The Copyright Act and the Frontier of “Television”: What to Do About Aereo

I. INTRODUCTION

Aereo, Inc., a company founded in 2012 and funded largely by media mogul Barry Diller, offers a service that allows users to stream
live television on virtually any Internet-connected device. Aereo has expanded rapidly in its two years of existence, and its service has wide-ranging implications for the future of broadcast television. Because Aereo currently operates without compensating copyright owners for the content it transmits, it has met a great deal of resistance from broadcasters who have come forward to sue Aereo for copyright infringement in courts across the country. Courts have sharply divided on whether Aereo’s service, and others like it, are infringing. On April 22, 2014, the Supreme Court will hear oral arguments in American Broadcasting Companies, Inc. v. Aereo, Inc. (“Aereo III”), and potentially resolve the issue.

The Copyright Revision Act of 1976 (the “Copyright Act”) affords copyright owners certain exclusive rights in their copyrighted works. In particular, Section 106 of the Copyright Act enumerates six such rights. For “literary, musical, dramatic, and choreographic works, pantomimes, and motion pictures and other audiovisual works,” copyright owners are granted the right “to perform the copyrighted work publicly.” The Copyright Act provides some guidance as to what types of activities this “public performance right” protects and what types of behaviors constitute infringement of this right. Yet the Copyright Act leaves significant room for debate and confusion. Thus, courts across multiple jurisdictions have created an
abundance of caselaw that helps define the contours of the public performance right.\textsuperscript{8}

One recent technological development has gained a great deal of attention from customers, copyright owners, and the courts alike: services that provide live streaming of broadcast television over the Internet. These services use different mechanisms to provide the streams, but the result in each case is the same: users, whether paid customers or otherwise, can view live television broadcasts on any device with an Internet connection, anywhere in the world.

Users, of course, are thrilled with the service because it allows them to view television broadcasts on the go without utilizing a cable provider. Copyright owners and cable providers, on the other hand, are understandably less enamored with this new technology. Copyright owners have taken to the courts, seeking injunctions to halt operation of the online streaming services in order to protect their copyright interests and receive compensation in exchange for the viewing of their content over the live streams.\textsuperscript{9}

Copyright holders and cable providers are not the only parties concerned that they are losing money to these services. As Aereo III approaches review by the Supreme Court, the National Football League and Major League Baseball have submitted amicus briefs and have threatened to move broadcasts of games, including the Super Bowl and World Series, to pay television.\textsuperscript{10} Such threats demonstrate the significance of this issue in the modern television landscape, since sports broadcasts comprise some of the only remaining programming to consistently draw a live audience.\textsuperscript{11} All the while, investors continue

\textsuperscript{8} See, e.g., Columbia Pictures Indus., Inc. v. Redd Horne, Inc., 749 F.2d 154, 157–59 (3d Cir. 1984) (holding that defendant’s in-store rental service, allowing customers to view video cassette tapes in small, private showrooms, constituted infringement of the public performance right); Cartoon Network LP, LLLP v. CSC Holdings, Inc. (\textit{Cablevision}), 536 F.3d 121, 126–30 (2d Cir. 2008) (holding that defendant Cablevision’s RS-DVR service, which made individual digital recordings of television broadcast for later home viewing by customers, did not constitute infringement of the public performance right).


\textsuperscript{11} As opposed to watching DVR-recorded television at a later point in time, a practice referred to as “time-shifting.”
to pour money into online streaming services, viewing them as the wave of the future.\textsuperscript{12}

Though copyright holders have looked to the courts for clarity (and of course, for support), the response from courts across the country has been quite the opposite. The Second Circuit’s 2013 decision in \textit{WNET, Thirteen v. Aereo, Inc. (Aereo II)}, refusing to block an online streaming service for copyright infringement, created a circuit split on this issue.\textsuperscript{13} The Supreme Court granted certiorari in the case on January 10, 2014.\textsuperscript{14}

\textit{Aereo II} stands in direct opposition to the Central District of California’s 2012 decision in \textit{Fox Television Stations, Inc. v. BarryDriller Content Systems, PLC}, where the court blocked a similar online service.\textsuperscript{15} That case is currently on appeal in the Ninth Circuit and was heavily relied on in Judge Denny Chin’s strong dissent in \textit{Aereo II}, further illuminating the divide.\textsuperscript{16} In refusing to block Aereo’s service, the Second Circuit followed its landmark decision in \textit{Cartoon Network LP, LLLP v. CSC Holdings, Inc. (Cablevision)}, essentially analogizing the live stream to a remote DVR service.\textsuperscript{17}

In the latter part of 2013, two further District Court decisions, one in the D.C. Circuit and one in the First Circuit, highlighted the growing divide in the debate.\textsuperscript{18} In \textit{Fox Television Stations, Inc. v. FilmOn X LLC}, the United States District for the District of Columbia faced a similar infringement claim against FilmOn X, a company providing a service virtually identical to Aereo’s.\textsuperscript{19} The plaintiffs relied on \textit{BarryDriller}, while the defendants relied on \textit{Cablevision} and \textit{Aereo II}.\textsuperscript{20} Judge Collyer found \textit{BarryDriller} more persuasive and granted the plaintiffs’ motion for a preliminary injunction.\textsuperscript{21} However, the District of Massachusetts reached a contrary decision in \textit{Hearst}

\begin{itemize}
  \item \textsuperscript{12} Flamm, \textit{supra} note 1.
  \item \textsuperscript{13} See \textit{WNET, Thirteen v. Aereo, Inc. (Aereo II)}, 712 F.3d 676, 684–95 (2d Cir. 2013) (holding that Aereo’s streaming service created a “private” performance, and not a public performance).
  \item \textsuperscript{14} See Liptak, \textit{supra} note 4 (reporting on the Court’s grant of certiorari in \textit{Aereo II}).
  \item \textsuperscript{15} See \textit{BarryDriller}, 915 F. Supp. 2d at 1143–46 (C.D. Cal. 2012) (holding that the service violated the broadcasters’ public performance rights).
  \item \textsuperscript{16} \textit{Aereo II}, 712 F.3d at 696–705 (Chin, C.J., dissenting).
  \item \textsuperscript{17} \textit{Id.} at 684–95. The Second Circuit used nearly identical reasoning to the Southern District of New York in affirming the decision in \textit{Aereo I}.
  \item \textsuperscript{19} \textit{FilmOn X}, 2013 WL 4763414, at *2–4.
  \item \textsuperscript{20} \textit{Id.} at *10.
  \item \textsuperscript{21} \textit{Id.} at *13–15.
\end{itemize}
Stations Inc. v. Aereo, Inc.\textsuperscript{22} There, Judge Gorton chose to follow the Second Circuit’s decision in Aereo II.\textsuperscript{23} As this issue has risen through the various circuits, it appears the two sides of the debate have grown increasingly entrenched in their positions.

The Supreme Court will hear Aereo III on April 22, 2014, which is important for multiple reasons.\textsuperscript{24} First, from a business standpoint, there is a great deal of money on the line. A site like Aereo charges its customers a monthly fee and is rapidly expanding into major and secondary markets throughout the country.\textsuperscript{25} This could easily result in major cable providers losing subscribers, costing them massive sums of money. The copyright owners, such as ABC and NBC, whose shows are being streamed over these services, also miss out on opportunities to collect royalties or licensing fees.

Online streaming services further affect the negotiations between the copyright owners and cable providers, among many other possible consequences. At the same time, these services are outstanding for customers, who suddenly have a new medium to access the content they desire. As a result, there may be a public interest in promoting these services, or at least finding a way to allow for their existence.

Second, from a legal perspective, having opposing views in jurisdictions across the country creates confusion for all parties involved. Broadcasters obtained preliminary injunctions in California and the District of Columbia, while online streaming services continue unabated in much of the country.\textsuperscript{26} Not only does this cause confusion, but it appears to have given Aereo the incentive to continue its expansion, even into areas where its service has been found to infringe broadcasters’ public performance right.\textsuperscript{27} It is imperative that the Supreme Court resolves this issue.

\begin{itemize}
\item \textsuperscript{22} Hearst Stations, 2013 WL 5604284, at *4–9.
\item \textsuperscript{23} Id. at *9.
\item \textsuperscript{24} Deborah D. McAdams, Diller Funds Aereo With Supreme Court Review Looming: Cert petition to be considered Friday, TVTECHNOLOGY (Jan. 8, 2014, 12:04 PM), http://www.tvtechnology.com/business/0107/diller-funds-aereo-with-supreme-court-review- looming/223087.
\item \textsuperscript{25} AEREO, https://www.aereo.com (last visited Jan. 9, 2014); Flamm, supra note 1.
\item \textsuperscript{26} Compare Aereo I, 874 F. Supp. 2d at 381–96, aff’d, 712 F.3d at 684–95 (refusing to issue preliminary injunction in the Southern District of New York or the Second Circuit), and Hearst Stations, 2013 WL 5604284, at *4–9 (refusing to issue preliminary injunction in the District of Massachusetts), with FilmOn X, 2013 WL 4763414, at *2–4 (issuing preliminary injunction in the District of Columbia, and BarryDriller, 915 F. Supp. 2d at 1143–46 (issuing preliminary injunction in the Central District of California).
\item \textsuperscript{27} See Coverage, AEREO, https://aereo.com/coverage (last visited Jan. 9, 2014) (displaying Washington, DC as an area where Aereo’s service is “coming soon”).
\end{itemize}
This Comment considers three topics: (i) whether online streaming of live broadcast television constitutes infringement of broadcasters’ public performance rights, (ii) how the Supreme Court should rule when it hears Aereo III later this spring, and (iii) what the legislative branch should do to help resolve this issue. Part II discusses the history of copyright law relevant to the issue and explains the technology behind the online streaming services. Part III analyzes the approaches and rationales adopted by the courts in the cases that make up the current circuit split.

Finally, Part IV makes two recommendations, one for the Supreme Court and one for Congress. First, the Court should adopt the approach outlined in Judge Denny Chin’s dissent in Aereo II, as the Central District of California’s did in Barry Driller. Second, Congress should amend the Copyright Act to account for this new technology, which was unforeseen at the time the current statute was passed.

II. BACKGROUND

A. A Brief Synopsis of Copyright Law’s Origins and Rationales

Copyright law in this country finds its foundation in the Intellectual Property Clause of the United States Constitution. This clause, in relevant part, states, “The Congress shall have the Power... To 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.” Thus, the Constitution grants Congress the ability to enact a statute to govern copyright law. The underlying goal is to offer “legal protection to the fruits of human creativity so that the public as a whole may benefit.”

Unlike patents, copyright protection is automatic and does not require any additional registration or review process. A “work of authorship” is protected as long as it is (1) original, (2) fixed in a tangible form, and (3) consists of “expression,” and not “ideas.” Once these criteria are met, the copyright owner receives several exclusive rights, including the rights to “reproduce, distribute, and publicly perform or display” the copyrighted work. Anyone who exercises those rights without permission of the copyright owner may be

29. Id.
30. NARD ET AL., supra note 5, at 367.
31. Id. at 367.
32. Id.
33. Id.
enjoined, liable for damages, or both.\textsuperscript{34} Copyright law thus rewards “authors,” but copyright primarily exists “to maximize the welfare of society as a whole.”\textsuperscript{35} Granting copyright protection to authors provides an incentive for creativity, but the public “must retain both the ability to benefit from existing copyrighted works, and the ability to use those works to create new ones.”\textsuperscript{36} This tension is at the center of much of intellectual property law.

\textbf{B. Setting the Stage: The Important Cases and Implications for the Copyright Statute}

In a pair of decisions nearly a half-century ago, the Supreme Court considered a then-new technological development that spawned a wealth of caselaw on television broadcasting and cable services. \textit{Fortnightly Corp. v. United Artists Television, Inc.} and \textit{Teleprompter Corp. v. Columbia Broadcasting Systems, Inc.} both dealt with “a cable television system that received broadcast television signals via antenna and retransmitted [those] signals to its subscribers via coaxial cable.”\textsuperscript{37}

The copyright statute at the time, the 1909 Copyright Act, granted copyright owners, meeting the criteria discussed above, the public-performance right.\textsuperscript{38} As with the current version of the statute, the public performance right contains two elements: (1) the “performance,” and (2) its “public” nature.\textsuperscript{39} Under the 1909 Copyright Act, however, to perform or display a copyrighted work “publicly” required a literal performance of the copyrighted work.\textsuperscript{40}

Under this definition of a public performance, the Supreme Court determined that the defendants were not “performing” the copyrighted works by transmitting through coaxial cable.\textsuperscript{41} Congress was not satisfied with these decisions and had already begun the process of significantly changing the 1909 Copyright Act to account for changes in technology.\textsuperscript{42}

\begin{itemize}
\item \textsuperscript{34} Id.
\item \textsuperscript{35} Id. at 369.
\item \textsuperscript{36} Id. at 368.
\item \textsuperscript{37} WNET, Thirteen v. Aereo, Inc. (\textit{Aereo II}), 712 F.3d 676, 685 (2d Cir. 2013) (citing Teleprompter Corp. v. Columbia Broad. Sys., Inc., 415 U.S. 394 (1974), and Fortnightly Corp. v. United Artists Television, Inc., 392 U.S. 390 (1968)).
\item \textsuperscript{38} Id.
\item \textsuperscript{39} Id.
\item \textsuperscript{40} See id. (discussing the results of \textit{Fortnightly} and \textit{Teleprompter}, where the Supreme Court determined that there was no public performance because the 1909 Copyright Act did not contain a section comparable to the current Transmit Clause).
\item \textsuperscript{41} Id.
\item \textsuperscript{42} Id. (emphasis added).
\end{itemize}
The result was the inclusion of what is known as the “Transmit Clause” in the Copyright Act of 1976. Following Congress’s changes, the Copyright Act now defines “perform” as “to recite, render, play, dance, or act [a copyrighted work], either directly or by means of any device or process or, in the case of a motion picture or other audiovisual work, to show its images in any sequence or to make the sounds accompanying it audible.” The Act continues:

To perform or display a work “publicly” means—

(1) to perform or display it at a place open to the public or at any place where a substantial number of persons outside of a normal circle of 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.

In 1984, the Third Circuit considered a case involving another relatively new technological advancement in Columbia Pictures Industries, Inc. v. Redd Horne, Inc.45 There, the defendant-appellant owned a video rental store where customers could choose any movie available for rent, and “a store employee would then load a copy of the movie into a VCR hard-wired to the TV in the customer’s booth and transmit the content of the tape to the television in the booth.”46 The appellees argued that this service violated their public-performance right under the Transmit Clause of the Copyright Act.47 The Third Circuit agreed, determining that operation of the video store infringed on Columbia Pictures’s public-performance right.48

The court held that “this was a public performance because the same copy of the work, namely the individual video cassette, was repeatedly ‘performed’ to different members of the public at different times.”49 Despite the seemingly private nature of the viewing rooms, the court felt that the use of a single copy for multiple “performances” was sufficient to constitute a “public” performance.50

The next significant case, Cablevision, a Second Circuit case, came nearly a quarter-century later. In that case, the distinction drawn by the Third Circuit in Redd Horne was again on display, but to

44. Id. (emphasis added).
46. Aereo II, 712 F.3d at 688 (citing Redd Horne, 749 F.2d at 156–57).
47. Redd Horne, 749 F.2d at 156–57.
48. Id. at 159.
49. Aereo II, 712 F.3d at 688 (emphasis added) (citing Redd Horne, 749 F.2d at 159).
50. Redd Horne, 749 F.2d at 159.
different effect. The plaintiffs in that case, a large number of copyright-owning networks, argued that Cablevision violated their public performance right under the Transmit Clause of the Copyright Act by using its new RS-DVR service.

From a user perspective, the RS-DVR service acts like a normal DVR service, which allows viewers to stop and start live television and make recordings of television broadcasts for later viewing by recording it on a hard drive connected to the cable box. Unlike a traditional DVR, the RS-DVR service makes the recordings on Cablevision’s remote server at a Cablevision-owned facility.\(^{51}\) When the viewer watches recorded programming, she can select it from her home viewing system and access the recording from Cablevision’s server.\(^{52}\)

For the Second Circuit, the fact that the user makes an individual copy for later viewing only by that user was the characteristic of the RS-DVR that made the difference.\(^{53}\) This one-to-one relationship, with only one copy being made by and sent to one viewer, was more akin to a private performance, rather than a public performance.\(^{54}\) Since the Copyright Act protects only the right to public performance of a copyrighted work, the Second Circuit held the RS-DVR service did not violate it.\(^{55}\)

C. The Current Lay of the Land: The Principal Cases and Imminent Supreme Court Review

In the wake of Cablevision and along with the proliferation of portable, internet-ready devices, a number of services have sprung up that offer online streaming of live broadcast television. While simply streaming the feed on a website accessible by anyone would almost certainly be a violation of the public performance right, more clever services have taken note of the Second Circuit’s ruling in Cablevision. In order to ensure that their performances remain private, they have devised systems that attempt to create a type of one-to-one interaction with the customer that can be analogized to the RS-DVR in Cablevision.\(^{56}\)

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51. See Cablevision, 536 F.3d at 124–25 (describing Cablevision’s RS-DVR system).
52. See id.
53. Id. at 137–40.
54. Id. (“Given that each RS-DVR transmission is made to a given subscriber using a copy made by that subscriber, we conclude that such a transmission is not ‘to the public,’ without analyzing the contours of that phrase in great detail.”).
55. Id.
56. See, e.g., Am. Broad. Cos. v. AEREO, Inc. (Aereo I), 874 F. Supp. 2d 373, 381–96 (S.D.N.Y. 2012), aff’d, 712 F.3d 676, 684–95 (2d Cir. 2013) (involving a system of small individual antennas, where each user is assigned her own antenna and makes her own
Copyright owners, such as the major networks and the sports leagues that license their events to those networks, as well as cable providers, have all noticed this development and are quite displeased. The result is six recent principal cases in lower courts and an upcoming Supreme Court case.57

Courts have fallen into two opposing groups on this issue. It is useful to quickly discuss the lower-court decisions before analyzing the mechanics of the systems used by these online services. These cases provide various approaches available to the Supreme Court in its upcoming review of Aereo III, as well as some possible legislative measures that may solve the problem more effectively.

The district court for the Southern District of New York heard the first major case, American Broadcasting Companies, Inc. v. AEREO, Inc. (“Aereo I”), which was decided in July 2012,58 Aereo offers an online streaming service that acts much like live television with a DVR, as perceived by the viewer.59 For a monthly fee, viewers can watch live television and have the option to pause and play the video feed, record it, or schedule recordings of programs for later viewing.60 Underlying this is a system allowing viewers to access the video feed using individual antennas, whereby the feed is sent directly to individual viewers.61 The recordings are made separately at each viewer’s discretion.

Because of this one-to-one relationship, the district court analogized the service to the RS-DVR in Cablevision, and refused to find infringement.62 In April 2013, the Second Circuit adopted the district court’s reasoning and affirmed its decision.63 The court did so over a vigorous dissent by Judge Denny Chin, who also authored the opinion in the next case.64 On January 10, 2014, the Supreme Court granted certiorari in the case, and will potentially resolve the current divide among the circuits.65

In August 2012, the Second Circuit ruled on a case involving a similar service in WPIX, Inc. v. ivi, Inc. In that case, however, the

59. Id. at 376–77.
60. Id.
61. Id. at 377–81.
62. Id. at 382–96.
63. WNET, Thirteen v. Aereo, Inc. (Aereo II), 712 F.3d 676, 684–95 (2d Cir. 2013).
64. Id. at 696–705 (Chin, C.J., dissenting).
65. See Liptak, supra note 4 (reporting on the Court’s grant of certiorari in Aereo II).
defendant online service conceded that it was violating the plaintiff networks’ public performance right. Instead, it argued that it was a “cable system,” entitled to continue operating its service in exchange for a compulsory licensing fee to the copyright owners under Section 111 of the Copyright Act. The Copyright Office, however, had “consistently concluded that Internet retransmission services are not cable systems.” Judge Chin conducted the customary analysis set forth in *Chevron U.S.A., Inc. v. Natural Resources Defense Council, Inc.* and determined that while the statute was ambiguous on the matter, “the statute’s legislative history, development, and purpose indicate[d] that Congress did not intend” to include internet transmissions within the definition of “cable systems.” The Copyright Office’s interpretation was therefore reasonable. Consequently, ivi was enjoined from continuing its online streaming service.

Later in 2012, the Central District of California considered a system nearly identical to Aereo’s in *BarryDriller*. Rather than following *Aereo I*, the court chose to follow Ninth Circuit precedent, finding infringement and enjoining the streaming service. *BarryDriller* was followed by *FilmOn X* in September 2013, where the District Court for the District of Columbia chose to follow *BarryDriller*, finding infringement. However, in *Hearst Stations* in October 2013, the District of Massachusetts chose to follow *Aereo II*, finding no infringement.

Now, the Supreme Court prepares for oral arguments on April 22, 2014, and commentators and court-watchers anticipate a ruling that clarifies the law.

**D. The Mechanics of Aereo’s Online Streaming Service**

Since Aereo is at the center of an upcoming Supreme Court case, recently received $34 million in funding from Barry Diller’s

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66. WPIX, Inc. v. ivi, Inc., 691 F.3d 275, 278 (2d Cir. 2012).
67. Id. at 278–79.
68. Id. at 283.
69. Id. at 279–85 (citing Chevron U.S.A., Inc. v. Natural Res. Def. Council, Inc., 467 U.S. 837 (1984)). Judge Chin determined that while the Copyright Office does not possess rulemaking power, it was nonetheless due deference because it oversees Section 111’s compulsory licensing scheme, and has been consistent and thorough with respect to this issue. Id. at 283.
70. Id. at 285.
73. See Liptak, supra note 4 (reporting on the Court’s grant of certiorari in *Aereo II*).
IAC, and is the case most often referred to by courts in other jurisdictions, this section focuses on Aereo’s system. There are two important aspects of the system: (1) the audience perspective and (2) the inner workings of the technology behind the system.

1. How the Audience Perceives Aereo’s Service

From the perspective of the user, Aereo’s service operates like a traditional DVR. Users log into their account through Aereo’s webpage and can peruse a “programming guide to select television programs that are currently being aired or that will be aired at a later time.” When the user chooses a program that is already on the air, the user may either select the “Watch” option, or the “Record” option. If the user selects the former, the system will take her to a web page where she will watch the program “after a short delay.” This is akin to watching the program “live.” The viewer will have the option to either pause the program or rewind it, much like a traditional DVR. If the user selects the “Record” option after already selecting to “Watch,” Aereo’s system makes a copy of that program as the user watches, which the user may watch again at a later time.

If the user instead chooses to “Record” a program, the system will function a bit differently: Instead of selecting the “Watch” function at the outset, the user may press the “Record” button to schedule a recording of a program that will be broadcast at a later time or that is currently being aired. However, the “Record” feature can also be used, like the “Watch” feature, to view programs “live”: users can direct Aereo’s system to begin a recording and then immediately begin playback of the recording as it is being made.

Thus, Aereo’s service acts in a nearly identical manner to a traditional DVR. It is different in one significant way, however, that serves to make Aereo a particularly attractive service for customers:

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74. Flamm, supra note 1.
76. See Am. Broad. Cos. v. AEREO, Inc. (Aereo I), 874 F. Supp. 2d 373, 377 (S.D.N.Y. 2012) (“Thus, from the user’s perspective, Aereo’s system is similar in operation to that of a digital video recorder.”).
77. Id.
78. Id.
79. Id.
80. Id.
81. Id.
82. Id. (internal citations omitted).
users can access and view the programming on Aereo’s service on computers and mobile devices, not merely on a stationary television.83

2. How Aereo’s Service Operates Behind the Scenes

Though the viewer experiences Aereo’s service like a traditional DVR, the actual mechanism by which it operates is vastly different. Judge Nathan offered a detailed description of the technical aspects of Aereo’s system in her opinion in Aereo I.84

Upon clicking the “Watch” button, a series of server requests are triggered, which identify certain information about the user.85 One of Aereo’s servers then “allocates resources to the user, including an antenna and transcoder,” depending on which subscription plan the user has with Aereo.86 Some users are designated particular “antennas” which have been assigned specifically to them, while others are “randomly assigned an antenna each time they use Aereo’s system.”87

Regardless of which subscription plan a user has selected, it is critically important to the legal analysis of Aereo’s system that “[n]o two users are assigned a single antenna at the same time.”88 Though antennas may be shared, they are only shared in the sense that antennas can be “assigned to different users at different times.”89 It is equally important to note that “just as the antennas are not shared when they are in use, the data obtained by a particular antenna while allocated to a particular user is not ‘shared’ with or accessible by any other Aereo user.”90 This is how Aereo is able to create the one-to-one relationship that can arguably be analogized to the RS-DVR service at issue in Cablevision.

Once this has occurred, the “Antenna Server sends a ‘tune’ request that directs the user’s antenna to ‘tune into’ a particular broadcast frequency band to obtain the desired program.”91 Simultaneously, a separate request is sent to the “Streaming Server,” which creates a “directory” unique to that user that effectively stores the data from the video feed. From there, the data is processed

83. Id.
84. See id. at 377–81 (describing Aereo’s system, as well as plaintiff’s challenges to certain aspects of Aereo’s characterization of the system, and Aereo’s responses thereto).
85. Id. at 377.
86. Id. at 377–78.
87. Id. at 378.
88. Id.
89. Id.
90. Id.
91. Id.
through a technical series of events and is ultimately sent to the “Streaming Server, where it is saved on a hard disk to a file in the previously created directory and, once saved, is read from that file into a ‘RAM memory buffer’ that sends the data to the user over the internet.” As the program continues over the air and more data is processed through the servers, this process continues and more data is saved. The data saved on the hard disk remains there until the viewer is finished watching the program, allowing the viewer to pause, rewind, and play the program.

When a viewer selects the “Record” option, the same process occurs with one significant difference. “When a user engages the ‘Record’ function, the file saved to the hard disk is tagged as permanent and automatically retained.” When the Aereo user has instead selected to “Watch” the program, it is not saved automatically unless the user then clicks the “Record” button while she still has the show open in her web browser.

There has been some controversy relating to the antennas used in Aereo’s system. Judge Nathan described the antennas as follows:

Each of Aereo’s antennas consist of a pair of metal loops roughly the size of a dime. Eighty such antennas are packed on one end of a circuit board, with a metal rail that separates the area with the antenna elements from an area housing the electronic components used to operate the antennas and process the signal. Sixteen such boards are stored parallel to one another in a metal housing, like books on a shelf, with the portion of the circuit board containing the antennas sticking out of the housing. When the boards are placed in the housing, the metal rails fit close together and form a barrier between the antennas and the other electronic elements of Aereo’s system.

The copyright owners in Aereo I argued that this system was essentially a sham, and that the antennas could not operate individually to process television signals. While that is certainly a serious contention and would potentially derail Aereo’s entire legal argument, it was not a major issue on appeal, nor is it considered in this Comment.

Exhibit 1 contains a useful diagram from the Central District of California’s opinion in BarryDriller depicting the system used by FilmOn X, which is nearly identical to Aereo’s system. Exhibit 2 contains a stylized (and simplified) diagram from Aereo’s website describing its service.
Exhibit 1.98

Exhibit 2.99

III. ANALYSIS

On January 10, 2014, the Supreme Court granted certiorari to review the decision in *Aereo II*. There are two clear-cut choices in front of the court: (1) the *Aereo I* and *Aereo II* approach, which holds that these services are not infringing on the copyright owners’ public-performance right, and (2) the *BarryDriller* and *FilmOn X* approach, which are in accord with Judge Chin’s dissent in *Aereo II*, holding that these online streaming services do infringe on public-performance rights.

As the conflicting cases have shown, a resolution of the issue by the Supreme Court may well be insufficient to solve the problem. As a result, this Section is divided into two parts. The first part deals with the upcoming Supreme Court decision, discussing the options in front of the Court. The second part deals with solutions available beyond the Supreme Court’s decision: legislative measures. A final resolution of this issue will require a Supreme Court ruling in the short run, and a legislative overhaul thereafter. The following section proposes solutions to both aspects of this issue.

A. OPTIONS AVAILABLE TO THE SUPREME COURT IN REVIEWING AEREO

1. The *Aereo I* and *II* Approach: Non-Infringement

The first option available to the Supreme Court is to find no infringement. This would simply allow services like Aereo and FilmOn to continue unabated, allowing customers to continue using them and paving the way for their expansion nationally. Reaching this holding would also carry certain negative consequences for consumers, particularly if the major sports leagues are not bluffing and they would actually move their broadcasts to pay-per-view television.

The Second Circuit reached its decision in *Aereo II* by analogizing Aereo’s service to the RS-DVR in *Cablevision*. As such, the court began its analysis by looking at *Cablevision*’s interpretation of

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100. WNET, Thirteen v. Aereo, Inc. (*Aereo II*), 712 F.3d 676 (2d Cir. 2013), cert. granted, 82 U.S.L.W. 3241 (U.S. Jan 10., 2014) (No. 13-461); see Liptak, supra note 4 (reporting on the Court’s grant of certiorari in *Aereo II*).


103. See Gustin, supra note 10 (discussing threats made by the NFL and MLB to move their content to pay TV if online streaming services like Aereo are allowed to continue).
the Transmit Clause. Following protracted discussion of Cablevision’s reasoning, the Aereo II court distilled Cablevision’s interpretation of the Transmit Clause to “four guideposts”:

First, if [an individual] transmission is “capable of being received by the public” the transmission is a public performance; if the potential audience of the transmission is only one subscriber, the transmission is not a public performance. Second, private transmissions should not be aggregated. It is therefore irrelevant to the Transmit Clause analysis whether the public is capable of receiving the same underlying work or original performance of the work by means of many transmissions. Third, when private transmissions are generated from the same copy of the work these private transmissions should be aggregated, and if these aggregated transmissions from a single copy enable the public to view that copy, the transmissions are public performances. Fourth, “any factor that limits the potential audience of a transmission is relevant” to the Transmit Clause analysis.

Significantly, this interpretation requires accepting the assertion that the Transmit Clause directs courts to regard the transmission itself as a performance, rather than considering the underlying work.

With these “four guideposts” from Cablevision established, the court in Aereo II simply applied Cablevision and found no infringement of the copyright owners’ public performance right. The court likened Aereo’s system to the RS-DVR because of two facts that it found significant. First, “Aereo’s system creates a unique copy of [a] program on a portion of hard drive assigned only to that Aereo user.” Second, “when an Aereo user chooses to watch the recorded program, the transmission sent by Aereo and received by that user is generated from that unique copy.” This is where the critical importance of divorcing the underlying work from a subsequent transmission of that work becomes clear. If the court were instead looking at the underlying work being transmitted, a more apt analogy would be to Redd Horne, where the underlying work is being transmitted to many viewers.

The court rejected all of the plaintiffs’ alternative arguments, but one in particular merits discussion. Plaintiffs in Aereo II argued that Aereo is more akin to a cable television provider, rather than a DVR service, and therefore that “holding that Aereo’s transmissions are not public performances exalts form over substance.” This is important, because the Copyright Act treats retransmissions by cable television systems to be public performances. To deal with those

104. Aereo II, 712 F.3d at 686.
105. Id. at 689 (internal citations omitted) (quoting Cablevision, 546 F.3d at 135–38).
106. Id. at 690.
107. Id. at 690 (emphasis added).
108. Id. at 693–94.
retransmissions, the Copyright Act allows cable systems to retransmit works in exchange for a compulsory license fee.\textsuperscript{110}

The court rejected this argument for two reasons. First, the court stated, “[p]erhaps the application of the Transmit Clause should focus less on the technical details of a particular system and more on its functionality, but this Court’s decision[] in Cablevision . . . held that technical architecture matters.”\textsuperscript{111} As such, the court seemed to admit that the decision merely applied precedent. As a matter of stare decisis, the court determined that it was bound to follow Cablevision, a decision that could only be overturned by an en banc hearing of the Second Circuit or the Supreme Court.\textsuperscript{112}

Second, the court looked to the legislative history of the Copyright Act, ultimately admitting that the passage of time since the Act went into force has created problems. The court stated, “unanticipated technological developments have created tension between Congress’s view that retransmissions of network programs by cable television systems should be deemed public performances and its intent that some transmissions be classified as private.”\textsuperscript{113} The court recognized that “Aereo may in some respects resemble a cable television system,” but ultimately determined that the language of the Copyright Act, and its own prior interpretation of that language in Cablevision, prevented a finding that Aereo’s transmissions were public performances.\textsuperscript{114}

This particular portion of the opinion appears to leave the door open to change. First, the court seems to be stating that it was bound by its prior decision, rather than engaging in a whole new analysis, as may be appropriate due to the new technology at issue. Second, the court was highlighting the inadequacy of the current statute to deal with three and a half decades of technological progress.

Regardless of the merits of this approach, multiple courts have followed Aereo II’s lead. The Supreme Court could simply choose to affirm the Second Circuit’s approach under this reasoning, allowing Aereo and its fellow online streaming services to continue.

\textsuperscript{110} 17 U.S.C. § 111(c) (allowing cable television systems to pay compulsory licensing fees).
\textsuperscript{111} Aereo II, 712 F.3d at 694
\textsuperscript{112} Id. at 695.
\textsuperscript{113} Aereo II, 712 F.3d at 689 (internal citations omitted) (citing Cablevision, 546 F.3d at 135–38).
\textsuperscript{114} Id.
2. The Barry Driller, FilmOn X, and Aero II Dissent

Approach: Infringement

The other cases approach the issue much differently. Rather than engaging in interpretive gymnastics, looking at transmissions, retransmissions, and underlying works, the courts that found infringement took a more literal stance, focusing on substance over form.115

To begin with, in his dissent in Aereo II, Judge Chin highlighted several important differences between Cablevision’s RS-DVR and Aereo. Judge Chin made clear that he was most concerned with the substance of Aereo’s service, rather than conjuring reasons to allow the service through unwieldy legal analysis. He points out “Aereo is doing precisely what cable companies, satellite television companies, and authorized Internet streaming companies do—they capture over-the-air broadcasts and retransmit them to customers.”116 The crucial difference is that “those entities are doing it legally, pursuant to statutory or negotiated licenses, for a fee.”117

He also argued that Aereo’s system is set up as an end-run around the copyright statute. Essentially disregarding the majority’s reliance on the distinction between the transmission and the underlying work, he pointed out that “Aereo’s use of copies is essential to its ability to retransmit broadcast television signals, while Cablevision’s copies were merely an optional alternative to a set-top DVR.”118 He did not think that the ability to record television should serve as a means to absolve Aereo from its ultimate purpose: “to be a substitute for viewing live television broadcasts.”119 Unlike the RS-DVR, which exists to make personal copies of already perfectly legal transmissions of broadcast television, Aereo exists primarily “to stream live television through the internet.”120 He pointed out a damning contradiction in Aereo’s own logic: “even under its own theory, Aereo cannot legally retransmit a television signal to them without . . . a copy.”121

115. See id. at 697 (Chin, C.J., dissenting) (“By accepting Aereo’s argument that it may [operate] without authorization and without paying a fee, the majority elevates form over substance.”)
116. Id.
117. Id.
118. Id. at 702.
119. Id. at 703.
120. Id.
121. Id.
Judge Chin and the Central District of California also looked to the statutory text, but took a much more practical approach than the court in Aereo II. Rather than diving into complex interpretations of the statutory text, Judge Chin attempted to “ascertain how a reasonable reader would understand the statutory text, considered as a whole.” What he determines closely follows the rationale of BarryDriller, “that Aereo’s system fits squarely within the plain meaning of the statute,” 17 U.S.C. § 101’s Transmit Clause.

The statute, Judge Chin pointed out, refers to “any device or process,” and Aereo’s system comprised of thousands of tiny antennas is, quite clearly, a “device or process.” Using its “device or process, Aereo receives copyrighted images and sounds and transmit[s] or otherwise communicate[s] them to its subscribers ‘beyond the place from which they are sent.’” Continuing his literal reading and application of the statute, “[t]he ‘performance or display of the work’ is then received by paying subscribers ‘in separate places’ and ‘at different times.’” Furthermore, since Aereo sends television programming to “paying strangers,” it therefore sends its transmissions “to the public.” As a result, Judge Chin stated, “[b]y any reasonable construction of the statute, Aereo is engaging in public performances and, therefore, it is engaging in copyright infringement.”

Following the process of review set forth in Chevron, he continued his discussion under the assumption that the language of the Transmit Clause is ambiguous (though he did not believe it was). In doing so, he looked at Congress’s response to Fortnightly and Teleprompter, altering the copyright statute to account for the technological advance exhibited in those cases. What he found is that the Court’s rationale in Fortnightly, in refusing to find infringement, is “nearly identical to the justification advanced by Aereo: each subscriber could legally use his own antenna, digital video recorder (‘DVR’), and Slingbox to stream live television to his computer or other

123. Aereo II, 712 F.3d at 697 (citing Pettus v. Morgenthau, 544 F.3d, 297 (2d Cir. 2009)).
124. See Aereo II, 712 F.3d at 698 (citing BarryDriller, 915 F. Supp. 2d at 1140).
126. Id. (internal citations omitted).
128. Id. at 699 (citing 17 U.S.C. § 101). It matters that Aereo sends its signals to strangers, since that can help determine whether or not the transmissions can be considered “private.” See Cartoon Network LP, LLLP v. CSC Holdings, Inc. (Cablevision), 546 F.3d 121, 138 (2d Cir. 2008) (“The identity of the transmitter . . . [is] germane in determining whether that transmission is made ‘to the public.’”).
129. Id.
device.”\footnote{\textit{Id.} at 699–700 (citing Fortnightly Corp. v. United Artists Television, Inc., 392 U.S. 390 (1968)).} Since Congress “expressly rejected”\textit{Fortnightly} and\textit{Teleprompter}, he is perplexed as to why the court accepted Aereo’s argument.\footnote{\textit{Id.} at 700.}

Judge Chin looked to the legislative history behind the 1976 Copyright Act, in which Congress elected to define the term “transmit” broadly in order to capture technological advancements down the road:

The definition of ‘transmit’... is broad enough to include all conceivable forms and combinations of wires and wireless communications media, including but by no means limited to radio and television broadcasting as we know them. Each and every method by which the images or sounds comprising a performance or display are picked up and conveyed is a ‘transmission,’ and if the transmission reaches the public in ‘any’ form, the case comes within the scope of clauses (4) or (5) of section 106.\footnote{\textit{Id.} (quoting H.R. Rep. No. 94-1476, at 64 (1976)).}

This would seem to reveal that Congress intended for activities like Aereo’s service to fall within the scope of “public performance” under the Copyright Act.

Ultimately, this side of the debate eschews the heavily technical analysis of the majority’s approach in\textit{Aereo II}, instead choosing to focus on substance. The court in\textit{BarryDriller} and Judge Chin were most concerned with the \textit{purpose} of Aereo’s service, which is quite clearly to provide live broadcast television in the same manner as a cable provider, while still managing to avoid the statutory consequences that come along with being a cable provider. Ultimately, this more literal approach seems prudent, as it relies more on basic logic and the view of a “reasonable reader,” rather than searching for convoluted reasons to allow Aereo’s service to continue.

\section*{B. Legislative Options}

Once the Supreme Court reaches its decision in\textit{Aereo II}, this issue will find finality in the courts. But simply holding that this activity is or is not infringement of the public-performance right will not be sufficient to resolve the controversy these services have created. There is a great deal of national debate as to whether streaming websites are committing infringement under the statute, or whether or not they \textit{should} be considered to be infringing. Furthermore, it is unlikely that these websites will completely cease to exist no matter the Supreme Court’s ruling. As a result, the next step will likely be
statutory reform, which can resolve the issue and placate the parties to the litigation.  

The primary question addressed in nearly all the cases is whether these services should be considered “cable systems” under the statute, and thus allowed to continue operating in exchange for a compulsory licensing fee. In fact, the defendant in ivi did not even challenge the plaintiffs’ assertion that it was committing infringement. The defendant simply argued that it was a cable system, and thus should be entitled to pay the statutory licensing fee.

The mechanics of these licensing fees can be somewhat technical, but the court in Aereo II provided a useful summary: “Put briefly, the statute allows cable systems to retransmit copyrighted works from broadcast television stations in exchange for paying a compulsory license to the U.S. Copyright Office calculated according to a defined formula. The fees paid by cable systems are then distributed to the copyright holders.”

These licensing fees may be the answer to the conundrum we are faced with today. They could serve as a way to ensure that copyright owners are properly compensated for the use of their copyrights, while consumers still have access to the best and most convenient content and services. How to assess these fees, however, is a difficult question.

1. Allow Streaming Websites to Pay Statutory Licensing Fees by Classifying Them as Cable Systems

The first option available to Congress is to treat these services as “cable systems,” for which Section 111 of the statute already provides compulsory licensing fees. To achieve this, there are two possibilities. First, courts could read the statute to cover online streaming services, obviating the need for legislative action, something that would likely take time and, given the glacial pace of recent legislative activity, may never occur. Unfortunately, Judge Chin addressed this issue in ivi and came to the conclusion that the statute did not cover online streaming services.

133. Cable providers like Time Warner and Comcast will still be disappointed with the result, and of course Aereo would ideally prefer to continue operating without paying licensing fees.

134. WPIX, Inc. v. ivi, Inc., 691 F.3d 275, 279–80 (2d Cir. 2012).

135. Id.

136. Aereo II, 712 F.3d at 685 n.8.

In his opinion in *ivi*, Judge Chin discussed whether *ivi*, which operated a similar system to Aereo and FilmOn, could be classified as a cable system. If so, it would act as a statutory defense to claims of copyright infringement and entitle *ivi* to the compulsory license allowing them to continue retransmitting the copyright owners’ programming.

Judge Chin determined that the statutory text did not make it clear whether *ivi* fell under the definition of a “cable system” in the statute. Turning to the legislative history, he found that Congress created Section 111 in response to the Supreme Court’s decisions in *Fortnightly* and *Teleprompter*. In doing so, Congress attempted to strike a balance between two societal benefits: (1) enabling cable systems to grow and expand, providing better services, and (2) protecting copyright owners, creating an incentive to continue creating broadcast television content.

Following the creation of Section 111 in 1976, satellite television became a popular and growing service in the late 1980s and into the 1990s. Much like the online streaming services today, satellite television was a new technology that did not fit neatly into the statute. After the Eleventh Circuit determined that satellite television carriers were cable systems in 1991, Congress responded (seven years later) by creating a “separate statutory license for satellite carriers under Section 119 of the Copyright Act.”

Finally, Judge Chin considered the legislative intent behind Section 111, which revealed that “Congress enacted § 111 with the intent to address the issue of poor television reception, or, more specifically, to mitigate the difficulties that certain communities and households faced in receiving over-the-air broadcast signals by enabling the expansion of cable systems.” Between that, Congress’s creation of a separate section of the statute for satellite carriers, and the Copyright Office’s stated belief that “Internet retransmissions” do not fall under Section 111, he determined that Congress did not intend for the statute to apply to online streaming services like *ivi*.

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138. *ivi*, 691 F.3d at 279–85.
139. *Id.* at 279.
140. *Id.* at 281.
141. *Id.*
142. *Id.*
143. *Id.* (emphasis added).
144. *Id.* at 282.
145. *Id.* at 282.
As a result, it does not seem feasible for courts to simply start reading these streaming services into the statute. But a second possibility remains: Congress could amend the statute, as it has done in the past, to cover online streaming services. It does not seem as though it would be particularly difficult to either (a) broaden the language of Section 111 in such a way as to allow these services to fall within the statute, or (b) make an amendment that explicitly includes such services within the reach of Section 111. Furthermore, considering Judge Chin’s reliance on the Copyright Office’s expertise, if the Copyright Office were to change its stance with respect to Internet transmissions, it could pave the way for this solution without any action on Congress’s part. Such an amendment would fall squarely within the two justifications given for the creation of Section 111 by providing better services to the public while simultaneously compensating copyright owners.

2. Create a New Section of the Statute Applicable to Streaming Websites

What may be most clear from the earlier discussion of the legislative history of the Copyright Act is Congress’s willingness to adapt the statute to changing technology. It seems clear, then, that the best solution may be to create an entirely new section to cover these online streaming services, much like Section 119 for satellite carriers. This would operate in the same manner as Section 111, and would require specific wording for these services. As these services become more common across the country, and ever more popular with consumers, it is clear that they may one day equal satellite carriers in popularity and subscribership. As such, they may well be deserving of a new section of the Copyright Act.

Unfortunately, the Copyright Office seems strongly opposed to granting these services a statutory license. In 2008, it stated:

> The Office continues to oppose an Internet statutory license that would permit any website on the Internet to retransmit television programming without the consent of the copyright owner. Such a measure, if enacted, would effectively wrest control away from program producers who make significant investments in content and who power the creative engine in the U.S. economy. In addition, a government-mandated Internet license would likely undercut private negotiations leaving content owners with relatively little bargaining power in the distribution of broadcast programming.\(^\text{146}\)

Of course, the Copyright Office possesses a great deal of expertise in this area, so its opinion cannot be simply dismissed. Nonetheless, even since 2008, the landscape has changed a great deal.

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\(^{146}\) \textit{Id.} at 283.
Furthermore, these issues are identical to those that faced the advent of cable television or satellite television. If the Copyright Office is so concerned with these services undercutting the established broadcasters, there is at least one solution. The Copyright Office, or a separately created office, could be responsible for vetting these services and approving them before they are allowed to continue operating with a compulsory license. This would ensure that any services that are clearly involved in any violation of the law are discontinued, and would bring potentially shady services to the light of day and within the purview of the Copyright Office.

IV. Solution

Ultimately, the solution to this problem will require two steps. First, the Supreme Court should follow the line of reasoning proffered by Judge Chin in his dissent in *Aereo II*. This side of the debate is grounded in sound reasoning and does not require unnecessary legal gymnastics to arrive at a solution. On their face, these services take broadcasters’ copyrighted content and distribute it to a growing contingent of thousands of subscribers.

Following Judge Chin’s *Aereo II* dissent and finding infringement can resolve the legal question of whether this *is* infringement. But in reviewing the case, the Court may also choose to consider the normative question of whether this *should* be infringement. In this respect, as Judge Chin notes, *Aereo* is not a good analog to the RS-DVR in *Cablevision* because Cablevision and its subscribers were already acting legally prior to the use of an RS-DVR. The new service at issue was merely supplemental, allowing users to watch legally acquired and transmitted content at a later point in time. This factual distinction was the crux of Judge Chin’s argument, and it is persuasive. Ultimately, the Court has a litany of reasons to find infringement, and it should.

Second, Congress should spring into action to amend the Copyright Act. While it may be less time-consuming to amend Section 111 to include these services under the definition of “cable systems,” it will likely be more effective to create a new section applicable to companies like Aereo. This was extremely effective for satellite carriers, and it would allow Congress to create a statute from the ground up to address any and all problems presented by these services, such as those raised by the Copyright Office in *ivi*.

One obstacle to creating a new section of the statute for online streaming services is the difficulty in regulating these services to ensure that they meet acceptable standards. New legislation would allow for the creation of a mechanism to regulate. The Copyright
Office, or a newly created entity, whether within the Copyright Office or standing alone, could be charged with creating and maintaining standards for Internet streaming services. Such a solution could provide for preapproval and ongoing monitoring of the streaming services to ensure their practices are up to the standards in the new legislation. There are countless possibilities, but if the Copyright Office feels that “a compulsory license covering [Internet] retransmissions... would have to come from newly []enacted legislation and not existing law,” then that is exactly what Congress should provide.147

With these two steps completed, consumers will continue to have the option to subscribe and receive broadcast television anywhere and at any time. Furthermore, this could provide the impetus for cable providers, satellite carriers, and content owners alike to improve their services for consumers, a worthy and desirable outcome. If the goals of intellectual property law generally, and copyright law in particular, are to encourage creativity and promote progress, then this is the ideal result. At the same time that consumers receive a better product, copyright owners would not go uncompensated. If the statute is well drafted, and copyright owners’ interests are well represented during the creation of the statute, they will likely be quite pleased with the compensation they receive. In the end, an amended statute would promote significant progress while placating consumers and copyright owners; this solution thereby promotes the ultimate goals of copyright law.

V. CONCLUSION

In conclusion, as the Supreme Court approaches review of Aereo II, there is a clear-cut choice for the Court to make in its ruling: streaming services are committing infringement. The Court should follow Judge Chin’s dissent in the Second Circuit case, the Central District of California’s ruling in BarryDriller, and the D.C. District Court’s ruling in FilmOn X, and hold that Aereo’s service is a violation of the plaintiffs’ public performance right under Section 106 of the Copyright Act.

All is not lost for Aereo, however. There is one more step before this issue is completely resolved. Congress must act by amending the Copyright Act. It should create a new section applicable to online streaming services that would act as a statutory defense to infringement in exchange for a compulsory licensing fee. In the end,

147. *ivi*, 691 F.3d at 283.
the copyright owners will be protected, online-streaming businesses will continue, and consumers will benefit.

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