# Periscope, Live-Streaming and Mobile Video Culture

Adam Rugg and Benjamin Burroughs[[1]](#footnote-1)

On 26 March 2015, Twitter released Periscope, its recently acquired live-streaming mobile app, on the Apple app store. Despite widespread praise and media attention for the app’s potential to usher in the era of mobile live-streaming, Periscope initially experienced slow uptake amongst mobile users. However, within a few months of launch, the perils and promise of Periscope were on full display as users found novel and sometimes illegal ways of using the app. Perhaps the most infamous use of Periscope occurred on 2 May 2015, during a much-hyped boxing match between Floyd Mayweather and Manny Pacquiao. After thousands of users used Periscope to watch unsanctioned streams -- rather than pay an unprecedented $100 for the official PPV feed of the fight -- *The New York Times* observed that the app had ‘barged its way onto sports’ biggest stage’, while the CEO of Twitter controversially declared the app the real winner of the night.[[2]](#footnote-2) While most discussion of Periscope since then has focused on the app’s potential for piracy, we suggest it also represents a broader, escalating tension between traditional media industries, informal digital media practices, and mobile technologies.

Just three months later and across the world in Turkey, an unemployed math teacher named Ekol Hoca was utilizing the app as an educational tool to reach thousands of Turkish students. After the Turkish government shut down prep schools affiliated with the Gülen religious movement as part of a political crackdown, Hoca turned to Periscope to continue the lessons the government sought to end.[[3]](#footnote-3) In so doing he circumvented state authority and disrupted the strategic place of the government through this emergent mobile technology. With around 1,500 students sometimes turning into his broadcasts, Hoca has shown how live-streaming technologies can themselves be political tools, bypassing state controls to communicate and interact with other citizens.[[4]](#footnote-4)

Elsewhere we have looked at the rise of ‘streaming culture’ and competing claims of sanctioned and unsanctioned streaming media.[[5]](#footnote-5) Operating across the formal and informal media economy,[[6]](#footnote-6) Periscope is a manifestation of these claims within a mobile context and a demonstration of how streaming culture is increasingly entering into wider public awareness and use. Periscope harnesses advances in compression, hardware, and mobile bandwidth to surpass earlier desktop-oriented live-streaming platforms like *Justin.tv*, which was originally designed for streaming original content from a user’s everyday life before becoming a space for pirated sports broadcasts.[[7]](#footnote-7) Further, Twitter’s acquisition of Periscope (and the subsequent integration of Periscope into the Twitter platform), has given the app a significant edge in the US over mobile competitor Meerkat, which launched shortly before Periscope. As of August 2015, Periscope had over 10 million users that were watching over 40 years of video per day.[[8]](#footnote-8)

As a mobile video sharing infrastructure based on the individual, yet utilizing global smartphone platforms, Periscope challenges broadcast logics of content production and circulation. The intimacy of the app, combined with its immediacy, also fosters new types of live video content, potentially reinvigorating mobile journalism and crisis reporting. Ultimately, Periscope is the product of this complicated duality. It is a platform for citizens to bypass state and corporate control while simultaneously enmeshing users within the very production processes of the digital media industries. In doing so, these nascent streaming technologies reflect the interlocking discontinuities of the evolving media landscape where traditional and digital media industries continue to struggle over the future of video production and circulation.

## Periscope, Locational Piracy, and the Circumvention of Media Institutions

Since its launch, Periscope has been linked to piracy. The app first made news when people used it to live-stream the U.S. premiere of the 5th season of the HBO series *Game of Thrones,* allowing non-subscribers and those living outside the U.S., where the program had a later premiere date, to view the first episode for free. The incident resulted in HBO labeling the app as a site for ‘mass copyright infringement’ and lobbying for more ‘proactive’ tools to remove copyrighted material from the platform and ‘not be solely reliant on upon notifications’.[[9]](#footnote-9) Shortly afterward, the app hit the headlines again during the aforementioned Mayweather-Pacquiao boxing match. HBO’s calls have been echoed by many in the sports media industry as well, namely the former chairman of NBC Sports, Dick Ebersol, who derided the use of Periscope for live and televised sporting events as ‘theft’. ‘Are you going to let them steal the signal?’, he asked.[[10]](#footnote-10)

While Periscope has quickly become a new platform for the old practice of distributing copyrighted video, it has also given greater prominence to a new form of copyright circumvention – the ‘on-site’ livestream. Most acutely seen in the sports world, Periscope has quickly become a controversial app for spectators and journalists alike. Golf reporter Stephanie Wei had her PGA tour credentials revoked after using Periscope to showcase golfers teeing off in practice. As Wei defended herself by pointing out that the practice shots were not going to be televised, the Tour’s chief marketing officer argued that the tour owns the rights to all media produced in and around the event, adding that Wei was ‘stealing’.[[11]](#footnote-11) Following the PGA tour’s lead, the NHL, NFL, EPL, and Wimbledon have all banned the use of Periscope from stadiums. Outside of sports, Comic-Con, the largest popular culture convention in the world, also instituted a Periscope ban for its 2015 gathering. Key players on the film festival circuit are similarly wary .While Cannes Film Festival already bans any form of video recording inside the festival, Mark Gill, the president of Millennium Films, has declared the app, ‘a whole new brand of terrifying’ as organizers have promised extra vigilance to prevent any live-streaming of any films shown at the festival.[[12]](#footnote-12) These emphatic statements and actions illustrate the expanding ability of networked individuals to not only redistribute copyrighted content from their television screens, but straight from the source as well.[[13]](#footnote-13)



Fig. 1: The live-streaming app Periscope allows individuals to distribute and consume content in new ways that circumvent existing corporate and state media infrastructures Source: (CC BY 2.0/Anthony Quintano)

In 2007, Viacom waged a long legal battle against YouTube, seeking damages for profiting off of the viewing of infringing content. The Second Circuit court ruled that YouTube was indeed protected by the safe harbor provision because the ‘DMCA requires knowledge or awareness of specific infringing activity in order to find a party liable for hosting...the district court found that YouTube was protected by the safe harbor provision’.[[14]](#footnote-14) However, to bolster their legal positioning and dissuade other lawsuits YouTube started filtering videos and posting takedown notices. In the case of Periscope the safe harbor provision largely protects Twitter as a corporate parent and hosting platform from any legal liability (part of the reason Twitter’s CEO could be so brazen in declaring Periscope the winner of the Mayweather/Pacquiao fight despite rampant piracy and rights infringement). Thus, Periscope is free to publicly decry streaming piracy on its platform while continuing to reap the piratical benefits of its users streaming concerts, television programs, sporting events, and conferences. However, when everyone with a smartphone can potentially become a spontaneous distributor of copyrighted material, the existing convention of ‘taking down’ infringing streams or posts after they are detected will increasingly be less effective, resulting in greater calls from content owners for modifying app policies and practices in order to address the exponentially increasing difficulty of preventing copyright infringement.

Periscope is also emerging as a circumvention tool for citizen journalism and civic streaming. Civic streaming is a form of digital witnessing that bypasses traditional media restraints, which lock down the place and location of reporting. Periscope has quickly become a tool for journalists to bypass traditional media industry infrastructure and connect directly with audiences. Journalists routinely host Periscope sessions where they answer audience questions and display their expertise on current issues. In an era of social media, live-streaming becomes a part of journalists building their own personal brands to navigate post-Fordist labour markets. Journalists are extending the workplace as new technologies facilitate greater audience connection, but this, in turn, leads to increased audience expectations of seemingly omnipresent reporting. Journalists are required to tweet and be ‘live’ as Periscope augments the demands of immediacy. There is no excuse not to be constantly broadcasting. The audience as a group of networked individuals spurs the need for an active, temporal, always-already connected coverage.[[15]](#footnote-15)

On March 26th, the same day as Periscope’s initial unveiling to the public, a large downtown fire in Manhattan, New York caused a discussion about the implications of live-streaming on citizen journalism and crisis reporting. Predictability, the ability to almost instantaneously broadcast and view the unfolding of a crisis was heralded as a ‘new form of ubiquitous live broadcasting’, with one observer suggesting that ‘(w)ith the smartphones in our pockets, we’re all citizen journalists now’.[[16]](#footnote-16) Certainly this ubiquity and immediacy enable new forms of participation as citizens broadcast the spectacular as an emergent form of crisis reporting. However, this spectacle of distant suffering as civic streaming presents a complicated duality, on the one hand enabling participation and immediacy while on the other generating proximity at a distance, intensifying a kind of voyeurism.

Civic streaming is also a circumvention of the information control of the state and media institutions. An increased sense of proximity means that the viewing public feels like they can be present amidst a crisis, natural disaster, or riot. Periscope is circumventing state and traditional media structures of power that filtered audiences’ proximity to scenes of tragedy. Citizens live-streaming are no longer wholly reliant on news organizations to disseminate stories and broadcast dissenting viewpoints and values. This is especially important within communities that have a longstanding distrust of government surveillance and control from law enforcement officers. Increased usage of smartphone technology to film police officers in a string of incidents that depict questionable police behavior have served to ignite a national debate in the United States about the role of body cameras, cellular technology, and live-streaming. Paradoxically, live-streaming increases the capacity of state and local governments to ramp up surveillance of citizens, while still allowing for citizen journalism through the same tools. Streaming and increased surveillance can lead to surveilling the surveillers.

## The Future of Live-Streaming Apps: Assimilation, Regulation, and Geoblocking

Our discussion of Periscope-enabled circumvention and civic streaming exemplify the unique possibilities of mobile live streaming and reveal the competing discontinuities of emergent mobile video culture. Further, they illustrate the increasing divergence of the mobile video space from existing broadcast and desktop platforms. Within the realm of desktop access to Internet video, distribution has historically been modeled according to existing television broadcast logics that divide control of content by nation and enforce those divisions through the use of geofences. Even platforms with large amounts of amateur content have instituted geographic restrictions on content, as in the case of YouTube and its Content ID system. However, recent popular mobile video sharing platforms have been much more global in nature. Instagram, Vine and Periscope (along with other popular live-streaming apps such as Meerkat and Twitcast) are conceptualized as geographically agnostic in terms of content rights, with no current tools for geographical restrictions in place. Perhaps owing to the premise and promise of mobile computing, the use of geofencing within mobile apps is often utilized as an inclusive, positive measure rather than one of restriction, such as in the use of location based games, proximity-based alerts and notifications, and in the functioning of location-dependent service apps like Uber.

While there are plenty of websites and desktop-oriented video platforms that are global in nature, the ubiquity of mobile devices along with the prominence of these smartphone apps is the crucial difference. With 70 percent of the world’s population predicted to own a smartphone by 2020, and the accelerating expansion of mobile bandwidth across the world, Periscope’s infamous rise to fame during the Mayweather-Pacquiao fight and *Game of Thrones* premiere, then, is less a surprise than it is a culmination of the increasing migration of producers and consumers to mobile video platforms.[[17]](#footnote-17) Vine, another Twitter-owned platform for the sharing of six-second video clips, has also received major criticism from content owners, especially the English Premier League which has sought to stop the proliferation of goal highlights that spread across the platform seconds after they appear on television.

Periscope, and similar live-streaming smartphone apps, exist at the forefront of mobile video culture and expand the ways that technology and physical space interact. Whether through original content, authorized and unauthorized behind-the-scenes moments, news reporting, or the distribution of copyrighted material, live-streaming apps have come to bypass many governmental, corporate, geographic, and technical restrictions on producing and distributing live video. While Periscope and other live-streaming platforms display how global networks of individuals with media producing and distributing devices in their pockets can disrupt the geographical and technological logics of broadcasting, journalism, and piracy, it ultimately remains to be seen how the media industries, national governments, and the cultures around the world will adapt and respond to these disruptions. On the one hand, Periscope is frequently heralded as opening new doors for global communication and content sharing, but it is unlikely these doors of rupture will stay open forever. Despite the positioning of the app as a global video sharing platform, legal and corporate pressure may potentially force the app to succumb to geographically based restrictions that have long been in place for other live broadcasters.

As new media industries continue to mature, they will increasingly integrate with old media industries, establish partnerships with content providers, and participate in the structures of global capital and financing. As such, the policies and purpose of popular live-streaming apps will increasingly be beholden to pressures from content providers, investors, and parent companies. While Periscope has not yet gestured toward implementing any geofencing or copyright detection methods, it may find itself in this position sooner rather than later. Already, its parent company Twitter began partnering with major video content providers under its Twitter Amplify program that launched in May 2013.[[18]](#footnote-18) Included in these partnerships is the NFL and PGA, which already have a contentious relationship with Periscope, banning the app from their respective live events.

As seen by HBO’s quick demand for more proactive tools to combat piracy on the platform, large corporations are already placing pressure on Periscope to not only eliminate copyright circumvention after it happens, but provide prevention tools as well. Vine’s trouble in purging soccer goal videos illustrates the difficulty in preventing the proliferation of television content on social media platforms. However, Periscope could still utilize geofences in order to prevent unauthorized broadcasts of events at physical locations, such as sport stadiums, film festivals, and concerts.

A model for this voluntarily geographic restricting already exists in mobile social media application Yik Yak. The app, which allows users within the same geographic area to post public messages, faced a public backlash after elementary and high school students used the app to anonymously cyber-bully other students. Eventually, Yik Yak partnered with Maponics, a mapping company, to institute geofences around all schools below college level to restrict younger students from using the app at school.

Legal pressures may also force live-streaming apps such as Periscope to install government-mandated geofences around ‘sensitive’ or ‘secure’ areas. As Cristina Alaimo and Jannis Kallinikos argue, social media is ‘actively involved in the production of new types of data that have commonly remained outsid the regulative purview of institutions’.[[19]](#footnote-19) Live-streaming is no exception. The quick proliferation of smartphones across the world combined with rapid technological advances in phone hardware and mobile bandwidth capacity have brought about a recent expansion of live-streaming video within social networks, both existing (in the case of the recently introduced Facebook Live feature) and new (such as Periscope and Meerkat). The short period of time in which this happened has made many live-streaming apps solely responsible to broadly applied copyright laws and their own internal policies.

As Marketa Trimble states, many governments across the world have just started grappling with the physical and digital mobility of Internet users and are still early in the process of figuring out how to legislate and regulate the concept of geographical territories and borders within the constructed geography of the front facing Internet.[[20]](#footnote-20) While many apps and techniques currently take advantage of this legal grey area to bypass geofences and other restrictions, governments and regulatory bodies could pass laws or restrictions that give greater weight to territorial boundaries on the Internet and establish mechanisms for authorizing temporary and permanent geofences that restrict the use of media-sharing platforms in certain locations. Recent patents developed by Apple already point toward the technological means these restrictions could be enforced.[[21]](#footnote-21)

We have already seen nation-states show a willingness to restrict internet platforms that spur communication outside of official channels. China and North Korea already block or heavily restrict a wide swath of social media apps at the national level. Moments of crisis have also prompted other nation-states to temporarily restrict social media apps as well, most notably during the Arab Spring uprisings that began in 2010.[[22]](#footnote-22) During the uprisings, Twitter and Facebook became central conduits for the organizing of protest actions, the proliferation of revolutionary ideas, and communication with international sympathizers, leading Tunisia, Egypt, and other Middle Eastern countries to restrict citizen access to the social networks or even the internet as a whole.[[23]](#footnote-23) While the efforts of these countries to install geofences around Twitter and Facebook were partially subverted by the use of VPNs and the digital attacks of the hacker group Anonymous, they starkly revealed the importance of social media apps in conflicts between states and their citizens.[[24]](#footnote-24) As live-streaming continues to enmesh itself within the structures of social media platforms and as Civic Streaming increasingly becomes an important tool to communicate and share information in times of crisis, it was will be subject to increased efforts by states to restrict and control its use.

Periscope is just one of a suite of emerging technologies used to circumvent copyright, access, and distribution restrictions. All of these technologies contain user-friendly interfaces, branding, and marketing efforts that reject the technical difficulty of previous circumvention technologies to position themselves instead as user-friendly computing tools. Some of these technologies, like VPNs, DNS proxies, and IP maskers, utilize the geographical ambiguity of the Internet to bypass geofences and access content authorized to users in different locales. Others, such as Periscope, Ustream, and Vine, provide mobile users with live video publishing tools, allowing them to become hosts of original and copyrighted content that can be streamed across geographically agnostic platforms. All of these tools, however, reflect the tension emerging as digital platforms make the production, consumption, and distribution of video content exponentially easier for corporations and consumers alike.

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