

SOCIAL MEDIA AND “FLASH INFRINGEMENT”: LIVE MUSIC CULTURE AND DYING IP PROTECTION

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I. INTRODUCTION

This article interrogates issues of music intellectual property rights infringement at live performances. I am especially interested in music infringement at live concerts and DJ-driven mash-up parties, and the use of technologies to transfer protected content by smartphone—or remote

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storage device—at or near the performance site. The covalent forces of social media, including the use of smartphone apps such as Meerkat and Periscope, and flash mob culture have created a perhaps unstoppable threat to copyright and other intellectual property rights—a phenomenon that I define in this article as “flash infringement.” In a flash infringement setting, it may be impossible to stop the infringement among thousands of partygoers or fans and their online followers.

II. THE LIMITS OF IP PROTECTION FOR LIVE STREAMING OF CONTENT

When a concert or a DJ’s set is live streamed, whose interests are at stake? Live performances by artists are not protected by the copyright statute,¹ but may be protected by the federal civil anti-bootlegging statute.² In the case of the concert, the underlying musical composition is protected by federal copyright law.³ The stakeholders in the musical composition include the songwriter(s) and the music publisher. In the case of a DJ’s set that includes the use of sound recordings, an additional stakeholder is the owner of the “master,” typically the record label.⁴ Complications arise with respect to pre-1972 sound recordings, which are denied protection under the federal copyright statute,⁵ but which may be subject to state law protections in California, New York, and Florida.⁶

The federal civil anti-bootlegging statute allows for damages from the following:

Anyone who, without the consent of the performer or performers involved--

(1) fixes the sounds or sounds and images of a live musical performance in a copy or phonorecord, or reproduces copies or phonorecords of such a performance from an unauthorized fixation,

1. *See* 17 U.S.C. § 102 (2012).

2. *See id.* § 1101(a). There are numerous state anti-bootlegging statutes that offer parallel protection for anti-piracy.

3. *See id.* § 106.

4. JEFFREY BRABEC & TODD BRABEC, *MUSIC MONEY AND SUCCESS* 149 (7th ed. 2011).

5. *See* 17 U.S.C. § 301 (2012).

6. *See* Cal. Civ. Code § 980(a)(2) (West 2007); Fla. Stat. § 540.11 (2013); *Flo & Eddie Inc. v. Sirius XM Radio Inc.*, No. CV 13-5693 PSG RZX, 2014 WL 4725382, at *9 (C.D. Cal. Sept. 22, 2014) (granting Flo & Eddie’s Motion for Summary Judgment on causes of action related to public performance by Sirius XM); *Capitol Records, Inc. v. Naxos of Am., Inc.*, 830 N.E.2d 250, 250 (N.Y. 2005) (holding that New York law provides for state common law protection for pre-1972 sound recordings).

(2) transmits or otherwise communicates to the public the sounds or sounds and images of a live musical performance, or

(3) distributes or offers to distribute, sells or offers to sell, rents or offers to rent, or traffics in any copy or phonorecord fixes as described in paragraph (1), regardless of whether the fixations occurred in the United States⁷

The general view is that the mere viewing of illegally streamed content is legal for the viewer, though there are some that argue that streaming creates a transitory file cached in random access memory on the viewer's computer that is sufficiently fixed to constitute copyright infringement.⁸

In the era of peer-to-peer file sharing, it was possible for music industry stakeholders to use the Copyright Act to hold online networks like Napster and Grokster liable for their users' infringement. In *A & M Records v. Napster*, the Ninth Circuit upheld a finding that Napster had contributorily and vicariously infringed on the copyrights of record companies and music publishers.⁹ With respect to contributorily infringement, the court determined that Napster had "actual, specific knowledge of direct infringement" and that it failed to take steps to block this infringement.¹⁰ On the vicarious liability claim, the court concluded that Napster's entire business model was predicated on infringement and that the architecture of its search engine was designed to permit infringement.¹¹ Although Napster argued that its software potentially had substantial non-infringing uses, that analysis was unpersuasive in light of Napster's knowledge of infringement.¹² Napster could easily use its search engine to identify infringing mp3 files, just as the plaintiffs did.¹³

7. 17 U.S.C. § 1101(a). There is also a criminal anti-bootlegging statute. See 18 U.S.C. § 2319A (2012).

8. See *Cartoon Network LP v. CSC Holdings, Inc.*, 536 F.3d 121, 130–31 (2d Cir. 2008), distinguishing *MAI Systems Corp. v. Peak Computer, Inc.*, 991 F.2d 511 (9th Cir. 1993); see also Kerry Blasingim, *Copyright 101: Is Streaming Movies or TV Shows Copyright Infringement?*, AVVO (Apr. 17, 2013), <http://www.avvo.com/legal-guides/ugc/copyright-101-is-streaming-movies-or-tv-shows-copyright-infringement> [<https://perma.cc/S3P7-LUD6>].

9. *A&M Records, Inc. v. Napster, Inc.*, 239 F.3d 1004, 1021 (9th Cir. 2001).

10. *Id.* at 1020.

11. *Id.* at 1024.

12. *Id.* at 1020–21.

13. "For Napster to function effectively, however, file names must reasonably or roughly correspond to the material contained in the files, otherwise no user could ever locate any desired music. As a practical matter, Napster, its users and the record company plaintiffs have equal access to infringing material by employing Napster's 'search function.'" *Id.* at 1024.

Similarly, in *MGM v. Grokster, Ltd.*, the Supreme Court held that “one who distributes a device with the object of promoting its use to infringe copyright, as shown by clear expression or other affirmative steps taken to foster infringement, is liable for the resulting acts of infringement by third parties.”¹⁴ The *Grokster* decision rested primarily on the notion that its decentralized file sharing platform was an enterprise that induced copyright infringement.¹⁵ Like the Ninth Circuit before it in *Napster*, the *Grokster* court concluded that the file sharing platform could not avail itself of the “staple article of commerce doctrine” set forth in *Sony Corp. v. Universal City Studios*.¹⁶ In *Sony*, the so-called Betamax case, the Supreme Court held that the manufacture and sale of the home video cassette recorder did not constitute contributory infringement because the product had substantial non-infringing uses;¹⁷ however, the Supreme Court and the Ninth Circuit both proved unwilling to apply that defense to protect tech companies that included infringement in their business models.

III. TODAY’S USER-CONTROLLED STREAMING AND DISTRIBUTION APPS

Today, streaming and distribution occur via a variety of smartphone applications (apps) that are easily available at low or no cost to the consumer. These apps allow the users to make a high-definition audio-video recording of a performance and make it available for mass consumption by friends and strangers alike who have the app—and the general public via social networks like Twitter. The main smartphone apps—Meerkat, Periscope, Live Stream, Ustream and Snapchat—have created a virtual community of live performances, allowing users to post videos and search for videos created by others.¹⁸ While there are some differences in functionality, all of the current apps allow users to upload live content instantly and make it accessible to others in real time or in an archive for a defined duration.

Probably the best known of these apps is Periscope, an app launched in 2015, which combines a social media rating system with live worldwide video transmission.¹⁹ As described in the iTunes App Store, Periscope “lets you broadcast live video to the world.”²⁰ The app instantly

14. *Metro-Goldwyn-Mayer Studios Inc. v. Grokster, Ltd.*, 545 U.S. 913, 936–37 (2005).

15. *Id.* at 937.

16. *Id.* at 934–35.

17. *Sony Corp. of Am. v. Universal City Studios, Inc.*, 464 U.S. 417, 442 (1984).

18. Snapchat allows users upload recorded audio and video. It is not a live-streaming app, but it has the capability to be used in a similar way. SNAPCHAT, <https://www.snapchat.com/> (last visited July 6, 2016).

19. John Patrick Pullen, *Periscope vs. Meerkat: Which is the Livestreaming App for You?*, TIME (Mar. 27, 2015), <http://time.com/3761315/periscope-meerkat-livestreaming-twitter/> [<https://perma.cc/92UE-VSHH>].

20. *Periscope*, APPLE, <https://itunes.apple.com/us/app/periscope/id972909677> [<https://perma.cc/B7D3-SGXB>] (last visited July 6, 2016).

notifies a user's followers when the user goes live, and the followers can send the user comments and heart emoticons to express their appreciation.²¹ After the "broadcast," the user has the option of making the video available for others, but only for twenty-four hours, before the video disappears.²² The marketing material makes clear that the "public" setting is the default; one must "lock" the app to limit distribution to specific people.²³ Periscope received a lot of notoriety—and a measure of bad publicity—in May 2015, when some HBO subscribers uploaded live streams of the pay-per-view Mayweather–Pacquiao fight via Periscope, which made it widely available to non-paying customers.²⁴ The extent of this fan-driven social media workaround of HBO's business model caught the attention of mainstream content providers, and the founder of Periscope found himself on national television interview programs, promoting the non-infringing uses of his app.²⁵

Meerkat, launched in 2015, similarly markets itself as "the easiest and most powerful way to have spontaneous shared experiences."²⁶ Meerkat emphasizes one-click operation: "Press 'Stream,' and instantly live stream video from your phone to anywhere."²⁷ Spontaneity is matched here by increased ephemerality. Users can only watch video live, and followers can re-stream only in real time.²⁸ Meerkat's easy real-time use would appear to be perfect for fans seeking to experience an anticipated concert performance simultaneously with ticketholders. Fans in the venue are essentially able to upload the entire experience of attending the concert, a technological upgrade from live-tweeting the event that is also less distracting for the fan. All the uploading fan needs to do is click "stream" and raise her iPhone camera up in the air. No texting, no reading. Meerkat seems an apt name for this app, as concerts now regularly feature fans craning their outstretched phones, much like the lithe prairie dog who stretches vertically to signal alert on the African savannah. The semiotics of vertically outstretched viewing is also present in the name Periscope, possibly for the same reason.

21. *Id.*

22. *Id.*

23. *Id.*

24. Arjun Kharpal, *Mayweather-Pacquiao: Periscope "Won by Knockout,"* NBC NEWS (May 4, 2015, 9:47 AM), <http://www.nbcnews.com/tech/internet/mayweather-pacquiao-periscope-won-knockout-n353201> [<https://perma.cc/SH7L-QSPQ>].

25. *Periscope CEO: "Piracy is not something that excites us,"* CBS NEWS (May 6, 2015, 3:20 PM), <http://www.cbsnews.com/news/periscope-ceo-kayvon-beykour-floyd-mayweather-manny-pacquiao-piracy-concerns/>.

26. John Patrick Pullen, *You Asked: What is the Meerkat App?*, TIME (Mar. 13, 2015), <http://time.com/3742746/meerkat/>; *Meerkat*, APPLE, <https://itunes.apple.com/us/app/meerkat/id954105918> [<https://perma.cc/6NH8-GUNS>] (last visited July 6, 2016).

27. *Meerkat*, APPLE, *supra* note 26.

28. *Id.*

Livestream and Ustream, both founded in 2007, emphasize the global reach of its respective service.²⁹ Ustream touts that its video platform “enables anyone to watch and interact with a global audience of unlimited size.”³⁰ Ustream provides simultaneous video distribution, but, unlike other services, one can upload pre-recorded video “in original quality.”³¹ This may allow for uploads of videos annotated or edited by a user, though it seems unlikely that videos containing protected content would be short enough in duration or sufficiently analytical to fall within the fair use exception. Livestream underscores its compatibility on different devices and its accessibility on different platforms, including Facebook, Twitter, text-messaging, and email.³² Viewers without the app can also access uploaded streamed content in real time on the company’s website.³³ Of the main streaming apps, only Livestream lists different content types, including “news, sports, music, conferences and thousands of other events.”³⁴ All of these examples could, of course, refer to non-infringing activities, but it may just as well refer to protected news feeds, sports presentations, music performance, and fee-based conferences.

Snapchat, released in 2011, allows friends and followers to send and receive Snaps—still images or videos—that disappear after viewing.³⁵ Each Snap, whether still image or video, has a maximum duration of ten seconds, which can be reduced by the user.³⁶ In 2011, Snapchat generated a great deal of buzz over the fact that it allows teens and others to send fleeting sexual Snaps to each other that subsequently vanish without a trace, unless captured by a screenshot.³⁷ Sexting may well still be a big part of Snapchat, but so is ephemeral video streaming of Stories. As defined by Snapchat,

29. *What is Livestream?*, LIVESTREAM, <https://livestream.com/about> [<https://perma.cc/7UAM-SLEK>] (last visited July 6, 2016); *Our Company*, USTREAM, <https://www.ustream.tv/our-company> [<https://perma.cc/9CES-C7D2>] (last visited Jan. 5, 2016).

30. *Ustream*, APPLE, <https://itunes.apple.com/us/app/ustream/id301520250> [<https://perma.cc/7CUB-CMPF>] (last visited July 6, 2016).

31. *Id.*

32. *Livestream*, APPLE, <https://itunes.apple.com/us/app/livestream/id493086499> [<https://perma.cc/MR2M-LPZJ>] (last visited July 6, 2016).

33. *Id.*

34. *Id.*

35. J.J. Colao, *The Inside Story of Snapchat: The World’s Hottest App or a \$3 Billion Disappearing Act?*, FORBES (Jan. 20, 2014, 8:00 AM), <http://www.forbes.com/sites/jjcolao/2014/01/06/the-inside-story-of-snapchat-the-worlds-hottest-app-or-a-3-billion-disappearing-act/2/> [<https://perma.cc/YD9T-B7RM>].

36. *What are Snaps you may ask?*, SNAPCHAT, <https://support.snapchat.com/ca/snaps> [<https://perma.cc/K5QX-J5G2>] (last visited Mar. 22, 2016).

37. Megan Rose Dickey, *Let’s Be Real: Snapchat is Totally Used for Sexting*, BUSINESS INSIDER (Nov. 30, 2012, 12:51 PM), <http://www.businessinsider.com/snapchat-growth-sexting-2012-11> [<https://perma.cc/7Q4W-FXBZ>].

Stories string Snaps together to create a narrative that lasts for 24 hours. To create a Story, a user chooses to add their Snaps to their Story. Depending on their privacy settings, the photos and videos added to a Story can be viewed by either all Snapchatters, just the user's friends, or a customized group. Stories honor the true nature of storytelling—in sequential order with a beginning, middle and end.³⁸

Each Snap that is added to a Story is at most ten seconds long, and the user can upload as many Snaps to her Story as she wants.

Snapchat, through its Stories function, has become a widespread method of social networking live stream events among their circles of friends. By mid-2014, there were more Stories viewed daily than Snaps.³⁹ As of May 2015, there were 100 million daily active users of Snapchat, and, as of November 2015, there were over six billion daily video views.⁴⁰ While it is not possible for the user to upload a completely uninterrupted live stream due to the mechanics of adding Snaps one by one to a Story, a user can upload sequential dispatches or highlights from a performance that can minimize the impact of interruptions.⁴¹ The effect of Stories that focus on live performances is that of a delayed, yet nearly complete, live stream.

IV. THE CONCEPT OF “FLASH INFRINGEMENT”

The immense popularity of these streaming and distribution apps has created a culture of unauthorized use that might be best described as “flash infringement.” The consequence of one-click technologies that allow users to instantly upload and distribute content, flash infringement is the product of the spontaneity, ephemerality, and aggregation of an

38. *Stories*, SNAPCHAT, <https://support.snapchat.com/ca/stories> [<https://support.snapchat.com/ca/stories>] (last visited Mar. 22, 2016).

39. Ellis Hamburger, *Surprise: Snapchat's Most Popular Feature Isn't Snaps Anymore: Stories are Now Bigger Than Your Self-Destructing Snaps*, THE VERGE (June 20, 2014, 2:53 PM), <http://www.theverge.com/2014/6/20/5827666/snapchat-stories-bigger-than-snaps-electric-daisy-carnival> [<https://perma.cc/HXE3-KRXU>]. Snapchat also introduced a “Live Story” feature where users will be able to add to a community Snap Story, making it a group Snapchat Story. *Id.* It was used, for example, at Electric Daisy Carnival, an EDM music festival. *Id.*

40. Craig Smith, *By the Numbers: 60 Amazing Snapchat Statistics*, DMR: DIGITAL MARKETING STATISTICS/STRATEGY/GADGETS, <http://expandedramblings.com/index.php/snapchat-statistics/> [<https://perma.cc/AAM9-FSUN>] (last updated Dec. 15, 2015).

41. This is in contrast to actual live-streaming apps. When a user uses a live-streaming app, the user is streaming the live performance in its entirety, unless the user decides to stop streaming. When uploading Snaps of a live performance to a Story, interruptions in posting of live performances are imminent due to the maximum ten-second duration of an individual Snap. This delay means that if the user is adding Snaps of a live performance to her Story, the Story will not include the live performance in its entirety.

unauthorized use, which together threaten to upend the protections set forth in the Copyright Act and the civil anti-bootleg statute. A typical flash infringement setting involves a concert or club venue in which one or more people present use a smartphone to stream a performance without permission.

The “flash” in flash infringement is the same “flash” that, since the 1500s, has described something as rapid and fleeting.⁴² Flash floods refer to deluges that appear suddenly and then recede; in cooking, flash frying is fast immersion into oil. That same rapid ephemerality is also present in the more recent coinage of the term “flash mob,” used to describe a sudden gathering of people through social media.⁴³ Indeed, it is the combination of spontaneity and ephemerality, driven by the aggregation potential of social media, which makes flash infringement so problematic for content owners and their authorized distributors.

A. Spontaneity

Today’s streaming apps, like most smartphone apps, are fast and easy to use. Indeed, the main convenience of the smartphone is that it is multifunctional and portable. Using an app does not require any advance planning or equipment set-up. One simply opens the app on one’s phone, and after a click or two, the streaming can begin. There are no logistics to negotiate. Everything one needs—camera, microphone, and network connectivity—is built into the app or phone. There are no tapes or disks that need to be ferried out of a venue for later use.

The decision to upload and stream a live video does not require a lot of thought. For some, the use of a smartphone may even be a reflex—an impulse of instant gratification that allows people to share their unfiltered thoughts and activities with others at the touch of a button. It is doubtful that many flash infringers are thinking about intellectual property issues when they are holding their smartphone cameras high in the air. For flash infringers, the desire may simply be to share their experience with friends—the quintessential social networking experience that people seek out in the Twitter-sphere or on Facebook. Instead of texting photos of the colorful meal they consumed at a restaurant, concertgoers and clubbers may merely want to share their excitement of being in an often-privileged audience or of being in the same room as their favorite band.

42. See *Flash Definition*, OED ONLINE, <http://www.oed.com/view/Entry/71131> [https://perma.cc/6BQ4-4D8H] (last visited July 6, 2016).

43. Rebecca Walker, *Flash Memory: A History of Flash Mobs*, COMMUNICATION CURRENTS (June 2013), <https://www.natcom.org/CommCurrentsArticle.aspx> [https://perma.cc/RUU3-XTTM].

B. Ephemerality

The ephemerality of the streamed content generated by these apps also fosters flash infringement. Unlike peer-to-peer file sharers, there is probably no intention to create a permanent copy of a protected work to be added to a collection of infringing works on a computer drive or a compact disc. Users of these apps may not see their behavior as infringement at all, because the user's purpose in streaming is not illicit ownership of protected content. Live streaming of events is about shared experience and community. One can assume that those uploading are not sharing the file because of the content per se; they are sharing the content because they are there consuming and experiencing it. Some may realize that unauthorized streaming is wrong, especially if they paid to attend the performance. For others, however, the fact that they paid for the performance may lead to them to think that they paid for the right to share the experience of watching it. After all, most people would likely argue that they own their personal experiences.

Sharing an experience in real time is simply not something associated with wholesale theft of another's intellectual property rights, at least not in the minds of people unacquainted with the law. Still, even those who do recognize the illegality of their conduct may justify the ethics of their infringement as occasional or situational conduct—transgressive, but acceptable or expected under the circumstances, much like the otherwise healthy eater who decides that it is acceptable to eat a hot dog at a baseball stadium. The lapse in proper behavior is infrequent and easy to rationalize. Once the situational experience is complete, the person may revert to a position of respect for the intellectual property rights of others.

The shortness of the window for distribution of the streaming, and its subsequent disappearance, may make flash infringement more palatable for users. Consider the spin on Kierkegaardian ethics that Woody Allen explores in *Crimes and Misdemeanors* and *Match Point*.⁴⁴ In both films, Allen explores the idea that, over time, the fear and guilt felt by a murderer recedes, allowing the killer to resume a normal, law abiding life.⁴⁵ Streaming protected content is, of course, not murder, but the fleeting nature of the infringement, and its total disappearance in short order, makes it easy for flash infringers to forget about their past indiscretion quickly and resume a law-abiding life. Whether it is a ring falling into the Thames or a concert video erased by an app, once the evidence of wrongdoing has disappeared, it is easy to put the unlawful behavior out of mind.

44. *CRIMES AND MISDEMEANORS* (Jack Rollins & Charles H. Joffe Productions 1989); *MATCH POINT* (BBC Films 2005).

45. Dr. Marc T. Newman, *Woody Allen and the Abandonment of Guilt*, CROSSWALK.COM (Feb. 20, 2006), <http://www.crosswalk.com/culture/features/woody-allen-and-the-abandonment-of-guilt-1379378.html> [<https://perma.cc/AJ9D-GFZ7>].

Flash infringement is also a creature of a streaming culture that has exploded online in the last decade. According to *Billboard*, physical album sales decreased in the first half of 2015 to 62.41 million (from 67.3 million in the second half of 2014).⁴⁶ Today, the majority of album consumption in the United States is measured by the virtual equivalent of a physical album—a combination of TEAs or “track equivalent albums” (in which ten track downloads equal one album) and SEAs or “streaming equivalent albums” (in which 1,500 streams equal one album).⁴⁷ Combined TEA and SEA figures increased 14.2%, to 259.4 million album equivalents, from 227.1 million in the first half of 2014.⁴⁸ During that same period, there were 53.7 million digital album downloads, 53.2 million TEA downloads, and a whopping 90.1 million SEA units.⁴⁹ Thus, the American market has not only moved away from ownership of physical copies, it is moving away from ownership of digital copies in favor of streaming. To be clear, this data only tracks legitimate, non-infringing album consumption.⁵⁰

Music fans no longer need to make a long-term commitment to favorite recordings by buying a permanent copy, and fans seem to be content to stream and re-stream recordings until their interest wanes. As a result, fans today are consuming sound recordings in real time as a fleeting experience, though one that can be repeated again and again before the flame of digital desire dies out. For artists, the reality of streaming culture may mean a significant cut in royalties, at a time when many have grown more reliant on live concerts to increase their income.⁵¹ Flash infringement may not mean the end of concerts as a revenue source for royalty-starved artists, but it threatens to cut the profits that come from controlling distribution of their creative content.

C. Aggregated Distribution in a Social Networking Environment

On their own, the spontaneity and ephemerality of an app user’s flash infringement may not be such a big deal to intellectual property stakeholders. However, the sheer numbers of users—and the number of views for streamed videos—are consequential. Aggregation comes in two forms: public aggregation and networked aggregation. Public aggregation refers to the number of users who stream content to the public and to the number of people who consume publicly available streams. While the

46. Ed Christman, *SoundScan’s 2015 Half-Year Report: Taylor Wins, Strong Streaming Growth Fails to Stop Album Decline*, BILLBOARD (July 9, 2015, 5:10 PM), <http://www.billboard.com/articles/business/6627139/nielsen-2015-half-year-report-detail-taylor-swift-streaming> [<https://perma.cc/3M2H-G4AF>].

47. *Id.*

48. *Id.*

49. *Id.*

50. *See id.*

51. See Peter Kafka, *Concert Tours Are Where the Real Money Is*, ABC NEWS (July 11, 2002) <http://abcnews.go.com/Business/story?id=86535> [<https://perma.cc/S3CV-XGW4>].

statistics do not specifically break down the number of users who flash infringe, the aggregation of users who use these apps to stream publicly is astounding. In August 2015, Periscope had nearly two million daily active users “watching 40 years of broadcasts a day.”⁵² How much of that forty years constitutes flash infringement is unclear, but it seems unlikely that active users are watching permitted or public domain content. And this statistic refers to active users, not users who are just getting started.⁵³ To give a sense of what may lie ahead, Periscope reached its ten millionth subscriber at the time of this writing.⁵⁴ As of May 2015, Meerkat had reached two million registered users.⁵⁵ Livestream and Ustream tout similar usage statistics on their websites. Ustream has over forty million users,⁵⁶ and more than forty million people watch Livestream events each month.⁵⁷

Whether these self-reported usage statistics are accurate is beside the point. Even a fraction of these numbers amounts to a big headache for intellectual property stakeholders. Part of the problem is that the principal remedy for stakeholders, the takedown notice regime—added to the Copyright Act in 1998 as a part of the Digital Millennium Copyright Act (DCMA) and now set forth under section 512—is not designed to address live streaming.⁵⁸ The multi-part takedown process under section 512 requires that specific information be submitted by the party alleging copyright infringement.⁵⁹ First, there must be a signature from one who is “authorized to act on behalf of the owner of an exclusive right that is allegedly infringed.”⁶⁰ The party alleging copyright infringement must also identify the copyrighted work,⁶¹ provide information so that the service

52. Stuart Dredge, *Twitter’s Periscope Video App Has Signed Up 10m People in Four Months*, THE GUARDIAN (Aug. 13, 2015, 3:06 PM), <http://www.theguardian.com/technology/2015/aug/13/twitter-periscope-video-app-10m-people> [https://perma.cc/6VT6-3BSW].

53. *See id.*

54. *Id.*

55. Harrison Weber, *Meerkat Says Users Are More Engaged than Ever, but Data Suggests Lackluster Growth*, VENTURE BEAT (Aug. 17, 2015, 10:17 PM), <http://venturebeat.com/2015/08/17/meerkat-says-users-are-more-engaged-than-ever-but-data-suggests-lackluster-growth/> [https://perma.cc/J3U6-D5SJ]. While there has been speculation in recent months that Meerkat may be in decline, reports of its demise may be premature. *See* Kerry Flynn, *No, Meerkat Isn’t Dead. It’s Actually Innovating Faster Than Periscope*, INTERNATIONAL BUSINESS TIMES (Oct. 13, 2015 2:33 PM), <http://www.ibtimes.com/no-meerkat-isnt-dead-its-actually-innovating-faster-periscope-2138470> [https://perma.cc/QT92-3XK6] (asserting that, while users are moving on from Meerkat to other platforms, Meerkat is not dead).

56. *Our Company*, USTREAM, <https://www.ustream.tv/our-company> [https://perma.cc/Y4JT-HKN8] (last visited July 7, 2016).

57. *What is Livestream?*, LIVESTREAM, <https://livestream.com/about> [https://perma.cc/2YNV-3X74] (last visited July 6, 2016).

58. *See* 17 U.S.C. § 512 (2012).

59. *Id.* § 512(c)(3)(A).

60. *Id.* § 512(c)(3)(A)(i).

61. *Id.* § 512(c)(3)(A)(ii).

provider can find the infringing material,⁶² and have a good faith belief that the use of the material has not been authorized by the owner of the copyright.⁶³ In addition to the above information, the party alleging copyright infringement must provide their own contact information,⁶⁴ and there must be “a statement that the information in the notification is accurate, and under penalty of perjury, that the complaining party is authorized to act on behalf of the owner of an exclusive right that is allegedly infringed.”⁶⁵

Each app makes reference to the takedown notice regime in their *Terms of Service*,⁶⁶ *Terms of Use*,⁶⁷ *Community Guidelines*,⁶⁸ or *Copyright Policy*⁶⁹ pages. For example, in its Terms of Service, Periscope asks copyright owners who believe their works have been infringed to provide to following:

- (i) a physical or electronic signature of the copyright owner or a person authorized to act on their behalf; (ii) identification of the copyrighted work claimed to have been infringed; (iii) identification of the material that is claimed to be infringing or to be the subject of infringing activity and that is to be removed or access to which is to be disabled, and information reasonably sufficient to permit us to locate the material; (iv) your contact information, including your address, telephone number, and an email address; (v) a statement by you that you have a good faith belief that use of the material in the manner complained of is not authorized by the copyright owner, its agent, or the law; and (vi) a statement that the information in the

62. *Id.* § 512(c)(3)(A)(iii).

63. *Id.* § 512(c)(3)(A)(v).

64. 17 U.S.C. § 512 (c)(3)(A)(iv) (2012).

65. *Id.* § 512(c)(3)(A)(vi).

66. *See Terms of Service*, PERISCOPE, <https://www.periscope.tv/tos> [<https://perma.cc/J7ZU-J42X>] (last visited July 6, 2016) (outlining in section 9 Periscope’s copyright policy and takedown notice process); *Terms of Service*, SNAPCHAT, <https://www.snapchat.com/terms> [<https://perma.cc/3WX7-57UN>] (last visited July 6, 2016) (outlining in section 6 Snapchat’s copyright policy and takedown notice process).

67. *See Livestream Terms of Use*, LIVESTREAM, <https://livestream.com/terms/platform#title-6> [<https://perma.cc/NEJ4-7XHT>] (last visited July 6, 2016) (outlining in Section 6 Livestream’s copyright policy and takedown notice process).

68. Periscope also references its takedown regime in its Community Guidelines page. *See Community Guidelines*, PERISCOPE, <https://www.periscope.tv/content> [<https://perma.cc/LV7M-JWEL>] (last visited July 6, 2016).

69. *See Copyright Policy*, USTREAM, <https://www.ustream.tv/copyright-policy> [<https://perma.cc/29YD-X22W>] (last visited Mar. 22, 2016) (discussing Ustream’s copyright policy and providing online takedown notice form); *Life on Air Copyright Policy*, LIFE ON AIR, <http://meerkatapp.co/legal#copyright> [<https://perma.cc/U956-TKLC>] (last visited Mar. 22, 2016) (outlining Meerkat’s copyright policy and takedown notice process).

notification is accurate, and, under penalty of perjury, that you are authorized to act on behalf of the copyright owner.⁷⁰

Periscope recognizes the futility of the DMCA takedown regime in its *Terms of Service*, which allows for a quick response to alleged copyright infringement.⁷¹ Unlike the other apps, Periscope, in its *Community Guidelines* page, extrapolates on its takedown notice process and includes what kind of information will fulfill subsection (iii).⁷² The required identifying information includes the username, display name, title of the broadcast, time, date, and, if it is available, the URL.⁷³ By asking the copyright owner to provide this kind of identifying information, Periscope can be led directly to the user and can potentially react to the notice much more rapidly than it otherwise could if only the URL was provided, which is more than section 512 requires.⁷⁴ Examples of Periscope's takedown process in action occurred during HBO's pay-per-view Mayweather-Pacquiao fight in May 2015, when Periscope received sixty-six DMCA takedown notices, and in total, took down thirty videos.⁷⁵ In September 2015, Periscope responded to 140 takedown notices related to the Mayweather-Berto fight.⁷⁶ These are real-time takedown notices given for two high profile events that appeared on a single app.

The reality of aggregation is that there are too many concerts, club gigs, and sporting events—and too many users of different apps—for content stakeholders to police effectively in real time or in the short window that follows an event before the video disappears forever. An army of lawyers would have to scour the public feeds available on all the apps in search of infringement of content from thousands of live events unfolding at the same time. Taylor Swift, who retains a high level of control over the

70. *Terms of Service*, PERISCOPE, *supra* note 66.

71. According to the most recent transparency report from Twitter, from April 2015 to June 2015, Periscope received 1,391 takedown notices and 71% of those notices led to material being removed. See *Copyright Notices*, TWITTER, <https://transparency.twitter.com/copyright-notices/2015/jan-jun> [<https://perma.cc/H7TT-R9JA>] (last visited Mar. 22, 2016).

72. *Community Guidelines*, PERISCOPE, *supra* note 68.

73. *Id.*

74. Section 512 merely requires information that will lead to the material. 17 U.S.C. § 512(c)(3)(A)(iii) (2012). It does not specify what kind of information will aid in finding the infringing material.

75. Jose Pagliery, *Mayweather-Pacquiao Fight Made Periscope the New Napster*, CNN MONEY (May 4, 2015, 4:05 PM), <http://money.cnn.com/2015/05/04/technology/live-stream-mayweather-pacquiao/> [<https://perma.cc/EW55-S4QV>].

76. Queenie Wong, *Anti-Piracy Battle Unfolds in Real Time on Periscope, Live-Streaming Apps*, SAN JOSE MERCURY NEWS (Sept. 20, 2015, 2:00 PM), http://www.mercurynews.com/business/ci_28846415/anti-piracy-battle-unfolds-real-time-periscope-live [<https://perma.cc/R2NV-M239>].

distribution of her recordings,⁷⁷ has taken precisely such an approach to Periscope streams. As of Fall 2015, Swift is said to have a team in place to identify and request removal of unauthorized live streams.⁷⁸

The insidiousness of flash infringement is especially apparent in the aggregation of users who privately share infringing streams to their friends via social networks—“networked aggregation.” Unlike public aggregation, there is no search engine driving the general pool of app users to particular content being streamed by a stranger. What drives networked aggregation is the shared virtual space of social networking spaces like Facebook, Twitter, and even Snapchat. In this sense, the aggregation is qualitative, not merely quantitative. Groups of fans with shared interests may use streaming apps to post links to live streams or video of their favorite performances. The people on these social networking sites might often know each other well, though that may not be a requirement for joining a group on a social network. It would seem that social networks have become havens for all type of streamed content that users desire to share have become the place where online acquaintances go to comment or gossip about a performer or a performance. Instead of merely talking about a concert, users can simply embed a video or post a link that will connect their friends to real-time streaming on a flash infringement app. The shared experience of the concert essentially has become part of a conversation among friends.

Exciting as this may be for friends on social networks, the private link to the streaming is an obstacle for content owners seeking to stop infringement. The lack of public availability means that there are no search engine results to monitor on the app. Content owners may not even know of the infringement, let alone have the opportunity to ask for a takedown. All of the flash infringement apps allow for private distributions to people that the user knows.⁷⁹ On Twitter or Snapchat, for example, by limiting access to the streaming to the user’s followers, the user can keep the streaming in his or her “digital family.” Of course, the aggregation occurs when one fan’s followers extend the family by making the stream available to all of their followers—and the fact that there may be thousands of fans who are simultaneously streaming the same content to different circles of friends.

77. Paul Sawers, *Taylor Swift Removes All Her Albums from Spotify and Other Streaming Services*, THE NEXT WEB (Nov. 3, 2014, 4:22 PM), <http://thenextweb.com/media/2014/11/03/taylor-swift-removes-music-spotify-streaming-services/#gref> [https://perma.cc/8BZ2-QYU4].

78. James Geddes, *Taylor Swift Employs Dedicated Team to Remove All Periscope Videos from Net*, TECH TIMES (Sept. 28, 2015, 4:11 PM), <http://www.techtimes.com/articles/88791/20150928/taylor-swift-employs-dedicated-team-to-remove-all-periscope-videos-from-net.htm> [https://perma.cc/QJ93-2ZB7].

79. See, e.g., Periscope Privacy Statement, PERISCOPE, <https://www.periscope.tv/privacy> [https://perma.cc/P35Q-NY2H] (last visited July 9, 2016) (“We provide you with the option to share your broadcast only with those Periscope followers you invite.”).

Whether the aggregation occurs through public search engines or social networking, flash infringement empowers hard-core fans to experience performances in ways that would be impossible in the non-virtual world. For instance, hard-core fans may want to experience every concert venue on a specific world tour, follow minute changes in the atmospherics or choreography of a show, or assess the health of an ailing performer. For casual fans, the allure of these apps may be more about convenience or curiosity. In 2013, an article in *Forbes* posed the question of whether a fringe fan—one who has not committed to buying a concert ticket—would be satisfied with a live streaming experience instead.⁸⁰ The article never really answers the question, but the fact that the question is being asked says something about the allure of consuming streamed content in real time.⁸¹ Flash infringement apps allow for unprecedented virtual experiences for fans of all stripes. Search engine streaming can even help strangers build their social networks, allowing for linked streaming of future performances. It is no wonder that all of the flash infringement apps allow linking to social networks. Periscope is even owned by Twitter.⁸²

V. LEGAL RAMIFICATIONS

Flash infringement has enormous legal implications. According to an article from *Billboard*,

Public performance rights come into play here. Meerkat would need to acquire the proper licenses from ASCAP,

80. Erica Swallow, *Would You Skip A Concert if it Was Live-Streamed?*, FORBES (July 21, 2013, 11:58 AM), <http://www.forbes.com/sites/ericaswallow/2013/07/21/livestream-concerts/> [<https://perma.cc/5Z65-KHTZ>].

81. A quick Twitter search for the phrases “periscope concert” and “snapchat concert” brought up a startling number of tweets stating how concerts were on Snapchat Stories and how they were able to see the entire show without paying. *See, e.g.*, @AustinRoy54, TWITTER (Oct. 13, 2015, 8:20 PM), <https://twitter.com/AustinRoy54/status/654104410205908992> [<https://perma.cc/2AVR-3J35>] (“Who needs tickets to the Mac Miller concert when you can just watch it on snapchat?”); @GhostTabi, TWITTER (Oct. 13, 2015, 8:52 PM), <https://twitter.com/GhostTabi/status/654112531280101376> [<https://perma.cc/LP6G-WET3>] (“SOMEONE ELSE HAS TO PERISCOPE THE BIGBANG CONCERT”); @hannah_lind, TWITTER (Oct. 13, 2015, 3:07 PM), https://twitter.com/hannah_lind/status/654025568313196544 [<https://perma.cc/MD9D-Y4HP>] (“Got to see the Taylor swift concert for free on my snapchat”); @rosencrantsj, TWITTER (Oct. 30, 2015, 8:41 PM), <https://twitter.com/rosencrantsj/status/654109719775346688> [<https://perma.cc/QHG9-XRKQ>] (“lol, why pay to go to a concert, when you can see the whole thing on a snapchat story! :)”). These were found in a matter of minutes. Interestingly, typing “Meerkat concert” did not yield similar results.

82. *See* Daniel Frankel, *HBO Issues Takedown Notice to Twitter-Owned Periscope Regarding “Game of Thrones” Live Streams*, FIERCECABLE.COM (Apr. 17, 2015), <http://www.fiercecable.com/story/hbo-issues-takedown-notice-twitter-owned-periscope-regarding-game-thrones-l/2015-04-17> [<https://perma.cc/8MD9-GMCR>].

BMI and SESAC to cover streams of live performances at concerts. The company may also violate record labels' performance rights if a Meerkat user streamed a sound recording "like a DJ's pre-recorded tracks at an EDM show," says Bill Hochberg, an entertainment attorney in Los Angeles.⁸³

While there are protections, the protections against copyright infringement are not truly designed for today's flash infringement. The section 512 takedown scheme, though it gets the job done and allows the apps to act upon the alleged copyright infringement reported by copyright owners, is not meant for the rapid world of flash infringement. Though the responses by the apps can be fast, as exemplified by Periscope in the case of the fights on HBO, the removal of the reported streams is the end of the story. By the time the apps are able to respond to remove one stream, it is possible that another one—or more than one—has already popped up to take its place. It could really turn into a never-ending process of reporting and taking down streams.⁸⁴

Flash infringement poses major legal questions. The primary question is who or what should be held responsible for copyright infringement, and the two most viable options seem to be either holding the apps or the users responsible. The secondary question is, if the apps are held liable, whether the takedown procedures outlined in the apps' various terms pages (Terms of Service/Use; Community Guidelines; Copyright Policy) help or harm the apps.

A. Pursuing the Apps

Today's live-streaming apps may be more like the staple article of commerce envisioned in the *Betamax* case—with "substantial non-infringing uses"—and distinguishable from the software platforms in *Napster* or *Grokster*. Unlike their peer-to-peer predecessors, the business models for all of these apps transcend infringement. None of the apps could correctly be described as an enterprise that is "distributed with the object of promoting" infringement. Even if one could argue that these apps thrive off infringement, where is the evidence of "clear expression or other affirmative steps taken to foster infringement"?⁸⁵

83. Glenn Peoples, *The Meerkat Minefield: Legal Issues with Live-Streaming Apps*, BILLBOARD (Mar. 30, 2015), <http://www.billboard.com/articles/business/6516936/meerkat-periscope-legal-issues-live-streaming-apps> [<https://perma.cc/3NN7-V4AR>].

84. It is also important to think about fair use in the context of takedowns. It is possible that streams that fall under fair use could inadvertently be taken down by the apps.

85. There is an argument to be made that Snapchat's community stories at music festivals—curated by Snapchat—could be seen as promoting an infringing use of the app to record the concerts. What exactly are they inducing people to put on the community story—concert footage, having fun with friends, or perhaps both?

These apps all have sophisticated terms of use that expressly disclaim infringing uses of their products. For example, in Periscope's *Terms of Service*, it states, "We reserve the right to remove Content alleged to be infringing without prior notice and at our sole discretion. In appropriate circumstances, Periscope will also terminate a user's account if the user is determined to be a repeat infringer."⁸⁶ Similarly, Snapchat's *Terms of Use* state, "[I]f Snapchat becomes aware that one of its users has repeatedly infringed copyrights, we will take reasonable steps within our power to terminate the user's account."⁸⁷ The other apps include similar language in their respective *Terms of Use* and *Terms of Service*.⁸⁸ These apps instead focus on non-infringing uses, the use of these apps as a distribution platform for user's original content. Whether it is Periscope or Ustream, the app offers users an opportunity to "broadcast" their own experiences to their friends, or perhaps to the rest of the world. The companies that control the apps cannot be held responsible if users use this broadcast platform to distribute infringing content, even if it turns out that many people are infringing. That is precisely what the Betamax defense is designed to protect.⁸⁹

Those apps, like Periscope, who have taken the "high road" by establishing a proprietary takedown system, may find that doing so could hurt the app when it comes to claims of copyright infringement. While there is an obvious positive side to showing that the apps are serious about protecting copyright, the use of a proprietary takedown system could make an app more vulnerable to an action for contributory infringement. Evidence of a high volume of real-time takedown requests could be used to show that the app has knowledge that its app is being used widely to infringe. One could argue that the decision to implement a more effective takedown remedy constitutes a tacit admission of the app's infringement, especially as the proprietary remedy does not offer the safe harbor protection of the DMCA takedown process to the app.

Ultimately, unless there is some type of a "smoking gun" that acknowledges the centrality of infringement to these businesses, the apps would likely survive any copyright action against them. These are sophisticated, venture capital driven entities that are vying for users in a

86. *Terms of Service*, PERISCOPE, <https://www.periscope.tv/tos> [<https://perma.cc/KR9V-33Q4>] (last visited July 7, 2016).

87. *Terms of Use*, SNAPCHAT, <https://www.snapchat.com/terms> [<https://perma.cc/X6NV-T4FE>] (last visited July 7, 2016).

88. *Life on Air Terms of Service*, MEERKAT, <https://meerkatapp.co/legal> [<https://perma.cc/Z5RQ-TPFC>] (last visited July 7, 2016); *Livestream Terms of Use*, LIVESTREAM, <https://livestream.com/terms/platform> [<https://perma.cc/W3KC-MP3K>] (last visited July 7, 2016); *Terms of Service*, USTREAM, <https://www.ustream.tv/terms> [<https://perma.cc/B4HU-E37P>] (last visited July 7, 2016); *Life on Air Terms of Service*, MEERKAT, <https://meerkatapp.co/legal> [<https://perma.cc/BL7V-CFYB>] (last visited July 7, 2016).

89. See *Sony Corp. of Am. v. Universal City Studios, Inc.*, 464 U.S. 417, 442 (1984).

competitive marketplace. While there have been a number of accusations hurled by copyright owners at the companies that own these apps,⁹⁰ the responses have always carefully focused on the substantial First Amendment value of these apps, and, in particular, their value to news reporting.⁹¹ Even so, the fact that the names of two of the apps, Meerkat and Periscope, may describe the act of extending one's phone at a concert is an intriguing possible connection to a culture of infringement. The Supreme Court did cite the *Grokster* decision to emulate Napster in its business name as evidence of inducement to infringe.⁹² But paying homage to a known infringer in a company's name is very different from semiotically linking the company's name to the act of live streaming, which in itself could be non-infringing.

B. Pursuing the User

As has been the case with file sharing, rights holders could go after the app users themselves. Periscope's proprietary takedown process has the

90. See Geddes, *supra* note 78.

91. An example of the news reporting value of live-streaming apps includes their use at the Baltimore protests. As CNN reported,

The Freddie Gray protests against police in Baltimore also showed how valuable Periscope can be for watching news as it unfolds. Guardian journalist Paul Lewis spoke to people in the streets via Periscope, giving them an unfiltered platform to share directly with his audience what they thought of the situation. Unencumbered by large TV cameras, Lewis was able to live stream as he moved around the city, bringing viewers powerful images like a community housing project going up in flames.

Rachel Rodriguez, *Periscope: Four Ways It's Shaking Up Media*, CNN (May 26, 2015, 9:15 AM), <http://www.cnn.com/2015/05/26/tech/periscope-android-media/> [<https://perma.cc/9LPJ-T9KX>]. Periscope CEO Kayvon Beykpour defended the value of Periscope during protests in a question and answer session stating,

Periscope has become a medium that can build truth and empathy. If I can see what's happening in Baltimore right now through someone's eyes in a way that's raw and unfiltered and unfettered, that's truth. You can't deny it. One of the people that I have been watching really closely is [activist] DeRay Mckesson. He Vined the "Hands Up, Don't Shoot" protest at the airport near Ferguson, and it was just so powerful, lying on the ground with him. He obviously had thought, "What tools can I use to share what's happening?" We were introduced through a friend and he joined our beta. In June, we launched a map feature that will let users zoom into [an area like] Baltimore and see everything that's live right now.

J.J. McCorvey, *Periscope CEO Kayvon Beykpour: "Periscope Has Become a Medium That Can Build Truth and Empathy,"* FAST COMPANY (Aug. 3, 2015, 6:00 AM), <http://www.fastcompany.com/3048641/creative-conversations/periscope-has-become-a-medium-that-can-build-truth-and-empathy> [<https://perma.cc/M9DT-L89G>].

92. *Metro-Goldwyn-Mayer Studios Inc. v. Grokster, Ltd.*, 545 U.S. 913, 925 (2005).

ability to identify users to the rights owners, but to date there do not appear to have been any cases filed against the users. Record industry law suits seeking hundreds of thousands of dollars in damages from teens and seniors may have a deterrent effect on some people, but the prospect that this practice would prevent a flash infringer from streaming seems low. With file-sharing services it is possible for a plaintiff to police a search engine in search of infringing files, making it relatively easy to identify an infringer's account.⁹³ Flash infringement, however, is different than peer-to-peer file sharing. With flash infringement, once the archived period is complete, there is no a digital trail that leads to an infringer or a permanent file.⁹⁴ The ephemerality of flash infringement means that the rights holder must identify an infringer in real time, or at least before the trail disappears. The fleeting nature of the infringement may make it impossible to police—the very selling point of an app like Snapchat.⁹⁵ Infringement that aggregates through social networking would probably be even harder for rights holders to spot because in those cases, there is no publicly available search engine or directory to police.

The only way rights holders may get the evidence they need to pursue users would be with the cooperation of the apps. While each of the discussed apps claim that a user's streaming video, once erased, is gone for good, it may be possible to use digital forensics to piece together an infringement and connect it to a user. However, to the extent that such an infringement investigation required the cooperation of the app, the chance that it would yield a result is virtually nil. There is little the law can do because section 512 takedowns do not work in real time and because section 512 only requires online service providers to issue a takedown notice to an alleged infringer when infringing material has been identified and specifically located by a third party.⁹⁶ Moreover, under the safe harbor provided by the DMCA, the app companies do not have an affirmative duty to police their users for infringement.

Thus, unless an app develops its own takedown system, there is little the law can do to fish out users who flash infringe. Periscope's proprietary takedown system appears to be a bona fide attempt to stem flash infringement by its users. By asking for specific identifying information in its takedown notice process, Periscope has been able to act quite quickly in

93. *See* A&M Records, Inc. v. Napster, Inc., 239 F.3d 1004, 1012 (9th Cir. 2001).

94. *But see* *When Does Snapchat Delete Snaps and Chats?* SNAPCHAT, <https://support.snapchat.com/a/when-are-snaps-chats-deleted> [<https://perma.cc/FAD9-QKFC>] (last visited July 9, 2016) (“Note: Snapchatters who see your messages can always save them, either by taking a screenshot or by using some other image-capture technology . . .”).

95. *See id.*

96. *See* 17 U.S.C. § 512(c) (2012).

response to takedown notices.⁹⁷ The burden, however, remains on the rights holders to find and flag the alleged infringement.

Even if a rights holder was somehow able to pursue an infringing user in court, damages may be elusive because the user may have a claim of fair use. In cases involving wholesale infringement of a concert, a fair use defense by an app user is unlikely to be successful. If the user is simply streaming a concert from a venue, nothing transformative is happening—the user is just streaming what is in the camera’s view, which could very well damage the market for paid ticket holders or for authorized recordings.⁹⁸ But in many cases, users might argue that there are additional factors that need to be considered, factors that under *Harper & Row v. Nation Enterprises* could lead to a finding of fair use.⁹⁹ According to a staff attorney at the Electronic Frontier Foundation, the main issues militating toward fair use would be whether “the stream is going to be used for news reporting, how much of the event is going to be streamed, who’s likely to be watching it and if it’s likely to substitute for an actual purchase.”¹⁰⁰ Streams used for critical analysis or review purposes and artistic transformations of streamed content may also fall within the protection of fair use. To be clear, it is unlikely that a fair use defense would save most flash infringers from liability, but most defendants would probably attempt to invoke it. In that sense, litigation involving a flash infringer would probably be more complicated than a suit against an infringing file sharer where the evidence is simply a trove of files containing audibly unmodified sound recordings.

Finally, there is the question as to whether the civil anti-bootlegging statute would apply. Section 1101, allows for damages from

anyone who, without the consent of the performer or performers involved--

(1) fixes the sounds or sounds and images of a live musical performance in a copy or phonorecord, or reproduces

97. Periscope has developed an online takedown notice form. *See Report Copyright Infringement*, TWITTER, <https://support.twitter.com/forms/dmca> (last visited Mar. 22, 2016). Snapchat and Ustream also have online takedown notice forms. *See Copyright Policy*, USTREAM, <https://www.ustream.tv/copyright-policy> [<https://perma.cc/AY2T-UPVM>] (last visited July 9, 2016); *Report Copyright Infringement*, SNAPCHAT, <https://support.snapchat.com/co/report-copyright> [<https://perma.cc/WBL2-VWV7>] (last visited July 9, 2016). Livestream and Meerkat’s notices are filed either by mail or email. *See Life on Air Copyright Policy*, LIFE ON AIR, *supra* note 69; *Livestream Terms of Use*, LIVESTREAM, *supra* note 67.

98. Glenn Peoples, *The Meerkat Minefield: Legal Issues With Live-Streaming Apps*, BILLBOARD (March 30, 2015, 3:10 PM), <http://www.billboard.com/articles/business/6516936/meerkat-periscope-legal-issues-live-streaming-apps> [<https://perma.cc/HV6W-3RHP>].

99. *Harper & Row Publishers, Inc. v. Nation Enter.*, 471 U.S. 539, 560–69 (1985).

100. Wong, *supra* note 76.

copies or phonorecords of such a performance from an unauthorized fixation,

(2) transmits or otherwise communicates to the public the sounds or sounds and images of a live musical performance, or

(3) distributes or offers to distribute, sells or offers to sell, rents or offers to rent, or traffics in any copy or phonorecord fixes as described in paragraph (1), regardless of whether the fixations occurred in the United States . . .¹⁰¹

Since flash infringement involves transmitting the “sounds or sounds and images of a live musical performance” to the public, it is likely that flash infringement is covered by section 1101.¹⁰² In some circumstances, there might be a question as to whether or not the user is transmitting the live performance to the public, especially if the user’s profile is set to private.¹⁰³

There is also a potential question as to who is considered a performer under the bootleg statute, especially in the case of DJs. The anti-bootleg statute does not define performer, and there may be some debate as to whether or not DJs are actually performers covered by section 1101. In recent years, the popularity of Electric Dance Music (EDM), a genre where DJs are prevalent, has grown exponentially,¹⁰⁴ but a 2012 *New York Times* article underscored the creative artistry of celebrity DJs, describing the headline performance of a DJ act at Madison Square Garden as follows:

D.J.s do not spin records so much as command computerized sound systems, playing snippets of songs and using them to create their own protracted rhythms. This summer acts like Avicii and Kaskade are touring in some of the same arenas and theaters where fans can see Coldplay and James Taylor.¹⁰⁵

101. 18 U.S.C § 1101(a) (2012).

102. *See id.*

103. When a user sets his or her profile to private, it means that only specific people, rather than the public, can see what is being shared on his or her profile. *See, e.g., Twitter Privacy Policy*, TWITTER, <https://twitter.com/privacy?lang=en> [<https://perma.cc/BVE9-75KK>] (last visited June 20, 2016).

104. Glenn Peoples, *Global EDM Market Hits \$6.9 Billion*, Billboard (May 22, 2015), <http://www.billboard.com/articles/business/6575901/global-edm-market-hits-69-billion> [<https://perma.cc/HH7E-B77D>].

105. Ben Sisario, *Electronic Dance Concerts Turn Up Volume, Tempting Investors*, N.Y. TIMES, Apr. 4, 2012, at A1, <http://www.nytimes.com/2012/04/05/business/media/electronic-dance-genre-tempt-investors.html>.

On the other hand, DJs go on tour and sell out venues just like rock bands, pop acts, and country superstars. They even play at festivals like Coachella, and there are festivals dedicated to electronic music such as Electric Daisy Carnival and Electric Zoo.¹⁰⁶ Thus, DJs are major musical forces just like performers in other genres, and there is no reason why they should not be considered performers.

Streaming of a DJ party that uses or mashes up sound recordings might implicate the anti-bootleg statute if the DJ's set includes an unauthorized recording that is being retransmitted. Otherwise, the Copyright Act would cover the sound recordings.¹⁰⁷ In either case, the recording would be subject to time limitations.¹⁰⁸ Only sound recordings from February 15, 1972 and later are protected by federal copyright,¹⁰⁹ and the anti-bootlegging statute does not protect unauthorized recordings made before its enactment.¹¹⁰ Superstar DJs can address their own sampling if they obtain the necessary licenses before they perform.

VI. STRUCTURAL REMEDIES

A. No Phone Zone

By 2013, artists such as the late Prince, She & Him, and the Yeah Yeah Yeahs had implemented policies making their concerts "No Phone Zones."¹¹¹ There is even a startup, Yondr, that has helped to create No Phone Zones at concerts.¹¹² Yondr created a sleeve for cell phones that locks when the person carrying the phone enters the phone free zone.¹¹³ But a potential problem with creating a No Phone Zone at a concert is the risk of alienating fans.¹¹⁴ As of July 2016, Yondr appears to be catching on with

106. See EventerMax, *EDM Festivals 2016*, EVENTERMAX.COM, <http://www.eventermax.com/#!edm-festivals-2016-umcp8> [https://perma.cc/V2NY-KGGV] (last visited July 9, 2016).

107. 17 U.S.C. § 102(a)(7) (2012).

108. See *id.* § 302(a).

109. *Id.* § 301(c).

110. MARK S. LEE, ENTERTAINMENT AND INTELLECTUAL PROPERTY LAW § 7:63 (2015) ("[U]nauthorized acts of fixation, reproduction, transmission, or distribution after the Act's effective date (i.e., December 8, 1994) are actionable.").

111. Les Shu, *7 Musicians Who Want You to Put Away the Camera*, DIGITAL TRENDS (Aug. 29, 2013), <http://www.digitaltrends.com/photography/7-musicians-who-would-like-you-to-put-away-the-camera-or-else-theyll-do-it-for-you/> [https://perma.cc/WC4N-5L6S].

112. Nick Statt, *Phone-Crazed Audiences and Fed-Up Musicians? Yondr is on the Case*, CNET (Nov. 2, 2014, 4:00 AM), <http://www.cnet.com/news/phone-crazed-audiences-and-fed-up-musicians-yondr-is-on-the-case/> [https://perma.cc/F3T9-BPAH].

113. *Id.*

114. Randy Friedberg, *Music Law 101: Legal Issues Surrounding the Recording and Posting of Concerts*, CONCERT BLOGGER (Aug. 1, 2012), <http://concertblogger.com/2012/08/legal-issues-surrounding-recording-posting-concerts/> [https://perma.cc/VBU8-69YK].

music acts, including Alicia Keys and the Lumieers, although some fans are not pleased.¹¹⁵

Sharing experiences via social media during a concert is something that has become sacrosanct in recent years. If a phone signal is spotty or non-existent, those who paid to attend the concert or hear a DJ will likely be frustrated with their inability to upload their real-time experience to social media.¹¹⁶ An attendee at Lollapalooza stated, “Instagram, Facebook, Snapchat, Twitter—literally any social media gets cut off at concerts like this It sounds whiny, but I want people to know that I’m there right then If I post a video at 9 a.m. the next day, no one really cares about it.”¹¹⁷

Even if fan alienation could be overcome, the multi-functionality of today’s smart devices would make it nearly impossible to ban them. Audience members use phones for various reasons unrelated to live streaming, including locating friends, looking up set times, or using GPS to navigate at a multi-stage festival venue.¹¹⁸ Fans at concerts and clubs may also use phones to text friends, participate in venue-sanctioned promotions, order an Uber, or simply to make a phone call, among other non-infringing uses. Chad Issaq, a festival producer at Superfly, summed up the issue pragmatically in comments made to a reporter, “[A] ban would not only be impossible to enforce: It ‘would be a detriment.’”¹¹⁹

B. Signal Blocking

Title III of the Communications Act of 1934 bans the use and sale of any device that jams a radio signal or to otherwise “willfully or maliciously interfere” with a signal.¹²⁰ This ban is strictly enforced by the

115. Geoff Edgers, *Alicia Keys is Done Playing Nice. Your Phone is Getting Locked Up at Her Shows Now.*, WASH. POST (June 16, 2016), https://www.washingtonpost.com/entertainment/alicia-keys-is-done-playing-nice-your-phone-is-getting-locked-up-at-her-shows-now/2016/06/16/366c15aa-33af-11e6-95c0-2a6873031302_story.html [https://perma.cc/VUQ7-HF83].

116. John Jurgensen, *Concert Crowds Flounder in Digital Dead Zones*, WALL ST. J. Dec. 4, 2014, at D1, <http://www.wsj.com/articles/demand-for-wireless-signals-pressures-concert-promoters-1417722615>.

117. *Id.*

118. Craig Rosen, *Wave Your Phone in the Air: How Technology is Changing Live Music*, YAHOO TECH (Oct. 26, 2015), <https://www.yahoo.com/tech/the-lights-go-down-your-pulse-races-in-194316495.html> [https://perma.cc/K696-QPTL].

119. *Id.* Superfly produces Bonnaroo and other festivals. *See Our Work*, SUPERFLY, <http://superfly.com/our-work> [https://perma.cc/P54T-2J29] (last visited June 20, 2016).

120. 47 U.S.C. § 301 (2012) (“No person shall use or operate any apparatus for the transmission of energy or communications or signals by radio . . . except under and in accordance with [the Communications] Act and with a license in that behalf granted under the provisions of this Act.”); *id.* § 302(b) (“No person shall manufacture, import, sell, offer for sale, or ship devices or home electronic equipment and systems, or use devices, which fail to comply with regulations promulgated pursuant to this section.”); *id.* § 333 (“No person shall willfully or maliciously interfere with or cause interference to any radio

Federal Communications Commission (FCC) with respect to mobile telephones, which rely on radio signals, and the FCC has issued warnings to the public that intentional jamming and interference are illegal.¹²¹ For the FCC, it is a matter of public safety because jammers cannot distinguish between social use and emergency use of devices, including calls to 911, and may disrupt more than just the area where its use was intended.¹²² For that reason, theaters may not jam signals, but instead may only ask patrons to turn off their phones before a performance, and prisons cannot block phone signals.¹²³ While there are still areas in the U.S. beyond the reach of mobile signals, theaters and clubs are likely to be in more populous areas that enjoy strong signals.¹²⁴ For many fans without unlimited mobile data, it seems that the pendulum is swinging in the opposite direction with some now pushing for Wi-Fi hotspot coverage at entertainment venues.¹²⁵

C. Use Flash Infringement to Market Band or Album

Another potential remedy is for rights holders to give in to the notion of “if you can’t beat them, join them,” and use the flash infringement to market the artist or the album. U2 embraced this option when they partnered with Meerkat to stream each of the band’s shows on their recent U.S. tour.¹²⁶ While it might be easy for a band at the level of U2 to partner with an app like Meerkat, what about an artist at a lower level? Overall, some artists may embrace these apps and find that they give more exposure, potentially leading to more attendees at future concerts, but there are others,

communications of any station licensed or authorized by or under [the Communications] Act or operated by the United States Government.”); *FCC, GPS, Wi-Fi, and Cell Phone Jammers: Frequently Asked Questions (FAQs)*, FCC, <https://transition.fcc.gov/eb/jammerenforcement/jamfaq.pdf> [<https://perma.cc/JQM4-U9ZG>] (last visited Mar. 22, 2016).

121. Enforcement Advisory, 26 FCC Rcd. 1329 (Feb. 9, 2011), <https://www.fcc.gov/general/jamming-cell-phones-and-gps-equipment-against-law> [<https://perma.cc/N6SG-QLWE>].

122. *FCC, GPS, Wi-Fi, and Cell Phone Jammers: Frequently Asked Questions (FAQs)*, *supra* note 120.

123. FCC handout, *Putting an End to Illegal Cell Phone Use in Prisons*, FCC <https://transition.fcc.gov/pshs/docs/summits/Combating-Contraband-Cell-Phones-in-Prison-Handout-v4.pdf> [<https://perma.cc/SJ8E-AH2B>].

124. According to Open Signal, a company that aggregates crowdsourced data on carrier signal quality, 4G subscribers in the U.S. now have access to a 4G signal over 80% of the time. *Open Signal, State of Mobile Networks: USA*, OPEN SIGNAL (Feb. 2016), <https://opensignal.com/reports/2016/02/usa/state-of-the-mobile-network/> [<https://perma.cc/RN3J-JVQ3>].

125. See Jurgensen, *supra* note 116.

126. Jon Swartz, *U2, Meerkat Team Up on Streaming for Tour*, USA TODAY (June 17, 2015, 11:17 AM), <http://www.usatoday.com/story/tech/2015/06/16/meerkat-u2-partnership/27586363/> [<https://perma.cc/GXS8-A3FJ>].

especially established stars like Taylor Swift, who have already made clear that they do not feel the same way.¹²⁷

Katy Perry expressed her take on the use of these apps during shows stating, “You’ve got to embrace the future or you’re left behind. . . . I’m with it. I think that, when you see a phone, that is like the new applause.”¹²⁸ In a very real sense, the illumination of raised smartphones in an audience can be viewed as the 21st Century equivalent of holding up a cigarette lighter to express fan appreciation.

D. Make Concertgoers Sign Adhesion Contracts

Adhesion contracts are “a standard form of contract drafted by one party . . . and signed by the weaker party . . . who must adhere to the contract and therefore does not have the power to negotiate or modify the terms of the contract.”¹²⁹ The problem with adhesion contracts is the uneven bargaining power between the parties.¹³⁰ From the standpoint of a venue operator or music act, that power is precisely what they would want to exploit. If adhesion contracts were used at concerts, concert attendees would have no power to negotiate the terms of the contract; the attendees would just have to accept the terms at face value. The problem, of course, is that concertgoers would likely ignore—or remain unaware—of the obligations imposed upon them by contract, just as they do now with laws that protect intellectual property rights.

Another problem with an adhesion contract is that it is hard to enforce. In *ProCD, Inc. v. Zeidenberg*,¹³¹ the Seventh Circuit, in dicta, addressed this issue as it relates to concerts:

The back of the ticket states that the patron promises not to record the concert; to attend is to agree. A theater that detects a violation will confiscate the tape and escort the violator to the exit. One *could* arrange things so that every concertgoer signs this promise before forking over the money, but that cumbersome way of doing things not only would lengthen queues and raise prices but also would

127. See Geddes, *supra* note 78.

128. Brian Anthony Hernandez, *Meerkat and Periscope for Concerts? Katy Perry Says “Embrace the Future.”* MASHABLE (Mar. 27, 2015), <http://mashable.com/2015/03/27/meerkat-periscope-concerts-katy-perry/#ZF7IVuNvHkqt> [<https://perma.cc/2S56-ZG4C>].

129. *Adhesion Contract*, LEGAL INFORMATION INSTITUTE, https://www.law.cornell.edu/wex/adhesion_contract_contract_of_adhesion#.Vh9ilhCrSRs [<https://perma.cc/SU3F-XXU7>] (last visited Jan. 22, 2016).

130. *Id.*

131. *ProCD, Inc. v. Zeidenberg*, 86 F.3d 1447 (7th Cir. 1996).

scotch the sale of tickets by phone or electronic data service.¹³²

The Seventh Circuit, of course, imagined confiscation of tape to be a potential remedy for the contract violation,¹³³ today, the streaming occurs *before* the fan is escorted out, making enforcement of the contract ineffective as to infringement.

E. Control Distribution through Stageit or Similar Service

Stageit is a service that allows artists to monetize live streams of their performances.¹³⁴ Stageit markets a platform that allows musicians or producers to record a live stream of a performance via webcam.¹³⁵ Artists set the price for viewing and can net 60–70% of the revenue, after Stageit’s cut.¹³⁶ By partnering with Stageit, the “artist is able to take control of the recording and distribution of their shows.”¹³⁷ The control over price and distribution that Stageit offers is presumably what most performers would want. In theory, at least, this type of service allows intellectual property stakeholders an opportunity to monetize the exclusive rights they are entitled to by law. In reality, however, it is unlikely to stem the tide of flash-infringing live streaming.

Stageit may have utility if an artist wants to distribute a studio session online, but if an audience is present—especially a large audience—it is unlikely to replace unauthorized live streaming from the venue. A stream controlled by the artist, for one, will not replicate the social experience that flash infringement engenders. The cost of the stream to the consumer may also be an issue, because the Stageit stream would be competing with dozens, if not hundreds, of flash-infringing live streams featuring the same performance that are easily accessible for free via apps or the web. If the quality of the Stageit stream is better because of production values, back-stage access, or other added value, consumers may decide that it is worth a modest streaming fee, just as peer-to-peer mp3 infringers proved willing to pay for a better quality legal copy via iTunes.¹³⁸ But even if Stageit were to catch on, the cost to rights holders are high,

132. *Id.* at 1451.

133. *Id.*

134. See STAGEIT, <https://www.stageit.com/site/landing> [<https://perma.cc/9G3N-U25L>] (last visited July 9, 2016).

135. See *id.*

136. Adam Flomenbaum, *Meerkat and Periscope Don’t Pay Musicians. Stageit Does.*, ADWEEK’S LOST REMOTE (Apr. 23, 2015, 10:00 AM), <http://www.adweek.com/lostremote/meerkat-and-periscope-dont-pay-musicians-stageit-does/51708> [<https://perma.cc/6AKN-FRR7>].

137. *Id.*

138. See Dan Costa, *iTunes Match Ends Piracy As We Know It*, PC MAGAZINE (Nov. 15, 2011), <http://www.pcmag.com/article2/0,2817,2396424,00.asp> [<https://perma.cc/4V9H-633Z>].

because they essentially must pay a 30–40% fee to Stageit to control performance and distribution rights that they would otherwise be able to enjoy for free.¹³⁹

V. CONCLUSION

The recent “Blurred Lines” decision that awarded \$7.3 million to the family of Marvin Gaye may mark a sea change for record companies and artists seeking to enforce the content of their back catalogs.¹⁴⁰ But as heartening as that sea change may prove to be for content owners, it is nothing compared to the tidal wave of flash infringement yet to come. Even if—and it is a big “if”—concert venues could somehow prevent smartphone streaming of live performances or use existing law to staunch illegal distribution, the prospect of global flash infringement is real and significant.

Two trends make flash infringement hard to ignore: the increasing reliance upon live performance as a necessary revenue source for artists, and the proliferation of technologies of distribution of streamed content from that performance venue. This may become especially problematic for intellectual property stakeholders as smartphone use spreads overseas. Indigenous mash-up music forms like Tecnobrega in Brazil, Kwaito in South Africa, and Bubble in Suriname already use social networks to create flash-mob DJ parties where copyright infringement exists unabated.¹⁴¹ As smartphone technology moves into these emerging markets, the spontaneity and ephemerality of these parties will move online in a flash, and the infringing experience will spread though digital reproduction.

139. Jefferson Graham, *Stageit Brings Concerts to Your Living Room*, USA TODAY (Jan. 23, 2015, 7:32 PM), <http://www.usatoday.com/story/tech/columnist/talkingtech/2015/01/22/stageit-brings-semi-private-concerts-to-any-laptop-or-phone/22147351/> [https://perma.cc/ZJ7E-JETP].

140. See *Williams v. Bridgeport Music, Inc.*, No. 2:13-cv-06004-JAK-AGR (C.D. Cal. March 10, 2015).

141. See Gary Duffy, *Tecnobrega Beat Rocks Brazil*, BBC NEWS (Feb. 13, 2009), http://news.bbc.co.uk/2/hi/programmes/click_online/7872316.stm [https://perma.cc/Z8E4-XVC9].