THE STATE OF PIRACY AND PROSPECTS FOR EFFECTIVE ACTION TO THWART IT
Introduction

Global theft of premium content has reached the point where losses stemming from business as usual can no longer be tolerated.

The threat is far worse than in the past now that online streaming of purloined content has become the dominant mode of piracy, rapidly supplanting peer-to-peer downloading as a far more effective way to capture and retain viewers, including people who are fooled into thinking sophisticated pirate sites, supported by advertising and often charging subscription fees, are legitimate. Adding to the alarm is the growing volume of 4K UHD programming and the prospects for large amounts of HDR-enhanced HD content, as discussed in Part 1.

In part that’s because the higher the premium video quality gets to be on legitimate MVPD and OTT outlets, the higher the quality will be for camcorded video or otherwise captured from 4K UHD displays for digital distribution. Demand for stolen content is expected to increase as ever more current movie titles and first-run TV episodes entering the UHD pipeline inspire new payment tiers, including long-discussed premium pricing for early-window distribution of movies to the VOD market.

The Growing Impact of Piracy

As things stand now, according to analysis performed by U.K. antipiracy firm Muso, 73.7 percent of 78.5 billion visits to film and TV piracy sites worldwide utilized streaming sites in 2015. Torrent-based sites represented 17.2 percent of user visits, with direct-download sites accounting for the remainder. Muso found the largest share of piracy activity was in the U.S. with over 12 percent of the audience, with France, Germany and the U.K. also ranking in the top ten.

One riveting example of TV show theft that served to heighten industry alarm occurred in the first three months of 2015, when there were over seven million illegal downloads of episodes from HBO’s “Game of Thrones,” which outstripped the full-year total of four million illegal downloads registered by the show in 2012, according to press reports. Another came with the Periscope attacks that resulted in screen capture and illicit distribution of the Mayweather-Pacquiao fight in May 2015. This mode of theft, enabling anyone with a smartphone to distribute live programming, added to the toll taken by the illicit redistribution of live sports broadcasts, which now represent 25 to 30 percent of total viewing of major events, according to some estimates.

Currently annual advertising and subscription fee losses content owners and distributors incur from online piracy worldwide comes to about $2.4 billion with a strong likelihood the total will keep increasing without concerted action, according to research conducted by the Interactive Advertising Bureau (IAB). This includes movies and live as well as stored TV episodes.

The IAB’s $2.4 billion figure is a conservative estimate that is based on IAB researchers’ assumption that if all the pirate sites...
were shut down, only a percentage of the site users would go to legitimate sources. The actual revenues generated by these sites in 2015 came to about $7.96 billion, including $6.61 billion in subscription and pay-per-view fees and $652 million from ad placements by Internet ad networks, IAB estimates. The researchers assumed that shifting pirate site users to legitimate sources would translate to those sources recouping 70 percent of those ad revenues and just 30 percent of the pay fees.

**Market-Proven Effectiveness of Concerted Action Against Piracy**

Weaning users off piracy won’t be easy. But the good news is that concerted action against piracy can be very effective.

In research cited by the Motion Picture Association of America, Carnegie Mellon University’s H. John III Hein School of Public Policy and Management found that taking down one site, even a big one, as was the case in the U.K. court-ordered takedown of peer-to-peer site The Pirate Bay in 2012, has minimal impact, but action against multiple sites leads to upticks in uses of legitimate sites.

Where eliminating The Pirate Bay caused only a small reduction in total piracy and no apparent increase in legal site visits, U.K. court orders against 19 major piracy sites in 2013 caused a meaningful reduction in total piracy in the U.K. and led former illegal site users to increase their use of legal sites by an average of 12 percent. The lightest users of the blocked sites increased their clicks on paid streaming sites by 3.5 percent while the heaviest blocked site users increased their paid streaming clicks by 23.6 percent. Looking at the effects of court-ordered action against an additional 53 piracy sites in 2014, the researchers saw a 22 percent decrease in total piracy among British users of the blocked sites and an overall piracy drop of 16 percent.

With such findings buttressing content owners’ conviction that anti-piracy initiatives can be worth the effort, it’s no wonder that the industry is putting much more emphasis on use of forensic watermarking as the starting point for identifying stolen content and the perpetrators of such theft.

In fact, as MovieLabs made clear in its Enhanced Content Protection (ECP) specifications, watermarking and other recommended procedures might be applied to any content deemed high enough in quality and value to merit application of those measures, depending on policies set by individual license holders. In other words, as UHD becomes the spark to implementation of watermarking requirements by license holders, distributors of high-value content should anticipate that the requirements will be more widely applied to premium HD and UHD content alike.

**The Importance of Global Cooperation**

This support for coordination of piracy tracking and watermark detection is contributing to growing global cooperation in the use of watermarking to crack down on piracy. Such activity maps to the “breach monitoring and response” requirements embodied in the MovieLabs ECP regime.

Under these stipulations service providers are required to play a larger role in fighting piracy by actively monitoring for breaches during content “runtime” with the ability to revoke “subsidiary code-signing certificates if these are used as part
of the system’s root of trust” and to “revoke individual devices or classes of devices.” But even with more concerted action on the part of individual service providers, the global scale of piracy requires much broader pan-industry cooperation in ECP-mandated monitoring and response processes.

Progress along these lines is encouraging. Regional and global anti-piracy activities are now underway through the auspices of organizations such as the U.S.-based International Broadcaster Coalition Against Piracy (IBCAP), which is pursuing a mandate to prevent illegal distribution of international television content in coordination with embassies, government and trade offices worldwide.

Others involved in such activities include:
• Coalition Against Online Video Piracy, the globally oriented group representing sports, entertainment and broadcasting concerns
• Alianza, which recently mounted an initiative against consumer use of pirated content in Latin America
• Arabian Anti-Piracy Alliance
• STOP Nordic Content Protection
• CASBAA, an Asian trade association that has devoted significant resources to anti-piracy activities

Another manifestation of the growing worldwide commitment to the anti-piracy fight is the success of studios and other content owners in persuading agencies and Internet entities to take action to ensure advertising for their products and services does not appear on websites dedicated to theft. These entities’ initiatives, which also include activities aimed at fraudulent advertising, are being orchestrated through the Trustworthy Accountability Group (TAG), a global organization created by the American Association of Advertising Agencies (4A’s), Association of National Advertisers (ANA), and Interactive Advertising Bureau (IAB) to work collaboratively with companies throughout the digital ad supply chain. The four leading ad agencies, Interpublic, Omnicom, Publicis and WPP’s GroupM, and a growing list of individual advertisers such as GoDddy, Bayer and Google are among the entities committing to the TAG agenda.
2. CNBC, “*Game of Thrones Battles Pirated Waters*,” April 2015

For more information on anti-piracy solutions, visit [www.verimatrix.com/watermarking](http://www.verimatrix.com/watermarking)