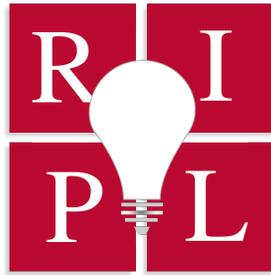


UIC REVIEW OF INTELLECTUAL PROPERTY LAW



THE NEW APPROACHES TO DIGITAL ANTI-PIRACY IN THE ENTERTAINMENT INDUSTRY

IGOR SLABYKH

ABSTRACT

This article is about digital anti-piracy. The entertainment industry has been combating piracy over the internet for the last 40 years. This article gives an overview of the digital anti-piracy approaches, analyzes the reasons why people commit piracy, demonstrates the disappointing results of the current state of anti-piracy, and offers new approaches that may help to reduce digital piracy.

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IGOR SLABYKH

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THE NEW APPROACHES TO DIGITAL ANTI-PIRACY IN THE ENTERTAINMENT
INDUSTRY

IGOR SLABYKH*

I. INTRODUCTION

In its report on the economic impacts of counterfeiting and piracy, the International Chamber of Commerce estimated that the losses from piracy in the movie industry worldwide in 2015 had been as much as \$160 billion in commercial value.¹ Considering that “[t]he global box office . . . in 2016 . . . to reach . . . \$38.6 billion,”² these losses of the movie industry seem to be significant. The monetary losses for the recording industry are just as shocking. Frontier Economics Ltd. reported \$29 billion in losses worldwide in 2015.³ This stands in stark contrast to the \$7.7 billion in revenue from recorded music in the United States in 2016.⁴

A more recent study, *Impacts of Digital Piracy on the U.S. Economy* mentions shocking numbers as well. The study shows loss of domestic revenues due to piracy of “at least \$29.2 billion and as much as \$71.0 billion annually.”⁵ Digital video piracy “also results in losses to the U.S. economy of between 230,000 and 560,000 jobs.”⁶ These losses show that the entertainment industry needs to be protected. Otherwise, it would be impossible for creators “[t]o promote . . . useful Arts.”⁷

According to another report, 432 million unique Internet users around the globe sought out pirated content during January 2013.⁸ And “126.7 billion viewings of U.S.-

* © Igor Slabykh 2019. Igor has worked as an IP lawyer, anti-piracy and license compliance manager in Russia and the Commonwealth of Independent States for more than ten years. In 2017, he earned an LLM degree from the George Washington University Law School. This article was inspired by and serves to honor the memory of the late Jay Rosenthal, my entertainment law professor and a great IP lawyer who passed away in November 2019. I would like to thank Steven M. Tepp and Robert Brauneis for their help and answering my endless questions about US copyright law. I also would like to thank The Georgetown Law Entertainment & Media Alliance staff for sharing the ideas for the article. It should be stressed that this article cannot occur without great help from UIC Review of Intellectual Property Law editors and I would like to thank Alex Karana and his team.

¹ FRONTIER ECONOMICS LTD., *THE ECONOMIC IMPACTS OF COUNTERFEITING AND PIRACY*, INT’L CHAMBER OF COM. 8 (2016), <https://cdn.iccwbo.org/content/uploads/sites/3/2017/02/ICC-BASCAP-Frontier-report-2016.pdf>.

² *Global Box Office Remains Strong in 2016, Reaching \$38.6 Billion*, MOTION PICTURE ASS’N OF AM. (Mar. 22, 2017), <https://www.mpa.org/press/global-box-office-remains-strong/#.WhNo6afyBng>.

³ FRONTIER ECONOMICS LTD., *supra* note 1, at 28.

⁴ Joshua P. Friedlander, *News and Notes on 2016 RIAA Shipment and Revenue Statistics*, RECORDING INDUS. ASS’N OF AM. (2017), <http://www.riaa.com/wp-content/uploads/2017/03/RIAA-2016-Year-End-News-Notes.pdf>.

⁵ David Blackburn, Jeffrey A. Eisenach, & David Harrison Jr., *Impacts of Digital Piracy on the U.S. Economy*, GLOBAL IP CTR. ii (2019), <https://www.theglobalipcenter.com/wp-content/uploads/2019/06/Digital-Video-Piracy.pdf>.

⁶ *Id.*

⁷ U.S. CONST. art. I, § 8, cl. 8.

⁸ David Prince, *Sizing the Piracy Universe*, NETNAMES 3 (2013), <https://www.netnames.com/assets/shared/whitepaper/pdf/netnames-sizing-piracy-universe-FULLreport-sept2013.pdf>

produced TV episodes are pirated digitally each year, mostly from outside the U.S.”⁹ Thus, the e-market of pirated products is colossal in both the amount of money it generates, and the number of customers involved in making illegal transactions. If 432 million people spent one dollar every month legally purchasing films or music instead of pirated films and music, it would bring \$5.184 billion in incremental annual revenue for the industry.¹⁰ This strongly suggests that anti-piracy is worth focusing on.

This Article is about digital anti-piracy. Part I begins with a short overview of how the entertainment industry has been trying to combat piracy over the Internet for the last 40 years and the results of that fight. Then, Part II discusses reasons why people commit piracy. In Part III, the author states that piracy perhaps cannot be defeated but it may be seriously reduced and offers new approaches that may help reduce digital piracy.

II. DIGITAL PIRACY IS THE MAIN THREAT TO THE ENTERTAINMENT INDUSTRY IN THE 21ST CENTURY

As it was shown in the introduction, losses from piracy are several times more than the industry’s earnings. At the same time, the cost of copying for a home user almost approaches zero. These factors prove that digital piracy is the main threat to the industry. If the level of piracy increases, it may put the entertainment industry on the brink of survival because customers will not pay for the content.

As Tara L. Touloumis points out in her article, “[t]he entertainment industry has been waging a war against piracy nearly as long as it has existed . . .”¹¹ Matthew C. Mousley supports this view. “Digital piracy is clearly a constant menace to the entertainment industry.”¹² “The problem of online piracy is too big to ignore.”¹³ “Forget about the war on drugs, the war on terror, the war on illegal immigrants. The *biggest* war is the war on movie piracy.”¹⁴

Piracy changed following recent transformations in the entertainment industry. “[D]igital technologies and Internet have deeply modified the interaction between copyright holders, technology companies and consumers.”¹⁵ “The only costs of becoming a global distributor (or pirate) of digital content are the price of a computer, Internet

⁹ David Blackburn, *supra* note 5.

¹⁰ *But see* European Comm’n, *Estimating Displacement Rates of Copyrighted Content in the EU*, E.U. Final Report, at 7 (2012), https://cdn.netzpolitik.org/wp-upload/2017/09/displacement_study.pdf (“In general, the results do not show robust statistical evidence of displacement of sales by online copyright infringements.”).

¹¹ Tara Touloumis, *Buccaneers and Bucks from the Internet: Pirate Bay and the Entertainment Industry*, 19 SETON HALL J. SPORTS & ENT. L. 253, 254 (2009).

¹² Matthew C. Mousley, *Peer-to-Peer Combat: The Entertainment Industry’s Arsenal in its War on Digital Piracy*, 48 VILL. L. REV. 667, 695 (2003).

¹³ *Statement from Chairman Smith on Senate Delay of Vote on Protect IP Act*, HOUSE JUDICIARY COMMITTEE (January 20, 2012), <https://web.archive.org/web/20181228143248/https://democrats-judiciary.house.gov/>.

¹⁴ PHILLIPA MCGUINNESS, *COPYFIGHT 19-20* (2015).

¹⁵ Paul Belleflamme & Martin Peitz, *Digital Piracy: Theory 1* (CESifo Working Paper No. 3222, 2010).

access, and electricity.”¹⁶ Consequently, “[c]opyright business models are now driven more by electronic access to copyrighted works than ownership of physical items.”¹⁷

As a result, the greatest threat to the entertainment industry is no longer illegal physical copying but rather illegal digital copying that takes place in the privacy of the infringer’s home.¹⁸ It is digital piracy by home customers that is now the biggest issue. Moreover, it seems that the future of the industry depends on successful digital anti-piracy.¹⁹

The primary losses from piracy are financial, and the mechanism of hurting the industry is rather simple. “Widespread Internet piracy is harmful to companies that produce and sell media products because it prevents them from receiving compensation for the reproduction and distribution of their products.”²⁰ In other words, widespread piracy erodes a copyright owner’s incentive to create and promote original work by significantly reducing potential profit.²¹

¹⁶ Raymond Shih Ray Ku, *The Creative Destruction of Copyright: Napster and the New Economics of Digital Technology*, 69 U. CHI. L. REV. 263, 272-273 (2002).

¹⁷ *Webcast, 2nd Annual Global IP Summit*, GLOBAL INTELL. PROP. CTR., U.S. CHAMBER OF COMMERCE (Nov. 18, 2014), <https://www.uschamber.com/event/2nd-annual-global-ip-summit> (Bob Goodlatte, House Judiciary Committee Chairman, statement at 3:02:55 to 3:03:02).

¹⁸ See, e.g., NAT’L RESEARCH COUNCIL, *THE DIGITAL DILEMMA: INTELLECTUAL PROPERTY IN THE INFORMATION AGE* 132-133 (2000). (“Although there may have been a time when private copying was a minor matter, the widespread use of digital information and networks has created increased opportunities for ordinary people to engage increasingly in acts of infringement that are difficult to detect, yet mount up.”).

¹⁹ Nelson Granados, *How Piracy is Still Hurting the Filmmakers and Artists You Admire*, FORBES (Dec. 3, 2015, 12:08 PM), <https://www.forbes.com/sites/nelsongranados/2015/12/03/how-piracy-hurts-the-filmmakers-and-artists-you-admire/#3bb84fce4554> (quoting movie producer, Avi Lerner) (“If piracy continues to be rampant like this, then in four to five years it will be the end of the independent film business . . .”).

²⁰ Matthew Bernstein, *Searching for More Efficient Piracy Protection*, 43 AIPLA Q.J. 625, 635 (2015).

²¹ See, e.g., NATIONAL BUREAU OF ECONOMIC RESEARCH, *INNOVATION POLICY AND THE ECONOMY* 36-44 (Josh Lerner & Scott Stern eds., U. Chi. Press, vol. 14, 2014) (Conference held Apr. 23, 2013); Danwill David Schwender, *Reducing Unauthorized Digital Downloading of Music by Obtaining Voluntary Compliance with Copyright Law Through the Removal of Corporate Power in the Recording Industry*, 34 T. JEFFERSON L. REV. 225, 231 (2012); Jiarui Liu, *Copyright for Blockheads: An Empirical Study of Market Incentive and Intrinsic Motivation*, 38 COLUM. J.L. & ARTS 467 (2015); Mousley, *supra* note 12, at 674 (“The effect of digital piracy on the . . . recording and motion picture industries is undeniable”); Stan Liebowitz, *Policing Pirates in the Networked Age*, POLICY ANALYSIS NO. 438, May 15, 2002, at 1, <https://object.cato.org/sites/cato.org/files/pubs/pdf/pa438.pdf> (“New Internet-based technologies appear to threaten the ability of copyright owners to collect revenues for their intellectual creations . . .”); Stan J. Liebowitz, *File Sharing: Creative Destruction or Just Plain Destruction?*, 49 J.L. & ECON. 1, 19 (2006) (“In sum, economic theory provides only a very thin foundation on which to support any expected impact of file sharing on sales of sound recordings other than a negative one.”).

A. Anti-piracy Methods

Digital anti-piracy is not a new phenomenon.²² “Piracy is not a problem that is new to digital technology.”²³ “The entertainment industry has employed, is employing, and is looking to employ various methods to protect its intellectual property rights in a world that is largely tolerant of copyright infringement.”²⁴ Below is a short overview of primary anti-piracy methods.

1. Secondary Liability

Technology has facilitated the exchange of information worldwide. The creation of peer-to-peer protocol and the improvement of Internet connectivity worldwide led to the “file sharing epidemic.”²² Copyright infringement has become common behavior, which has made it difficult to prosecute all infringers. It resulted in employment by copyright owners of the secondary liability doctrine.

“Although it is difficult and expensive to go after individual pirates, the industry has had phenomenal success in lawsuits against companies operating file-sharing networks, forcing most of them into shutdown, sale, or bankruptcy.”²⁵ Moreover, the choice of whom to sue was evident: “[p]laintiffs will choose to collect from the ‘deeper pocket . . .’”²⁶ “The most prominent lawsuits have been brought against vendors of peer-to-peer (P2P) file sharing software—Napster, Aimster, and Grokster—who have been held liable under the judicial doctrines of vicarious liability and contributory infringement for the copyright violations committed by their users.”²⁷

The entertainment industry’s first successful case was against *Napster*.²⁸ This became “the first important step in regulating peer-to-peer file-sharing technologies.”²⁹ However, others cautioned that this was the beginning of the pirating problems in the entertainment industry, “[a]nyone was dreaming who thought just because we won the Napster case that the problems have come to an end.”³⁰

The first signs of problems appeared in 2001 after *Napster*. “[T]he victory proved short-lived as a number of other file-sharing systems . . . quickly replaced Napster.”³¹

²² See generally PETER BALDWIN, *THE COPYRIGHT WARS: THREE CENTURIES OF TRANS-ATLANTIC BATTLE* (2014); ADRIAN JOHN, *PIRACY: THE INTELLECTUAL PROPERTY WARS FROM GUTENBERG TO GATES* (2009).

²³ Michael J. Meurer, *Price Discrimination, Person Use and Piracy: Copyright Protection of Digital Works*, 45 BUFF. L. REV. 845, 888 (1997).

²⁴ Mousley, *supra* note 12, at 667.

²⁵ Peter K. Yu, *The Escalating Copyright Wars*, 32 HOFSTRA L. REV. 907, 913 (2004).

²⁶ Alan O. Sykes, *The Economics of Vicarious Liability*, 93 YALE L.J. 1231, 1252 (1984).

²⁷ Sverker K. Högborg, *The Search for Intent-based Doctrines of Secondary Liability in Copyright Law*, 106 COLUM. L. REV. 909, 909 (2006).

²⁸ *A&M Records v. Napster, Inc.*, 239 F.3d 1004 (9th Cir. 2001).

²⁹ Jared S. Welsh, *Pay What You Like – No, Really: Why Copyright Law Should Make Digital Music Free for Noncommercial Uses*, 58 EMORY L.J. 1495, 1517 (2009).

³⁰ Jennifer Norman, *Staying Alive: Can the Recording Industry Survive Peer-to-peer?*, 26 COLUM. J.L. & ARTS 371, 383 (2003).

³¹ Belleflamme & Peitz, *supra* note 15, at 24.

The most famous P2P file sharing systems that replaced Napster were Kazaa,³² Limewire,³³ Aimster,³⁴ and Grokster³⁵—the heir to Napster. The United States Supreme Court in *Metro-Goldwyn-Mayer Studios Inc. v. Grokster, Ltd.*, employed the doctrine of vicarious liability. Today, “[t]he digital era has . . . seen an expansion of secondary liability . . .”³⁶ *Grokster* was another victory for the entertainment industry over pirates. “After *Grokster*, all the P2P companies . . . admitted defeat and settled with the recording companies.”³⁷

Nevertheless, P2P as a technology remained legal. As a result, “[f]or every network operator that has been sued out of existence, another has come along: exit Napster, Aimster, and Grokster; enter Azureus, LimeWire, and Shareaza. Hydra-like, they just keep coming back.”³⁸

2. Direct Infringement Lawsuits

Even though the prosecution of each and every online infringer has very high costs (financial, time, and reputation), the Recording Industry Association of America (RIAA) launched a brilliant anti-piracy campaign in 2003. The campaign ceased in 2008 and by the end of the campaign, the RIAA had already filed “more than 30,000 lawsuits targeting alleged copyright scofflaws on peer-to-peer networks.”³⁹

The campaign was badly received by the general public⁴⁰ because it brought disproportionate responsibility for the activity that most people considered normal. The RIAA’s activities were called an “infringement-based business model,”⁴¹ even though the main goal of the campaign was to reduce piracy and protect members’

³² See generally Gill Kaufman, *Kazaa Settles with Music Industry for \$100 Million, Promises to Go Legit* (July 27, 2006), <http://www.mtv.com/news/1537233/kazaa-settles-with-music-industry-for-100-million-promises-to-go-legit/>.

³³ See generally *Arista Records LLC v. Lime Group LLC*, 784 F. Supp. 2d 398 (S.D.N.Y. 2011).

³⁴ See generally *In re Aimster Copyright Litigation*, 334 F.3d 643 (7th Cir. 2003).

³⁵ See generally *Metro-Goldwyn-Mayer Studios Inc. v. Grokster, Ltd.*, 545 U.S. 913 (2005).

³⁶ Mark A. Lemley, R. Anthony Reese, *Reducing Digital Copyright Infringement without Restricting Innovations*, 56 STAN. L. REV. 1345, 1354 (2004).

³⁷ Steven Seidenberg, *The Record Business Blues*, ABA J. (June 1, 2010), http://www.abajournal.com/magazine/article/the_record_business_blues.

³⁸ Annemarie Bridy, *Why Pirates (Still) Won't Behave: Regulating P2P in the Decade after Napster*, 40 RUTGERS L.J. 565, 589-590 (2009).

³⁹ David Kravets, *File Sharing Lawsuits at a Crossroads, After 5 years of RIAA Litigation*, WIRED.COM (Sept. 4, 2008), <https://www.wired.com/2008/09/proving-file-sh>.

⁴⁰ Daniel Reynolds, *The RIAA Litigation War on File Sharing and Alternatives More Compatible With Public Morality*, 9 MINN. J.L. SCI. & TECH. 977, 977 (2008) (“Many critics allege that this campaign is unfair and paint the RIAA as mean and a bully.”); Genan Zilkha, *The RIAA’s Troubling Solution to File-Sharing*, 20 FORDHAM INTELL. PROP. MEDIA & ENT. L.J. 667, 685 (2010) (internal citation omitted) (“The media and public have cast the RIAA as a villain that sues single mothers and even the deceased.”); Jason Krause, *Chinks in the Recording industry’s Armor*, 2 No. 37 ABA J. E-REPORT 3 (2003) (“But perhaps the biggest problem the RIAA faces is that these suits have created bad public relations for the organization.”).

⁴¹ Justin Hughes, *On the Logic of Suing One’s Customers and the Dilemma of Infringement-based Business Models*, 22 CARDOZO ARTS & ENT. L.J. 725, 764 (2005).

copyrights, not earn money via settlements.⁴² Nevertheless, the RIAA acted in its members' best interest.

"Many have criticized RIAA lawsuits as "excessive," "heavy-handed," and "horrible." Some even claim that the lawsuits are "counterproductive."⁴³ Many remember the aggressive approach taken by the industry in combating digital piracy, going as far as suing kids and deceased,⁴⁴ whom professor Mathew Sag called "strange fish."⁴⁵ But the last cases are the exception, to the author's view if someone has 30,000 cases, it is impossible to not make mistakes. Moreover, these cases can be treated as errors only from the public relations point of view. "The recording industry's private investigative tactics, which proved overbroad and resulted in lawsuits against innocent grandmothers and the deceased, amounted to a public relations gaff."⁴⁶

Prosecution of the deceased is an error, and these cases could not go further. However, there are no legal reasons for the RIAA to refrain from suing grandparents or single mothers⁴⁷ who violated the law. Why should the RIAA refrain from protecting its members' rights? Age, family, or economic situation should not be obstacles for valid copyright owners to enforce their rights. From the author's perspective releasing any group of people from copyright infringement liability places them above the law. To not prosecute individuals based on their age or socioeconomic status would lend credence to exempt them from speeding tickets or taxes. Is it unethical to sue your customers? Should Walmart not prosecute a shoplifter because of his or her family situation? Thus, gripes against the RIAA campaign are exaggerated from the legal point of view. However, there is no doubt that "the legal proceedings created a public relations disaster for the music industry."⁴⁸

⁴² Natosha Cuyler-Sherman, "Shamenesty" vs. Amnesty: Can the RIAA Grant Immunity to File Sharers From Copyright Infringement Lawsuits?, 3 J. MARSHALL REV. INTELL. PROP. L. 279, 280 (2004) (citing RIAA website) ("RIAA President Cary Sherman was quoted as saying, nobody likes playing the heavy and having to resort to litigation. But when your product is being regularly stolen, there comes a time when you have to take appropriate action. We simply cannot allow online piracy to continue destroying the livelihoods of artists, musicians, songwriters, retailers, and everyone in the music industry.").

⁴³ Stacey M. Lantagne, *The Morality of MP3s: The Failure of the Recording Industry's Plan of Attack*, 18 HARV. J.L. & TECH. 269, 285 (2004) (internal citation omitted).

⁴⁴ See Nate Mook, *RIAA Sues Deceased Grandmother*, BETANEWS (Feb. 4, 2005), http://www.betanews.com/article/RIAA_Sues_Deceased_Grandmother/1107532260; *12-year-old settles music swap lawsuit*, CNN (February 18, 2004), <http://www.cnn.com/2003/TECH/internet/09/09/music.swap.settlement>.

⁴⁵ Matthew Sag, *Piracy: Twelve Years-old, Grandmothers, and Other Good Targets for the Recording Industry*, 4 NW. J. TECH. & INTELL. PROP. 133, 146 (2006).

⁴⁶ Danwill David Schwender, *Reducing Unauthorized Digital Downloading of Music by Obtaining Voluntary Compliance with Copyright Law Through the Removal of Corporate Power in the Recording Industry*, 34 T. JEFFERSON L. REV. 225, 250 (2012).

⁴⁷ Matthew Sag called this kind of defendant in RIAA lawsuits "strange fish." Matthew Sag, *Piracy: Twelve Years-old, Grandmothers, and Other Good Targets for the Recording Industry*, 4 NW. J. TECH. & INTELL. PROP. 133, 146 (2006).

⁴⁸ Bernstein, *supra* note 20, at 636.

3. *Spy Software*

Copyright owners also made clear mistakes in their fight against digital piracy. Sony BMG's use of spy software is a clear example of one of those mistakes. "In 2005 Sony BMG distributed over 2 million CDs with an undisclosed rootkit that infected as many as 500,000 computer networks worldwide."⁴⁹ "News that Sony CDs were being shipped with rootkits that installed automatically and masked their own presence spread quickly over the Internet. The incident came under investigation by the Federal Trade Commission ("FTC") and law enforcement officials in forty-two states."⁵⁰

4. *Digital Rights Management*

The Sony BMG rootkit was a part of an approach that tried to control customers through technical means. This approach is called digital rights management ("DRM"). The president of the Motion Picture Association of America, Jack Valenti, predicted that DRM would be a promising solution to the problem that P2P file sharing created.⁵¹ But "[d]espite the entertainment industry's conviction that technology can fix what technology has broken, DRM has not solved the problem of piracy."⁵²

Content Scrambling System (CSS) is an excellent example of DRM. CSS prevented digital video discs ("DVDs") from being copied. The entertainment industry employed CSS broadly.⁵³ However, "[i]n 1999, a Norwegian teen reverse-engineered the CSS encryption technology . . . to create a utility, DeCSS, which was capable of decrypting DVD files, allowing them to be copied."⁵⁴

The Advance Access Content System ("AACS") replaced CSS but "the next generation of DRM for HD DVDs and Blu-Ray discs, was compromised within a year of its introduction . . ."⁵⁵ Taking these patterns into account, it is hard to disagree that "[u]ltimately, the repeated encryption and decryption will create a vicious cycle in which the entertainment industry and the hacker community engage in an endless copy-protection arms race."⁵⁶

5. *Digital Millennium Copyright Act*

Whereas the number of Internet users who can infringe copyright is endless, all these users are united by the fact that there must be those who provide access to

⁴⁹ Sag, *supra* note 45, at 143 (citing Quinn Norton, *Sony Numbers Add Up to Trouble*, WIRED NEWS (Nov. 16, 2005), <http://www.wired.com/news/privacy/0,1848,69573,00.html>).

⁵⁰ Bridy, *supra* note 38, at 580.

⁵¹ *Id.* at 568 (Interview by J.D. Lasica, with Jack Valenti, President, MPAA (Nov. 14, 2003) <http://www.darknet.com/2005/06/interviewjack.html>).

⁵² *Id.* at 569.

⁵³ CSS was used by Universal City Studios, Paramount Pictures Corporation, Metro-Goldwyn-Mayer Studios Inc., Tristar Pictures, Inc., Columbia Pictures Industries, Inc., Time Warner Entertainment Company, L.P., Disney Enterprises Inc., and Twentieth Century Fox Film Corporation; *See* Universal City Studios v. Corley, 273 F.3d 429 (2d Cir. 2001).

⁵⁴ Mousley, *supra* note 12, at 673.

⁵⁵ Bridy, *supra* note 38, at 577.

⁵⁶ Yu, *supra* note 25, at 919.

Internet. The number of Internet providers are much less. “Rather than bringing lawsuits against individual infringers, some copyright holders now sue ISPs, the online intermediaries that provide a platform for infringement, in hopes that they will cut the Internet Piracy problem off at its source.”⁵⁷ The relations with ISPs are regulated by the Digital Millennium Copyright Act of 1998 (DMCA).

DMCA established the process of takedown notices and safe harbors for ISPs.⁵⁸ Anti-circumvention measures are part of DMCA as well. How the DMCA works is beyond the reach of this article because of its complexity, but it is worth noting that the act came into force in 1998 in the dial-up Internet era. As House Judiciary Committee Chairman Bob Goodlatte noted during the U.S. Chamber of Commerce’s Global Intellectual Property Center’s 2014 IP Summit, “[w]hen the DMCA was enacted, approximately 3% of the world’s population used the Internet. Today, over 40% do.”⁵⁹

As a whole, the DMCA allows a copyright owner to protect their property, but it could be improved on. Interestingly enough, both copyright owners and anti-copyright foundations do not like DMCA: the former dislikes it for its limitations, the latter dislikes it for its breadth of coverage.⁶⁰

6. SOPA, PIPA, and Other Bills

There were several other bills that the entertainment industry tried to use for digital anti-piracy. The most famous bills, the Stop Online Piracy Act (“SOPA”)⁶¹ and the Protect IP Act (“PIPA”),⁶² were introduced in 2011. SOPA “expand[ed] the liability of online intermediaries for copyright infringement and mov[ed] copyright enforcement to private hands.”⁶³ PIPA “provided that the Attorney General could sue owners and operators of websites dedicated to infringing activities.”⁶⁴ Both bills required that internet intermediaries take some measures against pirates.⁶⁵

⁵⁷ Bernstein, *supra* note 20, at 627-628.

⁵⁸ 17 U.S.C.A. § 512.

⁵⁹ *Webcast, 2nd Annual Global IP Summit*, GLOBAL INTELL. PROP. CTR., U.S. CHAMBER OF COMMERCE (Nov. 18, 2014), <https://www.uschamber.com/event/2nd-annual-global-ip-summit> (Bob Goodlatte, House Judiciary Committee Chairman, statement at 3:00:52 to 3:01:00).

⁶⁰ See e.g., U.S. COPYRIGHT OFFICE LIBRARY OF CONGRESS, *Joint Supplemental Comments of American Federation of Musicians, In the Matter of Section 512 Study: Notice and Request for Public Comment*, No. 2015-7, ARS TECHNICA (Feb. 21, 2017), <https://arstechnica.com/wp-content/uploads/2017/02/riaa.pdf>; Fred Von Lohmann, *Unintended Consequences: Twelve Years under the DMCA*, EFF (Feb. 2010), https://www.eff.org/files/eff-unintended-consequences-12-years_0.pdf (“DMCA has developed into a serious threat to several important public policy priorities.”); Devlin Hartline, *Twenty Years Later, DMCA More Broken Than Ever*, CTR. PROTECTION INTELL. PROP., GEO. MASON U. (Apr. 24, 2019) <https://cpip.gmu.edu/2019/04/24/twenty-years-later-dmca-more-broken-than-ever/>.

⁶¹ SOPA Stop Online Piracy Act, H.R. 3261, 112th Cong. (2011).

⁶² Preventing Real Online Threats to Economic Creativity and Theft of Intellectual Property Act of 2011 (“PROTECT IP”), S. 968, 112th Cong. (2011).

⁶³ Georgios I. Zekos, *Copyright and Trademarks in Cyberspace: A Legal and Economic Analysis*, 15 CHI. KENT J. INTELL. PROP. 313, 333 n.124 (2016).

⁶⁴ Bernstein, *supra* note 20, at 638.

⁶⁵ See generally Mike Belleville, *IP Wars: SOPA, PIPA, and the Fight Over Online Piracy*, 26 TEMP. INT’L & COMP. L.J. 303 (2012).

These “governmental (legislative) attempts have faced significant opposition among the public”⁶⁶ Some concerns have been related to the First Amendment right of free speech.⁶⁷ One commentator states that “[i]t would be . . . tragic, were the United States to join the ranks of these repressive and restrictive regimes.”⁶⁸ “Due to strong resistance to the legislation, both SOPA and PIPA were postponed indefinitely, and copyright owners were left to find a new way to protect their works from online piracy infringement.”⁶⁹

There have been other unsuccessful attempts to combat digital piracy through legislation. For example, Senator Hollings’ Consumer Broadband and Digital Television Promotion Act (CBDTPA),⁷⁰ would have “require[d] all new hardware and software to have embedded copy-protection schemes approved by the Federal Government and regulated by the Federal Communications Commission (FCC).”⁷¹ “The computer industry bitterly opposed Hollings’ bill, and it stalled in the Senate.”⁷² Further, the Peer-to-Peer Piracy Prevention Act (PPPPA)⁷³ “if enacted, would have allowed movie studios and record companies to hack into personal computers and peer-to-peer networks when they suspected infringing materials were being circulated.”⁷⁴ “The bill essentially proposed giving the recording industry a blank check for retributive hacking.”⁷⁵ Senator Orrin Hatch explained in plain, but harsh terms, that these measures were necessary “in order to ‘teach someone about copyright.’”⁷⁶ Unfortunately, this bill never became a statute either.

7. Other Methods

The industry has employed many other methods of digital anti-piracy, both successful and unsuccessful. One particularly weak measure is the 301 Report.⁷⁷ For example, Russia has been on the Priority Watch List since 2006; ten years later, “Russia remains on the Priority Watch List . . . as a result of continued and significant challenges to IPR protection and enforcement”⁷⁸ It shows that the 301 Report cannot fix piracy issues.

⁶⁶ Imke Reimers, *Can Private Copyright Protection Be Effective? Evidence from Book Publishing*, 59 J.L. & ECON. 411, 434 (2016).

⁶⁷ Mark Lemley, David S. Levine & David G. Post, *Don’t Break the Internet*, 64 STAN. L. REV. 34, 36 (2011), http://www.stanfordlawreview.org/wp-content/uploads/sites/3/2011/12/64-SLRO-34_0.pdf.

⁶⁸ *Id.* at 37.

⁶⁹ Bernstein, *supra* note 20, at 639.

⁷⁰ Consumer Broadband and Digital Television Promotion Act, S. 2048, 107th Cong. (2002).

⁷¹ Mousley, *supra* note 12, at 682.

⁷² Declan McCullagh & Milana Homs, *Leave DRM Alone: A Survey of Legislative Proposals Relating to Digital Rights Management Technology and Their Problems*, 2005 MICH. ST. L. REV. 317, 323 (2005).

⁷³ Peer-to-Peer Piracy Prevention Act, H.R. 5211, 107th Cong. (2002).

⁷⁴ Yu, *supra* note 25 at 908.

⁷⁵ Sag, *supra* note 45, at 145.

⁷⁶ *Id.* at 145.

⁷⁷ See generally *Special 301 Report*, OFFICE OF THE U.S. TRADE REP. (2016), <https://ustr.gov/about-us/policy-offices/press-office/reports-and-publications/2016/special-301-report>.

⁷⁸ *2016 Special 301 Report*, OFFICE OF THE U.S. TRADE REP. 46 (Apr. 2016), <https://ustr.gov/sites/default/files/USTR-2016-Special-301-Report.pdf>

Deputy Director of Policy and International Affairs for the United States Copyright Office, Maria Strong, describes the 301 Report as “the annual review of the global state of [intellectual property] (“IPR”) protection and enforcement and market access for persons relying on intellectual property protection,” and states that it “has been an important tool to gather information.”⁷⁹ Thus, while this approach helps to gather and review information, it does not actually enforce copyright protection.

Nevertheless, the 301 Report may be the starting point to enforce countries’ obligations for IPR protection in terms of the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS). This treaty obliges parties to effectively enforce copyright,⁸⁰ and if a country does not provide effective procedures and remedies, the agreement establishes grounds for submitting a claim to the Dispute Settlement Body of the World Trade Organization.

The main target of the 301 Report is to compel foreign countries to protect intellectual property better. The same pattern is used in gatekeepers’ regime when “private parties are able to disrupt misconduct by withholding their cooperation from wrongdoers.”⁸¹ At least ISPs, payment processors, and advertisers can be used successfully as gatekeepers. In 2011, the five top ISPs (AT&T, Comcast, Time Warner Cable, Verizon, and Cablevision) entered a voluntary agreement with the MPAA and the RIAA.⁸² This led to the establishment of the copyright alert system (“CAS”)⁸³ and implementation of the “Six-Strikes” Policy—special procedure consisting of “monitoring . . . when files are downloaded and/or shared using torrents and file-sharing websites and then email[ing] warnings.”⁸⁴

In *Perfect 10, Inc. v Visa Intern*, Perfect 10⁸⁵ failed to persuade the court to use secondary liability doctrine for payment processors activities. Nevertheless, “[i]n June 2011, major credit card companies and payment processors reached an agreement on voluntary best practices to reduce sales of counterfeit and pirated goods. Voluntary participants include American Express, Discover, MasterCard, PayPal, and Visa.”⁸⁶

⁷⁹ Maria Strong, *Enforcement Tools in the U.S. Government Toolbox to Support Countries’ Compliance with Copyright Obligations*, 40 COLUM. J.L. & ARTS 359, 367 (2017) (emphasis added).

⁸⁰ Agreement on Trade-Related Aspects of Intellectual Property Rights, art. 41(1), Apr. 15, 1994, 1869 U.N.T.S. 299 (1994) (“Members shall ensure that enforcement procedures as specified in this Part are available under their law so as to permit effective action against any act of infringement of intellectual property rights covered by this Agreement, including expeditious remedies to prevent infringements and remedies which constitute a deterrent to further infringements. These procedures shall be applied in such a manner as to avoid the creation of barriers to legitimate trade and to provide for safeguards against their abuse.”).

⁸¹ Reinier H. Kraakman, *Gatekeepers: The Anatomy of a Third-Party Enforcement Strategy*, 2 J.L. ECON. & ORG. 53, 53 (1986).

⁸² *ISPs, movie, music, and TV groups enter into copyright deal*, MYBROADBAND (July 8, 2011), <https://mybroadband.co.za/news/internet/28556-isps-movie-music-and-tv-groups-enter-into-copyright-deal.html>.

⁸³ See *generally Copyright Alert System*, WIKIPEDIA, https://en.wikipedia.org/wiki/Copyright_Alert_System (last visited Nov. 17, 2018).

⁸⁴ Brett Schiff, *Copyright Alert System: Six-Strikes and Forced Arbitration Might Not Be the Answer*, 16 CARDOZO J. CONFLICT RESOL. 909, 921 (2015).

⁸⁵ *Perfect 10, Inc. v. Visa Intern. Serv. Ass’n*, 494 F.3d 788, 795 (9th Cir. 2007).

⁸⁶ *2011 Annual Report On Intellectual Property Enforcement*, OFFICE OF THE U.S. INTELL. PROP. ENFT. COORDINATOR, OFFICE OF THE PRESIDENT 5 (Mar. 2012), https://obamawhitehouse.archives.gov/sites/default/files/omb/IPEC/ipec_annual_2011_report.pdf.

The US Intellectual Property Enforcement Coordinator confirmed this approach for the 2017, 2018, and 2019 fiscal years.⁸⁷

In 2014, the Interactive Advertising Bureau (IAB) which consolidated more than 650 digital advertisers⁸⁸ joined anti-piracy efforts, and launched its Trustworthy Digital Supply Chain Initiative, whose objectives included fighting Internet piracy.⁸⁹ In particular, IAB played a role of a real gatekeeper and stated that “advertising revenue should never flow to criminals who steal copyrighted material and place it on “pirate sites.”⁹⁰

Some recent news from the market may be a signal that copyright owners may rely on voluntary agreements with Internet companies that use creative works as the settlement agreement between YouTube and National Music Publishers’ Association.⁹¹

B. The Disappointing Results of Fighting Against Digital Piracy

In 2004, the fight against digital piracy looked promising. “So far, the industry has been winning. Among its trophies are the enactment of the Digital Millennium Copyright Act (“DMCA”), Vivendi Universal’s defeat and purchase of MP3.com, the movie studios’ victory in the DeCSS litigation, the bankruptcy and subsequent sale of Napster and its recent relaunch as a legitimate subscription-based music service, . . . and the recording industry’s relative success in its mass litigation campaign.”⁹²

However, in the last several years the situation has changed dramatically for the worse and has not improved so far. “In summary, the . . . industry failed to control behavior of digital . . . file-sharers using the law, the market, the architecture, and social norms.”⁹³ There are several reasons for the current situation that will be described below. They are high costs of direct violations lawsuits, losing the war with P2P, issues with DMCA and CAS, no affective technical measures against piracy.

⁸⁷ *Supporting Innovation, Creativity & Enterprise Charting a Plan Ahead FY 2017-2019*, OFFICE OF THE U.S. INTELL. PROP. ENFT. COORDINATOR, U.S. JOINT STRATEGIC PLAN ON INTELL. PROP. ENFT., OFFICE OF THE PRESIDENT 62 (2016), <https://obamawhitehouse.archives.gov/sites/default/files/omb/IPEC/2016jointstrategicplan.pdf> (“All legitimate payment processors prohibit the use of their services and platforms for . . . IP-infringement activities.”).

⁸⁸ *Our Story*, INTERACTIVE ADVERTISING BUREAU (IAB), <https://www.iab.com/our-story> (last visited Nov. 15, 2018).

⁸⁹ *Winning the War on Crime in the Supply Chain: A Trust-Building Initiative to Get Behind*, Now, IAB (Jun. 9, 2014), <https://www.iab.com/trustworthy-digital-supply-chain/>.

⁹⁰ *Id.*

⁹¹ Ben Sisario, *YouTube Reaches Settlement Over Songwriting Royalties*, N.Y. TIMES (Dec. 8, 2016), https://www.nytimes.com/2016/12/08/business/media/youtube-reaches-settlement-over-songwriting-royalties.html?_r=0.

⁹² Yu, *supra* note 25, at 908.

⁹³ Schwender, *supra* note 46, at 266-267 (2012) (“Litigation against intermediaries simply forced peer-to-peer networks to relocate abroad. The lawsuits against individual file-sharers succeeded at educating the public and likely deterred some file-sharers, but it also created a public relations disaster. Use of DRM caused a media backlash and eventually gave way to consumer demand for flexibility in their digital music uses. Although the introduction of legal digital music websites into the market proved profitable and the educational campaign succeeded in educating the public on copyright law, these strategies failed to change the social norm of digital music file-sharing.”).

1. *Direct violation lawsuits too expensive*

“[T]he ability of individuals to engage easily in mass copying and distribution threatens the traditional economic model of copyright protection.”⁹⁴ “[T]here are simply too many copyright infringers and not enough resources to enforce the law.”⁹⁵

Both public relations and finance considerations lead the RIAA to stop its anti-piracy direct infringers campaign, and a similarly massive campaign in the future seems unlikely. “Despite its vast resources, the recording industry and its member labels cannot sue every end user who might be unlawfully using peer-to-peer networks to swap music.”⁹⁶

2. *The outcome of the victories over P2P*

Unfortunately, the industry won the battles over P2P but lost the war. “Despite the . . . initial success, the lawsuits proved ineffective because the courts refused to prohibit peer-to-peer networks entirely and new peer-to-peer file-sharing networks emerged outside of the United States.”⁹⁷ But it is impossible to enforce all P2P websites in all countries. “The problem is worldwide and each country tries to find solutions in accordance with its own standards of copyright protection.”⁹⁸

3. *Issues with DMCA and Copyright Alert System*

“The 1998 DMCA was Congress’ first legislative attempt to bring copyright law into the digital age.”⁹⁹ Sooner or later, the obsolete “dial-up” DMCA will transform from a boon to copyright industry into an obstacle that does not protect copyright in the modern world. The copyright community has been in this position for at least several years, and some members of the entertainment industry have called the DMCA “broken” and constantly offered to change it.¹⁰⁰

⁹⁴ Högberg, *supra* note 27, at 910.

⁹⁵ Christopher Jensen, *The More Things Change, the More They Stay the Same: Copyright, Digital Technology, and Social Norms*, 56 STAN. L. REV. 531, 562 (2003).

⁹⁶ Sag, *supra* note 45, at 147 (2006).

⁹⁷ Schwender, *supra* note 46, at 249.

⁹⁸ VALERIE-LAURE BENABOU, COPYRIGHT ENFORCEMENT AND THE INTERNET 163 (Irin A. Stamatoudi ed., 2010).

⁹⁹ Donald P. Harris, *Time To Reboot?: DMCA 2.0*, 47 ARIZ. ST. L.J. 801, 802 (2015).

¹⁰⁰ See generally *Joint Supplemental Comments of American Federation of Musicians, In the Matter of Section 512 Study: Notice and Request for Public Comment*, No. 2015-7, ARS TECHNICA 2 (Feb. 21, 2017) <https://arstechnica.com/wp-content/uploads/2017/02/riaa.pdf>.

To improve the situation research has been conducted in previous years¹⁰¹ and is ongoing.¹⁰² The United States House of Representatives “began holding a series of hearings to learn what is, and what is not, working in Title 17. The overall purpose of this review has been to ensure that copyright is still working in the 21st Century to reward creativity and protect the rights of authors, artists, and creators.”¹⁰³

Despite these research studies and hearings, the current situation is not improving. Though past “[p]reliminary reports indicate[d] that [DMCA] will be a successful force in deterring online copyright infringement,”¹⁰⁴ it seems that DMCA is not ready to be an effective solution in the modern world. The DMCA takedown notices process has become repetitive and endless because infringing websites are “dynamic and change[d] day-to-day or hour-to-hour as users upload more material, the task of identifying and sending notifications requesting the removal of copyrighted works would amount to an unending version of the children's game of “Whack-A-Mole.”¹⁰⁵

One remedy for this situation may be a shift of the burden of policing to ISPs. However, interested parties outside of the copyright community are unlikely to agree with this proposal.¹⁰⁶ As soon as ISPs have an obligation, they will have liability; currently, the safe harbor principle keeps ISPs from the danger of secondary liability. Moreover, the number of takedown notices reached billions,¹⁰⁷ and ISPs reasonably do not want to deal with searching for such high volumes of infringing materials. Thus, burden shifting is not a realistic approach.

One of the most challenging parts of DMCA for copyright owners is coordinating the logistics of the takedown process. This process has only had slight changes since the dial-up era; the changing of the process presents an easier challenge than burden

¹⁰¹ See generally *DMCA NOTICE-AND-TAKEDOWN PROCESSES: LIST OF GOOD, BAD, AND SITUATIONAL PRACTICES*, DEP'T OF COMMERCE, DMCA MULTISTAKEHOLDER FORUM (2015), https://www.uspto.gov/sites/default/files/documents/DMCA_Good_Bad_and_Situational_Practices_Document-FINAL.pdf.

¹⁰² See *Section 512 Study*, U.S. COPYRIGHT OFFICE, <https://www.copyright.gov/policy/section512/> (last visited Mar. 25, 2018) (noting that the United States Copyright Office evaluates safe harbor provision effectiveness).

¹⁰³ *Chairman Goodlatte's Remarks to the Chamber of Commerce's IP Summit*, HOUSE JUDICIARY COMM. (Nov. 18, 2014), <https://judiciary.house.gov/press-release/chairman-goodlatte-s-remarks-to-the-chamber-of-commerce-s-ip-summit/>.

¹⁰⁴ Bernstein, *supra* note 20, at 642 (alteration in original).

¹⁰⁵ Marc J. Randazza, *Lenz v. Universal: A Call to Reform Section 512(F) of the DMCA and to Strengthen Fair Use*, 18 VAND. J. ENT. & TECH. L. 743, 752 n.54 (2016) (citing Brief of Appellant. at 55, *UMG Recordings v. Shelter Capital Partners LLC*, 718 F.3d 1006 (9th Cir. 2013) (No. 09-56777)). See also, *Online Piracy: Myths, Metrics and More...*, MARKMONITOR 4, https://www.markmonitor.com/download/QA/MarkMonitor-Interview_Richard_Atkinson.pdf (last visited Oct. 10, 2019) (“By whack-a-mole, I mean you close down one pirate site only to have another pop right up. People give up on anti-piracy efforts saying, “How are we ever going to clean it up? Every attempt anyone has ever made has failed because the ‘bad guys’— non-authorized folks selling counterfeit products — move faster than the ‘good guys.’”).

¹⁰⁶ See Harris, *supra* note 99, at 802 (“These folks would resist efforts to alter the current DMCA structure and balance despite the significant changes since the passage of the DMCA and the meteoric rise in infringement.”).

¹⁰⁷ Only Google alone reported that 3,826, 956, 510 URLs requested to be removed due to copyright infringement. *Google Transparency Report*, GOOGLE, <https://transparencyreport.google.com/copyright/overview?hl=en> (last visited Nov. 18, 2018).

shifting onto ISPs. The industry has been trying to change DMCA,¹⁰⁸ but it will have to spend years to find a new balance that will suit other players.

Meanwhile, in early 2017, the Copyright Alert System concluded its work “[a]fter four years of extensive consumer education and engagement . . .”¹⁰⁹

Furthermore, the recent case, *Universal v. Lenz*,¹¹⁰ had a negative impact on DMCA implementation. The Ninth Circuit ruled “that the statute requires copyright holders to consider fair use before sending a takedown notification, and that failure to do so raises a triable issue as to whether the copyright holder formed a subjective good faith belief that the use was not authorized by law.”¹¹¹ Though fair use is an affirmative defense,¹¹² it must be considered before sending a takedown notice. Notably, the Court denied Plaintiff’s and Defendant’s request to rehear the case *en banc* and amended the opinion by omitting, in particular, the view on computer algorithms for automatic takedown process. It brought even more ambiguity to the controversial issue of DMCA takedown process application.¹¹³

Nevertheless, despite the obstacles for digital anti-piracy activities, obsolete DMCA still works to some extent. In November 2015, DMCA helped BMG in its litigation against Cox Communication when the court rejected Cox’s safe harbor protection and found Cox to be willfully blind to the infringement of copyrights.¹¹⁴ Though some scholars considered that the court had ignored DMCA,¹¹⁵ the 4th Circuit Court of Appeals approved this approach.¹¹⁶ BMG’s success in the district court has an

¹⁰⁸ See e.g., *Major Music Organization Outline “Key Failings” to Broken DMCA in New Comments*, RECORDING INDUS. ASS’N OF AM., <https://www.riaa.com/major-music-organizations-decry-broken-dmca-outline-possible-solutions-new-government-filing/>; Bruce Boyden, *The Failure of the DMCA Notice and Takedown System: A Twentieth Century Solution to a Twenty-First Century Problem*, CTR. PROT. INTELL. PROP. (Dec. 2013), <http://sls.gmu.edu/cpip/wp-content/uploads/sites/31/2013/08/Bruce-Boyden-The-Failure-of-the-DMCA-Notice-and-Takedown-System1.pdf>.

¹⁰⁹ *Statement on the Copyright Alert System*, CTR. COPYRIGHT INFO. (Jan. 27, 2017), <http://www.copyrightinformation.org/statement/statement-on-the-copyright-alert-system/>.

¹¹⁰ *Lenz v. Universal Music Corp.*, 815 F.3d 1145 (9th Cir. 2016).

¹¹¹ *Id.* at 1148.

¹¹² WILLIAM F. PATRY, PATRY ON FAIR USE § 2:5 (2017) (“Even though the phrasing of Section 107—“Notwithstanding the provisions of sections 106 and 106A . . . the fair use of a copyrighted work is not an infringement”—could be interpreted as indicating that fair use negates a prima facie case of infringement, fair use is, in fact, an affirmative defense. As such, it comes into play only if and after the plaintiff has first made out a prima facie case. The party asserting fair use, therefore, bears the burden of proving the defense.”).

¹¹³ See generally M. Jake Feaver, *Correcting Computer Vision: the Case for Reals Eyes After Lenz*, 68 HASTINGS L.J. 397 (2017); Sharanjit Sandhu, *The Baby Won’t Stop Dancing. The Effect of Lenz Case on DMCA*, INTELL. PROP. & TECH. F. (Feb. 7, 2017), <http://bciprf.org/wp-content/uploads/2017/02/IPTF-Blog-Post-Final-Draft-SKS-edit-11-27-16-2-1.pdf>; Marc J. Randazza, *Lenz v. Universal: A Call to Reform Section 512(F) of the DMCA and to Strengthen Fair Use*, 18 VAND. J. ENT. & TECH. L. 743 (2016); Elizabeth McNamara & Samuel M. Bayard, *Can a Machine Consider Fair Use? ‘Lenz’ and Automated Takedown Notices*, LAW.COM (Sept. 28, 2015), <https://www.law.com/newyorklawjournal/almID/1202738233443>.

¹¹⁴ *BMG Rights Mgmt. (US) LLC v. Cox Comm., Inc.*, 199 F. Supp. 3d 958, 983 (E.D. Va. 2016), *aff’d in part, rev’d in part*, 881 F.3d 293 (4th Cir. 2018).

¹¹⁵ Erik Estrada et al., *How Much Can Dumb Pipes Know? BMG v. Cox and Why a Knowledge Bar to DMCA Safe Harbor for Internet Service Providers is Inappropriate*, 94 DENV. L. REV. 1, 2 (2016) (“The court in *BMG v. Cox* probably reached the right result, but it reached it in the wrong way; the court could have reached the same result without ignoring the plain text of the DMCA.”).

¹¹⁶ *BMG Rights Management (US) LLC v. Cox Communications, Incorporated*, 881 F.3d 293 (4th Cir. 2018).

immediate outcome. Two ISP's felt threatened by the *BMG v. Cox* decision and asked the court to enter a declaratory judgment regarding copyright noninfringement and safe harbor.¹¹⁷ Notably, one ISP reached an agreement with BMG,¹¹⁸ and the court dismissed the claim of another holding that the plaintiff "...seeks a blanket approval of its business model."¹¹⁹ In April 2017, the RIAA continued to take BMG's approach in litigation against ISPs.¹²⁰

4. No Effective Technical Measures Against Piracy

Digital Rights Management (DRM) did not help the entertainment industry very much either. "DRM is ineffective at stopping 'Internet piracy.' Once upon a time, it may have been enough to create a technological 'speed bump' that would 'keep honest people honest.' With the advent of new technologies . . . these approaches have become obsolete . . ."¹²¹

In the short-term DRM may help, but in the long-term, it leads to an arms race. "...[W]hen the entertainment industry chose to take on P2P file sharing at the level of code, it provoked an arms race with hackers that continues to escalate with every new iteration of content protection introduced into the marketplace."¹²²

III. DIGITAL PIRACY IS INVINCIBLE

So far, this article has demonstrated how the industry developed its anti-piracy measures and where is the industry currently stands in terms of the results of anti-piracy activities. While this is far from the truth, this article may suggest that the industry has passed through several of the five stages of grief and now is in the state of depression and very close to acceptance of piracy.¹²³ But this is not true. Before proposing new measures against piracy, it is worth mentioning the reasons why people commit copyright infringement. Additionally, even though piracy is an invincible disease, its symptoms may be effectively cured.

¹¹⁷ Ernesto Van der Sar, *U.S. ISP Sues Music Group Over Piracy Allegations*, TORRENTFREAK (June 15, 2016), <https://torrentfreak.com/u-s-isp-sues-music-group-over-piracy-allegations-160615/>.

¹¹⁸ Wendy Davis, *Broadband Provider Ends Piracy Fight With BMG*, MEDIAPOST (March 30, 2017), <https://www.mediapost.com/publications/article/298193/internet-service-provider-rcn-ends-battle-with-bmg.html>.

¹¹⁹ *Windstream Services v. BMG Rights Mgmt.*, No. 16 Civ. 5015, slip op. at 7 (C.D.N.Y. April 17, 2017).

¹²⁰ Robert Levine, *RIAA Sues Grande Communications in New DMCA Case*, BILLBOARD (April 04, 2017), <http://www.billboard.com/articles/news/7768055/riaa-suing-grande-communications-copyright-infringement>.

¹²¹ Fred von Lohmann, *Digital Rights Management: The Skeptics' View*, Electronic Frontier Foundation (April 10, 2003), https://www.eff.org/files/20030401_drm_skeptics_view.pdf.

¹²² Bridy, *supra* note 38, at 569-70.

¹²³ ARAM SINNREICH, *THE PIRACY CRUSADE* 66-68 (Univ. of Mass. Press 2014).

A. Reasons Why People Engage in Digital Piracy

Before considering remedies to the problem of digital piracy, one must understand the reasons why people commit piracy.¹²⁴ The main reason for piracy is money, because the temptation of free entertainment is attractive, especially if technology makes high-quality low-cost copying feasible.¹²⁵

Anonymity on the Internet and the number of infringers obscures the act's actual criminality. "[T]he mere size of the group of file-sharers using peer-to-peer networks and their relative anonymity made any threat of social sanction irrelevant."¹²⁶ Moreover, the global nature of piracy makes it hard for a copyright owner to work effectively, having to adapt to the laws and constraints of dissimilar areas.

Years ago, the inaccessibility of legal online media might have been a reason for piracy, but since Apple launched iTunes with 200,000 songs in 2003, this problem seems diminished. Now Spotify, Pandora, Amazon Video, Netflix and many other subscription-based sources provide readily available commercial media.

Lack of customers' knowledge may also be named as a reason for digital piracy. But a more likely explanation, instead of lack of knowledge, is habit and ignorance. A recent customer survey shows that 72% of U.S. customers understand that sharing pirated video content is illegal, and 62% understand that streaming pirated content is illegal.¹²⁷ "Despite laws prohibiting this conduct, acceptance of unauthorized file-sharing of protected digital files has become the social norm."¹²⁸

One less common reason for piracy is that some pirates are acting on principle. They argue for freedom of information exchange and are opposed to corporations. These individuals could be considered "high-level pirates" because of their high-level technical knowledge and perception of the internet. Similarly, some infringers believe that they protect freedom of speech from copyright owners by freeing information. "One commentator noted a number of potential reasons why the public fails to consider unauthorized digital music file-sharing as immoral: . . . [D]igital piracy only harms large corporations, not artists . . . [and] large corporations are soulless, greedy copyright owners . . ."¹²⁹ "Copyright law does not put money in the pockets of musicians; rather, it serves as a means of generating financial incentives for the industry . . ."¹³⁰

But it is impossible to imagine a home customer who considers an artist's relations with a recording company and only after this consideration commits infringement. As one researcher puts it, "[m]ost illegal downloaders aren't paying close attention to free-

¹²⁴ See generally JOHN GANTZ & JACK B. ROCHESTER, *PIRATES OF THE DIGITAL MILLENNIUM* 78 (2005).

¹²⁵ Brett J. Miller, *The War Against Free Music: How the RIAA Should Stop Worrying and learn to Love the MP3*, 82 U. DET. MERCY L. REV. 303, 317 (2005) ("Perhaps the problem is that in capitalism there is an attitude that, when faced with a choice between downloading a song for free with the click of a mouse, or paying \$18 for the entire album, most people seem eager to choose the former.")

¹²⁶ Schwender, *supra* note 46, at 263.

¹²⁷ *The Irdeto Global Consumer Piracy Survey*, IR.DETO (2017), <https://resources.irdeto.com/irdeto-global-consumer-piracy-survey/all-country-results-for-global-consumer-piracy-survey>.

¹²⁸ Schwender, *supra* note 46, at 228.

¹²⁹ *Id.* at 272.

¹³⁰ Geoffrey Neri, *Sticky Fingers or Sticky Norms? Unauthorized Music Downloading and Unsettled Social Norms*, 93 GEO. L.J. 733, 742 (2005).

trade agreements. They just want free stuff now.”¹³¹ “Many pirates like to portray themselves in altruistic terms—as romantics bringing education and entertainment to the poor and otherwise deprived . . .”¹³² However, this doesn’t change the fact that at its core, “[t]his is about stealing, plain and simple.”¹³³

IV. HOLISTIC VIEW ON DIGITAL ANTIPIRACY AND NEW APPROACHES;

A. An Incurable Disease Cannot be Cured...

This Article has discussed unsuccessful anti-piracy efforts. But current issues and obstacles are not reasons to stop fighting; the industry should reconsider its position and move forward.

The entertainment industry should consider the possibility that it might never overcome the root causes of piracy because customers will always try to save money and get free content. This is not a reason to give up on anti-piracy efforts, because a copyright holder has enough opportunities to protect its content. Copyright owners must not stop protecting copyright just because the Electronic Frontier Foundation and Google will never be concerned about copyright owners’ problems.

Technologies have changed piracy from industrial to home settings and we should suspect the trend towards easy illegal file sharing or video streaming will continue because of this movement. Litigation with an infringer has also failed as a significant deterrent. “[Th]e Internet makes infringement easy to commit and Internet users are not attractive targets for litigation. Internet users may be difficult to identify or find, and their pocketbooks often are not deep enough to pay for monetary judgments.”¹³⁴

At the same time, copyright owners should consider that illegal content price of zero dollars will always be the most attractive for customer. This is not a reason to give up on anti-piracy efforts. As Gene Hoffman, the CEO of Emusic, Inc., said in 1998, “the best way to stop piracy is to make music so cheap it isn’t worth copying . . .”¹³⁵ In 2000, Emusic sold a single in digital form for ninety-nine cents¹³⁶ and today, Emusic offers the subscription for less than fifty cents a song.¹³⁷ “Market approaches prove to

¹³¹ McGuinness, *supra* note 14, at 17.

¹³² JOHN GURNSEY, COPYRIGHT THEFT 30 (1995).

¹³³ Neri, *supra* note 130, at 742 (citing Press Release, Motion Picture Ass’n of Am., Inc., Motion Picture and Music Industries File Suit Against Scour.com (July 20, 2000)).

¹³⁴ Alfred C. Yen, *A Preliminary Economic Analyses of Napster: Internet Technology, Copyright Liability, and the Possibility of Coasean Bargaining*, 26 DAYTON L. REV. 247, 252 (2001). *See also*, Yochai Benkler, *Freedom in the Commons: Toward a Political Economy of Information*, 52 DUKE L.J. 1245, 1246-47 (2003) (“In a nutshell, in the networked information economy—an economy of information, knowledge, and culture that flow through society over a ubiquitous, decentralized network--productivity and growth can be sustained in a pattern that differs fundamentally from the industrial information economy of the twentieth century in two crucial characteristics. First, nonmarket production-- like the Phantom Edit, produced by a fan for the fun of it--can play a much more important role than it could in the physical economy. Second, radically decentralized production and distribution, whether market-based or not, can similarly play a much more important role . . .”).

¹³⁵ The Digital Dilemma, *supra* note 18, at 80.

¹³⁶ *Id.*

¹³⁷ EMUSIC, <https://www.emusic.com/plans> (last visited Apr. 22, 2018).

be effective immediate remedies, but ultimately depend upon constant evolution and innovation to sustain anything beyond an ephemeral solution.”¹³⁸ As soon as we speak about zero price, this market approach immediately becomes unrealistic because legal content cannot be a success competitor for illegal content in terms of money. Legal content cannot cost zero dollars.

B. The Symptoms of Digital Piracy May be Reduced

“Piracy cannot be eliminated, but . . . can be corralled and contained with a deliberate strategy that involves copyright holders, government, and Internet intermediaries such as ISPs, hosting providers, online advertisers, and payment processors.”¹³⁹

There is no perfect solution to digital piracy, but permanent and consistent work will lead to results. For example, the Russian social network, VKontakte, had been a site that the RIAA labeled a “notorious market’ for piracy.” In 2014, Universal Music Group, Warner Music Group and Sony Music Entertainment sued VKontakte in Russia.¹⁴⁰ It resulted in a loss for Universal and Warner Music (Sony and VKontakte settled). However, in 2017, Universal and Warner Music went on to sign licensing agreements with VKontakte’s parent, Mail.ru Group, and VKontakte launched a paid subscription service for its users.¹⁴¹

1. Synergizing the Remedies

As shown by the VKontakte case, one of the most important strategies for anti-piracy is to have consistent, permanent and interconnected enforcement activities, this creates a synergistic effect. However, current anti-piracy activities do not follow this model. “The industry was winning in the beginning, but its latest efforts have become increasingly futile, disorganized, and counterproductive.”¹⁴²

There are many anti-piracy efforts from different companies, from different industries and from various associations of these companies and industries. Film studios from Hollywood have their own association that protects their intellectual property rights—The Motion Picture Association of America (MPAA).¹⁴³ The United States recording industry is united under the Recording Industry Association of

¹³⁸ Mousley, *supra* note 12, at 668.

¹³⁹ Nelson Granados, *The War Against Movie Piracy: Attack Both Supply And Demand*, FORBES (Aug. 31, 2015) <https://www.forbes.com/sites/nelsongranados/2015/08/31/the-war-against-movie-piracy-attack-both-supply-and-demand/#733f25276e7a>.

¹⁴⁰ See generally Stuart Dredge, *Major Labels Sue Russian Social Network VKontakte for 'Large-Scale' Music Piracy*, THE GUARDIAN (April 3, 2014), <https://www.theguardian.com/technology/2014/apr/03/major-labels-vkontakte-russia-music-piracy>.

¹⁴¹ Vladimir Kozlov, *Vkontakte (Russia's Facebook) Launches Built-In Music Streaming Service*, BILLBOARD (May 1, 2017), <http://www.billboard.com/articles/business/7776988/vkontakte-music-streaming-service-russian-facebook>.

¹⁴² Yu, *supra* note 25, at 941.

¹⁴³ *What We Do*, MOTION PICTURE ASS'N OF AM. (November 15, 2018), <https://www.mpa.org/what-we-do/>.

America (RIAA), which protects members' copyrights.¹⁴⁴ The video games industry fights piracy using The Entertainment Software Association (ESA).¹⁴⁵ Each of these players has its own agenda, territory, strategy, and tactics. Establishing one unified anti-piracy cross-industry organization would have significant success in anti-piracy matters. This organization should develop a holistic approach, allow for better coordination of activities and do work that is necessary for the whole market, such as researching anti-piracy measures or lobbying for anti-piracy legislation.

On June 13, 2017, "30 leading content creators and on-demand entertainment companies from around the world launched the Alliance for Creativity and Entertainment (ACE), a new global coalition dedicated to protecting the dynamic legal market for creative content and reducing online piracy."¹⁴⁶ Unlike MPAA this coalition gathered not only the Hollywood majors but other movie makers as well. Nevertheless, from the moment it was established, the association took only several actions against pirates that does not constitute consistent anti-piracy work and anti-piracy public relations.

Glancing at the issue from another angle also confirms necessity of synergy. Phil Shiller, Senior Vice President of Worldwide Product Marketing for Apple Inc., said: "The solution to music piracy is not a technological one. No one can make the perfect safe to put things in. And it won't be a magic law that stops all piracy. In the end, the solution will be a behavioral one."¹⁴⁷ This is not entirely correct because these are technologies and laws that can change behavior. That is why copyright owners need to employ all possible measures from all possible angles from all anti-piracy actors to change a habit of piracy and develop "copyright culture"¹⁴⁸ among Internet users.

2. Social Approaches, Negative Public Relations and Awareness of Customers

Benevolent or at least not negative attitude from a customer to a copyright owner and its rights will also help to prevent this customer from copyright infringement. Such an attitude may be built up by positive messages that will show the benefits of consuming legal content.

"Theoretically, social approaches offer the most effective means of addressing digital piracy, but ultimately remain largely ideological with little hope of ever being reduced to practice."¹⁴⁹ For example, Danwill David Schwender notes that customers do not trust record labels and offers to use artists as copyright owners in order to elicit understanding from pirates: "[i]f the corporate recording industry falls outside digital

¹⁴⁴ *About Piracy*, RECORDING INDUSTRY ASS'N OF AM. (November 15, 2018), <https://www.riaa.com/resources-learning/about-piracy/>.

¹⁴⁵ *Content Protection*, THE ENTERTAINMENT SOFTWARE ASS'N (November 15, 2018) (<http://www.theesa.com/public-policy/intellectual-property/content-protection/>).

¹⁴⁶ *Global Entertainment Companies Join Forces to Launch The Alliance for Creativity and Entertainment to Reduce Online Piracy*, ALLIANCE FOR CREATIVITY & ENTER. (June 13, 2017), <http://alliance4creativity.com/news/ace-launch/>.

¹⁴⁷ Bridy, *supra* note 38, at 600 (2009) (citing J.D. LASICA, DARKNET: HOLLYWOOD'S WAR AGAINST THE DIGITAL GENERATION 198 (2005)).

¹⁴⁸ Jensen, *supra* note 95, at 544.

¹⁴⁹ Mousley, *supra* note 12, at 668.

pirates' scope of concern, then copyright ownership must be returned to the artists."¹⁵⁰ Consequently, he offers early termination right and the possibility for an artist to prosecute infringers by herself.

There have been no current studies on the mindset of pirates before they commit copyright infringement and any other facts that a pirate thinks about the personality of a copyright owner. Pirates likely feel justified infringing upon corporations, as opposed to copyright owner's, due the excessive greed corporations exhibit. The proposed early termination right means that an artist would solely possess the copyright after a limited-duration contract with the publisher. The problem of this approach is that a creator will have to spend her own money to protect the content that will lead to more losses because majority of creators do not have as much money as a publisher has.

Danwill David Schwender continues that "[c]onsumers tend to trust, even idolize, musicians."¹⁵¹ But the iconic example of this "trust and respect" is Radiohead's album *In Rainbows*. The group's recording contract had expired, and the band decided to use a "pay-what-you-want" business model for a new album. Consumers had the option to download the album for free or pay any amount they wished. Unexpectedly the number of downloads from illegal P2P websites exceeded the number of downloads from the official site.¹⁵² Radiohead reported that this experiment was successful, but the absence of detailed information about the results and the fact that the group never repeated it gives ground to think that it was not an effective sales approach.

The example above does not mean that artists should not be involved in anti-piracy at all. A creator's personal story helps to be closer to a customer and explain a creator's concerns. An actor or a singer may deliver an anti-piracy message much better than a corporation because "piracy doesn't seem like a big deal until it happens to you."¹⁵³ Nevertheless, there is no data that confirms the efficiency of this method, that is why it is unwise to overestimate its importance.

Some scholars have proposed copyright policy changes in order to make copyrights weaker,¹⁵⁴ to balance interests, or blame copyright owners for erroneous and cruel activities.¹⁵⁵ These scholars suggest this because the information dissemination among the public is much more important than an incentive for a copyright owner. In their view, such an approach would change the customer's attitude towards piracy. Once copyright becomes weaker, consumers would theoretically begin to obey the Copyright Act. However, this is no more than a discussion between a wolf and a pig how to cook pork better.

¹⁵⁰ Schwender, *supra* note 46, at 278.

¹⁵¹ *Id.* at 295.

¹⁵² See Andrew W. Eichner, *File Sharing: a Tool for Innovation, or a Criminal Instrument?*, B.C. INTELL. PROP. & TECH. F. (2010), http://bciptf.org/wp-content/uploads/2011/109/Andrew_EichnerNote_File_Sharing_EICredits-fillal-edit.pdf.

¹⁵³ MCGUINNESS, *supra* note 14, at 18.

¹⁵⁴ See generally Christopher Buccafusco & David Fagundes, *The Moral Psychology of Copyright Infringement*, 100 MINN. L. REV. 2433, 2435 (2016) (offering to change Copyright Act and to establish harm as a Prima Facie Infringement Case, to change possible remedies for copyright owners and change availability of attorney's fees in copyright cases).

¹⁵⁵ See generally Yen, *supra* note 134, at 276 (discussing wrong using of injunction against Napster and that recording industry should have licensed Napster); Sag, *supra* note 45, at 136 (citing Martin Peitz & Patrick Waelbroeck, *File-Sharing, Sampling, and Music Distribution 2* and appointing that allowing consumers additional rights will boost the sales.).

Thus, in this author's view, social approaches do not play any significant role, and positive messages do not deter infringing activities of customers. That is why copyright owners should use another weapon from anti-piracy arsenal that negates public relations and awareness.

Even if a copyright owner has a very good working enforcement program, there is no chance that this program prevents a customer from infringing copyright if this customer does not know about the risks of consuming illegal content. That is why awareness plays a vital role in anti-piracy activities because it helps to convince a customer not to infringe copyright due to the risks of consequences. Author believes that negative public relations is the main feature that should be used for more effective anti-piracy, "[P]eople's beliefs and intentions with regard to intellectual property rights are somewhat malleable and, with effective messaging, can be modified in certain regards."¹⁵⁶ Messages of menace and danger are needed in order to modify people's beliefs.

While some scholars argued "[p]art of the problem is that many consumers of illegal content do not realize the potential negative consequences for the industry,"¹⁵⁷ this is factually inaccurate. A recent survey by Irdeto found¹⁵⁸ that 39% of consumers stated that studios losing money would have no impact on their consumption of pirated content. It proves that many pirates realize the harm, but they just do not care.

"Today, most entertainment media consumers are aware of these advertisements, which portray digital copying as common theft and label it "piracy."¹⁵⁹ Attitude regarding piracy as theft is considered socially acceptable.¹⁶⁰

One theory is "[s]ocial approaches to combating digital piracy fundamentally involve changing societies views on intellectual property rights."¹⁶¹ "[T]he RIAA [campaign] claims the suits more than doubled consumer awareness of copyright law."¹⁶² Nevertheless, "[w]hile the recording industry's educational campaign succeeded in making file-sharers aware of the formal laws, it did little to stop the unwanted behavior."¹⁶³ Thus, it is not enough to make consumers aware of the law, the awareness must compel pirates not to infringe.

¹⁵⁶ Anne A. Fast, Kristina R. Olson, & Gregory N. Mandel, *Experimental Investigation on the Basis for Intellectual Property Rights*, 40 LAW & HUM. BEHAV. 458, 472 (2016) (but see the author's concerns and limitations for the research at 471).

¹⁵⁷ Granados, *supra* note 139.

¹⁵⁸ See, e.g., Todd Spangler, *Piracy Survey: 39% of U.S. Consumers Don't Care That Studios Lose Money From Illegal Sharing*, VARIETY (Jan. 18, 2017), <http://variety.com/2017/digital/news/piracy-survey-consumers-studios-lose-money-1201961634/>.

¹⁵⁹ Schwender, *supra* note 46, at 261.

¹⁶⁰ See, e.g. Milo Yiannopoulos, *Why is Online Piracy Considered Socially Acceptable?*, TELEGRAPH (Jan. 18, 2011) <https://www.telegraph.co.uk/technology/8267238/Why-is-online-piracy-considered-socially-acceptable.html>; Enigmax, *70 % of Public Finds Piracy Socially Acceptable*, TORRENTFREAK, <https://torrentfreak.com/piracy-socially-acceptable-110228/>; Schuyler Moore, *It's Time to Close Piracy Window*, FORBES, <https://www.forbes.com/sites/schuylermoore/2014/08/17/its-time-to-close-the-piracy-window/#53389dfc5699>.

¹⁶¹ Mousley, *supra* note 12, at 686.

¹⁶² Schwender, *supra* note 46, at 251 (citing RIAA website).

¹⁶³ *Id.* at 271-272.

Not any awareness will compel customers not to infringe copyright. For example, the Twitter account of Copyright Alliance¹⁶⁴ is focused mainly on the benefits of copyrights. Nevertheless, the target audience of this social media account is not clear. Copyright owners already know these facts—Pirates do not care. Potential pirates will not read the “united voice of copyright community” Twitter before committing infringement. Thus, this public awareness campaign is a waste of time and money that does little to deter pirates.

If the copyright owners wish to be heard they must threaten punishment.¹⁶⁵ “Punishment and education have thus been the cornerstones of the industry’s anti-piracy efforts when it comes to individual users.”¹⁶⁶ Moreover, considering that copyright infringement is normal now, messages to pirates must contain stronger threats because “more enforcement and pro-compliance social norms messages . . . are needed for individuals with low rule orientation.”¹⁶⁷ Enforcement, alone, does not fix the piracy issue. A copyright owner must spread awareness that they will enforce their rights against infringers. Otherwise, even if a copyright owner has an excellent enforcement program, potential infringers will not be aware of that.

Thus, negative public relations with threats is an intrinsic part of result oriented anti-piracy activity. The issue is that companies do not like negative PR. If RIAA or Universal tweeted: “Last year we sued 1,000 people. But now we’re asking Congress to enact a law mandating the death penalty for consequent copyright infringement,” immediately it would be discussed in media and social media. Of course, that is a simplification, but it illustrates the idea. It would bring much more attention to the anti-piracy community than a tweet about the fact that “[i]ntellectual property is the foundation of a successful innovation policy.”¹⁶⁸

One may argue that large associations should be respectful and constructive to conduct high level work with the U.S. government and not take a negative PR approach. A large company may not allow these kinds of public messages as well. It may be fixed by establishing a cross-industry anti-piracy organization. This organization may be a harsh but fair advocate for copyright owners with the main target to deter customers from copyright infringement by awareness of risks.

¹⁶⁴ Copyright Alliance (@copyright4u), TWITTER, <https://twitter.com/copyright4u>, (last visited Oct. 3, 2019).

¹⁶⁵ The author’s experience of anti-piracy and license compliance activities proves that possible punishment is a strong compelling factor for a customer not to infringe copyright, although some researchers consider a risk of punishment to be not pervasive for pirates. *See, e.g.*, Schwender, *supra* note 46, at 252 (“Under a deterrence strategy, an individual weighs the risk of detection and punishment for wrongdoing before acting. In the realm of digital file-sharing, a deterrence strategy has serious hurdles. First, research in criminal law indicates people do not consider the risk of detection and punishment. Second, the likelihood of being caught—the risk factor—is extremely low.”); Tom R. Tyler, *Compliance with Intellectual Property Laws: A Psychological Perspective*, 29 N.Y.U. J. INT’L L. & POL. 219, 220-221 (1997) (“Studies suggest that an individual’s assessments of the law’s ability to catch and punish rule breakers, i.e., the certainty of punishment, have, at best, a minor influence on lawbreaking behavior.”).

¹⁶⁶ Bridy, *supra* note 38, at 602.

¹⁶⁷ Adam Fine et al., *Rule Orientation and Behavior: Development and Validation of a Scale Measuring Individual Acceptance of Rule violation*, 22 PSYCHOL. PUB. POL’Y & L. 314, 325 (2016).

¹⁶⁸ @IPQuoteoftheDay, TWITTER (Apr. 18, 2017, 8:39 AM), <https://twitter.com/IPQuoteoftheDay/status/854358756276219906>.

3. Enforcement

Copyright holders should continue enforcement to have possibilities for the negative PR because if there is no enforcement there will not be any negative PR. “Legal approaches to combating digital piracy include both the creation of new legislation and the enforcement of existing laws.”¹⁶⁹ Enforcement strategy needs to be changed. Publishers or law enforcement should not focus upon individual citizens with minor infringements, “Conventional wisdom holds that, if the recording industry is going to sue anyone, it should focus on high volume up-loaders and avoid minors, the elderly, the poor and other sympathetic targets.”¹⁷⁰ The strategy is “reducing the incentives and significantly raising the risks, for those who would participate in . . . piracy.”¹⁷¹

An ideal solution would involve government in copyright enforcement as well. An excellent example of government protecting copyrights is the *Megaupload* case.¹⁷² However, “[w]hile the switch from private enforcement to government enforcement alleviates the negative publicity against the music industry for such cases, the government continues to face the same difficulties of excessive enforcement costs and jurisdiction.”¹⁷³

4. P2P enforcement

It is difficult, and sometimes impossible, to enforce P2P websites due to anonymity and geographical dissemination. Numerous countries have begun blocking P2P websites. “The UK, Australian, Singaporean and South Korean examples show that site blocking can work in developed digital economies. The examples of Indonesia, Malaysia and India show that it can be effective in emerging economies as well.”¹⁷⁴

Of course, this approach requires new legislation and blocking illegal websites will face challenges such as users avoiding the restriction with a Virtual Private Network (VPN). Nevertheless, this would only be the first step. If search engines stopped showing information about blocked websites, a user would be unaware of new pirate websites.

P2P blocking may be a new digital right management approach in an arms race with pirates. One example of the current conflict is the copyright owners blocking the largest Russian illegal P2P website, rutracker.org. Ruteacker.org promoted VPN access, TOR, etc. among its users. After the blocking, the number of visitors decreased

¹⁶⁹ Mousley, *supra* note 12, at 682.

¹⁷⁰ Sag, *supra* note 45, at 146.

¹⁷¹ ISABEL CARULLA ET AL., FIGHTING PRODUCT PIRACY, LAW & STRATEGIES IN GERMANY, FRANCE, THE NETHERLANDS, SPAIN, UK, CHINA, USA 249 (Claudia Milbradt ed., 2009).

¹⁷² See generally U.S. Dep’t of Just., *Justice Department Charges Leaders of Megaupload with Widespread Online Copyright Infringement*, FED. BUREAU INV. (Jan. 19, 2012), <https://archives.fbi.gov/archives/news/pressrel/press-releases/justice-department-charges-leaders-of-megaupload-with-widespread-online-copyright-infringement>.

¹⁷³ Schwender, *supra* note 46, at 89.

¹⁷⁴ Hugh Stephens, *Disabling Access to Large-Scale Pirate Sites (Site-Blocking)-It Works!*, HUGH STEPHENS BLOG (Apr. 17, 2017), <https://hughstephensblog.net/2017/04/18/disabling-access-to-large-scale-pirate-sites-site-blocking-it-works/>.

by 50%, and now copyright owners are attempting to close the website's technical servers for searching for P2P files. This will lead to the problems with downloading torrent files on the customer side and seems promising. But copyright owners can only guess what the pirates' next step in this arm race will be. Perhaps this step may be a technology that allows an infringer to search a torrent file within many P2P websites at the same moment. Now the technology allows to search a file within one P2P network but if this limitation is overcome a user would be able to search the file within endless P2P sites that would make impossible to block such search. Unfortunately for right holders this possibility is not something fantastic from the far future. "The centralized nature of torrent sites means that they're always vulnerable to being shut down. However, a new project called Magnetico aims to solve that problem by crawling BitTorrent's Distributed Hash Table and generating an index on a machine controlled by the user."¹⁷⁵

V. CONCLUSION

As soon as one person realized that another person had desire to steal, locks were invented, and fences were built. From the founding of copyright, people began to infringe. The Internet has provided unprecedented opportunities for the entertainment industry, while transforming into an unprecedented threat to copyright owners.

For the last 40 years, the entertainment industry has employed numerous digital anti-piracy approaches. Some of these activities were harsh and lawful, like the RIAA litigation campaign. Though there were some mistakes, like lawsuits against children, the elderly and deceased people, the results were successful. Other activities were ill-advised, such as spy software from Sony BMG.

The industry had to evolve and view digital piracy as a competitor. The obvious steps for the industry to take are decreasing price and making service better. Both steps provide more available legal content for customers.¹⁷⁶ Making legal services comfortable and less expensive, while making piracy dangerous is a good strategy to stop piracy. Together with awareness, it has resulted in the increasing popularity of legal streaming services. It a holistic approach to anti-piracy that made legal use of music, movies, books, and games a real alternative to piracy.

There is no special act that will combat piracy. Only regular activities in different directions will help weaken the issue. This article supports a multi-faceted approach that will significantly increase digital anti-piracy effectiveness. Additionally, anti-piracy community needs more data to understand how piracy works and why people

¹⁷⁵ *Magnetico: A Personal Torrent Search Engine That Can't Be Shut Down*, TORRENTFREAK (Apr. 9, 2017), <https://torrentfreak.com/magnetico-a-personal-torrent-search-engine-that-cant-be-shut-down-170409/>.

¹⁷⁶ See generally Cary Sherman, *Valuing Music In A Digital World*, FORBES (Sep. 23, 2015), <https://www.forbes.com/sites/realspin/2015/09/23/how-government-set-licensing-killed-the-music-industry/#12748de563a1> ("Here's what we can certainly agree on: increased availability of music is a good thing. The recording industry has worked very hard over the past decade to build a robust marketplace for music in the digital world. There are now more than 70 legal digital services in the U.S. alone offering many millions of tracks in different formats. In fact, in the U.S., our industry is now more than two-thirds digital in terms of revenue.").

infringe copyright.¹⁷⁷ Data helps provide the industry with solutions to solve piracy or at least reduce its level.

While scholars are trying to understand why people infringe copyrights, the entertainment industry cannot stop its anti-piracy efforts and wait for the results. There are still many challenges in combating piracy now and every year new threats appear, like stream-ripping, piracy in cloud or spreading illegal content via Telegram bots like @brokinobot or @playplay.

¹⁷⁷ Christopher Buccafusco & David Fagundes, *The Moral Psychology of Copyright Infringement*, 100 MINN. L. REV. 2433, 2506 (2016) (“One thing we suspect all readers will agree with is the need for further empirical study in this area. It would be valuable to know precisely what sorts of activities trigger owners' moral foundations and how widely distributed those responses are.”).