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Legally Speaking
Watching TV on Internet-Connected Devices

The ABC vs. Aereo case has potentially far-reaching consequences.

HOULD YOU BE able to watch your favorite broadcast television programs on your iPhone or PC with the aid of a third-party provider's equipment? Aereo thinks the answer is yes and has designed a system to accomplish this task.

ABC, several other networks, and some broadcast television stations think not. They have sued Aereo for copyright infringement, claiming that Aereo is commercially retransmitting their works to subscribers in violation of the public performance right of copyright law.

Although Aereo successfully defended its service in some lower courts, the Supreme Court agreed to hear ABC's appeal. Oral argument was held this past April, and by the end of June we should know whether ABC can stop Aereo from providing this service.

After describing Aereo's system, this column reviews ABC's and Aereo's core legal arguments. It then considers what is at stake not only for ABC and Aereo,

but also for cloud computing and similar services that store or stream copies of digital content on behalf of consumers. While I often predict the outcome of appellate cases, *Aereo* seems too close to call at this point.

Aereo's System

One way to understand Aereo's system is to view it from the users' perspective. When subscribers log onto Aereo's system, they see a program guide for over-the-air broadcast television programs airing at that time or in the near future on local stations. Subscribers can select which programs they wish to watch or have recorded.

If a user presses the "watch" button, Aereo streams the program to the user's device, although there is a slight delay in transmission because Aereo records the program on servers so that if the user presses "record" during the program, the user will be able to capture the program from the point at which she first began watching it. A user can also press "record" to capture

future programs, which Aereo automatically stores for later viewing.

From the users' perspective, the Aereo system functions like a TV set with a remote digital video recorder (DVR) and capabilities that technologies such as Slingbox provide to view television programs on Internet-connected devices. Only local over-the-public-airwaves television programming is available through Aereo's system.

Another way to understand Aereo's system is by considering its technical infrastructure. Aereo operates a facility in Brooklyn, NY, with large banks of antennas and servers. When a user selects a program to watch or record, Aereo's system sends a signal to an antenna that Aereo assigns to that customer and tunes that antenna to the broadcast frequency of the channel on which the desired program is showing or is slated to show.

Aereo transcodes the data for that program, buffers the data, and then sends it to an Aereo server where a copy of the program is saved to a directory

on a hard drive reserved for that user. The program is then streamed to the user's Internet-connected device, either approximately as the program is showing or a later time.

ABC's Legal Argument

For the past 38 years, it has been beyond cavil that retransmitting broadcast television signals by services such as cable or satellite television providers is a public performance requiring copyright owner permissions. Broadcasters these days rely heavily on cable and satellite retransmission revenues to support their programming and operations.

ABC argues that Aereo's service is the functional equivalent to cable and satellite television services, so it too should be within the public performance right. Indeed, Aereo has advertised its service as an alternative to these paid services. Aereo can offer a lower price to its subscribers at least in part because, unlike cable and satellite providers, it does not pay anything for retransmitting broadcast programs.

ABC complains that Aereo's "entire business model is premised on massive for-profit unauthorized exploitation of copyrights where competitors' prices are undercut because they seek authorization and pay fees."

ABC contends that Aereo's activities cause several types of harm. Cable and satellite providers are using the existence of Aereo's services to pressure broadcasters to reduce retransmission fees they now pay. Some threaten to reconfigure their systems to be more like Aereo's so that they too can avoid paying retransmission fees. More subtle harm arises from the lack of Nielsen ratings for Aereo subscribers' viewing of programs, which affects the advertising fees the networks and stations can charge.

Aereo's Defense

Aereo's main defense is based on the "undisputed fact" that its users are the ones who transmit the programs and each user can transmit the programs only to themselves. This, Aereo argues, is a private performance of the broadcast programming, not a public one. Copyright law does not give owners the right to control private performances.

Aereo merely "suppl[ies] remote equipment that allows a consumer to tune an individual remotely located antenna to a publicly accessible over-the-air broadcast television signal, use a remote DVR to make a personal recording from that signal, and then watch that recording."

Since the Supreme Court's 1984 *Sony Betamax* ruling, it has been settled that consumers can lawfully make time-shift copies of broadcast television programs to view at a later time. That decision also affirms the right of third parties to supply consumers with technological tools through which to make time-shift copies.

(The Court held that Sony was not liable for contributory infringement because its Betamax machines had substantial non-infringing uses (to wit, enabling consumers to make time-shift copies of broadcast television programs), even though Sony knew that some consumers would use the machines to make infringing copies of the programs.)

Even if two Aereo users decide to watch the same program at the same time, Aereo notes that its system automatically makes a separate copy for each user. Each recording is unique "not only in the sense that it's personal, but also because owing to electronic interference, technical glitches, and occasional equipment failure, no two copies are identical." The only person able to access the recording supplied through use of Aereo's system is the subscriber who ordered it.

Aereo's system is a quite different in technical design and operation

than cable and satellite systems. They receive broadcast programs through a single feed and continuously retransmit that content to their customers. The constancy of those transmissions to subscribers is why cable and satellite transmissions are public performances. Aereo, by contrast, enables its subscribers to transmit specific television programs only to themselves.

What's at Stake?

ABC and its co-plaintiffs contend that the future of over-the-air broadcast television is at stake. Without retransmission fees from those who commercially exploit broadcast programming, incentives to invest in broadcast programming will be undermined, along with the ability to recoup these investments. Some may stop broadcasting and move their programs behind paywalls. Broadcast television has played an important role in enriching civic life and it would be a tragedy to let it fail.

Several copyright industry organizations have filed friend-of-the-court briefs in support of ABC's appeal, asserting that upholding the ruling in favor of Aereo would have baleful consequences for many copyright owners.

But the stakes are high for many information technology companies if the Supreme Court rules in ABC's favor because it would make liability depend on the technical infrastructure design of their systems.

Cablevision

The main ruling supporting *Aereo* involved a company called Cablevision. Copyright owners that provided programs to Cablevision sued it for infringement because this cable company began to offer a remote DVR service to its customers. They claimed the remote DVR service infringed their reproduction and public performance rights. An appellate court ruled that Cablevision did not need a separate license from broadcasters and other content providers to offer the remote DVR service.

The technical infrastructure of the Cablevision system mattered. Cablevision designed its system so that each subscriber could direct that a particular program be saved on Cablevision's servers. The system would then store

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that program in a server directory assigned to that subscriber. The user could later watch the program at a time and place of his or her choosing, which in effect, caused the program to be transmitted to him or her.

The court in *Cablevision* ruled the buffer copies made by the remote DVR system operations were too ephemeral to be infringing reproductions and the DVR program copies stored on Cablevision servers were made by individual subscribers, not by Cablevision.

That court also rejected claims of infringement of the public performance right because Cablevision's subscribers were the ones who transmitted DVR programs to themselves, and no one else could access that DVR copy but the subscriber who ordered it. Each transmission was, therefore, a private performance of the work. Cablevision engaged in no volitional conduct that caused DVR transmissions to occur.

Cablevision is factually distinguishable from *Aereo* because Cablevision had authorization from copyright owners to transmit programming to its customers and it was paying fees to copyright owners for these transmissions. The question was only whether Cablevision was obliged to get a separate license and pay a new round of fees to enable the remote DVR service.

Rube Goldberg Design?

ABC has characterized the Aereo system as a "Rube Goldberg-like contrivance" that was designed "to take advantage of [the] perceived loophole" in the statutory definition of the public performance right.

This may be true, but Aereo is only one of many information technology

services that have taken advantage of the *Cablevision* ruling. A study by Harvard professor Josh Lerner reported that in the two-and-a-half years after the *Cablevision* ruling, capital investments in U.S. cloud computing grew somewhere between $728 million and $1.3 billion with a positive effect on job creation. This was, in Lerner's view, equivalent to $2.5–$5 billion in traditional R&D investments. Had the *Cablevision* case gone the other way, Lerner's study suggests these investments might not have been made. Many cloud service providers (for example, backup storage providers), after all, transmit copies on behalf of users.

Conclusion

It will be interesting to see what the Supreme Court does in *Aereo*. There are four possible outcomes.

First, the Court may say the current definition of the public performance right does not encompass transmissions enabled by Aereo's system, and if Congress wants to outlaw services such as Aereo's, it must amend the law.

Second, the Court could parse the public performance right to hold Aereo as an infringer, but affirm *Cablevision's* interpretation of the public performance right as to other systems. Some friend-of-the-court briefs on behalf of cloud computing and other technology providers may offer suggestions about this.

Third, the Court may overturn both *Cablevision* and *Aereo* so that technology developers can be held directly liable for infringement because their systems transmit copyrighted materials to users.

Fourth, the Court may affirm the right of technology providers to facilitate personal use copying and viewing of copyrighted content and affirm the ruling in favor of Aereo.

Aereo's system is the latest example of an innovative, inexpensive technology that enables consumers to enjoy copyrighted works in new ways. Will copyright knock this one and others out of the market? Stay tuned for the outcome of this important case. ⬛

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