ABSTRACT:

The rise of the Internet has caused a great upheaval in how consumers approach copyrighted material, and nowhere more than in the American entertainment industry. Where once it was all but impossible to watch a movie without buying a ticket, or a TV show without sitting through advertisements, now both are a few button clicks away for anyone with a computer and Internet access. Even conservative estimates have Hollywood losing billions of dollars per year to piracy. But efforts at reform, most recently the ill-fated SOPA and PIPA legislation, have been accused of overreach and censorship. This capstone examines the rise of digital copyright infringement by focusing on the phenomenon of Internet video streaming, and suggests ways to curb it without stifling the Internet as a whole.

# Protecting Copyright in the Digital Age:
## Internet Video Streaming and Federal Regulation

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In the first century A.D., life was not always easy for a Roman poet. Rome was crowded, dirty, and overflowing with young men trying to become the next Catullus or the next Ovid. And that was not always the worst of it, as the poet Martial discovered during his years composing in the Imperial Capitol. Rivals were always trying to steal his work, and were often successful. It got to the point where Martial, frustrated, accused these men of "kidnapping my verses", applying to them the Latin word for "kidnapper"—*plagiarus*. The first articulation of plagiarism—or, more broadly, the theft of intellectual property—had been made[1].

In the millennia since Martial voiced his frustrations at the dastardly ways of his contemporary poets, the concept of intellectual property has come a long way. But at its very core, the modern understanding of intellectual property is remarkably similar to the idea that Martial was trying to express—that someone should own what he or she creates. Ever since the Renaissance and the rise of art that was created outside the purview of the Church, Western society has decided that an artist deserves to profit from his (or, more recently, her) art[2]. We view art as a societal good, an expression of cultural strength and vitality. And the more that a talented artist benefits from his art, the more art he will create. A simple concept. Of course, how exactly we protect artists' work is a much different question.

Every advance in human communication technology going back to Guttenberg's printing press has complicated the protection of intellectual property, but none has presented quite so immense a challenge as the rise of the Internet. Suddenly, just about

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[1] Lynch, Jack ."The Perfectly Acceptable Practice of Literary Theft: Plagiarism, Copyright, and the Eighteenth Century, in Colonial Williamsburg" The Journal of the Colonial Williamsburg Foundation 24, no. 4 (Winter 2002–3), pp. 51–54.
[2] Armstrong, Elizabeth. *Before Copyright: the French book-privilege system 1498-1526*. Cambridge University Press, Cambridge: 1990, p. 6

any conceivable work of art could be broken up into millions of bits of data and sent almost anywhere in the world in a matter of seconds[3]. The theft of works that could take an artist years and cost millions of dollars to make was now just a couple of button clicks and few seconds away[4]. The impact of the Internet on intellectual property was, and continues to be, enormous.

Nowhere has the ease of theft on the Internet created a bigger problem than in the contemporary recorded entertainment industry. Because movies, music, and television are so widely disseminated and popular in the modern United States, they provide easy and tempting targets for IP thieves. Indeed, the Motion Picture Association of America (MPAA) estimated in a 2011 letter to Congress that content theft costs the United States economy some $58 billion annually, which it says amounts to some 373,000 lost jobs and more that $3 billion lost tax revenue[5]. Of course, considering the source (an entertainment industry lobbying group), this number should be taken with several grains of salt, but even conservatively the economic loss due to Internet piracy is immense[6][7].

But despite the importance of curbing copyright infringement on the Internet, Congress has done surprisingly little about it. Indeed, the controlling federal law on the matter has not had any major updates since its passing in 1998—a time before widespread broadband internet access made file hosting and sharing the creature it is

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[3] Well, any piece of art that is experienced in two dimensions—at least so far.
[4] Andrew Murray, *The Regulation of Cyberspace: Control in the Online Environment*, (New York: Routledge-Cavendish, 2007), 14-16.
[5] Howard Gantman, "MPAA Statement on Strong Showing of Support for Stop Online Piracy Act," December 16, 2011.
[6] For one, the replacement value of pirated material to purchased material would not be 1:1. A person who illegally watches a film online cannot be assumed to, in the absence of available illegal material, to have legally purchased that film 100% of the time.
[7] Alan Davidson, *The Law of Electronic Commerce*, (Melbourne, Australia: Cambridge University Press, 2009), 89-95.

today. Primarily, this is because preventing intellectual property theft on the Internet is much easier said than done. There are technical challenges, complicated in no small part by the very multinational and decentralized nature of the World Wide Web[8]. And there are issues of censorship and overregulation; a too-broad government crackdown on the Internet could create a chilling effect on what has become an indispensible dynamo of creative and technological progress over the past quarter century[9]. Consequently, attempts at reforming Internet content regulations have been controversial, as the recent widespread outrage over SOPA and PIPA (the Stop Online Piracy Act and the Protect Intellectual Property Act—more on them later) showed. So how should we protect the works of artists while still keeping the Internet free and open for creativity and innovation?

This paper will seek to answer that question. Specifically, it will focus on the issue of Internet video streaming in the United States. Direct peer-to-peer file sharing, while related, is different enough to be beyond the scope of this paper. Similarly, there is undoubtedly an international component to any discussion about regulating the Internet, but this paper will focus on what the U.S. legal system can do about video streaming.

## I. How We Got Here

At its core, the issue of Internet file hosting is just the newest frontier in the idea of copyright, and a look back at some of the relevant history of the advancement of copyright protection in the Western world is important to understand the modern regime.

[8] Murray 197-199
[9] Mike Godwin, *Cyber Rights: Defending Free Speech in the Digital Age*, (New Yok: Random House, 1998), 162-199.

Although Martial may have wished for its protection in the days of Rome, the modern (Western) concept of Copyright originated in Europe in the mid-15th Century. In its basic form, the beginnings of copyright protection were a response to the invention of the printing press, which was as much of a revolutionary technology at the time as the Internet is now. Before the printing press, any reproduction of a work had to be done by hand, a process too laborious and error-prone to be widely used. But Johannes Gutenberg and his revolutionary printing press changed all of that[10].

It did not take long for the early printing press to become fairly ubiquitous throughout Western and Central Europe, and by the end of the 15th Century most major cities and towns had at least one. With all of these new presses, suddenly it was possible to reproduce books and other works of literature both quickly and nearly flawlessly. Governments at the time—and particularly the Vatican—quickly realized both the potential for benefits and dangers of this new explosion of written material[11].

It was now possible for nearly anyone to obtain books and pamphlets, which could be a positive advancement for the Church and the states with the newly wide availability of the Bible and other books of learning and scholarship. However, the same presses that turned out Bibles could just as easily print seditious or heretical literature, and it did not take long for most printers in Europe to fall under close government oversight. This control usually took the form of a license that gave a particular printer exclusive rights to print particular works for a given number of years in one jurisdiction[12].

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[10] Ronan Deazley, *Rethinking Copyright: History, Theory, Language*, (Northampton, MA: Edward Elgar Publishing, Inc., 2006), ch. 1.
[11] Ibid.
[12] Ibid.

The Republic of Venice is the first known European state to grant privileges to one particular work. In 1486, the Venetian historian Marcus Antonius Coccius Sabellicus published a history of Venice called the *Historiae rerum venetarum ab urbe condita*. Republic officials, in an effort to protect what they considered a particularly important scholarly work from inferior and potentially incorrect reproduction, gave Sabellicus exclusive right to print his work. Over the next decade, the Venetian officials began issuing these privileges to other authors, and by the beginning of the 16th Century other Italian city-states had adopted and even expanded the practice. Venice, Florence, and the Vatican (under Pope Leo X) began granting exclusive licenses to printers to reproduce older, classic texts, typically for a period of fourteen years[13]. The Italian beginning of the copyright protection would profoundly influence other European nations—including the United Kingdom, the direct antecedent for the American copyright regime.

For the most part, the beginning of British copyright protection mirrors that of the mainland—a form of governmental control over new technology. However, by the mid-16th Century, power over publishing shifted into the private sector. In 1557, a group of printers throughout England known as the Stationer's Company received a royal charter (officially called the Licensing Act) for a monopoly over all printing in the country[14]. All members of the Stationer's Company—and only members of the Stationer's Company—could register any printed work with the Company, and only the holders of this registration could legally print the work. This private, exclusive holding of publication rights throughout the entire country of England was the first time that copyright begins to

[13] Armstrong 6

[14] In this pre-industrial, proto-capitalist time, a monopoly was a much more technical term then today, and usually just meant that a particular group had some officially sanctioned control over an industry.

look vaguely similar to the system to which we are now accustomed[15]. The Stationer's Company would retain its monopoly for over a century, until parliament declined to renew its charter in 1694[16][17].

For two decades, the state of copyright remained in limbo. However, in 1707 Scotland and England finally officially merged into the nation of Great Britain[18]. The newly invigorated and empowered parliament embarked on a historically important period of law-making, and one of the areas that it addressed not long after the merger was the outstanding issue of copyright, which had lain dormant since the dissolution of the Stationer's Company's power nearly two decades prior. So in 1710, Parliament enacted a watershed piece of legislation that became known as the Statute of Anne (so-named due to its passage under the reign of Queen Anne). Under the new law, the author of an original work—or a printer to whom the author had officially licensed the original work—was entitled to a period of 14 years (and potentially another 14 upon one-time renewal, should the original author still be alive) during which the State protected the exclusive right of that author to publish his creation. After the copyright expired, the work then passed into the public domain[19].

The Statue of Anne is important historically for several reasons. For one, it was the first time in the history of the world that the concept of copyright was officially

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[15] The Stationer's Company was exclusively English; no equivalent existed at the time in Ireland or Scotland.
[16] One of the foremost opponents of the Licensing Act, and one of the most important reasons it lapsed, was the famed philosopher John Locke, who considered it "ridiculous" that, under the Act, the works of long-dead authors remained forever in copyright for whichever publisher registered his work.
[17] Deazley ch. 1
[18] The two had had the same monarch since the ascension of King James I in 1603, but were technically separate nations with separate parliaments
[19] Ibid.

codified as such by a national legislature, as opposed to granted *de facto* to publishers by official fiat. The Statute was also the first time that ownership of original intellectual property was explicitly vested in the *author* of a work, not the publisher. Indeed, the Statute was also the first time that the notion of copyright was explicitly justified on the basis of fostering creative innovation; the official title of it was "An Act for the Encouragement of Learning, by Vesting the Copies of Printed Books in the Authors or Purchasers of such Copies, during the Times therein mentioned". The preamble to the text of the bill further spelled out this intent, saying:

> Whereas Printers, Booksellers, and other Persons, have of late frequently taken the Liberty of Printing, Reprinting, and Publishing, or causing to be Printed, Reprinted, and Published Books, and other Writings, without the Consent of the Authors or Proprietors of such Books and Writings, to their very great Detriment, and too often to the Ruin of them and their Families: For Preventing therefore such Practices for the future, and for the Encouragement of Learned Men to Compose and Write useful Books; May it please Your Majesty, that it may be Enacted ...

Finally, the Statute of Anne was also the first time that the notion of a public domain (though the term itself appeared later) was explicitly and statutorily included into British law. The public domain was another way that Parliament set out to foster artistic and scholastic growth. After 14 or 28 years, every work became available to as widespread dissemination as was called for, helping to prevent the creative doldrums that the Licensing Act (which extended copyright to publishers into perpetuity) had lead to during the previous century[20].

For all of these reasons, the Statute of Anne became enormously important to the growth of intellectual property protection. It proved to be "the watershed event in Anglo-American copyright history ... transforming what had been the publishers' private law

[20] Paul Torremans, *Global Copyright: Three Hundred Years Since the Statute of Anne, from 1709 to Cyberspace* , (Northampton, MA: Edward Elgar Publishing, Inc., 2010), chap. 1.

copyright into a public law grant"[21]. And although the Statute would later be revised and eventually repealed in The Copyright Act of 1842, it was the Statute of Anne that was the law of the land for the founding fathers of the United States of America

Or rather, it was the law of the land in England for the founding fathers. The English Parliament, viewing the American Colonies as largely agrarian and not a particularly important bastion of artistry and scholarship, never applied the Statute of Anne to the Colonies. Instead, to the extent that any of the Colonies bothered with copyright protection, it was only on a very limited basis; two colonies had provisions lasting for seven years and one for only five. This would cause some problems for the country after achieving independence[22].

In 1783, a group of authors gathered to petition the Continental Congress to pass some sort of copyright protection, arguing that "nothing is more properly a man's own than the fruit of his study, and that the protection and security of literary property would greatly tend to encourage genius and to promote useful discoveries"[23]. However, under the Articles of Confederation, one of the many powers that the Continental Congress lacked was any sort of authority to issue copyright protection. Still, the Congress did issue a statement urging the States:

> To secure to the authors or publishers of any new book not hitherto printed... the copy right of such books for a certain time not less than fourteen years from the first publication; and to secure to the said authors,

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[21] Patterson, L. Ray; Joyce, Craig (2003). "Copyright in 1791: An Essay Concerning the Founders' View of Copyright Power Granted to Congress in Article 1. Section 8, Clause 8 of the U.S. Constitution". *Emory Law Journal* p. 916

[22] Ibid

[23] Yu, Peter K (2007). *Intellectual Property and Information Wealth: Copyright and related rights*. Greenwood Publishing Group. pp. 142.

> if they shall survive the term first mentioned,... the copy right of such books for another term of time no less than fourteen year.[24]

Within a few years, every state save for Delaware had enacted some sort of protection, many based on Statute of Anne. But the protections were guaranteed only in each state individually, and the patchwork nature of protections concerned several of the delegated to the Constitutional Convention in 1787[25].

The two most prominent advocates for national copyright protection during the drafting of the United States Constitution were James Madison of Virginia and Charles Pinckney of South Carolina, who both submitted language to that effect at the Convention. As a result of their efforts, the final Constitution included the origin for all federal power over copyrights (as well as other intellectual property, such as patents), the eponymous Copyright Clause[26][27].

Among Congress' other enumerated powers laid out in Article I, Section 8, the Constitution empowers Congress "To promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries". The wording of the clause makes it clear that the founders viewed the protection of intellectual property through a particularly utilitarian lens—the founders were concerned with the progress of art and science[28]. Because intellectual property was so easily copied and consumed, they felt it was the government's job to step in to protect the scientists and artists who produced it, an idea that remains important.

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[24] Ibid.
[25] Patterson 916
[26] The Copyright Clause is also known as the Copyright and Patent Clause, the Patent and Copyright Clause, the Intellectual Property Clause, and the Progress Clause
[27] Ibid.
[28] Ibid.

Pursuant to its power under the Copyright Clause, the new Congress wasted little time passing the Copyright Act of 1790. The Act set forth a period of copyright to the author of a work "from the time of the recording of the title thereof" of fourteen years, which could be renewed for another fourteen should the author live that long. Indeed, the Act was copied almost verbatim from the Statute of Anne, the only exception being the additional inclusion of maps and charts[29].

Still, as the years went on the federal government gave more and more weight to the protection of copyright. Congress expanded the copyright term to an automatic twenty-eight years (with an option for a further fourteen year renewal) with the Copyright Act of 1836, and the Copyright Act of 1909 made the renewal twenty-eight years as well, giving the total time before a work passed into the public domain potentially a full fifty-six years[30]. And Congress was far from done expanding artists' protection.

In 1976, Congress passed its final full copyright act to date (the inventively titled Copyright Act of 1976), which substantially increased the time period of protection yet again, and for the first time made the period of copyright contingent on the author's life. Specifically, it stated that the term of protection would be an author's life plus fifty years, or seventy-five years for anything published anonymously, under a pseudonym, or for hire[31]. In 1998 Congress further expanded this term to an author's life plus seventy-five years, or a static ninety-five years for the aforementioned special classes, in the so-called "Sonny Bono" law (or the Mickey Mouse Protection Act, due to the Disney Corporation's extensive lobbying on its behalf). The 1976 law also officially preempted

[29] Yu 142
[30] Ibid.
[31] The for-hire provision applies to almost every visual work meant for mass consumption, including film and television.

the various individual state copyright provisions, though this was mostly a formality as copyright protection had been enforced through the federal government almost exclusively for many decades by then[32].

As the United States grew and matured as a nation, it also became more and more interest in the protection of artists. The Copyright Act of 1790 copied the Statute of Anne and protected copyright for a maximum of twenty-eight years. Two centuries later with the passage of the Sonny Bono Act, even a work published the day of an author's death would be protected for almost thrice as long as the original maximum. And an author who published a work while young and who lived to old age could potentially have his or her work protected for a century and a half, or even more (for a graph of the increases over time, see Figure 1.). The trend is obvious—the United States values the protection of copyright as an intrinsic control to enable the flourishing of arts and culture. Which is why the state of the law now, with the rise of the Internet, is so peculiar.

## II. Where We Are Now

In a broad sense, copyright law in the United States is still under the auspices of the Copyright Act of 1976, which codified concepts that are important to the discussion of the Internet and video streaming. However, the most important piece of legislation that currently governs the use of copyright and the Internet is the Digital Millennium Copyright Act, or the DMCA. Still, a brief discussion of the groundwork laid out by the 1976 Act is useful to understanding the later DMCA.

[32] Ibid.

Considering the vast technological advances that had occurred since the last Copyright Act in 1909, one of the main purposes of the 1976 legislation was to make it clear what exactly was covered by copyright protection. To this end, Congress said under section 102 of the Act that it extended copyright protection to:

> Original works of authorship fixed in any tangible medium of expression, now known or later developed, from which they can be perceived, reproduced, or otherwise communicated, either directly or with the aid of a machine or device.

The Act then went on to define "works of authorship" as including literary, musical, dramatic works (including any accompanying music), pantomimes and choreographic work, pictorial, graphic, and sculptural work, motion pictures and other audiovisual work, and sound recordings. The wording of this section of the statute is notable because for the first time, the federal government explicitly extended its protection to both unpublished works and those without an official, registered copyright notice[33].

The Act then proceeded to define what this protection actually meant. Section 106 of the Act spelled out the exclusive rights of copyright holders, saying that this exclusive right extends in five broad directions. First, only a copyright holder has the right to *reproduce* or copy the work. Second, the holder has the exclusive right to create *derivative* works of the original work, such as a sequel to a film or book. Third, he or she has the right to *distribute* copies or records of the work, whether by sale, lease, or rental. Fourth, the holder has the exclusive right to *perform* (or endow others to perform) the

[33] Torremans 165-175

work publicly. And fifth, he or she has the exclusive right to *display* the work publicly[34][35].

The final part of the 1976 Act relevant to Internet video streaming is the so-called "fair use" doctrine[36]. Fair use was, in and of itself, not a new concept in 1976—courts had been using a common law version of it in the United States since the 1840s, and in England for longer than that. But 1976 marks the first time that federal law officially recognized it, and it would prove a vitally important codification over the next couple of decades[37].

Generally speaking, "fair use" recognizes that the protections granted by copyright law are not absolute. There are limited circumstances in which some part of the work may be used by a third party without causing substantial danger to the holder's control of his or her work, and the fair use doctrine recognizes that. Section 107 of the 1976 Act spells out fair use, saying that:

> The fair use of a copyrighted work, including such use by reproduction in copies or phonorecords or by any other means specified by that section, for purposes such as criticism, comment, news reporting, teaching (including multiple copies for classroom use), scholarship, or research, is not an infringement of copyright[38].

This is a fairly broad set of exemptions, but the Act goes on to state that even this list is not necessarily comprehensive. After listing the explicit examples of fair use, the Act

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[34] Both this and the previous list have had one addition since 1976. In 1990 architectural works were added to the list of protected works, and in 1996 Congress granted copyright holders the exclusive right to perform a sound recording by means of a digital audio player
[35] Ibid.
[36] Although there are other parts of the Act that are important in a broader sense to copyright law, such as the provision governing the transfer of copyright
[37] Godwin 170-173
[38] Ibid.

goes on to say more generally, there are four factors that go into determining if the use of a copyrighted work is "fair".

Of these factors, probably the most obvious is the "general purpose of the use", particularly whether it is used commercially or for some nonprofit or educational use. This provision makes it clear that any use of another's material for sale and personal profit is almost certainly going to be illegal[39]. However, because of the free nature of most Internet file distribution (although not all, as we shall see presently), this particular principle is actually of relatively minimal relevance.

More important are the guidelines stating that a major factor influencing whether or not something is considered fair use is "the amount and substantiality of the portion used in relation to the copyrighted work as a whole; and the effect of the use upon the potential market for or value of the copyrighted work"[40][41]. Both of these guidelines are vitally important when considering many of the marginal cases of streamed video content online, and are key to establishing some way to control copyright infringement without creating a chilling effect on the Internet in general. But for all its importance, the Copyright Act of 1976 is only the foundation of the presiding legislation over copyright and the Internet. Even more important is the other primary statute that governs the intersection of the Internet and copyright regulation, the Digital Millennium Copyright Act, or the DMCA.

Passed in 1998, the Digital Millennium Copyright Act was the first—and, to date, only—major piece of American legislation aimed at protecting copyrighted content on

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[39] Ibid.
[40] The fourth guideline is a vague statement acknowledging the importance of "the nature of the copyrighted work".
[41] Ibid.

the Internet. Congress passed the Act as an implementation of several agreements made two years earlier by the World Intellectual Property Organization, a specialized agency of the United Nations[42][43]. The Act aimed to implement two major goals.

First, it created a series of complicated rules criminalizing attempts to circumvent various digital rights management (DRM) measures (basically any technology intended to prevent unauthorized access to a work), such as attempting to bypass certain copy protections of DVDs. But maybe more important, and much more relevant to a discussion of the legality of video streaming (as opposed to its mechanics), under the DMCA Congress for the first time explicitly criminalized copyright infringement committed over the Internet[44][45]. Both technically and symbolically, this change would prove important to the culture of the Internet.

The DMCA also included a provision specifically exempting Internet service providers (commonly called ISPs) from potential liability from copyright infringement lawsuits. This meant that simply allowing access to copyrighted material did not in and of itself constitute infringement—a company like Verizon or Comcast cannot under the DMCA, for example, be held liable for allowing access to a website like the Megaupload[46].

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[42] Interestingly for a subject that would grow so controversial fourteen years later that thousands of American websites would have a "blackout" over it, the DMCA was overwhelmingly popular at the time, at least among legislators. It passed the House of Representatives via a voice vote, and the Senate via unanimous consent.

[43] Damian Tambini, Danilo Leonardi, and Chris Marsden, *Codifying Cyberspace: Communications self regulation in the age of Internet convergence*, (New York: Routledge, 2008), 121-126.

[44] Before this, like other non-criminalized versions of intellectual property violations, an infringer could held liable in tort but not criminally prosecuted. The DMCA changed that.

[45] Ibid.

[46] Megaupload was a series of file-hosting websites, the largest and most well known of which was called Megavideo, which hosted a large amount of copyrighted video content. Megaupload

Similarly, a content hosting-site like YouTube.com (which, without getting too technical, is also considered a form of ISP because it has its own host servers) is not automatically liable for infringing content that is found on the site. ISPs *are* required to terminate the accounts of anyone against whom a notice of infringement has been brought by the copyright holder or face liability themselves (and, obviously, remove the content). This is done by means of an official takedown notice, with which the company has two weeks to comply. Still, many see this as too limited a remedy[47].

Notably, the DMCA is silent on the issue of website aggregators, probably because such things were almost unheard of at the time of the bill's passage. There is currently no settled law governing whether or not a website has to actively *host* infringing material to be held liable, or whether a website linking to the unauthorized content also has some level of liability[48]. And though the writers of the DMCA may not have given much (if any) consideration to the issue of content aggregation, in the years since their use has increased considerably. Indeed, the amount that the Internet in general has evolved since 1998 is staggering.

While the DMCA is new by the standards of most legislation, by the standards of the Internet it is truly ancient. When President Clinton signed the DMCA into law in 1998, Facebook.com was still six years away, Youtube.com seven, and Twitter.com eight. Broadband Internet access was prohibitively expensive for most private homes, and it would be nearly a decade until dial-up Internet would be (almost) completely replaced. The word Wi-Fi would not be used commercially for another year, and would not

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was shut down, and four of its founders, owners and operators arrested in New Zealand in early 2012.

[47] Ibid.

[48] Roger Brownsword, and Karen Yeung, *Regulating Technologies: Legal Futures, Regulatory Frames, and Technological Fixes*, (Portland, OR: Hart Publishing, 2008), 147-151.

become anywhere close to ubiquitous for another decade after that[49]. It is no wonder, then, that in many ways the DMCA has become antiquated. And yet, not only has Congress failed to come up with any new legislation, it has yet to even amend the DMCA in any significant way. Unsurprisingly, companies and citizens have taken to the courts to try and tease out the more modern applications of the dated piece of legislation. To date, there have been two particularly important lawsuits centering on the Digital Millennium Copyright Act that illustrate some of its problems and areas needing revision.

The first of these cases dealt with the issue of hosting ISPs, like the aforementioned YouTube or, in this case, Veoh.com. In early 2006, adult entertainment company IO Group brought suit against Veoh, claiming that it had identified all or part of ten of its copyrighted films on the website. Veoh was (and is) a site that allows users to upload and view video that is hosted on the site. While Veoh does have some content agreements with media companies (like the CBS network), and the vast amount of content is inoffensive user-created video (see Figure 2 for a screenshot of Veoh.com's front page), IO Group claimed that there was also rampant violation of copyright going on[50].

IO Group's case was complicated by the very clear "safe harbor" provision against copyright infringement liability set up in the DMCA for ISPs, which Veoh indisputably was. Under the DMCA, an ISP qualifies for this safe harbor if the following conditions are met:

> It must be a service provider. It must adopt, inform, and reasonably implement a policy that terminates the account of repeat infringers on the service provider's system. [And] it must accommodate, and not interfere

[49] Murray 61-69
[50] *IO Group, Inc. v. Veoh Networks, Inc.*, 586 F. Supp. 2d 1132 (N.D. Cal. 2008),

> with, standard technical measures utilized by copyright owners to identify their works[51].

IO Group took issue only with Veoh's policy of terminating accounts based only on email addresses, not much more thorough (though difficult and time-consuming) methods such as blocking the user's actual name or Internet Protocol (IP) address.

The court (the District Court for the Northern District of California) had to address the question of whether Veoh's approach to blocking users was "reasonable", which it did in a summary judgment for Veoh. The judge was able to rely on recent 9th Court precedent that defined "reasonable" in this circumstance as "if, under 'appropriate circumstances,' the service provider terminates users who repeatedly or blatantly infringe copyright"[52]. The court deemed Veoh's actions to be reasonable under this definition, and found that, consequently, Veoh qualified for safe harbor under the DMCA[53].

This case, *IO Group, Inc. v. Veoh Networks, Inc* established important precedent that made it quite difficult for copyright holders to recover damages against an ISP, which is a quite broad category of web sites. Although IO Group did not have much of a case (they had not even filed takedown notices with Veoh before filing suit), the outcome has considerably strengthened the ISP safe harbor, perhaps to a counterproductive degree. It also laid the groundwork for the much bigger and more famous (or infamous) case that has dominated the Internet copyright infringement discussion for half a decade now: *Viacom v. YouTube, Google Inc.*

In early 2007, entertainment giant Viacom sued the very popular video hosting site YouTube.com (owned since the year before by technology giant Google). In its

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[51] 17 U.S.C. § 512(k) (2006)
[52] *Perfect 10, Inc. v. CCBill LLC*, 488 F.3d 1102 (9th 2007)
[53] *IO Group v. Veoh.*

complaint, Viacom alleging that over 150,000 unauthorized clips from various TV shows and films owned by Viacom appeared on the site, and that collectively they had been viewed over a billion times[54].

However, in a similar result to the Veoh case, the court found that the same safe harbor provisions in the DMCA that had protected Veoh also applied to YouTube, and the judge also granted a summary judgment in favor of Youtube.com. Notably, the judge made the ruling despite the fact that emails uncovered the discovery process made it clear that many employees of both YouTube and Google were aware of the widespread copyright violations that were occurring on the site, and were knowingly doing little about them[55].

Viacom argued that these emails made it clear that YouTube failed the "red flag" test for an ISP; under this test, a service provider may lose its safe harbor immunity if a court finds that it failed to take action when the service provider is aware of infringing activity. The court held that this knowledge was incidental, and that because Viacom also had many thousands of copyrighted videos that it itself uploaded, it was unreasonable to expect YouTube to be able to distinguish between authorized and unauthorized content[56].

Furthermore, the Digital Millennium Copyright Act also contains a provision stating that a service provider can lose safe harbor eligibility under the common law tort of vicarious liability. In order to lose eligibility this way, the ISP must both "receiv[e] a financial benefit directly attributable to the infringing activity AND ha[ve] the right and ability to control the infringing activity"[57]. However, under current precedent, the

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[54] *Viacom International, Inc. v. YouTube, Inc.*, No. 07 Civ. 2103
[55] Ibid.
[56] Ibid.
[57] 17 U.S.C. § 512(c)(1)(B) (2006)

vicarious liability doctrine is *very* limited for ISPs hosting video content. In a case (*Perfect 10 v. Amazon*) relied upon in *Viacom v. YouTube* decision, the court ruled that the control prong of the vicarious liability test required the ISP to have "both a legal right to stop or limit the directly infringing conduct, as well as the practical ability to do so"[58].

This "practical ability" test further narrows the already quite limited statutory requirements for service providers—while on the surface it is logical not to require an ISP to do something they cannot reasonably do, in reality the courts have been *very* generous with their interpretation of "ability to control". Broadly speaking, courts have declined to hold ISPs responsible for hosted content if they can demonstrate even a very limited diligence in the removal of copyrighted material[59][60]. Until very recently, anyways.

In April 2012, the 2nd Circuit Appeals Court overturned the summary judgment in favor of YouTube and ruled that the case should go before a jury. The Court focused heavily on the internal employee emails that were dismissed in the original judgment, finding that "a reasonable jury could find that YouTube had actual knowledge or awareness of specific infringing activity on its website"[61].

In addition, the Court countermanded underlying holding in the 9th Circuit's previous dismissal of an appeal in the Veoh case (which, due to various corporate

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[58] *Perfect 10, Inc. v. Amazon.com, Inc.* pg. 47

[59] One of the major actions that helped YouTube in the case was a wide sweep that it conducted in early 2007, which removed tens of thousands of video clips containing copyrighted material, including (coincidentally, of course) many Viacom properties. While this sweep helped YouTube prove that it was diligently following takedown notices as required under the DMCA and, more generally, attempting to limit copyright violations on the site, it does belie the argument that the site was incapable of doing so for practical reasons.

[60] Murray 103

[61] Stelter, Brian. The New York TImes, "Appeals Court Revives Viacom Suit Against YouTube." Last modified April 5, 2012

bankruptcies, sales, and restructurings, had been re-titled *UMG v. Shelter Partners*). Directly contrary to the *UMG* dismissal, the 2nd Circuit held that the "right and ability" to control infringing material need not require specific knowledge (such as a takedown notice) of offending material, and can in fact be applied more broadly to a website as a whole[62]. This flies in the face of much of the previous precedent on the matter, and could potentially throw much of the current Digital Millennium Copyright Act regulatory regime into confusion, pending the results of a jury trial. This potential chaos is but one more reason that the creaky DMCA should be replaced by something more modern.

Although the Digital Millennium Copyright Act has not been seriously amended since its passage in 1998, it is not for wont of trying. Starting about five years after the passage of the DMCA, Congress regularly attempted to update the law and the regime of intellectual property protection on the Internet more generally. After a few efforts failed to gain any real support (including the BALANCE Act in 2003 and the INDUCE Act in early 2004), the first major effort at reforming DMCA was the Protecting Intellectual Rights Against Theft and Expropriation Act of 2004, also known as the PIRATE Act[63][64].

The PIRATE Act would have, among other provisions, allowed federal prosecutors file civil lawsuits over copyright infringement, throwing the weight of the government even more concretely behind the entertainment industry[65]. However,

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[62] Ibid.

[63] It should be noted that this section is talking exclusively about the Internet file hosting sections of the DMCA. Other sections of the comprehensive law have been successfully changed and are largely disconnected from Internet video streaming. Much of the DMCA, for example, deals with circumvention of digital rights management devices—essentially hacking. Over the past decade, these sections have seen quite a bit of litigation and legislation.

[64] Torremans 264-274

[65] Under the Copyright Act of 1976 and Digital Millennium Copyright Act, the federal government can only respond to copyright infringement with criminal prosecutions, not civil

although the bill passed the Senate unanimously, it died in the House Committee on the Judiciary. Subsequent attempts to revive it failed[66].

Congress attempted another copyright reform bill with the Intellectual Property Enforcement Act of 2007. This bill would have made it much easier for copyright holders to recover damages from infringers by making restitution much more standardized, and would have empowered the FBI to track Copyright infringers and bring suit against them in much the way that the PIRATE Act would have. But this bill too would fail, although its backers would get some of what they wanted in 2008's PRO-IP Act, which increased infringement penalties and established an executive office to handle large infringement claims, the Office of the United States Intellectual Property Enforcement Representative[67][68].

Other contemporaneous bills that failed include the Copyright Modernization Act of 2006, the Intellectual Property Enhanced Criminal Enforcement Act of 2007, the Combating Online Infringement and Counterfeits Act (2010), and several Intellectual Property Enhanced Criminal Enforcement Acts[69]. However, none of these bills came particularly close to passage. But in 2011, a concerted effort by members of Congress and the entertainment industry would produce two related bills that would come very close indeed—the Stop Online Piracy Act (SOPA) in the House and the Protect Intellectual Property Act (PIPA) in the Senate.

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litigation. Generally in copyright infringement cases, criminal prosecution is more difficult, time-consuming, and arguably unnecessarily punitive than it is worth, which limits the extent that the government can pursue infringement cases

[66] Ibid.

[67] The PRO-IP Act stands for the Prioritizing Resources and Organization for Intellectual Property Act of 2008.

[68] Ibid.

[69] Ibid.

Rewrites of 2010's Combating Online Infringement and Counterfeits Act (COICA), PIPA and SOPA went substantially further in amending the DMCA than any previously introduced legislation, including their direct antecedent[70]. The two Acts made some fairly bold philosophical changes to Internet regulation and would have had major consequences in many spheres of online behavior. Perhaps the most important of these changes was the large but simple shift in how liability for copyright infringement would have been determined on the Internet. Ever since the DMCA was codified, in a general sense responsibility for infringement has fallen on the individual who uploads the content to a website—as the DMCA itself, *IO Group v. Veoh*, and *Viacom v. YouTube* (although that one became substantially murkier in early April, 2012) made clear. Except in very specific circumstances, a website is rarely responsible for the content that it hosts. The safe harbor provisions in the DMCA are just too strong.

PIPA and SOPA would have changed that. One of the most radical changes that the bills introduced was the idea that the a website itself would be responsible for material that was on it. If a site hosted illegally infringing material, a judge could be empowered to completely shut it down. For websites outside United States jurisdiction, the bills would have additionally forced web browsers and search engines (like Google) to potentially completely block access to offending websites. Essentially, the "safe harbor" provision for Internet service providers that was so key in the DMCA would have been severely limited[71]. The bills' sponsors, backed by some of the most powerful groups in the entertainment business (like the Motion Picture Association of America and the

[70] PIPA and SOPA shall be referred to in the past tense even though neither bill is officially dead and will not be until a new Congress takes power January 2013. As of this writing, both bills seem to have been defeated.
[71] Sohn, David, and Andrew McDiarmid. The Atlantic, "Dangerous Bill Would Threaten Legitimate Websites." Last modified November 11, 2011.

Recording Industry Association of America) believed that such a change was the only real way to combat increasingly widespread and rampant copyright infringement on the Internet. Others disagreed

Perhaps unsurprisingly, the bills set off a firestorm of controversy. Opposition was fierce and widespread—just about every major web-based technology company, ranging from Google and Yahoo to Facebook and EBay publically tore into the bills, citing a broad range of concerns. On January 18, 2012, more than six thousand websites, including some very prominent ones like Wikipedia (see Figure 3), Reddit, and the homepage of the Firefox browser staged a "blackout" to protest the bills[72]. While the list of complaints was long—and not altogether accurate[73]—the biggest centered around fears of what the bills could do to the Internet as a whole.

For one, the change to the DMCA safe harbor provision was vague enough that, potentially, a single verified case of infringement could be used by a judge to shutdown an entire website. Even if the single user complaint was somewhat hyperbolic, the point remains—as the nonpartisan think-tank the New America Foundation says, the bills would have allowed law enforcement to take down an entire domain due to one thing posted on a single blog; "an entire largely innocent online community could be punished for the actions of a tiny minority"[74].

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[72] Kane, Paul. The Washington Post, "SOPA protests shut down Web sites." Last modified January 17, 2012.

[73] When the opposition to SOPA and PIPA truly went mainstream in January 2012, many of the issues that people protested had actually already been addressed in language added to the SOPA in December 2011. The so-called "Manager's Amendment" limited much of the vague language cited as dangerous by opponents of the bills. Nevertheless, the existence of the Manager's amendment was roundly ignored during the protests.

[74] Losey, James & Sascha Meinrath (December 8, 2011). "The Internet's Intolerable Acts". Slate Magazine

Others were concerned that SOPA and PIPA would have amounted to widespread government censorship of the Internet. If servers—and search engines—could be forced to block entire websites due to limited copyright infringement contained on the site, it is not difficult to see the effects growing wildly out of control. Journalist Rebecca MacKinnon argued that "The intention is not the same as China's Great Firewall, a nationwide system of Web censorship, but the practical effect could be similar"[75]. Other complaints against SOPA and PIPA include the concern that the bills did little to explicitly ensure fair use, that they could have seriously deleterious effects on e-commerce, and that the bills could be used to stifle free speech if the speech contained even a small amount of infringing material[76].

These concerns are valid, and important. The Internet has been a great driver in innovation and technological advancement for the past two decades, and keeping it unencumbered and open is vitally important. SOPA and PIPA, while containing some useful (and underreported) measures, clearly are a bridge too far, threatening to stifle free speech, innovation, and commerce. But it is also clear that it has never been easier to steal an artist's work. The DMCA is antiquated and there is a need for some legal reform on the Internet to account for the technological changes of the past decade and a half. Some sort of middle ground between a rampantly infringing Internet subject to old and creaky legislation and a tethered and censored Internet bound by overreaching legislation must be reached. But what would it end up looking like?

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[75] MacKinnon, Rebecca (November 15, 2011). "Stop the Great Firewall of America". New York Times.

[76] Several critics have analogized the website shut-down provisions of SOPA and PIPA to the potential for the government in the United Kingdom (which has substantially more comprehensive privacy laws that the United States) to shut down a whole newspaper because of a small number of stories that intrude on a celebrity's privacy. It would stop the illegal behavior, yes, but at great cost to other forms of legitimate discourse, including social and political.

## III. Where We Should Go.

As mentioned throughout this paper, there are two competing goals that must be balanced in any attempt to reform copyright and the Internet. First, we must guarantee that the Internet, a dynamo of both economic and cultural innovation for the past quarter century, remains as free and unencumbered as possible. Any bill that poses a threat to legitimate e-commerce and technological innovation is unacceptable. This is the primary reason that SOPA and PIPA attracted the broad opposition that they did—there were legitimate concerns, as articulated above, that making even very large websites liable for limited instances of infringement could create a devastating chilling effect on venture capitol investment and both economic and creative innovation[77].

Similarly, the Internet has been a great enabler of free speech. Much of it is trivial and silly (many Internet communities have a strange preoccupation with cats), though there is of course value in people being able to express themselves in an open and vibrant community. And some of the speech the Internet enables is far more serious—witness the power that social media wielded in the recent political upheavals across the Middle East and North Africa collectively called "Arab Spring". A bill that enables government censorship of political speech—SOPA could have allowed a judge to take down an entire blog community because a few bloggers posted copyrighted material—would be

[77] Venture capitalists claimed that under PIPA and SOPA they would be more than a little leery of investing in many types of Internet start-ups, for fear of assuming legal liability in a copyright lawsuit. Under PIPA and SOPA, such commercial and cultural touchstones as Facbook, YouTube, and even Twitter (linking to Infringing sites potentially could have allowed liability) may well never have gotten enough investment capital to get off the ground.

dangerous enough to clearly outweigh any good gained by curbing copyright Infringement[78].

But at the same time, copyright holders have the right to defend the fruits of their labor (or, in the case of larger companies, their investment in artists). As laid out at the beginning of the paper, the Western world has made protecting artists and their work a strong priority for centuries, and the United States has established a pattern of fairly comprehensive protection. As Representative Bob Goodlatte said when co-sponsoring SOPA:

> Intellectual property is one of America's chief job creators and competitive advantages in the global marketplace, yet American inventors, authors, and entrepreneurs have been forced to stand by and watch as their works are stolen by foreign infringers beyond the reach of current U.S. laws. This legislation will update the laws to ensure that the economic incentives our Framers enshrined in the Constitution over 220 years ago— to encourage new writings, research, products and services— remain effective in the 21st century's global marketplace, which will create more American jobs[79].

The Internet has made circumventing copyright almost comically easy for anyone with a computer, Internet access, and a basic knowledge of how to navigate search engines and web browsers. The ability for people to watch just about whatever they want, whenever they want, without purchasing movie tickets, DVDs, a cable subscription, or even a television has cost Hollywood and related industries billions of dollars and many thousands of jobs[80]. Consumers do not have a "right" to watch a film for free, just as they do not have the right to eat at a restaurant and not pay the check, or shoplift a sweater from a department store.

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[78] Lilian Edwards, and Charlotte Waelde, *Law & the Internet: Regulating Cyberspace*, (Evanston, IL: Norwestern Univeristy Press, 1997), 67-73.
[79] goodlatte.house.gov/press_releases/281
[80] For a step-by-step walkthrough of how one might actually accomplish this, see the Appendix.

So we need legislation that simultaneously protects copyright holders without damaging the integrity of the economic and cultural engine that is the Internet. But what would that legislation look like?

First, it is important to acknowledge that no realistic Internet copyright reform is going to be able to totally shut down infringement, or even curb it as much as many in the entertainment industry would like. It is an open question if complete elimination could possibly be achieved without the total destruction of the Internet, and even goals less ambitious than totally victory are rendered effectively impossible without compromising the other important interests outlined above. Still, there are things that can be done.

First, ideal legislation should seek to nail down a slightly more concrete definition of "fair use" with regards to video streaming than currently exists. This would do much to provide a stable and predictable regulatory landscape while placating those concerned about freedom of expression which, as an entirely practical matter and as the failure of SOPA and PIPA show, is probably necessary to actually pass any reform.

The current guidelines to fair use outlined earlier are useful (and should not be scrapped), but more specificity would be very helpful. For video streaming, it needs be made clear both that certain amounts of copyrighted video can be used free from infringement claims, but also that there is a limit.

Any use of copyrighted material for commercial ends should be limited to a certain percentage of the original work—perhaps 15%. For example, an advertising-supported website could post a review of a 100-minute film using up to 15 minutes of

footage from it[81]. Or someone could post a scene from a 42-minute television episode of up to seven minutes (rounded up)[82]. Using still images should always be covered under fair use—no one is going to see pictures from a film and decide that he or she has experienced it and no longer needs to purchase a ticket. Making it clear both that fair use exists and statutorily protected on the Internet *and* that there is a limit would make matters straightforward and predictable for both copyright holders and consumers[83].

For non-commercial use, the standards for someone (either an individual or a website) to be found liable for infringement need to be quite high in order to preserve the many educational and other functions that are the impetus behind the very existence of fair use. For someone who does not gain from it financially to be found liable for copyright infringement, he or she would need to be found to have a demonstrable pattern of infringement AND frequently post works in their effective entirety[84]. There are those

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[81] This is quite popular to do on the Internet; website like Thatguywiththeglasses.com will review a film using footage from it interspersed with commentary. Behavior like this ("commentary", under the guidelines laid out in the Copyright Act of 1976) should be explicitly allowed, and would be under the 15% rule.

[82] For the inevitable case where someone posts something that exceeds the 15% rule by a few seconds, like most areas of civil litigation there would be a "reasonableness" standard. Posting one scene that runs a little over 15% (a potential problem for network comedies, which are typically around 22 minutes) would almost always be found to be reasonably within the statutory limit.

[83] Another potential problem is the case in which, for example, a whole episode of a TV show is posted in several minute increments. Unless it's one user uploading them (in which case the site can get rid of them as already required under the DMCA), this is a case in which eliminating the activity is more trouble than it's worth. Tracking individual video segments from potentially hundreds of users would be unreasonably difficult for a site to do, and the damage is probably relatively negligible anyways; fairly few people who would otherwise pay for content are going to go through the trouble of finding and loading many different videos to patch together a cohesive experience. Some will, but probably not enough to be worth the onerous effort of stopping the activity.

[84] A "demonstrable pattern" would probably be accounted for numerically by the dollar amount that the infringement adds up to; currently proposed legislation called the Commercial Felony Streaming Act (bill S. 976 in the 112th Congress) would make streaming "for commercial use" of up to $2500 worth of material a felony. This number is probably a good starting point to demonstrate a "pattern".

who willfully and consistently violate copyright under the ostensible auspice of fair use without gaining from it financially, and there should be a way to stop their behavior. But such instances are rare enough that overreacting to them and potentially halting more innocent fair use is a situation best avoided. Indeed, not *everything* about the current Internet copyright regime needs to be replaced.

It should be noted that as much as some proponents of copyright reform (like the MPAA) might be loathe to admit it, in some ways even the creaky and antiquated Digital Millennium Copyright Act is actually working. As YouTube pointed out in *Viacom v. YouTube*, for the larger and more prominent American sites the takedown provisions of the DMCA do indeed work as well as could be expected. Infringing material found on websites like Facebook and YouTube is minimal, and sites such as these are probably a net positive for much of the entertainment industry now, by allowing them easy and flexible means to promote their products[85]. But there are many other situations in which some sort of change to the current legal regime should be made. One of the biggest is the idea, so controversial in SOPA and PIPA, that websites should be held liable for content that is located on them.

As established earlier in the discussions of the major lawsuits surrounding video streaming and the Internet, the "safe harbor" provisions for ISPs are quite thorough. Proving that an ISP has lost safe harbor status is quite difficult in practice, and even the recent ruling in *Viacom v. YouTube* by the 2nd Court has only muddled things and made it clear that some legislative update is necessary. While changing the state of the law to make ISPs automatically liable for hosted content (as SOPA and PIPA arguably do) is

[85] Of course, Viacom would probably say that part of the reason that YouTube (and others) are now relatively free of major infringing material is the threat of a potentially disastrous lawsuit.

going too far, there does need to a be a clearer and more standardized set of circumstances in which safe harbor is lost—and in practice, this means that the DMCA's safe harbor provisions should probably be explicitly weakened, though not scrapped altogether.

Generally speaking, websites should be held responsible for whatever appears on the site, and there should be clear potential consequences for violations of copyright. However, the way that this is actually implemented must be cautious, and careful not to endanger the many legitimate interests that the modern Internet served. The website shutdown provisions of SOPA and PIPA, which were the primary source of concern in the fight against them, went too far. However, that does not mean that there are not measures that Congress can, and should, take.

One argument used by opponents of copyright reform is that requiring websites to monitor user-generated content is impractically onerous for the sites; indeed, this was a major foundation in the now-overruled initial holding in *Viacom v. YouTube*[86]. However, this logic only goes so far, and those opposing reform need to acknowledge that screening for content is easier than it ever has been, and will only continue to get more convenient going forward. Indeed, virtually all video hosting websites already *do* screen for quite a but of material—namely, pornography. Pornographic material uploaded to YouTube does not last long, and no one s sending in takedown notices[87]. Sites are particularly vigilant with child pornography, even though precedent seems to indicate that ISP safe harbor provisions protect intermediaries from liability even in obscenity

[86] MacKinnon

[87] Although with pornography in particular there is an element of community social control that does not really exist with copyright infringement; on YouTube, for example, any user can "flag" a video for pornographic content, which alerts YouTube administrators. Still, the website does substantial content streaming even aside from this

cases[88][89]. Clearly it is *possible* to do some self-policing. Still, it seems clear that requiring a site to review *all* posted video is too onerous to be reasonable in the fight against infringement.

There is, however, a potential compromise between having a website review all posted video and having no self-policing responsibility whatsoever. It should be relatively easy for a website administrator to look over at least the *names* of submitted videos—particularly because potentially infringing videos would be very unlikely under a certain length (say, 4-5 minutes), thus eliminating a huge amount of videos from necessitating review. As shown in the appendix, the vast majority of the seriously offending videos are posted under obvious titles—for example, episode four of show X would likely be titled something like X.04—making even cursory examination quite effective.

Obviously, users could get around this by titling their videos something inoffensive, but this would also make finding the content much more difficult for someone wanting to watch it. While people could still pass around the names and links to infringing video, making watching illegal content more difficult would still go a long way to helping copyright holders. But acknowledging that it is possible for websites to do some self-policing only informs a legal policy, it is not one itself. So under what circumstances may a website lose its DMCA safe harbor?

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[88] Of course, in the case of pornography, particularly child pornography, ISPs have strong market incentives to self-police—it would be potentially disastrous for YouTube if it were found to be a haven for child pornographers, even if it weren't legally responsible per se. Copyright violation, minus fears of liability, inspires no such risk. So holding an ISP liable for obscenity is redundant in a way that copyright liability is not.

[89] Anjali Anchayil, and Arun Mattamana, "Intermediary Liability and Child Pornography: A Comparitive Analysis," *Journal of International Commercial Law and Technology*, 5, no. 1 (2012),

For an ISP to lose DMCA safe harbor—or for any other site generally to be considered liable for copyrighted content—a two-prong test should have to be satisfied. Note that the burden of proof would not be on the defending site, another criticism of SOPA and PIPA. First, the claimant must show that the potentially offending site did not make a genuine, good faith effort to curb and eliminate copyright violations on the site. Having an employee monitor the names of uploaded videos would be an effective way to demonstrate this good faith, but theoretically there could be more ways to show it.

Second, the claimant must show that a preponderance of the site's activity goes towards infringement. What this means would very based on the purpose of the website (a political blog would probably be held to a different standard then a file sharing site), but if a court determines that a significant percentage of a site's activity was dedicated to circumvention of copyright, *and* the site does not make a genuine, good-faith effort to stop it, then that ISP should lose its DMCA safe harbor[90]. Having both of these prongs codified into legislation would make the regulatory regime much more predictable and uniform than it currently is, which would help both service providers and copyright holders. But there are cases in which this would not be enough.

The international nature of the Internet does cause complications, and copyright enforcement is one of them. Many of the most prolifically infringing sites are based outside of the United States, and thus outside of the United States' civil court system's

[90] What the exact percentage of copyrighted videos relative to other material that would be necessary to trigger a "preponderance" would vary quite a bit depending on the size and nature of the site and of the videos. A site that ten episodes of a TV show along with ninety other videos of cats (for example) would be less likely to be a "preponderance" than one that hosts a thousand full length movies and nine thousand other videos.

jurisdiction[91]. Consequently, there may be times when the even finding a website liable for copyright infringement may not be enough, if that infringe cannot actually be satisfied in court. In this circumstance, the extreme measure of website shutdown or blockage may be necessitated[92].

However, any reform legislation should acknowledge that this step is an extreme one, and should only be used sparingly and carefully. Therefore, a third prong should be added to the test before a judge can order a foreign site be blocked: the site has to directly profit from the infringing activity. Adding a commercial advantage test would help ensure that more innocuous foreign sites did not suffer the major step of being totally blocked, and would help alleviate free speech issues[93].

Finally, it is possible to imagine a situation in which even this measure is not good enough—say a foreign website is set up specifically to host American films. In the very narrow circumstance where a foreign website can be proven to not make a good faith attempt at taking down copyrighted materials and does *not* benefit from them commercially, then they should still be possible to block, but only if *all* of the following is true: the site makes little to no attempt to curb copyright violations on the site, it is not possible to recover damages via the U.S. judicial system, *and* the site is almost exclusively dedicated to hosting copyrighted materials. Should all of this be shown, a judge should have the power to block access to even a noncommercial foreign site.

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[91]Franda, Marcus. *Governing the Internet: The Emergence of an International Regime*. Boulder, CO: Lynne Rienner Publishing, Inc., 2001.

[92] There is precedent for such a measure, albeit not in the United States. Several European nations have at various times blocked the notorious Swedish file-sharing site The Pirate Bay, due to its widespread and quite open disregard of copyright.

[93] Obviously, the most effective way to actually deal with situations like this is probably through international diplomacy and treaties with other countries. However, as that is beyond the scope of this paper, this hypothetical legislation assumes that for whatever reason such efforts have failed or are not being pursued.

One last measure that needs to be addressed to update the DMCA to the current state of the Internet is to do something about link aggregator sites. Much of the way copyrighted videos are accessed on the modern Internet is through these websites, which collect links to videos that are actually hosted on another site[94]. Because these link aggregator sites don't actually host any copyrighted material themselves, it is very difficult, if not impossible, to hold them legally liable—the creators of the DMCA did not think to include anything addressing them in the 1998 bill[95]. Indeed, it was this problem that SOPA and PIPA clumsily tried to address by potentially holding *any* link to infringing activity liable. While that clearly goes too far, something needs to be done to prevent the link aggregators from operating so brazenly.

But such a solution need not be particularly complicated, at least not if the other proposed changes were enacted. It would not be difficult or inappropriate to simply hold a website that links to offending material to the same standard as one that hosts the material. If the site makes no good faith effort to curb links to copyrighted material, and a preponderance of the site's activity is dedicated to such endeavors, then the site becomes liable. Similarly, if the link aggregator is located offshore (and many are), if it fails the commercial advantage prong it should be possible to block access to it

Note that it is important to differentiate a link site itself being held the two-prong standard and holding a site liable for linking *to* a site held to two-prong standard; in other words a link aggregator should not be held liable for linking to site that failed one or both prong if the link site itself either made a good faith effort to limit illegal links or had

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[94] Many of the more blatantly copyright violating sites have limited search functionality, presumably to make it harder to prove that they host illegal content. Link aggregators are often the best way to get around this. See the Appendix for examples.

[95] Marcus Franda, *Governing the Internet: The Emergence of an International Regime*, (Boulder, CO: Lynne Rienner Publishing, Inc., 2001), 125-129.

relatively few in the first place[96]. This way a website like Twitter has nothing to worry about—the *vast* majority of what Twitter does, even the vast majority of links that are posted on Twitter, are not in any way related to copyright infringement.

Finally, to appropriate an idea already proffered by several pieces of legislation to date, the federal government should be allowed to use civil litigation to curb copyright infringement[97]. As noted above, this would accomplish a number of useful goals. The federal government would be able to pursue more and more complicated cases than a single company, particularly in cases against foreign websites—a company, even a big one like Viacom, can only sue to recover damages based on its own properties, whereas the government could potentially pursue action on a bigger scale.

It would also allow more flexibility for the government in cases where criminal sanction would be unnecessarily punitive. One does not have to stretch much to imagine a student who uploads enough copyrighted material to be worth pursuing, but against whom a jail sentence would be overmuch. Paying damages would probably be punishment enough.

While copyright infringement will never be totally destroyed on the Internet—at least not without causing far more damage than it would be worth—there are things that can and should be done to help at least limit the problem. The current regime of copyright enforcement on the Internet, largely governed by the Digital Millennium Copyright Act, is antiquated and outdated, but that could change. Implementing the proposals outlined above would be no complete panacea, and would not be a perfect solution. There is no

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[96] There are many link aggregator sites that are perfectly legitimate, primarily linking to legal sources of copyrighted videos like the entertainment company's own website, Hulu.com. Netflix.com, or iTunes. These sites should not risk liability just because one or two links to liable websites appear for a while.

[97] Torremans 304

such thing. But they would go a long way to help limit the rampant violations of American copyright that happen on the Internet.

The United States has a long and consistent history of strongly protecting the economic well being of the artists and innovators that call her home. From the insertion of the Copyright Clause into the U.S. Constitution and the Copyright Act of 1790 to the Act of 1976 and the Digital Millennium Copyright Act to the failed overhauls of the Protect IP Act and the Stop Online Property Act, we as a society have made protecting intellectual property a priority.

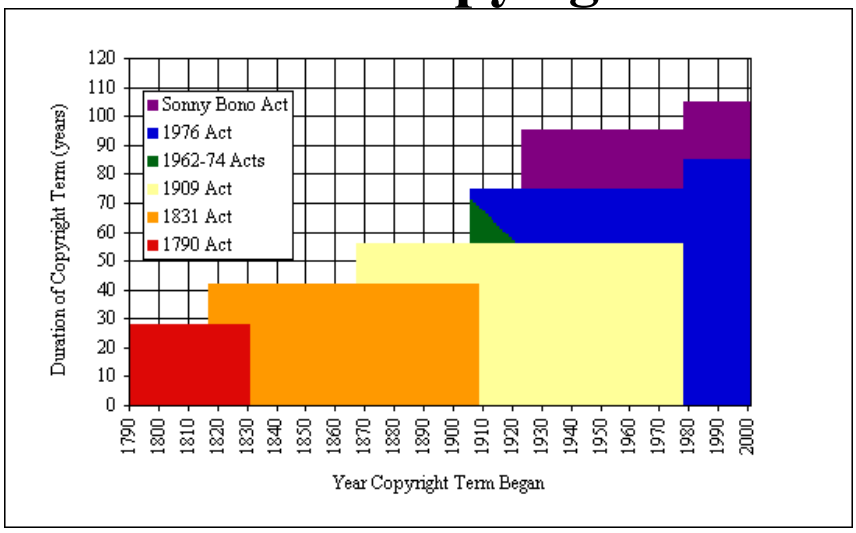
And the rise of the Internet has only made these protections more important. Not since the invention of the printing press has a technological advance caused such a widespread change in how intellectual property is disseminated, discussed, and, too often, stolen. Congress has made some attempt to help prevent this, but the major governing legislation on the matter—the DMCA—is so old relative to the age of the Internet that it desperately needs revamping. Internet video streaming is more widespread and easier to access than ever, and though Congress has made attempts to do something about it, thus far it has been unsuccessful. The closest that Congress has come was SOPA and PIPA but, largely due to being clumsily written and potentially dangerously overbroad, those two related bills appear (at the time of this writing) to be dead and buried.

Instead, Congress should adopt the proposals outlined above. By explicitly outlining and protecting fair use with regards to video, we can make progress. By creating a clearly stated and specific two prong test whereby an Internet service provider

can be held liable for infringing content, we can make progress. By creating a difficult but possible method to block particularly blatantly infringing foreign websites, by making link aggregator sites potentially liable for what they link to, and by allowing the federal government to pursue civil cases against copyright infringers, we can make progress. None of these measures, individually or taken together, will totally stop dedicated individuals from circumventing copyright to upload and watch video illegally.

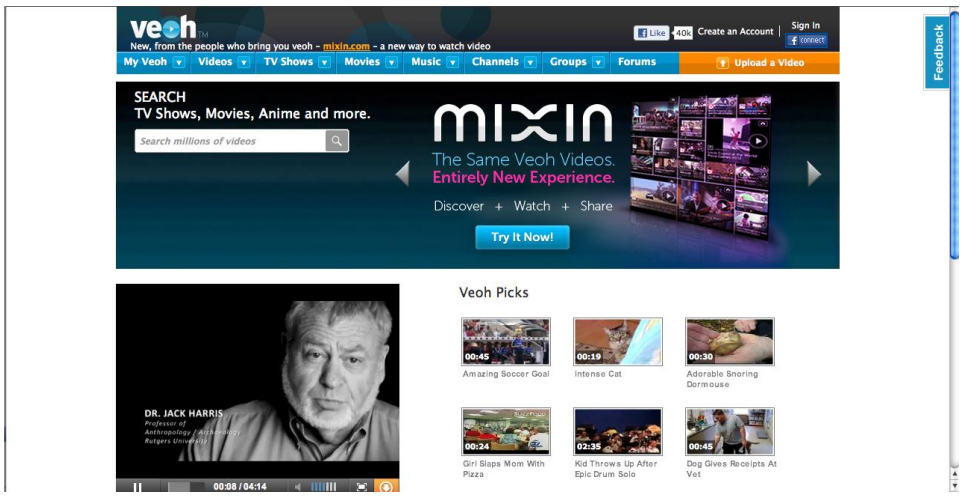
But they would go a long way towards making it more difficult. Simultaneously, these reforms would make it clear which sites the DMCA safe harbor provisions would still protect, and who would *not* held liable for hosted content. These proposals would make a more predictable, more commercially friendly, and more artistically protected Internet without stifling free speech or stymieing growth and cultural dynamism. It seems likely Martial, writing his frustrations 2,000 years ago, would agree—that's at least worth a try.

# Figure 1. Trend of Maximum U.S. General Copyright Term




Note: This is for the static term only. Starting in 1976, many works were pegged to the author's death, and thus could easily exceed these numbers. Source: http://www.tomwbell.com/writings/%28C%29_Term.html

# Figure 2. The Front Page of Veoh.com




Source: Veoh.com, accessed 4/23/12

# Figure 3. The Wikipedia Blackout Protesting SOPA and PIPA


Source: http://upload.wikimedia.org/wikipedia/commons/2/28/Wikipedia_Blackout_Screen.jpg

# Appendix—A Guide to Watching an Infringing Video

Much of the problem underlying the need for Internet copyright reform is not just that it exists, but how *easy* it is. This is a quick guide showing an example of how it is often done.

First, note how quickly one can watch an illegal video. The notion that people will pay for material to get it faster is naively outdated. For example, on Thursday, April 26th a new episode of the critically beloved but chronically low-rated NBC show *Community* aired at 8:30 Eastern standard time. *Community*'s (limited) audience is young and well educated, which is normally highly desirable for advertisers and good for NBC. However, many of these young viewers also know that they can watch the show quite easily and quickly online without even having to own a television. Indeed, by 9:15 Eastern time multiple streams containing good-quality versions of the full episode had appeared on link aggregator sites.

This is before the episode had finished airing in the Midwest, including the major market of Chicago, and more that two hours before it would air on the West Coast, including the major markets of Los Angeles, San Francisco, and Seattle. Many millions of viewers could easily have already watched the show (and potentially several more) before the episode even aired in the West. For a show that is on the verge of cancellation (which would cost at least dozens of jobs in the cast and crew) and only draws some 3 million official viewers per night, this is potentially a major problem.

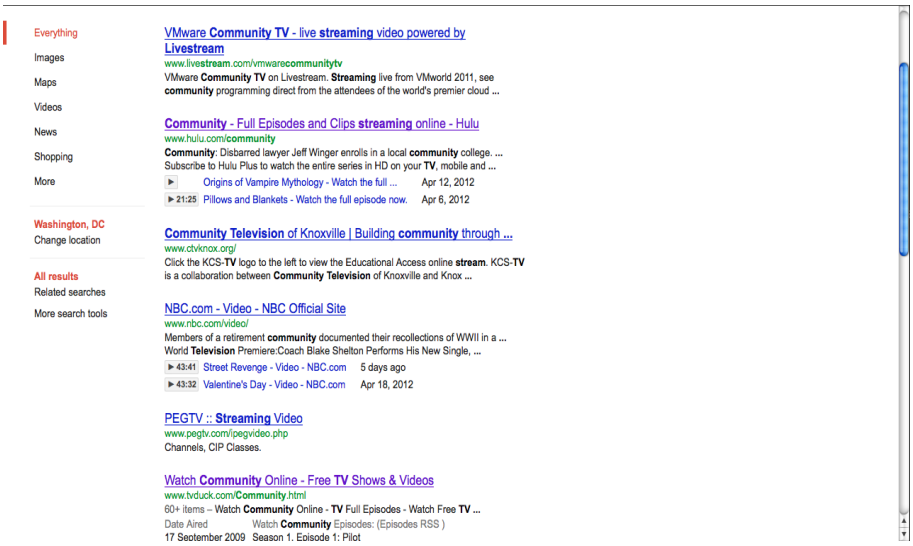
**Figure 4—Screenshot of a new episode of *Community* hours before it aired on the West Coast.**


Note the time, in the upper left-hand corner.

So how might one—say, a tech-savvy young man from the West Coast—find this video? Even if he did not already know a site that it would appear on, it would not be at all difficult for this young man (let's call him Raul) to find.

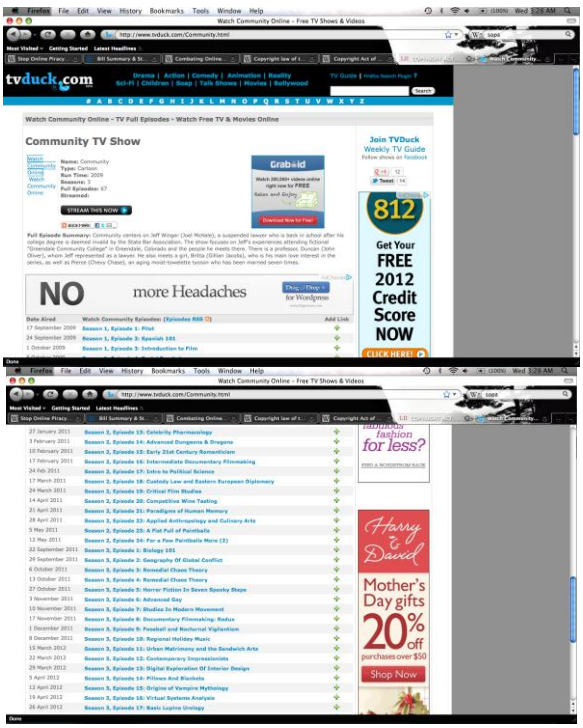
Step 1. Raul goes to a search engine, probably Google.com, types in "Community TV Stream". The sixth result—on the first page—is a site called TVDuck.com.

**Figure 5—Top 6 Google results for "Community TV Stream"**




Step 2. Raul clicks on the link to TVDuck.com, which takes him to a page listing Community Episodes.

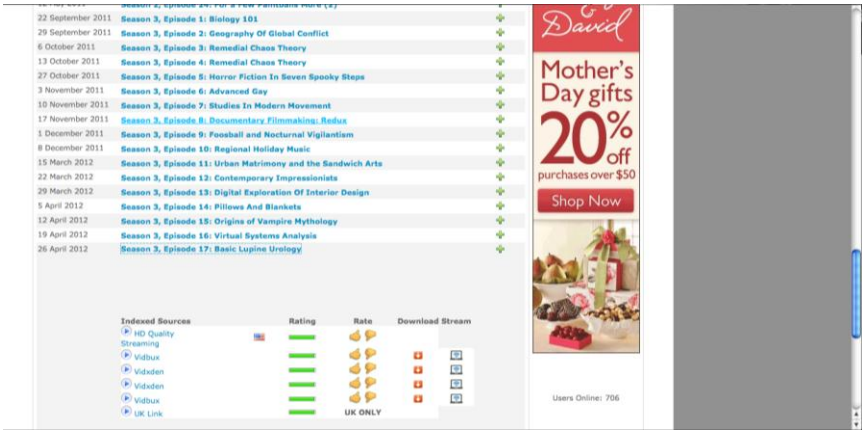
**Figure 6—Screenshots of the TVDuck.com listing for Community**




Note the advertising on this page—it is clearly commercially monetized.

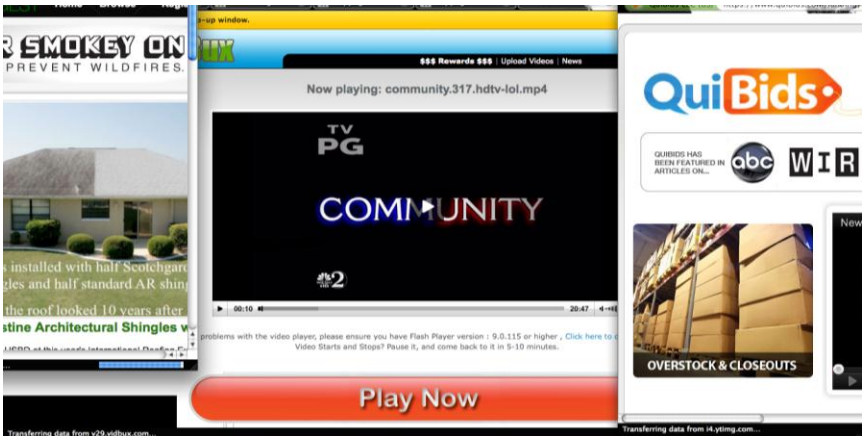
Step 3—Raul clicks the link for the desired episode, in this case 17, “Basic Lupine Urology” (which Raul recognizes as a play on the name Dick Wolf, producer of Law & Order, which the episode parodied). A list of links to video hosting sites comes up. Here there are not many; some sites for certain shows and movies can have dozens of these.

**Figure 7—Screenshot of list of links to video hosting sites on TVDuck.com**




Step 4—Raul click one of these links (in this case, “Vidbux”, which takes him to the other site. Raul clicks “play” and enjoy the fruit of his illicit behavior. The whole process takes Raul less than a minute.

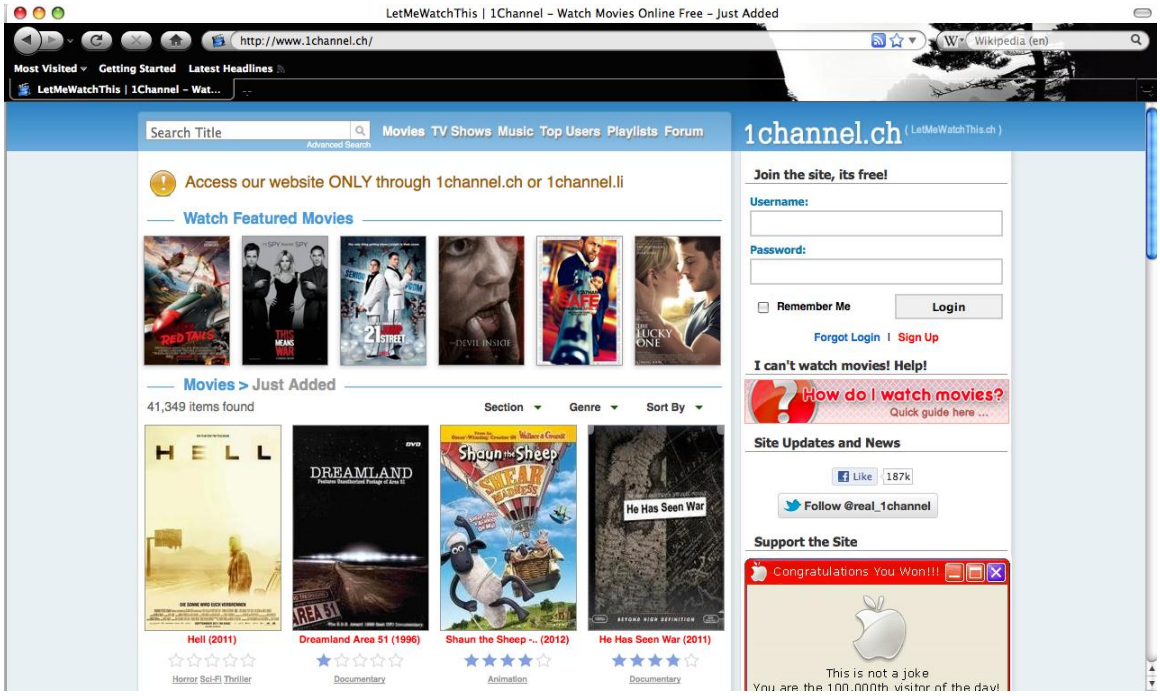
**Figure 8—Full Episode of *Community* playing on Vidbux.com**



Note here again the pop-up advertisements (there were also other ads embedded into the site, which are not shown); Vidbux too is making money from hosting the copyrighted material.

Now, let us say that Raul has done this a few times before, and happens to know the name of a major offshore link aggregator site. In that case Raul needs merely enter the site name into his browser to get there. Here, Raul is going to 1channel.ch, a huge link aggregator based ostensibly in Switzerland (.ch is Switzerland's upper-level domain), though coincidentally only in English.

**Figure 9—The homepage of 1channel.ch**



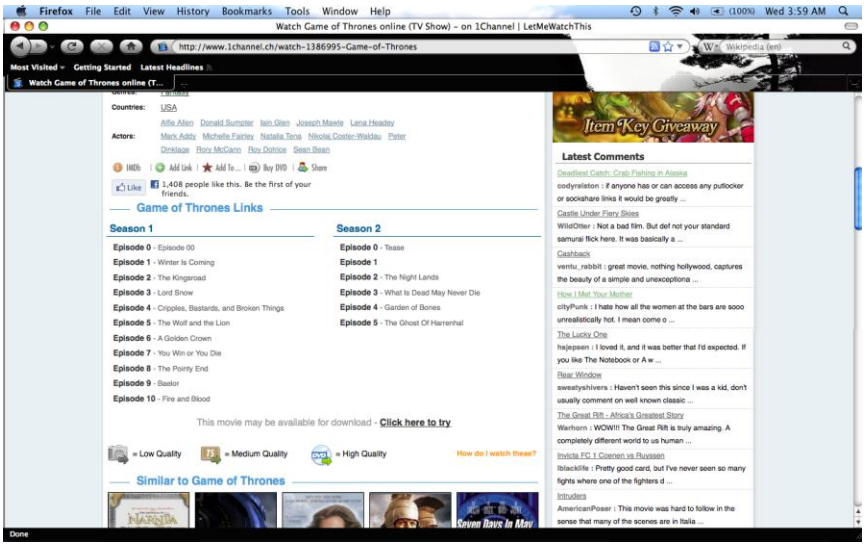

Note, again, the advertising at the lower right-hand side. It is hardly the only instance of monetization on the site.

Raul could watch any of thousands of movies (and not pay for the DVDs, which generally cost about $15, or tickets, which cost around $10), but Raul is in the mood to watch TV instead. Raul goes to the "TV Shows" section of 1Channel.

**Figure 10—TV Shows page at 1channel.ch**

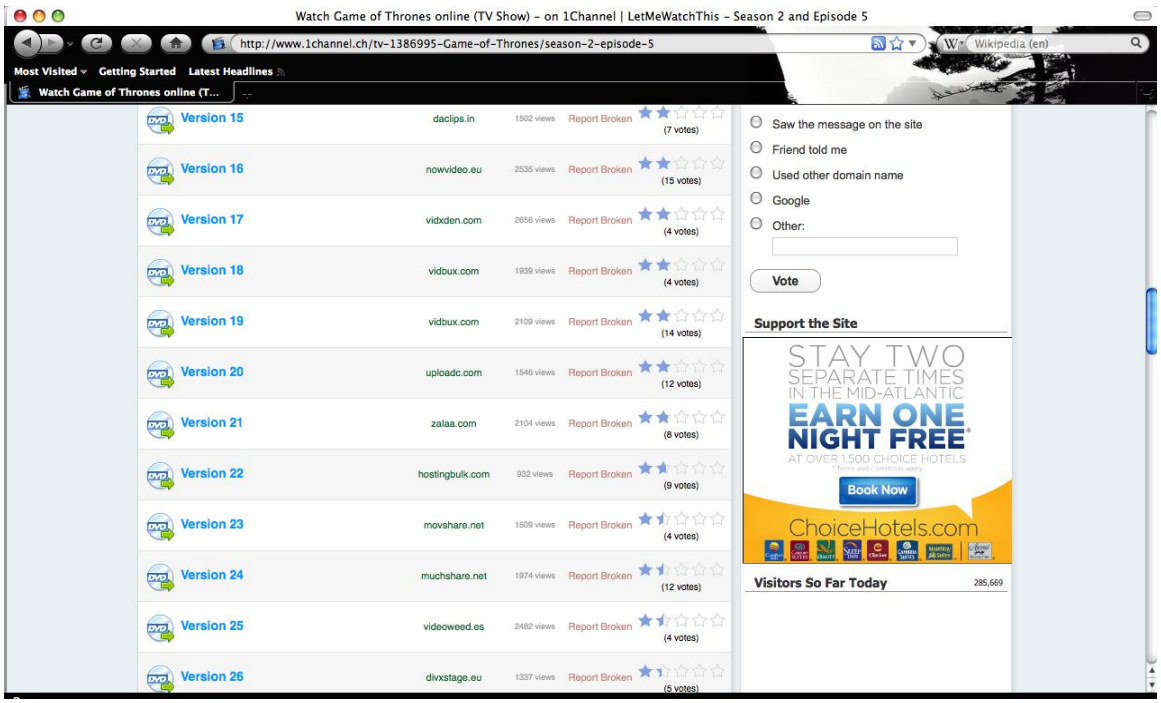

Raul wants to watch an episode of *Game of Thrones*, a new show from the premium cable channel HBO. Rather than pay several hundred dollars for a subscription to HBO, or wait nearly a year and spend $50-60 on the DVDs, Raul simply types in "Game of Thrones" and goes to that show's page

**Figure 11—Game of Thrones page at 1channel.ch**



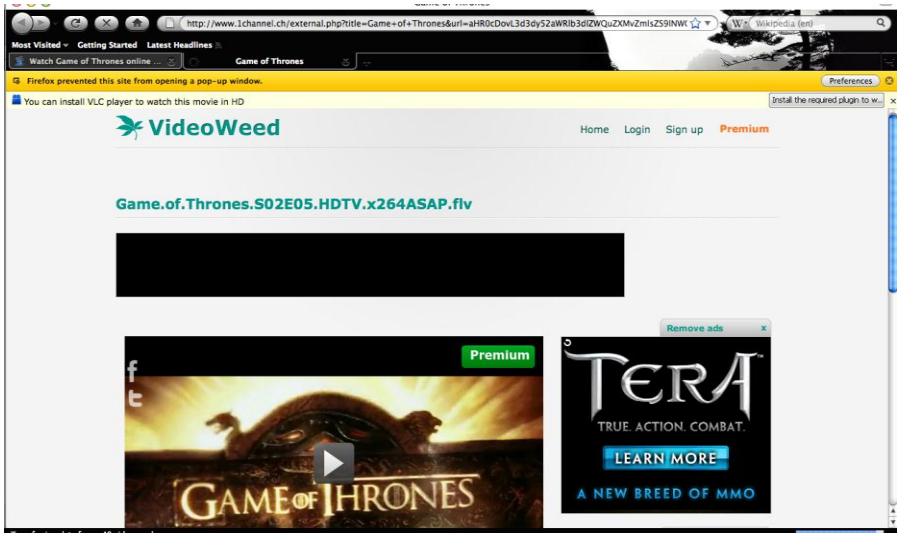

So many options! But Raul wants to watch the latest episode, "Ghosts of Harrenhall", so he clicks on that one.

**Figure 12—Offsite streaming options for the Game of Thrones episode "Ghosts of Harrenhall".**



Even more options this time, any of which will allow Raul to watch the episode completely free. Raul decides to go with Videoweed.

**Figure 13—"Ghosts of Harrenhall" on Videoweed.**

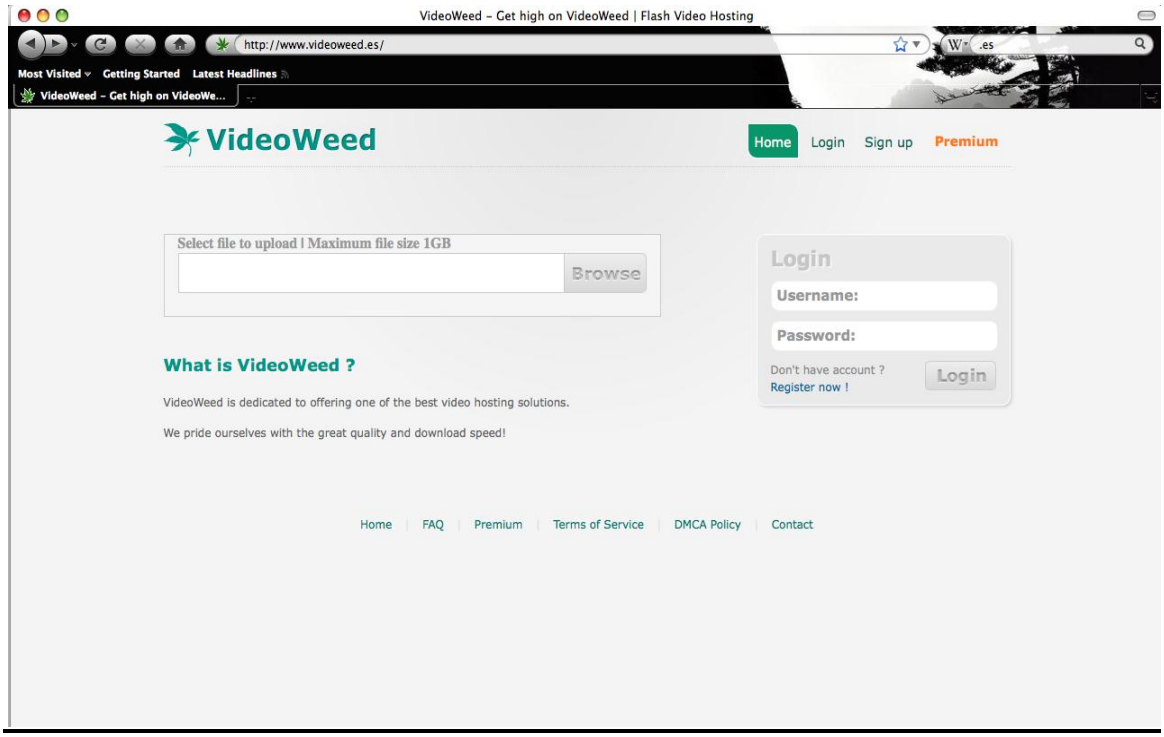



Note, for a final time, the advertisements here. Also note the "premium" button—like many file hosting sites, Videoweed tries to get users to pay a monthly subscription fee in return for reduced advertisement, faster video loading, the ability to permanently download videos (including those that happen to be copyrighted), and other perks.

Videoweed.es is a file-sharing site based in Spain (.es being Spain's top-level domain), though it also is completely in English in what is probably a way to escape United States jurisdiction. This is why some sort of recourse against foreign websites is a necessity in copyright reform.

This process also highlights the need to curb link aggregator sites. The infringing *Game of Thrones* episode, so easy to get to with the help of 1Channel.ch, is *far* more difficult without it. This is what Videoweed.es' homepage look like if no link is followed:

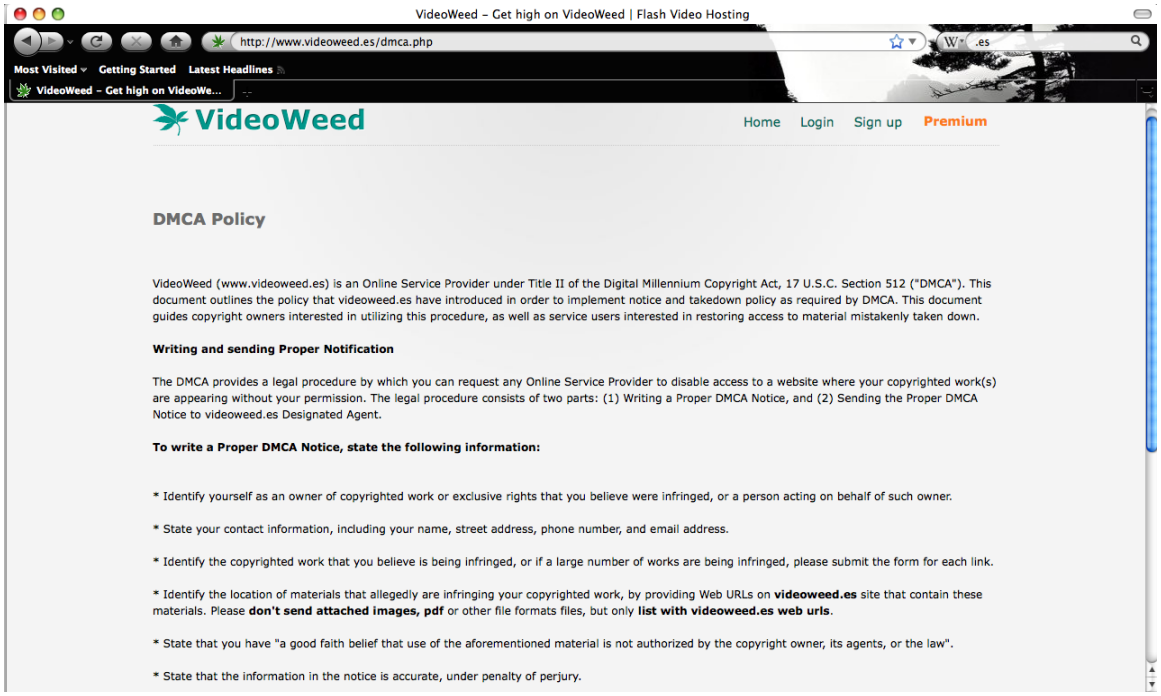
**Figure 14—Videoweed Home Page**




There is no search functionality to speak of; without following the links from 1Channel or a similar aggregator, it would be very difficult to actually find the offending video here. Also note that even the homepage of the site, despite being ostensibly based in Spain, is completely in English with no option to switch to Spanish. The evasion of U.S. jurisdiction is obvious. And again note the "premium" button—the site is very clearly commercial.

Finally, note that there is actually a tab labeled "DMCA" policy. Under the tab, the site lays out the procedure for takedown notices under the DMCA.

**Figure 15—Videoweed's DMCA policy guidelines.**



VideoWeed – Get high on VideoWeed | Flash Video Hosting

http://www.videoweed.es/dmca.php

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VideoWeed

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DMCA Policy

VideoWeed (www.videoweed.es) is an Online Service Provider under Title II of the Digital Millennium Copyright Act, 17 U.S.C. Section 512 ("DMCA"). This document outlines the policy that videoweed.es have introduced in order to implement notice and takedown policy as required by DMCA. This document guides copyright owners interested in utilizing this procedure, as well as service users interested in restoring access to material mistakenly taken down.

**Writing and sending Proper Notification**

The DMCA provides a legal procedure by which you can request any Online Service Provider to disable access to a website where your copyrighted work(s) are appearing without your permission. The legal procedure consists of two parts: (1) Writing a Proper DMCA Notice, and (2) Sending the Proper DMCA Notice to videoweed.es Designated Agent.

**To write a Proper DMCA Notice, state the following information:**

* Identify yourself as an owner of copyrighted work or exclusive rights that you believe were infringed, or a person acting on behalf of such owner.

* State your contact information, including your name, street address, phone number, and email address.

* Identify the copyrighted work that you believe is being infringed, or if a large number of works are being infringed, please submit the form for each link.

* Identify the location of materials that allegedly are infringing your copyrighted work, by providing Web URLs on **videoweed.es** site that contain these materials. Please **don't send attached images, pdf** or other file formats files, but only **list with videoweed.es web urls**.

* State that you have "a good faith belief that use of the aforementioned material is not authorized by the copyright owner, its agents, or the law".

* State that the information in the notice is accurate, under penalty of perjury.

Similarly, Videoweed has quite extensive user guidelines relating to the posting of copyrighted (and other disallowed) material.

At first glance, this might seem to give favor to the notion that the DMCA is working; after all, a video hosting site has gone out of its way to comply with the Act, even going so far as to lay out how copyright holders can give takedown notices. But if anything, this proves the opposite: If a website like Videoweed can exist under the auspices of the DMCA, then those auspices need to be changed.

Videoweed is engaging in blatant copyright violation—a cursory glance at 1Channel reveals hundreds and hundreds of links to infringing material on Videoweed, with no apparent effort whatsoever to curb it. Look again at Figure 13. The video is *titled* Game.of.Thrones.S02E05 (*Game of Thrones* Season 2 Episode 5). This is not exactly a cleverly hidden case of infringement.

Hopefully this Appendix has made it clear how easy it is for people to access and watch copyrighted video on the Internet, and how the legislative reforms illustrated in the main paper would help to curb the efforts of people like Raul to get around paying for what they watch.

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