Statement of

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"Promoting Investment and Protecting Commerce Online: The ART Act, the NET Act and Illegal Streaming"

Introduction

Chairman Goodlatte, Ranking Member Watt, and Members of the Subcommittee, thank you for the opportunity to appear before you this afternoon to discuss some of the problems created by illegal streaming of television programs (including broadcasts of sporting events), motion pictures and other copyrighted works and the current impediments to effective prosecution of those who infringe the right to publicly perform such works by willfully streaming them to the world at large, sometimes at the same time as the legitimate broadcast or release. We also appreciate the continued work and attention of Chairman Smith and Ranking Member Conyers of the full committee on these important issues.

New technologies have always presented opportunities as well as challenges for copyright owners. The evolving technologies that gave us piano rolls, silent movies, television, photocopiers, satellite transmissions and countless other ways of reproducing and distributing works of authorship have been nothing short of revolutionary in the creation of new commercial opportunities for authors and their licensees as well as global markets for the United States. At the same time, these technologies have provided opportunities for nefarious actors to undertake ever more pervasive forms of infringement. Such actors usurp the economic value that the author depends upon as an incentive for and means to create original works of authorship, thereby destroying the bargain envisioned in the Constitution's Copyright Clause. And to make things more complicated, not all of them act for purposes of financial gain. Some have no profit motive at all, yet cause great damage all the same by infringing purposely and irresponsibly.

Congress has worked diligently to keep pace with technological developments relating to the Internet, including by amending the criminal copyright statutes to permit prosecution of large-scale infringers when appropriate. Up to now, those efforts have focused on the unauthorized transmission of copies of works over the Internet because the bulk of Internet-based infringement has taken the form of violations of the reproduction and distribution rights.[1] In recent years, however, it has become easier to infringe by streaming directly to the computers or television sets of end-users. As streaming becomes an increasingly popular means of accessing creative works (for information and for entertainment), it will continue to be attractive to infringers. Unfortunately, the problem of unauthorized streaming is here to stay.

My testimony today will: (1) trace the history of Congress's efforts to permit criminal prosecution of serious acts of copyright infringement on the Internet; (2) discuss the development of streaming technology, which has created a growing market for legitimate providers of entertainment and information but which also enables new forms of copyright infringement; (3) set forth policy reasons for updating the law, namely to ensure the same tools exist for prosecution with respect to the exclusive right of public performance as currently exist for the exclusive rights of reproduction and distribution; and (4) outline some possible legislative

[1] The copyright owner's exclusive rights, set forth in section 106 of the Copyright Act, 17 U.S.C. § 106, include the rights to reproduce, distribute, publicly perform, and publicly display the copyrighted work, as well as the right to make a derivative work (such as an adaptation or revision of the original work).

steps that the Committee should consider as it decides whether to make unauthorized streaming of copyrighted works a felony criminal offense under appropriate circumstances.

(1) The Legislative Background

In the context of copyright law, Congress has considered and addressed the benefits and challenges of the Internet for more than 15 years now, enacting, for example, an exclusive right of public performance in sound recordings for digital transmissions; passing legislation governing circumvention of technological measures used by copyright owners to protect their works; providing Internet service providers with safe harbors from liability for damages in cases where persons using their services engage in copyright infringement; and providing exemptions from liability for distance learning, among other statutes.[2] Both Congress and the courts have upheld the rule of law on the Internet, recognizing both civil and criminal remedies for copyright owners. Congress has also worked to stay in front of the most egregious forms of infringement, amending the criminal provisions of Titles 17 and 18 twice to ensure that prosecutors are equipped to confront certain willful actors – specifically those who cause great harm despite the absence of a commercial motive and those who cause great harm by disseminating valuable works prior to public release.

The NET Act-1997

The first copyright legislation enacted by Congress specifically in response to infringement on the Internet was the No Electronic Theft Act (NET Act), introduced in 1997. It addressed the reality that infringers on the Internet can instill tremendous damage with relative ease and with little to no monetary investment, despite the absence of a commercial purpose.

When this Subcommittee was considering the NET Act in 1997, then-Register of Copyrights Marybeth Peters testified that "[a]s it becomes easier to transmit large amounts of information quickly over the NII [National Information Infrastructure], it becomes easier for those without a commercial stake or profit motive – a disgruntled former employee, a dissatisfied customer, an Internet user opposed to the fundamental concept of copyright law – to inflict tremendous damage to the market for a copyrighted work."[3]

Chairman Goodlatte noted that, "through a loophole in the law [those] who pirate works willfully and knowingly, but not for profit, are outside the reach of our Nation's law enforcement officials," further stating:

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[2] *See* Digital Performance Right in Sound Recordings Act of 1995, Pub. L. No. 104-39, 109 Stat. 336, enacted November 1, 1995; Digital Millennium Copyright Act, Pub. L. No. 105-304, 112 Stat. 2860, 2887, enacted October 28, 1998; and Technology, Education, and Copyright Harmonization Act of 2002, Division C, Title III, Subtitle C of the 21st Century Department of Justice Appropriations Authorization Act, Pub. L. No. 107-273, 116 Stat. 1758, 1910, enacted November 2, 2002.

[3] *Copyright Piracy, and H.R. 2265, the No Electronic Theft (NET) Act: Hearing before the H. Comm. on the Judiciary, Subcommittee on Courts and Intellectual Property*, 105th Cong. 12 (1997) (statement of Marybeth Peters, Register of Copyrights) (September 11, 1997) ("NET Act Hearing").

> The Internet allows a single computer program or other copyrighted work to be illegally distributed to millions of users, virtually without cost, if an individual merely makes it available on a single server and points others to the location. Other users can contact that server at any time of day and download the copyrighted work to their own computers. It is unacceptable that today this activity can be carried out by individuals without fear of criminal prosecution.[4]

The NET Act was a direct response to the 1994 decision in *United States v. LaMacchia*,[5] in which a federal district court made clear that the existing criminal provisions of the Copyright Act were inadequate to address serious forms of copyright violations on the Internet. To be clear, the copyright law has included criminal penalties since 1897. However, these were available only when infringement was "willful and for profit." In the words of the Copyright Act of 1976, a finding of profit motive required that the infringement be "for purposes of commercial advantage or private financial gain."

In *LaMacchia*, the court dismissed an indictment against an MIT graduate student who operated an electronic bulletin board on the Internet and encouraged and enabled the unauthorized transfer of copies of copyrighted computer games among persons who accessed the electronic bulletin board. The Department of Justice had prosecuted LaMacchia under the federal wire fraud statute because at the time the criminal copyright statute required proof that the defendant acted for commercial advantage or private financial gain, and LaMacchia did not meet those requirements. In dismissing the indictment, the district court held that the wire fraud statute did not cover copyright infringement and noted that a criminal copyright prosecution would have failed because LaMacchia lacked a commercial motive. Note the court's description of LaMacchia's actions and its recommendation to the legislature:

> If the indictment is to be believed, one might at best describe his actions as heedlessly irresponsible and at worst as nihilistic, self-indulgent, and lacking in any fundamental sense of values. Criminal as well as civil penalties should probably attach to willful, multiple infringements of copyrighted software even absent a commercial motive on the part of the infringer. One can envision ways that the copyright law could be modified to permit such prosecution. But, it is the legislature, not the Court which is to define a crime, and ordain its punishment.[6]

Congress responded to the *LaMacchia* decision decisively by redefining the crime of copyright infringement in three ways. First, it revised section 101 of the Copyright Act to provide that "[t]he term 'financial gain' includes receipt, or expectation of receipt, of anything of value, including the receipt of other copyrighted works." This enables prosecution of criminal

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[4] 143 Cong. Rec. E1529 (July 25, 1997) (statement of Rep. Goodlatte).

[5] *United States v. LaMacchia,* 871 F. Supp. 535 (D. Mass. 1994).

[6] *LaMacchia,* 871 F. Supp. at 545 (internal quotation marks and citations omitted).

copyright infringement so long as the defendant *expected* to receive *something* of value as a result of the infringement, even when the defendant receives no money from the transaction.[7]

Second, Congress provided an independent basis for criminal prosecution regardless of whether the defendant had any expectation that he would receive anything of value. Thus, section 506(a)(1)(B) of the Copyright Act now provides that it is a criminal offense to engage in willful infringement of a copyright "by the reproduction or distribution, including by electronic means, during any 180-day period, of 1 or more copies or phonorecords of 1 or more copyrighted works, which have a total retail value of more than $1,000," even if the perpetrator does not benefit or expect to benefit from the infringement. The Report language of the NET Act underscored Congress' intentions on this point, noting that, "[t]he practical significance of these changes is that they criminalize *LaMacchia*-like behavior; that is, 'computerized' misappropriation in which the infringer does not realize a direct financial benefit but whose actions nonetheless substantially damage the market for copyrighted works."[8]

Third, the NET Act amended section 2319 of the Criminal Code, 18 U.S.C. § 2319, which already provided that it was a felony to reproduce or distribute at least 10 or more copies with a total retail value of at least $2,500, by adding the words "by electronic means" after "reproduction or distribution." This language, along with the similar language in newly enacted section 506(a)(1)(B), made "explicit that reproduction and distribution of electronic copies via the Internet can qualify for criminal sanctions."[9]

Congress did not address the issue of infringement of the public performance right in 1997, either in the NET Act itself or the legislative history. As discussed below, that is not surprising, given both the state of technology and the means by which copyrighted works were packaged and delivered to the public 14 years ago.

The ART Act-2005

Seven years later, Congress revisited the criminal provisions of the copyright law when it enacted the Artists Rights and Theft Prevention Act (ART Act).[10] Among other things, the ART Act addressed a new phenomenon on the Internet: the making available for distribution on the Internet copies of motion pictures and other audiovisual works, musical works and sound recordings, and computer programs *prior* to their authorized release to the public. It was – and is – not infrequent that days or even weeks before the premiere of a motion picture or the release of

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[7] *See also* NET Act Hearing (statement of Rep. Goodlatte) (noting that the NET Act made clear "that receiving other copyrighted works in exchange for pirated copies, bartering, is as unlawful as simply selling pirated works for cash.").

[8] H.R. Rep. No. 105-339, at 8 (1997).

[9] NET Act Hearing at 13 (statement of Marybeth Peters, Register of Copyrights).

[10] The ART Act was enacted as part of the Family Entertainment and Copyright Act of 2005, Pub. L. No. 109-9, 119 Stat. 218 (2005).

a sound recording, illicit copies are made available for downloading on the Internet (as well as in physical copies) by persons who acquired them unlawfully. The commercial harm to the market for such works was obvious. This Committee's report on the ART Act stated:

> The Committee has been made aware of numerous examples of efforts to camcord new movies during their opening days of release followed immediately by either mass duplication and distribution of DVD copies or Internet distribution of the same movie. Although the harm to the distribution of physical or Internet copies of works when legal copies are available has long been established, the Committee notes the larger harm caused by those who distribute copies of works even before they are legally available to the consumer. . . . . Finally, the Committee is aware of, and encouraged by, Department of Justice investigations and prosecutions of pre-release cases involving motion pictures, sound recordings, business software, videogame software, and book publications once the works have been released in final form.[11]

In recognition of the harm caused by prerelease infringement, Congress updated the work begun with the NET Act by adding a third basis for criminal prosecution in cases involving infringement of a "work being prepared for commercial distribution." Specifically, a new subparagraph (C) was added to section 506(a)(1) of the Copyright Act, making it a crime to distribute "a work being prepared for commercial distribution, by making it available on a computer network accessible to members of the public, if such person knew or should have known that the work was intended for commercial distribution."

The ART Act addressed some other related issues as well. A definition of "work being prepared for commercial distribution" was added to section 506. With respect to a computer program, musical work, motion picture or other audiovisual work, or a sound recording, the definition applies if at the time of the unauthorized distribution, the copyright owner had a reasonable expectation of commercial distribution and copies or phonorecords of the work had not yet been commercially distributed. For motion pictures, the definition includes works that have already been theatrically released but have not yet been made available in copies for sale in formats such as DVDs or downloads. The purpose of the latter definition was to penalize the unauthorized exploitation of the market for the sale of copies of a motion picture in such formats before the copyright owner had entered that market while or after the motion picture was in theatrical release. Chairman Smith summarized the objectives of the ART Act as follows:

> Such activity is clearly wrong; yet existing law does not create a penalty targeted at this activity. Title I creates a minimum penalty of 3 years in jail for those who undertake such activity. Combined with the camcording provisions in Title I, this legislation will impose new and significant penalties on organized groups that camcord movies on the

[11] H.R. Rep. No 109-33, at 4. (2005).

first day of their release and then distribute pirated DVDs the following day on streets worldwide.[12]

As with the NET Act, the legislative history of the ART Act reveals no concern about streaming or any other transmissions of performances of copyrighted works. In early 2005, when the ART Act was enacted, piracy was still almost exclusively a matter of infringing reproduction and distribution. Today, we are here to consider the ways in which Internet bandwidth and streaming technology have changed the importance of the public performance right in recent years relative to infringement and, correspondingly, the ability of the law to reach nefarious actors.

(2) Streaming over the Internet

Today, as technology has developed, network bandwidth has increased, and products and delivery platforms have become more varied, the streaming of copyrighted content over the Internet is becoming a popular choice among consumers. Streaming technology allows users to view or listen to public performances over the Internet without necessarily requiring a full download of the file containing the performance to be made to the recipient's computer. While at the time of the NET Act and ART Act streaming was largely limited to music, all types of creative content, including performances of movies, television programs and sporting events, can now be streamed via the Internet. Performances can be pre-recorded and streamed to the user on demand, or streams can provide access to live content, such as basketball and football games. According to one recent study, video streaming traffic alone now accounts for more than one quarter of all Internet traffic and is among the fastest growing areas of the Internet.[13] YouTube, a popular video streaming site, now streams more than three billion videos per day which, according to the site, is the equivalent of every U.S. resident watching nine videos per day.[14]

Streaming technology itself is content neutral. Indeed, today there are many ways for users to enjoy streamed content legally, through legitimate video streaming websites like Hulu or Netflix, user generated content sites like YouTube and streaming music services. Streamed content is also often provided legally by content owners through their own websites and Internet portals such as ABC.com and HBO GO. And now users can even stream content through applications on their smart phones or their video game consoles.

As with any technology that provides access to creative content, however, this technology can be *misused* in ways not originally intended by the developers – to provide the means for thieves to steal huge amounts of copyrighted works. And the technology to do so is surprisingly

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[12] 151 Cong. Rec. H2118 (April 19, 2005) (statement of Rep. Smith).

[13] Envisional, *Technical Report: An Estimate of Infringing Use of the Internet* 3, 19 (2011) ("Every recent report which examines the recent past and immediate future of internet usage . . . identifies streaming video as the fastest growing segment of bandwidth consumption worldwide.") ("Envisional Report").

[14] Broadcasting Ourselves, The Official YouTube Blog, http://youtube-global.blogspot.com/2011/05/thanks-youtube-community-for-two-big.html (May 25, 2011).

simple. Often with nothing more than an additional cable or satellite line connected to a television set and readily available (and often free) streaming software, an infringer can capture television programming signals or Internet streams and re-transmit popular television shows and live sporting events over the Internet through unauthorized unicast websites, cyber lockers or peer-to-peer applications.

Unicast websites transmit streams through a central computer server directly to an end user's computer where software on the computer converts it for viewing.[15] Unauthorized unicast sites often collect paid subscriptions or are supported by advertising because the technology requires significant computer processing and bandwidth.[16] More recently, peer-to-peer technology has developed to allow users to create a video stream that can be passed on to other users who join the network, without having to maintain the significant bandwidth costs of a central server.[17] Cloud computing services (which allow all types of digital media to be stored, accessed and synced from any web-connected device, including computers, personal tablets and smart phones), cyber-lockers (a particular type of cloud-based service), user-generated content sites (which allow users to upload self-created digital content that is then made widely available) and life-casting sites (which allow users to upload and stream live videos of themselves and those around them) all have legitimate, lawful uses, but can also be used as a mechanism by which users can transmit public performances of copyrighted content without permission of the copyright owner.

The Copyright Office is not aware of any studies focusing solely on the overall impact of illegal streaming on the Internet ecosystem. However, it is clear that unauthorized streaming of copyrighted content is a significant problem that will only increase in severity if technology outpaces legal reforms. Two years ago, this committee held a comprehensive hearing on the subject of piracy of live sports broadcasting over the Internet. Various industry representatives testified to the very real harm arising from this method of copyright infringement. Witnesses noted among other things that tens of thousands of hours of live television programming from networks around the world were being pirated, and that "entire bouquets of pay-tv channels" were being made available through pirate streaming services in China.[18] An OECD 2009 study noted that on just one day in December 2007, nearly 1.2 million viewers were registered to view an unauthorized stream of a Dallas Mavericks versus Houston Rockets game.[19]

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[15] Organisation for Economic Co-operation and Development (OECD), *Piracy of Digital Content, Case Study: the Sports Owners Sector*, 90 (2009) ("*Piracy of Digital Content*").

[16] *Id.* at 90-91.

[17] *Id.* at 95.

[18] *Piracy of Live Sports Broadcasting Over the Internet: Hearing before the H. Comm. on the Judiciary*, 111th Cong. 8 (2009) (statement of Michael J. Mellis, Senior Vice President and General Counsel, MLB Advanced Media) (December 16, 2009) (*citing* Cable and Satellite Broadcasting Ass'n of Asia Comments, Special 301 Review: Identification of Countries Under Section 182 of the Trade Act of 1974 (Feb. 17, 2009)).

[19] *Piracy of Digital Content* at 111 (the vast majority of these viewers were located in China).

Since that time the problem has not gone away. For the past four years, the United States Trade Representative has noted the growing impact of illegal streaming of live sporting events in the 2008-2011 Special 301 Reports.[20] During its 2009-2010 professional basketball season, the NBA identified 2,975 unauthorized streams on just eight websites/services, while in the current 2010-2011 NBA season, the NBA identified more than 2,700 unlawful streams of games on just one foreign website alone.[21] According to industry sources, monthly traffic to ten of the cyber lockers that provide unauthorized access to streamed content grew by 13 million separate users per month during 2010, to 105 million separate users per month.[22] And a recent NBC Universal-commissioned study found that one site that provided access to pirated movie streams had 6.5 million unique users each month, while another similar website had 5 million unique users each month.[23] Recent legal challenges involving claims of unauthorized streaming include a complaint by the Ultimate Fighting Championship (UFC) against life-casting website Justin.tv alleging that more than 50,000 viewers watched illegal streams of a live UFC bout, "UFC 121 Lesnar v. Velasquez" through the site, and that UFC vendors removed over 200 infringing feeds during just that live event.[24]

(3) Policy Considerations in 2011

Congress amended the law in 1997 and 2005 in order to protect and ensure the exclusive rights of reproduction and distribution. However, there are six exclusive rights afforded to authors under copyright law – and the right of public performance is of major and growing importance for television programming, motion pictures and other works that may be delivered to consumers through streaming technologies and products.

It's not that streaming hasn't been around for a little while. Indeed, RealPlayer, the pioneer in making streaming available on the Internet, first streamed an audio performance to the public over the Internet in 1995, and in 1997 it launched its video streaming technology. However, for years the bandwidth available to the public has not supported the high-quality video streaming that we have come to know today. Only in the past few years has the widespread proliferation of high-speed Internet connections and the advancement of new transmission protocols made online streaming a viable alternative to delivering video content on traditional television or on DVD copies. When the NET Act and ART Act were enacted, nobody

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[20] *See, e.g.*, Office of the United States Trade Representative, *Special 301 Report*, 11 (2011) ("Unauthorized retransmission of live sports telecasts over the Internet continues to be a growing problem for many trading partners, particularly in China, and 'linking sites' are exacerbating the problem."); Office of the United States Trade Representative, *Special 301 Report*, 11 (2010); Office of the United States Trade Representative, *Special 301 Report*, 5 (2009); Office of the United States Trade Representative, *Special 301 Report*, 10 (2008).

[21] Data provided by NBA Properties, Inc.

[22] ComScore (April 2011).

[23] Envisional Report at 20, 23 (2011) (recognizing the difficulty in fully measuring streaming content, the study provided a "cautious estimate" that infringing streaming is 5.34% of all streaming traffic).

[24] *Zuffa, L.L.C. v. Justin.tv, Inc.*, No. 11-CV-00114 at ¶ 46 (D. Nev. January 21, 2011).

perceived streaming as a vehicle for serving (or threatening) the commercial marketplace for public performances of copyrighted works. And no other technology existed that easily permitted the large-scale piracy of performances – versus reproductions or distributions – of copyrighted works.

In the context of criminal activity, depending on the specific contours of the alleged conduct, unauthorized streams may infringe upon multiple exclusive rights protected under the Copyright Act. First of all, the act of streaming a performance is an exercise of the public performance right, and unauthorized streaming infringes that right. The Copyright Act defines "to perform a work publicly" as, among other things, "to transmit or otherwise communicate a performance or display of the work . . . to the public, by means of any device or process, whether the members of the public capable of receiving the performance or display receive it in the same place or in separate places and at the same time or at different times."[25] Streaming, which transmits a performance to members of the public, fits comfortably within this definition. And the unauthorized retransmission of a stream simultaneously over the Internet to a user's computer or other device infringes the public performance right, whether the stream is a retransmission of a live broadcast or a transmission of a performance of prerecorded material.

In the case of streaming of prerecorded material, the transmission is typically made from a copy of the audiovisual or other work that has been made on a server. The making of such server copies without authorization constitutes infringement of the reproduction right. And in some cases, streaming can also implicate the distribution right: some forms of streaming actually transmit a copy of the entire work to the recipient's device, where the copy will remain for some period of time and can be used for subsequent replays of the copyrighted work.

Although streaming can implicate various exclusive rights, our current law could potentially apply vastly different penalties to this conduct simply based on the unique technology involved and regardless of the ultimate result – the illegal and unauthorized dissemination of copyrighted works. The Copyright Office believes that this disparity deserves consideration as Congress considers whether to amend the criminal copyright statutes to address streaming that causes serious harm to the legitimate market for performances of works of authorship.

The Copyright Office is not opining on when it might or might not be appropriate for the Department of Justice to bring criminal felony charges for streaming under any particular set of circumstances. Rather, we are underscoring the fact that prosecutors have a handicap when pursuing egregious cases of infringement when that infringement is accomplished via streaming.

(4) Possible Legislative Action

The Copyright Office commends the Subcommittee for holding this hearing today. It is our view that the Department of Justice should always have the tools necessary to prosecute infringers when such infringement causes great harm to copyright owners and the global marketplace that is so important to the United States. In our analysis, the current criminal provisions of the Copyright Act and related provisions in Title 18 are insufficient to provide a

[25] 17 U.S.C. § 101 (definition of "to perform or display a work 'publicly'").

basis for such prosecutions in cases where the primary cause of action is infringement of the exclusive right of public performance.

As indicated earlier in my testimony, there are currently three bases for criminal prosecution for copyright infringement. All three require that the infringement be willful. The first basis – infringement for purposes of commercial advantage or private financial gain[26] – may in many cases justify prosecution of one who engages in infringement of the public performance right by means of streaming.

However, existing law provides a disincentive for prosecutors to take action under this provision because it is not possible to charge a felony for criminal infringement of the public performance right – only a misdemeanor. Section 2319(b)(1) of the criminal code permits felony prosecution under this prong only when the crime consists of "the *reproduction or distribution*, including by electronic means, during any 180-day period, of at least 10 copies or phonorecords, of 1 or more copyrighted works, which have a total retail value of more than $2,500 (emphasis added)."

To be clear, there may well be instances in which the act of streaming implicates not only the public performance right but also the reproduction right, and perhaps in some cases also the distribution right, but the outcome will greatly depend on the facts and, possibly, future judicial interpretations of the statutory language. And while it is usually, and perhaps always, true that streaming requires a reproduction of the streamed work on a server,[27] it is not clear whether that kind of reproduction would qualify under section 2319(b)(1) or whether such reproductions in the form of server copies would have a retail value of more than $2,500. Given the circumstances under which section 2319(b)(1) was enacted, it seems much more plausible that Congress intended that the $2,500 threshold apply to the value of copies that are distributed.

The second basis for criminal prosecution – "the reproduction or distribution, including by electronic means, during any 180-day period, of 1 or more copies or phonorecords of 1 or more copyrighted works, which have a total retail value of more than $1,000"[28] – requires reproduction or distribution, and does not apply to public performances. Again, it is conceivable

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[26] 17 U.S.C. § 506(a)(1)(A).

[27] Streaming may also entail the making of what are known as buffer copies. Streaming involves the transmission of small packets of information (which may be audio or audiovisual information, depending on the nature of the performance being streamed). The software used to play the streamed performance maintains a "buffer" – a portion of memory set aside to store that information until it has been rendered. Inconsistencies in the rate at which audio packets are delivered over the Internet are thus evened out, so that the software can render the information at a constant rate. As information is rendered, it is discarded and new information is put into the buffer as it is received. U.S. Copyright Office, *Section 104 Report* 108 (2001). Cumulatively, all of the buffer copies made in the course of streaming a performance of a work would constitute a copy of the entire work, although those buffer copies would not exist at the same time. Whether the buffer copy is a "copy" under the Copyright Act is a matter of some dispute, and may depend on the particular facts in any given case. In any event, it is difficult to imagine that the buffer copies made in the course of streaming would have a value that would meet the threshold for felony prosecution.

[28] 17 U.S.C. § 506(a)(1)(B).

that making a server copy for purposes of streaming might qualify for this provision, but such an interpretation is subject to the same uncertainties that apply to the application of section 2319(b)(1). Moreover, a violation of section 506(a)(1)(B) would be a felony only in cases where "the offense consists of the reproduction or distribution of 10 or more copies or phonorecords of 1 or more copyrighted works, which have a total retail value of $2,500 or more."

Finally, the third basis for prosecution – "the distribution of a work being prepared for commercial distribution"[29] – requires distribution and therefore is not applicable to streaming.

One might ask why it is not sufficient to prosecute streaming as a misdemeanor. The fact is, as a practical matter, prosecutors have little incentive to file charges for a mere misdemeanor. This means that, compared to similar infringing conduct involving the large-scale making or distributing of copies (e.g. DVDs of a movie), streaming is not only a lesser crime on the books, it is a crime that may never be punished at all. As a matter of policy, the public performance right should enjoy the same measure of protection from criminals as the reproduction and distribution rights; prosecutors should have the option of seeking felony penalties for such activity, when appropriate.

If Congress concludes that sections 506 and 2319 should be amended to enable prosecution of unauthorized streaming, there are a number of ways to accomplish that end. One means would be to amend section 506(a)(1)(B) to add "public performance" to the "reproduction or distribution" which currently provide a basis for prosecution, with a similar amendment to section 2319(b)(2). Another means would be to amend section 506(a)(1)(C), which currently penalizes prerelease distribution, by adding prerelease public performances to the acts that provide a basis for prosecution. Moreover, an amendment to section 2319(b)(1), adding "public performance" to the "reproduction or distribution" that provide a basis for felony prosecution for willful infringement for purposes of commercial advantage or private financial gain, would likely make it possible to prosecute many cases of unauthorized streaming.

Further thought would also have to be given to the current quantitative and monetary thresholds imposed by section 2319(b) for felony prosecution. It is not clear to us at this time how easy it would be to ascertain the total retail value of unauthorized streams, or how easy it would be to ascertain how many public performances were made by an unauthorized streamer.

Finally, the concept of works being prepared for commercial distribution may need to be reconsidered in cases involving infringement of the public performance right rather than the distribution right. Many works that copyright owners offer for public performance are not prepared for commercial distribution. For example, many television programs, including many broadcasts of sports events, are never distributed in copies to the public. Yet, it is logical, if not obvious, that the unauthorized streaming of a television program before its authorized broadcast would cause just as much harm to the market for that program as the unauthorized distribution of copies of a motion picture would cause to the market for legitimate copies of that motion picture. Moreover, it seems likely that even the unauthorized streaming of a broadcast program, such as a

[29] 17 U.S.C. § 506(a)(1)(C).

live broadcast of a sports event, at the same time as the authorized broadcast would cause great harm to the legitimate market for the works being broadcast. This would be especially likely in cases where authorized performances are transmitted to the public by cable networks or by means of pay-per-view and similar services. A person who offers unauthorized streaming of such programs for no cost or a lower cost at the same time as the authorized transmission – or even within a few hours of the authorized transmission – could cause significant harm to the legitimate market.

Conclusion

Copyright policy is never finished. As technology makes it possible for authors to deliver their creative works in new formats and through new platforms, nefarious actors devise new ways to play the spoiler, sometimes seeking to divert profits and amass wealth illegally, other times merely to bask in the glory of interfering with and doing great harm to the investments of others. Congress has repeatedly legislated to confine these bad actors and hold them accountable, including giving prosecutors the tools necessary to do their jobs. By updating the law, Congress ensures the constitutional bargain that promotes the progress of our culture by giving authors the exclusive rights to their works for limited times.

The issue of unauthorized streaming is a growing threat to the livelihood of authors and copyright owners and, as discussed above, requires the attention of Congress. As you further consider the issues, the Copyright Office will be pleased to assist you in your work.

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