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4 February 2016

Case Study: Game of Thrones Season 5 Leak

**Introduction**

Last spring, just hours before the highly-anticipated Season 5 premier of HBO’s *Game of Thrones*, online piracy dealt a huge blow to the wildly popular franchise. The fifth season of the show, based on George R. R. Martin’s novel series of the same name, was set to premier at 9 P.M. on April 12th, 2015; instead, the first four out of ten episodes were leaked a full 24 hours before that, on the night of April 11th. Within 12 hours of the leak, the four episodes combined had been downloaded almost 800,000 times (IBTimes), and after 18 hours, the first episode alone was reportedly downloaded over a million times—still a full six hours before the show would air on HBO (TorrentFreak). The episode copies were first spotted on IPT, a private torrent tracker, during the afternoon on April 11th, but by that night, the files had also been added to larger, public torrenting sites, including The Pirate Bay, RARBG, and KickassTorrents (Gizmodo). Once mainstream media got word of the leak that same evening, illegal downloads soared even further. On April 13th, HBO confirmed the leak and released a statement about how they believed the leak originated, saying, “Sadly, it seems the leaked four episodes of the upcoming season of ‘Game of Thrones’ originated from within a group approved by HBO to receive them. We’re actively assessing how this breach occurred” (IBTimes). Even though HBO had been battling illegal downloading of ‘Game of Thrones’ long before season 5—starting with season 3, the show had officially become the most pirated TV show of all time—the simultaneous leak of multiple episodes before the set screening date was unprecedented and dramatically changed HBO’s tone on piracy as a whole.

As soon as HBO got word of the leak, the company began issuing takedown notices and penalties for the pirates who had shared the leaked files. It seemed like HBO was finally taking a more serious stance on piracy—up until the leak, “Game of Thrones” producers and executives had taken a notoriously lassies-faire approach to “Game of Thrones” piracy and even lauded it as a testament to the show’s immense success. With the “big leak,” though, it became glaringly obvious that HBO would have to take piracy much more seriously before it spun out of control and hurt the franchise. Surprisingly, even when HBO did start issuing more takedown notices and threatening legal action against online pirates, torrenting of subsequent season 5 episodes only continued to increase, and some images of the season 5 finale also leaked before the episode officially aired. For this and a variety of reasons—including efficiency, cost, and preparedness—in order to effectively combat “Game of Thrones” piracy, HBO should take preventative action and focus on improving its own internal security instead of issuing individual takedown notices to pirates and live-streaming users.

**Before the Leak**

Ever since the world of Westeros first came to life on TV screens across the world, HBO’s “Game of Thrones” has continued to gain popularity with seemingly unstoppable momentum. Fans of the show can’t get enough of it; in fact, “Thrones” fans are so obsessed that the HBO series has quickly become the most pirated show of all time, breaking several of its own illegal downloading records. The season 5 finale, for example, broke the record for most illegal downloads of an episode in 8 hours with an astonishing 1.5 million downloads (Yeung). HBO’s attempts to combat this record-shattering piracy continue to increase as the problem itself increases, yet it is unclear what the company’s next move should be, since its current methods are clearly not cutting down on illegal downloading. Ultimately, HBO has to decide whether or not furthering the use of the company’s time and resources to address the problem of illegal downloading is worthwhile; although torrenting initially causes subscription revenue loss, according to the CEO of Time Warner Inc (which owns HBO), piracy does end up positively effecting the show’s popularity (Tassi, 2014). This is particularly relevant with regard to the season 5 leak, because now, in addition to deciding whether combatting traditional filesharing and live-streaming apps is worthwhile, the company has to fight larger-scale leaks on a completely new front. Moreover, since the leak originated from a source that HBO had approved to see the season early, the company now has to decide whether or not to increase preventative measures and screening tactics before releasing copies of the show to journalists or employees.

To analyze the effectiveness of HBO’s anti-piracy tactics, it is important to understand why Game of Thrones has earned the position of most pirated show. One of the reasons Game of Thrones is so widely pirated is because of how costly and difficult it can be to access the show legally through HBO. Up until recently, HBO was only available through subscription along with a cable TV subscription, which is especially problematic as cable TV becomes obsolete; according to Nielsen’s fourth-quarter 2014 audience report, for example, over 40% Americans, now rely on streaming services such as Netflix and Hulu to watch shows and movies (Kang). In an attempt to combat this cable-drawback and compete with live streaming services, HBO introduced HBO Now, an app that allows users to watch unlimited HBO content for $15 per month. So far, though, HBO Now hasn’t been successful in combatting Game of Thrones piracy even though it allows fans to subscribe to HBO on a device without cable TV. Why? Because many Game of Thrones fans don’t watch any other HBO shows or movies, so $15 a month to watch Game of Thrones alone is more than many are willing to pay. In short, as Paul Tassi, a frequent Forbes technology news contributor and reporter states, “piracy is still free” (Tassi 2015).

Of course, piracy may be free for consumers of shared files, but it is not “free” for HBO, at least on the surface—the company lost an estimated $44 million in U.S. revenue from pirating of just the season 5 premier episode alone, according to Entertainment Weekly journalist James Hibberd (Hibberd). That being said, illegal file sharing of Game of Thrones does help HBO in a number of indirect ways—for example, according to Jeff Bewkes, the aforementioned CEO of Time Warner Inc, even though piracy can be directly correlated to loss of subscription revenue, it also “leads to more penetration, more paying subs, more health for HBO” and “less reliance on having to do paid advertising” (Forbes). Ultimately, he argues, the fact that Game of Thrones is the most pirated show in the world is “better than an Emmy” (Tassi 2014).

During the first few seasons of the show, when Game of Thrones piracy began to soar, it certainly seemed like HBO’s actions (or lack thereof) in response to illegal downloading echoed Bewkes’ sentiments. Starting in 2012, TorrentFreak, a blog that reports the latest file-sharing trends, reported that Game of Thrones was the most pirated show of the year, and soon after, the most pirated show of all time (NPR Staff). Then, in early 2013, National Public Radio (NPR) writer Jacki Lyden interviewed Wired.com writer Graeme McMillan about the implications of HBO’s piracy problem and how illegal downloading is changing the way people watch TV. During the interview, McMillan states that HBO’s programming chief, Michael Lombardo, said that “his bigger concern wasn’t the people who were downloading, but that by downloading they’d get an inferior product” (NPR Staff). McMillan, when asked if he thought piracy actually hurt HBO, said, “I’m not sure it does…I think it really raises the profile of the show and the profile of HBO in general” (NPR Staff). He then continues by quoting Game of Thrones producer David Pertrarca, who stated, “No, [piracy] is great. It really helps the show’s cultural buzz, and it does not impact the bottom line because HBO has more than enough money to keep making the show” (NPR Staff). Ultimately, he argues, since the future of television is online and piracy is currently the center of online-viewing buzz, that’s probably where “somewhere [HBO] really wants to be” (NPR Staff).

**After the Leak**

McMillan’s account is largely representative of HBO’s view on piracy in general—that is, until the infamous early leak of the first four episodes of Game of Thrones season 5 in early 2015. Bewkes’ statement and HBO’s early responses to “Thrones” piracy both make it seem like HBO doesn’t care much about pirating and that the lost revenue it causes is made up for by increased publicity, but HBO’s recent legal actions against online pirates paint a very different picture. Following the BitTorrent leak of the first four episodes of “Thrones” season 5 before the set season premiere date in early 2015, HBO began to crack down on specific pirates and piracy sites. The company’s legal team reportedly “issued thousands of warnings to Internet subscribers whose connections were used to share leaked Game of Thrones episodes” (Heisler), but since HBO has no way of knowing the actual identities of specific pirates, it seems as though the warnings were more of a scare tactic than anything. These warnings, though, are just one of HBO’s many attempts to discourage piracy, as HBO shows are “constantly flagged” on torrent sites (Tassi 2015). Additionally, according to technology investor and journalist Jeremy Bowman, for the first time since the show began, HBO decided to air the season 5 premier on the same day for the entire world in an attempt to combat illegal downloading by international viewers after the U.S. premier who did not yet have access to the show legally (Bowman). According to numerous reports, HBO is even beginning to track specific IP addresses of online pirates and sending cease-and-desist letters to restaurants and bars that host live-screening events of Game of Thrones episodes (Swartz). While threatening live-screening events might seem extreme, according to Northwestern University Law professor Peter DiCola, since screenings of the show at bars can be considered as unauthorized public performances, it is HBO’s right to take legal action and threaten penalties (Swartz).

The reason HBO’s tone changed after the season 5 leak is probably because it led to a change in momentum for viewing of the show. Basically, because so much of the hype surrounding Game of Thrones and its revenue comes from the fact that fans count down the days until the next episode airs, the fact that four episodes were leaked at once caused a large decrease in excitement about the first half of season 5, since many fans downloaded and watched the first month’s worth of episodes all at once and then had to wait it out until episode 5. Since some sources estimate that approximately 800,000 to 1 million fans watched episodes 1 through 4 as leaked files, this was a huge blow to HBO’s momentum going into season 5 (Tassi). Additionally, HBO had been planning to launch HBO Go, a monthly subscription streaming service, on the same day as the season 5 premier (Tassi, April 2015); when the first four episodes leaked, much of the excitement and media coverage for HBO Go decreased dramatically (Tassi). These factors combined likely caused a sharp change HBO’s tone and responsive action to online pirates and torrenting sites.

**Another Leak?**

There’s no question that the leak of episodes 1-4 of season 5 definitively shifted HBO’s anti-piracy tactics. From an increased number of individual takedown requests to shutting down viewing parties, HBO obviously wants to make it clear that it takes security breaches seriously—especially since leaks of multiple episodes at once may cause piracy of the show to spiral out of control. Just a few weeks after the initial season 5 leak, though, it became clear that HBO was still continuing to lose ground to determined hackers/pirates—several images of the season 5 finale leaked online, particularly those of a seemingly-dead Jon Snow and others of a “stripped-down” Cersei Lannister (Harding 2015, 1). Some of the picture leaks were sent at Snapchats, according to a June 2015 iDigitalTimes article, but several other leaked photos from Season 5, episode 10 appear to be of much higher quality and probably originated from another security breach within HBO’s pre-approved media screenings (Harding 2015, 2). There were even several reports of an episode 9 plot leak and the entirety of episode 10 leaking onto a few torrenting sites (also from media outlet reviews), but these leaks are harder to confirm than the image leaks.

**Other Actions: Live Streaming**

In addition to issuing individual takedown notices for torrented files of “Game of Thrones” episodes, HBO has also started taking legal action against live streaming events and live streaming apps. Many tech journalists argue that live streaming apps are a particularly dynamic and important threat to HBO’s anti-piracy efforts, with mobile devices playing a larger and larger role in entertainment consumption. One up-and-coming live streaming app is Periscope, which is owned by Twitter (Dewey). To live-stream shows or movies with Periscope, one user sets up a recording/camera device and connects the device to the app, so anyone with access to the app can see, in real time, exactly what that initial user is recording. This is especially problematic for HBO because by the time the company issues take-down notices, the show is usually already over, and since it’s live-streaming, there’s no lasting or physical file left to remove (Dewey). Furthermore, HBO has no way of detecting exactly who live-streamed the show after the user’s channel stops streaming (Wong). Essentially, Periscope has created “a real-time cat-and-mouse game for copyright holders and anti-piracy firms” (Wong); and, as many cat-owners and “Tom and Jerry” fans are surely aware, a cat-and-mouse chase can be incredibly tedious, but the mouse never stops running and the cat never stops chasing.

There are some drawbacks to live-streaming through periscope, aside from the obvious legal gray-area. For example, since Periscope users are essentially viewing through a screen and then a camera and then another screen, picture and sound quality suffer. Additionally, there’s no way to pause or rewind when using Periscope. For some, this quality sacrifice is worth the unbeatable price (free) and instant access, but the loss of quality has also hindered Periscope’s growth which, theoretically, could be explosive. According to Washington Post reporter Caitlin Dewey, the number of people who viewed the season 5 Game of Thrones premier using periscope was in the range of hundreds to a few thousand (Dewey), which pales in comparison to the millions that viewed the show legally or later through traditional piracy and file-sharing. Still, HBO views live-streaming apps like Periscope as a serious potential future threat, and after the “Thrones” season 5 premier, HBO took legal action against Periscope and its users by sending takedown notices and copyright warnings (Dewey). Many experts in copyright law, including California copyright lawyer Richard Stim, argue that while Periscope may not be an immediate threat to HBO, the point at which live-streaming becomes transformational to the industry is a “slippery standard” (Dewey), which is why HBO has already attempted to thwart Periscope’s comparatively small audience of less than a few thousand people. HBO is even going after businesses that host Game of Thrones viewing parties as another form of live streaming, since only one subscription is being used for many people (Swartz). Although this example is one of HBO’s more legally questionable anti-piracy efforts, it just goes to show that HBO takes the threat of live-streaming seriously, sometimes even more seriously than torrenting.

**What should HBO do?**

Despite increased efforts to combat piracy, HBO’s previous strategies have obviously not been successful. Individual takedown requests and legal threats simply cannot effectively thwart the thousands of pirates actively sharing torrented “Game of Thrones” episodes, and millions of fans are still finding ways to download the files illegally within hours of initial leaks. Going after Periscope users is also both inefficient and ineffective, since takedown notices are irrelevant once the live stream is over, and only a few thousand fans currently use periscope to view “Game of Thrones” episodes. While live-streaming apps may present a larger threat to the show in the future, as of now, the quality is too poor and the numbers of viewers are too small for HBO’s action against periscope to be worthwhile. What HBO should be doing, at least using common sense, is stopping the leaks at their source.

It turns out that the source of most of the leaks—including the season 5 leak—is from within HBO itself. Like many networks do with popular shows, HBO sends out copies of “Game of Thrones” episodes to entertainment journalists and reviewers before they air to the public, so that detailed reviews of each episode can be published online as soon as credits start to roll. Astonishingly, according to Forbes tech journalist Paul Tassi, HBO still sends out these episode copies as physical DVDs, which are extremely easy to copy and upload to illegal file sharing sites (Tassi 2015, 2). In his article on HBO’s security tactics in the wake of the season 5 leak, Tassi also states that HBO is finally looking at using a secure website to share pre-release episodes with the press (Tassi 2015, 2), which is exactly what it should be doing, since each major leak has occurred so easily from right under HBO’s nose (as admitted by HBO in the introduction). While Tassi also makes a good point that complete and total security is essentially impossible when it comes to piracy, the move to a secure, DVD-free version of sharing the episodes will undoubtedly lessen the risk of a large-scale leak like the season 5 leak.

**Conclusion**

HBO’s legal battles against pre-release leaks, torrenting, live streaming, third-party streaming, and even community viewing parties clearly demonstrate that the company takes Game of Thrones piracy seriously, yet despite HBO’s efforts, “Thrones” piracy only continues to increase. With season 6 set to premier later this year, many HBO and Time Warner executives fear that another massive leak could set back the company’s anti-piracy efforts even further. Considering the colossal popularity of Game of Thrones, many wonder why HBO even bothers to use time and resources to stop “Thrones” piracy at all, especially since HBO still has millions of legal subscribers, and piracy is essentially free advertising. Of course, HBO can’t exactly condone torrenting, because that would open the floodgates to even more legal ambiguity and would ultimately hurt the company; HBO has to make some reasonable efforts to minimize piracy for the sake of control and business tactics, but no one at the company is naïve enough to believe that they could ever stop “Thrones” piracy completely. Ultimately, HBO’s best bet to both keep viewers and also maximize profits is to maintain its current amount of effort fighting traditional piracy/torrenting while also focusing more on improving its own internal security as a preventative measure. Since most of its most problematic online leaks started from within the company itself, HBO will undoubtedly be much more successful at stopping “Game of Thrones” leaks and piracy in general if it improves internal security. To stop any leak, instead of continuously mopping up the water, it’s best to patch up the hole.

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