performance rights has yet to be decided. Arguably these other theories of liability would have been sufficient to protect the copyright holders’ interests.

Granted that Aereo’s direct liability for reproduction may be weak if the lower courts applied the volitional act requirement, the allegations of contributory infringement are more likely to succeed. Lower courts have previously held automated systems liable for various forms of contributory infringement. The result would likely be that Aereo was still infringing, the petitioners were still protected, and the

316. See Aereo, 874 F. Supp. 2d at 376 (discussing the different theories of liability initially alleged); Aereo, 134 S. Ct. at 2503 (the Court noting that the question before it is the limited one of whether Aereo infringes the exclusive right to publically perform Petitioners’ protected works).

317. See Aereo, 134 S. Ct. at 2516 (Scalia, J., dissenting) (arguing that these alternative theories of liability may be sufficient to protect copyright holders); Giblin & Ginsburg, supra note 17, at 30 (noting, though ultimately disagreeing with the proposition, that the case could be decided on the other theories of liabilities alleged in the complaint).

318. Aereo, 134 S. Ct. at 2516 (Scalia, J., dissenting); see Brief of 36 Law Professors, supra note 19, at 4 (“[S]econdary liability is always available against those who culpably facilitate infringement.”).

319. For the same reasons that Aereo argued here—that it should not be held liable for direct infringement of the public performance right when its subscribers do the actual performing—Aereo would likely claim that it did not engage in a volitional act when its system made a recording of a protected work at the initiation of the subscriber. Cf. Brief for Respondent, supra note 134, at 40 (arguing that Aereo’s subscribers, and not Aereo, do the actual performing); see supra Part I.E (discussing how courts have looked to whether Internet based companies have engaged in a volitional act before concluding that they are liable for an infringing reproduction). Even without a volitional act requirement however, such a claim would be weak in light of the safe harbor provisions for Internet service providers (if applied to Aereo) found in the Digital Millennium Copyright Act. See 17 U.S.C. § 512(c)(1) (2012) (the safe harbor provisions limit the potential liability of Internet service providers).

320. See Brief of 36 Law Professors, supra note 19, at 19 (“Again, none of this is to say that Petitioners cannot show that Aereo is secondarily liable, only that they have not tried to do so here. The road to secondary liability is well-marked and well-traveled. Copyright owners have brought numerous successful lawsuits against secondary infringers who put new technologies to harmful uses.”); cf. Metro-Goldwyn-Mayer Studios Inc. v. Grokster, Ltd., 545 U.S. 913, 920–921 (2005) (finding a peer-to-peer filing sharing service liable for contributory infringement when it was clear that the purpose of the software was to facilitate an infringing activity).

321. See, e.g., Columbia Pictures Indus., Inc. v. Fung, 710 F.3d 1020 (9th Cir. 2013) (another peer-to-peer file sharing case in which the Ninth Circuit found the provider liable for contributory copyright infringement); Capitol Records, Inc. v. MP3tunes, 821 F. Supp. 2d 627 (S.D.N.Y. 2011) (finding an online-music storage locker liable for contributory infringement when its users were storing pirated files in the storage locker).
upshot would have been that copyright law would have avoided the uncertainty the Court has created. Some scholars have argued though that the Court needed to address this limited issue to resolve an uncertainty in the public performance right. However, the copyright protections were never meant to operate in isolation, but were in fact intended to reinforce one another. Thus, the other theories of liability may adequately prevent any loss of protection to rights holders, except possibly in a very few circumstances.

However, assuming the other protections were insufficient, this does not mean that the Court must twist the Transmit Clause to ensure a just outcome. As Justice Scalia mentioned in his dissent, if there is a hole in the law, then Congress is better equipped to plug it. Like the Court repeatedly emphasized throughout its opinion, it was Congress who passed the Copyright Act to overturn Supreme Court decisions and provide adequate protections to copyright holders. Additionally, the

322. See, e.g., Giblin & Ginsburg, supra note 17, at 30 (Professor Ginsburg noting “the potential for harmful exploitation of the existing law . . . suggests that this is the right time for the Supreme Court to find a more principled reading of the transmit clause, without necessarily taking on the predicate reproduction right issues”).

323. Brief of 36 Law Professors, supra note 19, at 9. The authors of this brief further argued that because the exclusive rights are a system they “must be read in concert” and the fact that the rights are narrow and carefully defined demonstrates “Congress’s expectations that each right will be construed strictly to its terms.” Id.; see 2 PATRY, supra note 21, § 8:8 (noting on the drafting of the exclusive rights in the Copyright Act “Congress attempted to draft a statute with provisions flexible enough to avoid the necessity of revision every time a new expressive medium was developed”).

324. For the type of exploitation that Professor Ginsburg is concerned about under the Second Circuit’s interpretation, to actually occur there would need to be an automated system that only implicated the public performance right, with no reproduction or contributory infringement potential. As far as this author is aware, such a technology has not been litigated. See 2 GOLDSTEIN, supra note 70, § 7.0.2 (noting that the particular challenge the Internet poses to copyright law is the “automatic[] reproduction” of protected works (emphasis added)). In fact, the supposed loophole that Aereo used (and which is feared could be exploited by others) is predicated on the existence of individual copies, which, therefore, necessarily implicates reproduction protections under the Act, as well as theories of contributory infringement. See Am. Broad. Cos. v. Aereo, Inc., 573 U.S. —, 134 S. Ct. 2498, 2503 (2014) (noting that Aereo’s system works by creating individual copies of a work, available to a single subscriber). Moreover, even if such a technology were to develop, as the Court said regarding the concerns its decision would have on cloud computing, the Court “should await a case in which [such technologies] are squarely presented.” Id. at 2511.

325. Aereo, 134 S. Ct. at 2513 (Scalia, J., dissenting); see EFF Brief, supra note 164, at 15–18 (discussing how in the past the Court has deferred to Congress when new technologies disrupt existing law). See generally Reyman, supra note 1, ch. 5 (discussing the balance between copyright law and technological change and noting the role of Congress).

326. Aereo, 134 S. Ct. at 2504–07 (reviewing Congress’s intent to overturn the Supreme Court’s CATV decisions); see supra Part II.C.2 (discussing the majority’s opinion and how Congress passed the Copyright Act to reverse the outcomes of the Supreme Court’s CATV cases).
Court even stated that if commercial actors are concerned that their interests are not being protected under the Copyright Act, they can always seek actions from Congress;327 while the Court referred to cloud computing entities here, the option is equally available to the petitioners. Moreover, the history of copyright in the United States confirms Congress’ role in updating the copyright law when new technologies make old law ineffective.328 There are strong legislative competency arguments that support this approach as well, and the Court previously had deferred to Congress because of these concerns.329

After Aereo, lower courts are confronted with a host of new questions when dealing the copyright infringement cases.330 The Court’s attempt to interpret the Transmit Clause in a technologically neutral way was likely unsuccessful and ignored the other constitutional aim of promoting the public interest through encouraging innovation.331 As a result, the Court has thrown into legal uncertainty technologies that relied on lower court’s use of the volitional act test to limit liability.332 Moreover, other elements of copyright law are now less clear and there is a new indistinct standard to determine liability, both of which will surely invite litigation.333 All of this was needless however, as the Court had an arsenal of alternatives that would not have sacrificed copyright law’s clarity in an attempt to address a narrow, isolated

327. See Aereo, 134 S. Ct. at 2511 (discussing how interested commercial actors can petition Congress for action if they are unsatisfied with the existing law).
328. See Reyman, supra note 1, at 55–58 (reviewing the historical expansion of copyright law in the United States). Professor Reyman goes so far as to state: “[c]opyright law and technological development are inseparable. In fact, it was technological advancement that served as the impetus for the development of copyright law in the first place.” Id. at 57; see supra Part I (reviewing how technological change has prompted Congress to amend copyright law and various points in the country’s history).
329. See Stewart v. Abend, 495 U.S. 207, 230 (1990) (“Th[e] evolution of the duration of copyright protection tellingly illustrates the difficulties Congress faces . . . [I]t is not our role to alter the delicate balance Congress has labored to achieve.”); Sony Corp. of Am. v. Universal Studios, Inc. 464 U.S. 417, 429 (1984) (“[I]t is Congress that has been assigned the task of defining the scope of [rights] that should be granted to authors or to inventors in order to give the public appropriate access to their work product.”); Graham v. John Deere Co. of Kansas City, 383 U.S. 1, 6 (1966) (“Within the limits of the constitutional grant, the Congress may, of course, implement the stated purpose of the Framers by selecting the policy which in its judgment best effectuates the constitutional aim.”).
330. Stoltz, supra note 23; see supra Part III.B (discussing the various questions that the Court’s ruling in Aereo raises).
331. See supra Part III.A (discussing how the Court ignores the second element inherent in the Constitution’s copyright clause).
332. See supra Part III.B (discussing how the Court’s silence on the volitional act requirement throws into question prior lower court rulings).
333. See supra Part III.B (discussing how the Court’s decision provides little guidance in how, or when, to apply its new “substantially similar” analysis).
issue. Thus, the Court’s concern to protect copyright holders from Aereo and its focus on tackling one set of ambiguities (the definition’s of “performance” and “to the public” under the Copyright Act) has lead it to inadvertently create other uncertainties, particularly for emerging cloud-based technologies.

IV. IMPACT

The Court quickly dismissed Aereo’s and many amici’s concerns that a ruling favoring the petitioners would have far-reaching effects on other technologies not before the Court, particularly cloud computing. The Court reasoned that its decision was limited to Aereo and did not implicate other circumstances, such as when users acted as “owners or possessors” of the content, suggesting that the user’s relationship to the content could help shield them from liability. However, the Court failed to appreciate how lower courts will rely on the Court’s interpretation to assess potential cloud computing liability issues (despite its intended narrow application) and how the decision’s inherent uncertainty will likely stifle development in new cloud technologies. This Part explores the implications of the Court’s interpretation of the Transmit Clause, including the uncertainty it creates in a digital environment, and further considers the effect

334. See supra Part III.C (discussing alternatives to the Court’s decision that would have protected copyright holders).

335. Am. Broad. Cos. v. Aereo, Inc., 573 U.S. —, 134 S. Ct. 2498, 2504 (2014) (noting “this case requires us to answer” whether Aereo “perform[s]” and if it does “publicly”); id. at 2517 (Scalia, J., dissenting) (“I share the Court’s evident feeling that what Aereo is doing (or enabling to be done) to the Networks’ copyrighted programming ought not to be allowed.”); Schruers, supra note 225 (commenting on the uncertainty that the majority opinion creates).

336. Aereo, 134 S. Ct. at 2510–11; see David Kravets, Analysis: Aereo’s Death Leaves Cloud Computing Hanging in the Balance, ARSTECHNICA (June 25, 2014, 3:36 PM), http://arstechnica.com/tech-policy/2014/06/analysis-aereos-death-leaves-cloud-computing-hanging-in-the-balance/ (“Call Aereo whatever you want, but the process seems a lot like cloud computing. All of which leads to the question of whether a license is needed to stream copyrighted content from Dropbox, for example? The court’s majority doesn’t go there, and it instead focuses on Aereo acting like a cable TV service and hence being treated like one.”).

337. Aereo, 134 S. Ct. at 2510; see Lackman, supra note 22 (analyzing the Court’s attempt and limiting the application of its ruling to other technologies); supra Part II.C.2 (discussing the Court’s treatment its decision will have on other technologies).


339. See infra Part IV.A (discussing the implications the Court’s decision has for the digital environment).
this could have for the growth of cloud computing.\textsuperscript{340}

\textit{A. Aereo’s Emphasis on Particular Transmissions in the Digital Age}

History, and the constitutional provision itself, illustrates that copyright law in the United States has been a balance of protecting the interests of the rights holders and promoting innovation and the spread of knowledge.\textsuperscript{341} However, the Court’s Aereo decision represents a swing far to the protectionist side and away from promoting the public’s interest in access to innovative technologies.\textsuperscript{342} The decision interpreted the Transmit Clause to allow the aggregation of separate transmissions from separate copies passing to different consumers via the same provider to be classified as an infringing “public performance.”\textsuperscript{343} This undoubtedly adds to the protections for owners of protected works that are available over the Internet by extending the public performance right and limiting how the form, or structure, of technology may be used to circumvent those rights.\textsuperscript{344} However, given that the vast majority of content that has been relocated to the cloud is

\textsuperscript{340}. See infra Part IV.B (discussing how the Aereo decision will affect cloud computing specifically).

\textsuperscript{341}. See Goldstein v. California, 412 U.S. 546, 555 (1973) (discussing the purpose and function of the Copyright Clause); see also Harper & Row Publishers, Inc. v. Nation Enters., 471 U.S. 539, 580 (1985) (“Congress thus seeks to define the rights included in copyright so as to serve the public welfare and not necessarily so as to maximize an author’s control over his or her product.”); Graeme Austin, Radio: Early Battles Over the Public Performance Right, in COPYRIGHT AND THE CHALLENGE OF THE NEW, supra note 1, §§ 5.01 to 5.04 (discussing the development of radio and the industry’s legislative push to amend copyright to have its broadcasts protected). See generally NG, supra note 37 (analyzing the limitations to copyright protections as a result of constitutional goal of promoting social and cultural advancement); supra Part I.A (discussing the foundation’s of United States Copyright law).

\textsuperscript{342}. Schruers, supra note 225 (“[T]he Court’s approach offers technology lawyers counseling clients little guidance. Who can predict whether a non-tech savvy federal judge will think that the next innovative service ‘looks like cable’? Yesterday’s decision creates considerable uncertainty, suggesting that lawyers should counsel their clients based on what analogy will most appeal to a federal judge in the distant future. The Court . . . promises its opinion won’t threaten new technology, but as the dissent points out, it cannot deliver on that promise.”); see infra note 361 and accompanying text (discussing the weight of the Court’s limiting language in its decision).

\textsuperscript{343}. Am. Broad. Cos. v. Aereo, Inc., 573 U.S. ---, 134 S. Ct. 2498, 2509 (2014); see Lackman, supra note 22 (noting that the Court answered “whether Aereo’s series of one-to-one transmissions” are to the public in the affirmative).

\textsuperscript{344}. See Brief for Petitioners, supra note 137, at 18 (arguing that the petitioners’ need protection from Aereo’s “unauthorized exploitation of copyrighted content” via its separate transmission and separate copies model); Lackman, supra note 22 (discussing the Court’s interpretation of the Transmit Clause and what it means for there to be a “public performance”); Liptak & Steel, supra note 306 (describing the decision as “a major victory [for] the broadcast networks”).
protected by copyright, which then by necessity requires transmission back to the user for access, the implications of the Court’s interpretation are immense.

B. The Future of the Cloud

Cloud computing has many different iterations but the basic elements are the remote storage of users’ content that can then be accessed on different Internet-connected devices. For certain forms of content, like audiovisual works, this typically means “streaming” (direct playback without downloading to a local hard drive first). Therefore, if such streaming transmissions were “to the public,” because they “communicate contemporaneously visible images and audible sounds of the work,” they would constitute infringing public performances under the Copyright Act.

However, in 2008, the Second Circuit appeared to limit the ability for such transmissions to be characterized as “to the public” by adopting an interpretation of the Transmit Clause that held that separate transmissions, made from separate copies, of the same underlying work could not be classified as public performances.

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345. See Giblin & Ginsburg, supra note 17, at 23 (“In today’s world, most content is protected by copyright, and for reasons of security and convenience, a great deal of that material is stored on remote servers which can be accessed by users online.”); see also 2 GOLDSTEIN, supra note 70, § 7.0.2 (discussing the particular challenge the Internet poses to copyright law).

346. Even under the Court’s interpretation, not all transmissions would result in a performance, only those transmissions that “communicat[ed] contemporaneously visible images and contemporaneously audible sounds of the work.” Aereo, 134 S. Ct. at 2508. The distinction is the difference between a download (which has no contemporaneous playback) and “streaming” content, which does. See infra note 349 and accompanying text (contrasting streaming to downloading). Under Aereo, it would appear only streaming content constitutes as a transmission under the Transmit Clause.

347. See Lee, supra note 292 (describing the Court’s decision as “a mess that will take lower courts years to clean up”); Ramachandrea & Ovide, supra note 284 (providing quotations from various law professors anticipating that the Court’s decision will have important consequences for cloud computing); see also infra Part IV.B (discussing the Court’s ruling affect on cloud computing).

348. See supra note 19 and accompanying text (providing the National Institute of Standards and Technology’s definition for cloud computing).

349. See What is Streaming?, BBC (Oct. 10, 2012), http://www.bbc.co.uk/webwise/guides/about-streaming. The BBC’s WebWise Team provides the following definition: “Streaming means listening to music or watching video in ‘real time’, instead of downloading a file to your computer and watching it later. With internet videos and webcasts of live events, there is no file to download, just a continuous stream of data.” Id.


351. Cartoon Network LP v. CSC Holdings, Inc., 536 F.3d 121, 139 (2d Cir 2008); see supra
Partially as a result of the legal certainty this decision, from a typically copyright friendly circuit, provided cloud developers, investment in cloud platforms increased by nearly forty-one percent following the ruling.\footnote{Josh Lerner & Greg Rafert, Lost in the Clouds: The Impact of Copyright Scope on Investment in Cloud Computing Ventures 17 (unpublished manuscript) (on file with Harvard Business School) ("[A]verage quarterly investment in U.S. cloud computing increased by approximately 41 percent after the Cablevision decision."). As the authors’ note in their paper another reason for the feeling of legal certainty was “because the Second Circuit has historically been seen as sympathetic to copyright owners." Id. at 10. As noted above, such a result is unsurprising, it was the legal uncertainty facing nascent VoIP technology that stalled its development. See supra note 240 and accompanying text (noting the experience of VoIP technology).}

The Court in Aereo has likely cast these developments back into doubt. Aereo adopted the opposite view that allows for the aggregation of separate transmissions to create one “public performance.”\footnote{See Barinka & McCabe, supra note 297 (describing the uncertainty the Court’s ruling creates for cloud technologies); Kravets, supra note 336 (discussing the potential effect the Court’s decision will have); Stoltz, supra note 23 (noting that the Court’s decision creates some flexibility “[b]ut with flexibility comes uncertainty, and with uncertainty comes litigation”).}

Now, once again, a provider of cloud services must confront whether they are engaged in a public performance when their users, accessing separate copies of the same work stored on the provider’s network, stream that content to themselves.\footnote{Aereo, 134 S. Ct. at 2516–17 (Scalia, J., dissenting) (noting that the Court concluded that Aereo is directly liable for copyright infringement without any evidence of a volitional act); Fraker, supra note 288 (noting that the Court’s opinion is a departure from the volitional act requirement).} Under the Aereo decision, it is clear that it does not matter that the cloud provider did not engage in any volitional act beyond offering the service in the first place.\footnote{Aereo, 134 S. Ct. at 2509; see supra Part II.C.2 (discussing the Court’s decision and its interpretation of the Transmit Clause).}

In recognition of the effect its Aereo ruling could have on cloud systems, the Court attempted to limit its holding by excluding from its definition of “to the public” when users are acting in their capacities as legitimate owners.\footnote{Aereo, 134 S. Ct. at 2510; see supra Part II.C.2 (discussing the Court’s decision).}

The Court however, did not provide any guidance on how to determine when a user is acting in such a capacity.\footnote{Aereo, 134 S. Ct. at 2510 (Scalia, J., dissenting) (regarding the Court’s assertion that its ruling will have limited effect on cloud computing, “it cannot deliver on that promise given the imprecision of its result-driven rule”); Joan E. Solsman, How Supreme Court Ruling Affects Aereo, the Cloud, and You, CNET (June 26, 2014, 8:09 AM), http://www.cnet.com/news/how-the-supreme-court-ruling-affects-aereo-the-cloud-and-you/ (quoting Professor Jessica Litman of the University of Michigan School of Law: “The majority opinion doesn’t give courts much guidance besides examining an individual’s relationship with the content as an owner or possessor, she said. ‘What now happens to all of my Kindle books in Amazon’s cloud? Am I the owner of these books? Am I the owner of the copies that are sitting on Amazon’s servers?’”)}
the distinction the United States, in its amicus brief, made—Aereo “provides a means by which consumers can gain copyrighted content in the first instance” whereas cloud services allow users to receive transmissions of works “after the consumers have lawfully acquired their own copies”—not all cloud services are excluded by this differentiation.358 For example, as a group of amici law professors noted, Amazon offers consumers content for download “in the first instance,” which can be stored directly on Amazon’s cloud storage before a consumer can then stream to herself.359 After Aereo, to determine the legality of certain cloud services, as Justice Scalia argued, will take years of litigation.360 Moreover, the Court’s attempt to limit its decision to just the facts before will likely be unsuccessful; it is the

owner of the book? Am I the owner of the digital copy? Am I the owner of the license? Whether one is the owner or possessor of content . . . is again pretty much up in the air.”); Stoltz, supra note 23 (noting the uncertainty the Court’s opinion leaves for how to determine when these criteria have been met).

358. Brief for the United States, supra note 135, at 14. The United States characterizes the difference between Aereo and cloud services as follows:

A consumer’s playback [over the cloud] of her own lawfully-acquired copy of a copyrighted work to herself will ordinarily be a non-infringing private performance, and it may be protected by fair-use principles as well. Respondent’s service, by contrast, enables subscribers to gain access to copyrighted content in the first instance—the same service that cable companies have traditionally provided.

359. Brief of 36 Law Professors, supra note 19, at 32–33. The Professors’ rebuttal to this interpretation is:

But nowhere does the United States explain why that distinction makes any difference whatsoever under the Transmit Clause or the public performance right more generally. Amazon . . . offers cloud storage services to consumers who have obtained copyrighted content from Amazon itself; under this reasoning, would Amazon be liable for publicly performing those works because it “provides a means by which consumers can gain access to copyrighted content in the first instance”? Aereo’s system is functionally equivalent to RS-DVRs and other cloud storage services for this purpose; users have lawful access to the television broadcast programming that they record using the Aereo system, have “lawfully acquired” their own copies of those works that they have stored on that system, and receive private performances of those works.

360. Ben Depoorter, Technology and Uncertainty: The Shaping Effect on Copyright Law, 157 U. PA. L. REV. 1832, 1838 (2009) (arguing that legal uncertainty in the area of copyright law consistently has a delaying effect on innovation and development of new technologies). Professor Depoorter’s article contains a very illustrative table outlining the timeline between when a new technology is introduced, the subsequent lawsuits, and the number of years it took for the legal issue to be resolved; the chart includes technologies such as VCR, DVR, and Grokster (discussed supra Part II.B–E of this Article). Id. at 1843; see Lawrence B. Solum & Minn Chung, The Layers Principle: Internet Architecture and the Law, 79 NOTRE DAME L. REV. 815, 948 (2004) (noting the importance of transparency in allowing the Internet and Internet-based technologies to thrive); Philip J. Weiser, The Internet, Innovation, and Intellectual Property Policy, 103 COLUM. L. REV. 534, 538 (arguing for a new model of intellectual property policy in part because the current model does not facilitate Internet innovation).
Court’s reasoning (its particular interpretation of the Transmit Clause) that is now binding, and that reasoning itself has no limiting principle distinguishing cloud computing from Aereo’s technology.\(^{361}\) Therefore, the Court has brought legal uncertainty to cloud services where there was none before; possibly turning some into unwitting copyright infringers, and the practical effect of this will be to increase the risk of liability for developers of new cloud-based systems.\(^{362}\)

An additional area of uncertainty for cloud-service providers is that of the user who is actually uploading illegally obtained content or content that would become infringing if performed publicly.\(^{363}\) The Court’s language is possibly a shield to users transmitting lawfully obtained copies;\(^{364}\) but what about the cloud provider host of user-uploaded infringing content? Are they required to monitor for such content? Aereo, in its brief, as well as other interested scholars expressed concern of the debilitating effects a legal obligation to

\(^{361}\) See Bergmayer, \textit{supra} note 338 ("[i]nstead, the Court uses reasoning that could apply very easily to any number of online services—file hosting, cloud lockers, even VPNs—as well as services that no one has even come up with yet. It then simply declares that Aereo is different, because it looks so much like cable. Actually, only the Supreme Court’s actual legal reasoning is binding on future courts—the rest of the opinion is just ‘dicta’ . . . . Dicta has the same legal status as legislative history—which is to say, it’s as binding as lower courts want it to be. A lower court is bound by a higher court’s legal holdings, not its stated intent."); Schruers, \textit{supra} note 225 (noting after the \textit{Aereo} decision "[t]he result may be that investors and venture capitalists will direct their resources away from anything that could be construed to “perform” potentially copyrightable works. Unfortunately, this is precisely the time that content creators need more lawful services to compete with increasingly sophisticated unlawful offerings available online"); Talbot, \textit{supra} note 338 (commenting that even after the Court’s decision the legal certainty of cloud streaming services remains unclear).

\(^{362}\) See Bergmayer, \textit{supra} note 338 (noting how the Court’s decision is potentially transferable to other technologies); Schruers, \textit{supra} note 225 (noting how the Court’s decision could deter investment away from cloud computing); see also text accompanying \textit{supra} notes 360–61 (discussing the effects legal certainty has on investment into cloud computing and how the Court’s decision could implicate cloud computing).

\(^{363}\) See Brief for Respondent, \textit{supra} note 134, at 50–51 (discussing how Petitioners’ interpretation of the Transmit Clause (essentially the interpretation the Court adopts) could lead to cloud service providers being liable for user uploaded infringing content); Giblin & Ginsburg, \textit{supra} note 17, at 26–27 (discussing the possibility of cloud service providers being liable for public performances when users legally obtained copies become infringing when performed over the Internet).

\(^{364}\) See Am. Broad. Cos. v. Aereo, Inc., 573 U.S. —, 134 S. Ct. 2498, 2510–11 (2014) (discussing how the definition of “to the public” does not extend to “those who act as owners or possessor of the relevant product” (emphasis added)). Thus the user of lawfully obtained content is clearly intended to be excluded from the Court’s interpretation. However, as examined above, it is unclear exactly, when such a user is acting in such a capacity, or, when the cloud provider is acting (or facilitating the user) to act in this prescribed capacity. See Solsmen, \textit{supra} note 357 (noting the lack of guidance the Court provides for this definition); see also text accompanying \textit{supra} notes 357–59 (discussing how this distinction is unclear).
monitor for such content would pose to cloud services. They even questioned if the DMCA safe harbor provisions for Internet service providers would shield cloud providers in such a context. The Court’s ruling however, did not address these issues fully, explicitly conceding at one point that it could not offer a more “precise” answer until such a cloud-based technology was before it. 

Because Aereo is such a recent decision, and it implicates the ever-evolving landscape of Internet technology, it is difficult to state with accuracy how Aereo will affect cloud services. However, it is clear, even in the Court’s opinion, that some effect is anticipated. The interpretation of the Transmit Clause put forth by the Court in Aereo too readily tracks the contours of the cloud technological model for it to be otherwise. What is not clear though, as a result of the Court’s interpretation of the Transmit Clause, is how to determine cloud computing’s liability under existing copyright law. This result was

365. See Brief for Respondent, supra note 134, at 51 (“[T]o avoid strict liability based on its customers’ actions, the company would have to monitor all of the content stored on its system to make sure it was ‘licensed’ or otherwise ‘authorized.’ No industry could operate under such an obligation.” (citation omitted)); Michael Walker, Jr. A Better Public Performance Analysis for Digital Music Locker Storage, 87 ST. JOHN’S L. REV. 629, 657 (2013) (noting that so far only one case—Capitol Records, Inc. v. MP3tunes, LLC, 821 F. Supp. 2d 627 (S.D.N.Y. 2011)—has addressed the public performance liability for digital storage lockers and it found that the storage locker had not publically performed); Giblin & Ginsburg, supra note 17, at 26–27 (“[I]mposing new liability upon a host to remove such non-infringing content in order to avoid public performance liability is unprecedented and troubling. Moreover, because the § 512(c) safe harbor [of the DMCA] contemplates content provided by the user, it would not apply to the activities of services that lawfully distribute downloads to the user’s storage locker. Those services therefore would face unmitigated liability for subsequent unlicensed individualized streaming.” (citations omitted)); Barinka & McCabe, supra note 297 (quoting New York University Law Professor Jason Schultz as indicating: “‘This ruling is dangerous because it is saying the providers now have additional responsibilities to think about, which may differ user-by-user and file-by-file.’”).

366. Giblin & Ginsburg, supra note 17, at 27. The authors note that the construction of section 512(c) “appear[s] broad enough” to include content that, though originally un-infringing, became infringing if publically performed, while also creating “unmitigated liability for subsequent unlicensed individualized streaming” for services that directly provide content, and thus the existence of such safe harbors . . . [does not] avoid all of the collateral damage that cloud providers fear.” Id.

367. Aereo, 134 S. Ct. at 2511 (“[I]t cannot now answer more precisely how the Transmit Clause . . . will apply to technologies not before us.”).

368. See id. (noting that the Court will wait until a cloud computing case is directly before it).


370. Schruers, supra note 225 (noting that the dissent argued that the Aereo majority left “unclear when technology services are regulated under rules of standard secondary liability, with its well-established requirement of volitional conduct, ‘and which get the Aereo treatment.’”); see
not necessary, and the uncertainty it creates will likely be enough to obstruct the investment and innovation promised by cloud technology while the ensuing litigations wind their way through the courts. As has resulted in the past, Congress may eventually need to step in to amend copyright law to better reflect the technological reality of today.

**CONCLUSION**

*Aereo*’s interpretation of the Transmit Clause has far-reaching consequences in the still-developing digital environment. *Aereo*’s scope encompasses aspects of the heretofore-legitimate activities of cloud-service providers’ remote storage of, and access to, content made available to users via transmissions over the Internet. The Court’s brief treatment of these critical implications only creates uncertainty for cloud developers who, unsure if their innovations will be legal, likely will scale back their investments in new cloud technologies. The likely visible effects of this will be hard to quantify, as they will primarily be in the negative: the absence of new inventions that were not pursued for fear of running afoul of *Aereo*. Undoubtedly however, *Aereo* provides broadcast television providers, as well as other rights holders, a fresh argument to make when their material is shared over the Internet in new ways.

*supra* Part III (discussing the uncertainty the decision creates applying the Copyright Act in the context of the Internet and cloud computing).