FOSTERING WEB 2.0 INNOVATION: THE ROLE OF THE JUDICIAL INTERPRETATION OF THE
DMCA SAFE HARBOR, SECONDARY LIABILITY AND FAIR USE

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ABSTRACT

Web 2.0 has generated a surplus of creativity, encouraging innovation of new technologies and further creative expansion of the internet. Social media platforms have demonstrated a significant growth during this time and have been used to create and disseminate a wealth of information and cultural material. While it is important that copyright owners receive legal protection of the content they create, it is necessary not to simultaneously stifle the creativity of end-users. Copyright owners have more power in bargaining for their rights, and their rights are well established through statutory protections. However, internet innovators and end-users, who may have a legitimate defense of fair use, are at a disadvantage because the doctrine of fair use remains underdeveloped and unclear in the realm of internet content. As such, at the current juncture, there is an imbalance between the rights of copyright owners and the rights of technology innovators and end-users, which needs to be remedied. Unfortunately, recent legislation has skewed the imbalance even further. This article argues that judges should begin to interpret the Digital Millennium Copyright Act ("DMCA"), secondary liability, and fair use doctrine to balance the strong statutory protections that copyright owners enjoy. The DMCA should cover legitimate content sharing sites as long as the sites comply with notice and takedown procedures. This article recommends changes that would benefit technological innovators and the public interest by restoring a fair balance in copyright law for innovators and users while maintaining a reasonable level of protection for content owners.
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INTRODUCTION

There have been many thoughtful and creative suggestions for new laws to resolve some of the tension between protecting intellectual property online, particularly copyrights, and encouraging the incredible growth of Web 2.0. However, unfortunately, it is highly improbable that Congress will pass legislation encompassing any of these suggestions in the near future given its lack of bipartisanship and the intense lobbying efforts of the copyright industry. Thus, it seems much more likely that creating a workable balance between protecting copyright online and fostering technological innovation will fall to the judiciary, a reality which has been noted by judges in several jurisdictions.

This paper describes the development of the participative internet and the challenges it creates for copyright owners. After an explanation of recent statutory

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2 See generally Tim O'Reilly, What is Web 2.0: Design Patterns and Business Models for the Next Generation of Software, 65 COMM. & STRATEGIES 17, 18–19, 36–37 (2007) (defining Web 2.0 and suggesting that successful business strategies will necessarily accommodate the growth of Web 2.0).

3 See, e.g., Copyrights and Internet Piracy (SOPA and PIPA Legislation), N.Y. TIMES (Feb. 8, 2012), http://topics.nytimes.com/top/reference/timestopics/subjects/c/copyrights/index.html?offset=0&aug=s=newest. One controversial measure, later reconsidered by lawmakers, would have required “Internet service providers to block access to Web sites that offer or link to copyrighted material.” Id.

4 See Annsley Merelle Ward, Global Forum on IP: Report 2, THE IP KAT (Jan. 14, 2011, 5:20 PM), http://ipkitten.blogspot.com/2011/01/global-forum-on-ip-report-2.html. It was reported that Randall R. Rader, a federal circuit judge, opined at the Global Forum on IP that Intellectual Property (“IP”) law was the most important regulatory agent in the new online marketplace but had fallen dangerously behind new technology. Id. A judge of the Federal Supreme Court of Germany said that legislation would play a very small role in IP rights in the next ten years, and thus, it would fall to judges to protect the internet from the creation of overly strict IP laws. Id.

and common law developments in copyright law, it argues that the internet of the future is going to be shaped by judges in cases like Viacom v. YouTube.\(^6\) The paper contends that judicial interpretations, particularly of the Digital Millennium Copyright Act (“DMCA”) safe harbors,\(^7\) and the common law doctrines of secondary liability and fair use, can and should be interpreted by judges to balance the lengthy statutory protection won by the copyright industries. The balance should be achieved most particularly by ensuring that the DMCA safe harbors cover legitimate content sharing sites as long as they utilize the notice and takedown procedures, but also by limiting the application of secondary liability for copyright infringement to these sites and clarifying the protection fair use affords for transformative new technologies. The most important tasks for judges in these Web 2.0 copyright cases are to avoid the overprotection of copyright owners’ rights and to provide legal certainty about the boundaries of copyright protection.

Part I of the paper briefly describes the development of the “network as platform” of Web 2.0.\(^8\) In less than a decade, the participative direction of the internet,\(^9\) exemplified by video sharing sites like YouTube,\(^10\) online social networks,\(^11\) and other generative sites, has created immense benefits for society, while also exacerbating problems for the copyright protected model of production.\(^12\) Part II describes copyright legislation and common law developments in copyright law for the digital age. The 1990s were a busy period for legislators on copyright issues. The term of copyright protection and statutory damages were both increased,\(^13\) but legislators also passed a safe harbor exemption to protect internet service providers from liability for the infringing acts of their users.\(^14\) Since the design of the current

\(^6\) Viacom Int’l, Inc. v. YouTube, Inc., 676 F.3d 19, 41 (2d Cir. 2012).


\(^8\) See O’Reilly, supra note 2, at 18–19.

\(^9\) See VICKERY & WUNSCH-VINCENT, supra note 5, at 7. For a generalized discussion on the history of computing and the Internet leading up to the participative era, see JONATHAN ZITTRAIN, THE FUTURE OF THE INTERNET—AND HOW TO STOP IT 19–62 (2008).


We define social network sites as web-based services that allow individuals to (1) construct a public or semi-public profile within a bounded system, (2) articulate a list of other users with whom they share a connection, and (3) view and transverse their list of connections and those made by others within the system.

\(^12\) See YOCHAI BENKLER, THE WEALTH OF NETWORKS 118–21 (2006).


statutory balance between content owners and technology innovators was mainly put into place before the massive growth of Web 2.0, it has several shortcomings.\textsuperscript{15}

Part III describes the positions of copyright owners and Web 2.0 platforms in their battles over online use of copyright materials and analyzes the arguments used by each side in their vision for the future regulation of Web 2.0. Part IV argues that a fair balance between copyright owners, Web 2.0 platforms, and the public domain can be, and is being, created through judicial interpretation, mostly of the existing DMCA safe harbors, but also of the important copyright common law doctrines. There are two important questions at the heart of the copyright and technology debate. First, regarding the question of legal responsibility for infringement, should it rest with those who create the technologies that can be used to infringe, or the owners of the content infringed? This paper demonstrates that judges are clarifying that it should, in most cases, be the job of copyright owners to police their own property online and that legitimate web platforms should rarely be liable for the activity of their users, absent specific awareness of infringing activity or a choice to avoid such awareness by remaining willfully blind to such activity.\textsuperscript{16} Second, the question for judicial interpretation concerns when copyrighted work can be used online without the permission of the copyright owner. Fewer courts have considered the application of the fair use doctrine in the online world,\textsuperscript{17} but fair use should encourage, rather than hinder, the creation of new and socially beneficial ways to manipulate copyrighted works and discourage the unproductive overprotection often espoused by the copyright industries.\textsuperscript{18} In the continued absence of statutory changes to copyright law, it will fall to judges to clarify the legal rights and duties of copyright owners, web platforms, technology creators, and the millions of internet users.

I. THE DEVELOPMENT OF WEB 2.0 AND ITS LEGAL ISSUES

The following section describes the growth of the internet, its traditional lack of regulation, and the development of Web 2.0 platforms. It then turns to the advantages that Web 2.0 creates for its users and the burdens it creates for the copyright system of regulation. The term Web 2.0 was coined in 2005 to describe systems with open standards that embraced the power of the web to harness

\textsuperscript{15} Amir Hassanabadi, Viacom v. YouTube: All Eyes Blind—The Limits of The DMCA in a Web 2.0 World, 26 BERKELEY TECH. L.J. 405, 416 (2011) (arguing that Congress failed to see the rise of Web 2.0 when passing the DMCA); see also Lital Helman & Gideon Parchomovsky, The Best Available Technology Standard, 111 COLUM. L. REV. 1194, 1200, 1235–36 (2011) (arguing that the DMCA is not the best way to protect copyright online and that webhosts should instead be required to employ the best available filtering technology to avoid secondary liability for copyright infringement because technology changes so quickly).

\textsuperscript{16} See infra Part III.B.

\textsuperscript{17} See Edward Lee, Technological Fair Use, 83 S. CAL. L. REV. 797, 802 (2010). Technology innovators may choose to seek permission from copyright owners for their innovations rather than risk relying on fair use. \textit{Id}.

\textsuperscript{18} See Mathew D. Bunker, Eroding Fair Use: The "Transformative" Use Doctrine After Campbell, 7 COMM. L. & POLY 1, 1–2 (2002).
collective intelligence and allow users to interact with and improve their web experience.\textsuperscript{19} Web 2.0 includes interactive applications and platforms.\textsuperscript{20}

\section*{A. The Early Internet and Regulation}

From its inception, the internet has been a transformative and disruptive technology, creating many new legal challenges.\textsuperscript{21} Early on in the development of the internet, some pioneers believed that one of the great things about cyberspace was that it needed no laws and that it should be free of government regulation or legal control of any kind.\textsuperscript{22} However, it quickly became clear that governance of the online world was similar in many ways to that of the offline world. Legal scholar Lawrence Lessig details in \textit{Code: Version 2.0} how the internet is, in fact, not a “cyberspace of anarchy,” but continues to evolve to a “cyberspace of control.”\textsuperscript{23} Lessig argues that the internet is constrained by the same four forces: law, norms, market, and architecture or code, which regulate activities in the real world.\textsuperscript{24}

Many policies since the 1990s have, at least in the U.S., promoted self-regulation of the internet. Congress’s moratorium on internet taxes\textsuperscript{25} and U.S. regulators’ hands-off approach—until recently—regarding online privacy\textsuperscript{26} and the free flow of information\textsuperscript{27} are examples of this approach. As predicted by Lessig, computer programmer decisions on the architecture of the internet or “code” and general societal norms have created the design of much of today’s internet with little public debate or consideration of which values we wish to build into the new online space.\textsuperscript{28} However, there are limits to what can be achieved without government “choos[ing] the values we want cyberspace to embrace.”\textsuperscript{29} Both scholars\textsuperscript{30} and judges\textsuperscript{31} have

\begin{itemize}
\item \textsuperscript{19} O’Reilly, \textit{supra} note 2, at 18, 36–37.
\item \textsuperscript{20} See id. at 36–37.
\item \textsuperscript{21} See, e.g., LAWRENCE LESSIG, \textit{CODE: VERSION 2.0}, at 169–275 (2006) [hereinafter \textit{CODE 2.0}].
\item \textsuperscript{22} See id. at 3 (quoting John Perry Barlow, Grateful Dead lyricist and founder of the EFF, “Governments of the Industrial World, you weary giants of flesh and steel, I come from Cyberspace, the new home of Mind. On behalf of the future, I ask you of the past to leave us alone. You are not welcome among us. You have no sovereignty where we gather.”).
\item \textsuperscript{23} Id. at 5.
\item \textsuperscript{24} Id. at 125.
\item \textsuperscript{26} See, e.g., Electronic Communications Privacy Act Amendments Act 2011, S. 1011, 112th Cong. § 1; Do Not Track Kids Act of 2011, H.R. 1895, 112th Cong. § 1.
\item \textsuperscript{28} While a great number of countries around the globe implement some form of Internet filtering to some degree, the United States has historically maintained efforts to limit censorship and content blocking by governments. In a recent speech, Secretary of State Hilary Clinton remarked that “[t]hose who disrupt the free flow of information in our society or any others pose a threat to our economy, our government, and our civil society.”
\item \textsuperscript{29} Id.
\item \textsuperscript{30} See \textit{CODE 2.0}, \textit{supra} note 21, at 311–12.
\item \textsuperscript{31} See id. at 313, 315.
\end{itemize}
bemoaned that legislators have not risen to the challenge of regulating cyberspace in a way beneficial to social welfare. Some also argue that the judiciary has also been wary of using its powers to ascertain and protect important public values. There is a clear sentiment among commentators, and even the general public, that the law, and IP law in particular, has not kept up with the pace of technological advances. Thus, as technological progress continues, consideration is needed as to how society wishes to regulate our new online world.

B. Web 2.0 and the Developing Need for Regulation

There has truly been an explosion of creative energy online in the last decade. Jonathan Zittrain notes in *The Future of the Internet and How to Stop It* that the internet is uniquely generative: It enables its user to experiment with new uses and then share their innovations with each other. Yochai Benkler, in *The Wealth of Networks*, has shown that, on the participative internet, external incentives for the production of information goods are no longer absolutely necessary. Zittrain and Benkler together “tell a story about how the combination of individual freedom and a cooperative ethos have driven the Internet’s astonishing growth.” Regarding the regulation of the internet, Benkler argues that the manifest benefits of the networked information economy for culture are not particularly reliant on state action; in fact, the state often supports the “incumbents of the industrial information economy” where it should “adjust its policies to facilitate non-market action . . . .” Benkler, like Lessig and Tim Wu, sees a role for regulation by the liberal state to shape the online environment and provide the conditions for individuals to use the new technologies to the best advantage.

C. Web 2.0 Sites and Beyond

Zittrain’s generative internet is exemplified by the growth of the platforms and applications that put the user in control of creativity and distribution. Often called Web 2.0, this internet is very different from the more passive service provided to users in the initial internet age. The internet platforms that comprise Web 2.0 allow users to interact and collaborate with each other to a much greater extent than they

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31 See Ward, supra note 4.
32 See Code 2.0, supra note 21, at 325.
33 See, e.g., Lee, supra note 17, at 797.
34 Zittrain, supra note 9, at 71–74.
35 See Benkler, supra note 12, at 116–22.
36 James Grimmelman, *The Internet is a Semicommons*, 78 Fordham L. Rev. 2799, 2799 (2010).
37 Benkler, supra note 12, at 22.
38 Goldsmith & Wu, supra note 30.
39 Benkler, supra note 12, at 22.
were previously able. This paper discusses cases like Viacom v. YouTube\(^{40}\) that will determine how the internet is regulated and thus influence the continued development of Web 2.0 and subsequent communicative technologies. Innovators and technicians are already discussing the concept of a Web 3.0, which will put the user even more at the center of control, enable the user to make sense of data, and expand the utility of the web.\(^{41}\) This may or may not be the future direction of technology, but in order to discuss the regulation of the internet, we need to provide some description of the current internet and its utility.

1. Sharing Sites and YouTube

Web 2.0 enables users to post and share content. Multiple online forums exist that are devoted to such activity, including web logs (blogs) and wikis. Princeton University defines a blog as “a shared on-line journal where people can post diary entries about their personal experiences and hobbies.”\(^{42}\) These online spaces have flourished in the Web 2.0 era and become major methods of communication that are very present in culture; the New York Times maintains a “Blogs 101” page that organizes notable blogs by their subject matter.\(^{43}\) Blogging is done increasingly by educated adults\(^{44}\) on a regular basis\(^{45}\) and sometimes for pay.\(^{46}\)

Wikis are structured somewhat differently than blogs. They require participants to “co-produce a document by sequentially editing and or commenting on an emerging project.”\(^{47}\) As such, they can be used to create documents for commercial, academic, and social purposes. Wikipedia, the best known wiki, defines itself as “a multilingual, web-based, free-content encyclopedia project based on an openly editable model.”\(^{48}\) Wikipedia, a massive collection of information available to internet users, consists of over four million content pages of which there have been

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\(^{45}\) Singer, supra note 44. Fifteen percent of respondents spend ten or more hours each week blogging. Id. The most common rate of updating is two to three times per week. Id.

\(^{46}\) Id. Seventy-two percent of respondents report no income related to blogging and fifteen percent say they are paid to give speeches on their blog topics. Id.


over 500 million page edits since the establishment of the site.\textsuperscript{49} It, unsurprisingly, joins the ranks of internet companies that value and promote the free flow of information online.

Another sharing site, YouTube, has exemplified free information flow as one of the most popular websites in the Web 2.0 era with its grass-roots, community-driven, video-sharing platform.\textsuperscript{50} The magnitude of YouTube’s cultural reach can be derived from its various statistics. Users upload a massive amount of video on a regular basis; as of September 2012, seventy-two hours were uploaded every minute and over eleven years were uploaded every day.\textsuperscript{51} More video is uploaded to YouTube in one month than the three major United States television networks created in sixty years,\textsuperscript{52} a signal of the generative power of Web 2.0. The power has a global reach: YouTube is localized in forty-three countries across sixty languages, and seventy percent of its traffic comes from outside the United States.\textsuperscript{53}

YouTube likely would not have achieved this type of success if it had followed a different growth strategy. Early in its lifetime, its founders decided against running pre-roll advertisements,\textsuperscript{54} despite the fact that the ads would have generated revenue to help YouTube’s bottom line in struggling months.\textsuperscript{55} The lack of ads contributed to the community feel of the site and prevented YouTube from garnering a “Big Media” reputation.\textsuperscript{56} This perception of the site has allowed it to fit perfectly into the social media atmosphere that has come to dominate Web 2.0. “More than 50% of videos on YouTube have been rated by or include comments from the community[,]” and “100-million users take a social action on YouTube . . . every week.”\textsuperscript{57} As of October 2012, YouTube was available on 350 million mobile devices;\textsuperscript{58} 500 years’ worth of YouTube video was watched every day on Facebook;\textsuperscript{59} and over 700 YouTube videos were tweeted each minute on Twitter.\textsuperscript{60}

2. Online Social Networks

Social networks are some of the most popular types of Web 2.0 platforms. The first recognizable social network website, SixDegrees.com, was launched in 1997 and allowed users to perform many of the functions with which they are now familiar,

\textsuperscript{52} Id. Roughly 2.9 million hours of video is uploaded each month to YouTube, whereas the three major networks combined, broadcasting for twenty-four hours a day, seven days a week, for sixty years amounts to only about 1.6 million hours of video.
\textsuperscript{53} Id.
\textsuperscript{54} Id., supra note 50, at 7. Pre-roll advertisements are ads that play before videos begin. Id.
\textsuperscript{55} Id.
\textsuperscript{56} Id.
\textsuperscript{57} Statistics, supra note 51.
\textsuperscript{58} Id.
\textsuperscript{59} Id.
\textsuperscript{60} Id.
Social media gained popularity in the U.S. in 2002 with the arrival of Friendster. Facebook, which originated in a Harvard dormitory as a social service for college students, is today’s most popular social networking site with 955 million monthly active users as of June 2012, and the site is still growing. Facebook has become a global phenomenon; more than eighty percent of its current users live outside the United States and Canada, and the website is available in more than seventy languages. Global time spent on social network sites increased eighty-two percent from 2008 to 2009, and since October 2010, internet users in China, Latin America, and the Middle East became engaged in more social networking than those in the United States and Japan. This worldwide reach makes the benefits of online social networks more widely accessible and thus more impactful.

D. The Social Benefits of Web 2.0: Communication, Community and Identity

YouTube and other video and photo sharing sites, Facebook and all of the other online social networks, along with sites like Twitter, Tumblr, the newer Pinterest, and a bewildering number of blogs, wikis, and other interactive or collaborative sites have quickly come to stand at the forefront of the global communications landscape. These technologies have fundamentally changed how people interact with each other and use the medium. Facebook is currently the most visited website in the U.S., and YouTube was the second most searched term on

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61 See boyd & Ellison, supra note 11.
62 See James Grimmelmunn, Saving Facebook, 94 IOWA L. REV. 1137, 1144 (2009) (providing a history of social media sites).
63 Id. at 1144–45.
65 Id.
67 See Led by Facebook, Twitter, Global Time Spent on Social Media Sites up 82% Year over Year, NIelsenWIRE (Jan. 22, 2010), http://blog.nielsen.com/nielsenwire/global/led-by-facebook-twitter-global-time-spent-on-social-media-sites-up-82-year-over-year/.
72 See Led by Facebook, supra note 67 (“Social networks and blogs are the most popular online category when ranked by average time spent . . . ” and “consumers spent more than five and a half hours on social networking sites like Facebook and Twitter in December 2009, an 82% increase from the same time last year . . . .”).
73 See, e.g., Josh Kron & J. David Goodman, Online, a Distant Conflict Soars to Topic No. 1, N.Y. TIMES, Mar. 9, 2012, at A1, (exemplifying the spread of news and ideas through viral videos). It took only four days for a video, intended to create awareness about a war that happened in Uganda, to go viral on the internet, when diplomats, academics, and Ugandans had worked for decades to get that kind of attention for the issue. Id.
Google in 2011. The benefits of an internet on which users are not merely passive viewers of information, but can participate, create, and collaborate in using information have been divided by some scholars into three main types: communication, community, and identity. Facebook and YouTube exemplify the benefits of the participative internet. These sites enable communication between many individuals (communication), the formation of groups of like-minded individuals (community), and the dissemination and collection of reputational information (identity).

Web 2.0 enables users to create and share vast amounts of content with many people on their own terms. The creation and sharing of user generated content (“UGC”) has fueled the massive expansion of sites, like YouTube, where hours of video are uploaded every minute. As noted by James Grimmelman, these sites have been more successful than most other sites on the internet:

The last half-decade on the Web has been the great era of UGC sites like YouTube, Flickr, Facebook, and Twitter—all of which offer users access to content uploaded, for unpaid sharing, by other users. Sharing makes the Web go round. There’s also a strong argument that many of these sharing-based sites are successfully outcompeting their more restricted competitors.

YouTube emphasizes, in its brief on Viacom’s appeal of the district court decision, that it is the grassroots creativity and sharing aspect of the site that leads to its success. “YouTube gives creators of every kind the ability to promote their work to a global audience—all free of charge and editorial control.”

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77 VICKERY & WUNSCH-VINCENT, supra note 5, at 4 (defining “user-created content” (UCC) as: “i) content made publicly available over the Internet, ii) which reflects a certain amount of creative effort, and iii) which is created outside of professional routines and practices”).
78 Statistics, supra note 51.
79 Grimmelmann supra note 36, at 2814.
E. Copyright Industry’s Business Model Clashes with Web 2.0

The creating and sharing of content online obviously creates new challenges for copyrights, and copyright owners have spent much of the last decade complaining vociferously about the problems created by Web 2.0. For years, they have been saying that American businesses lose hundreds of thousands of jobs to online piracy and counterfeiting each year.81 Many outside the traditional copyright industries, like entertainment, are deeply skeptical about the piracy figures that the industry uses.82 Skeptics also contend that any “losses due to piracy are far outweighed by the benefits of the free flow of information . . . .”83 In fact, the Electronic Frontier Foundation (“EFF”) notes that despite its ongoing lawsuit against YouTube, Viacom has already benefited financially from uploading clips of its programming to YouTube.84

So far, copyright owners have been very adept at lobbying to protect and advance their rights through legislation, the dramatic advances in digital technology over the last two decades being the main spur for these actions.85 They have successfully argued that, because copying and distribution made possible by digital technology can easily destroy the copyright-based business model, the adequate protection of their rights requires a strengthening of the whole copyright system.86

On the other side of the debate, many commentators have suggested that this apocalyptic vision of the copyright industries—that digital technology will bring about the demise of copyright and that strong measures are required to protect intellectual property—is not only incorrect, but has been put forward by copyright owners before as an excuse for strengthening the system. They assert that the overuse and strict enforcement of the proprietary copyright model of production will turn the internet into a permission-based space87 and that many of the benefits of the

82 Jenna Wortham & Amy Chozick, The Piracy Problem: How Broad?, N.Y. TIMES, Feb. 9, 2012 at B1 (stating that digital rights groups have urged Congress to quantify effects of piracy from “accurate and unbiased sources”).
83 Id.
85 See, e.g., Daniel A. Farber, Conflicting Visions and Contested Baselines: Intellectual Property and Free Speech in the Digital Millennium, 89 MINN. L. REV. 1318, 1321 (2005) (explaining that, for many copyright owners, “the crucial aspect of the status quo is not legal but economic” because “[d]igital media make[s] it possible to make a virtually infinite number of exact copies at little or no cost”).

Online speech is further diminished as a consequence of private arrangements between content owners and webhosts. The most well known private agreement in this context is the “User Generated Content Principles” (UGC Principles) that was established in 2007 by leading content producers such as Disney and Viacom, and service providers, including Microsoft and MySpace. Such agreements provide webhosts with semicontractual protection against
new participative internet that enhance community, communication, and identity among ordinary people will be weakened. Commentators note that many other changes in technology have appeared in the past to threaten the protection afforded by the copyright system (such as sheet music, the gramophone, photocopiers, and videocassette recorders ("VCRs"),88 to name a few), but after an initial period during which copyright owners predict the imminent demise of the copyright system, it has always survived.89 We are merely experiencing the advent of another new technology to which the players will adjust; no radical changes to the legal system are required.90

Some academics and technology mavens contend that while digital technology and the internet have indeed changed the status quo, the best response is not to strengthen the law, as copyright owners argue, but to radically change or even abolish it because the current copyright law regime is totally unsuited to the realities of the digital age.91 According to Daniel Farber, “[a] new technology always presents the question of whether an existing legal regime should apply.”92 Lawrence Lessig has argued for a long time that the balance in copyright law embodied in the Constitution has become so skewed by the powerful economic and corporate forces in favor of protecting the monopoly rights of media corporations for near perpetual terms that a radical overhaul of copyright law is now needed.93 There have also been many other thoughtful suggestions for significant statutory amendments to copyright law in order to deal with the digital age.94 The debate about copyright law shows no sign of abating.95 The cases discussed later in this paper will be important in determining whether the current system can be adapted to Web 2.0 or whether we are witnessing the demise of the copyright incentive scheme.

II. COPYRIGHT LAW IN THE DIGITAL WORLD

The next section describes the statutory development of copyright law during the digital age, and how digital issues have also shaped the common law doctrines of fair use and secondary liability.

89 See GOLDSMITH & WU, supra note 30, at 106.
90 Id.
91 See, e.g., LAWRENCE LESSIG, FREE CULTURE: THE NATURE AND FUTURE OF CREATIVITY 192–94 (2004) (describing the inefficiencies in copyright law and arguing that, while laws can be created to regulate copyrighted internet content, the laws would “impose significant burdens and costs on the technology, [and would] likely be eclipsed by advances around exactly those requirements”) [hereinafter FREE CULTURE].
92 Farber, supra note 85, at 1322.
93 See id., at 1326–27.
94 See, e.g., Chik, supra note 1, at 255.
A. The Purpose of Copyright

The Framers of the U.S. Constitution wanted to provide a balance between creators and innovators and the public.\textsuperscript{96} The U.S. Constitution allowed Congress to make laws “[t]o 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[.]”\textsuperscript{97} James Madison, who introduced the copyright and patent clause into the Constitution, argued in \textit{The Federalist} that it would benefit the public at the same time as benefiting authors and inventors.\textsuperscript{98} It can be argued that the internet has changed the incentives for creators sufficiently, so that a primarily proprietary model is no longer necessary to promote creativity.\textsuperscript{99}

The first U.S. Copyright Act of 1790 provided fairly limited protection for which registration was required.\textsuperscript{100} For more than 120 years, U.S. copyright law adhered to a regime of fairly limited protection\textsuperscript{101} and a strong public domain.\textsuperscript{102} Recently, there has been a pronounced swing toward stronger copyright protection through legislation.\textsuperscript{103}

B. Digital Copyright Legislation

The last two decades have witnessed battles between those who think the copyright system needs strengthening to cope with the digital threat and those who urge the promotion of new technology.\textsuperscript{104} U.S. copyright laws have undergone huge change, partially to bring them into compliance with a large number of international treaties—Berne Convention, the Universal Copyright Convention, and Agreement on the Trade Related Aspects of Intellectual Property Rights (TRIPS)\textsuperscript{105}—but also because of heavy lobbying by the copyright industries.\textsuperscript{106} All of these treaties required signatories to adhere to minimum protections for copyright and various

\textsuperscript{97} U.S. CONST. art. I, § 8, cl. 8 (emphasis added).
\textsuperscript{98} See THE FEDERALIST NO. 43 (James Madison).
\textsuperscript{99} BENKLER, supra note 12, at 91–92.
\textsuperscript{100} Act of May 31, 1790, ch. 15, 1 Stat. 124 (Copyright Act of 1790).
\textsuperscript{101} See SIVA VAIDHYANATHAN, COPYRIGHT AND COPYWRONGS 25 (2001). In 1831, the copyright term remained a twenty-eight year term, renewable for fourteen years. \textit{Id.} Under the 1909 Act, the term was extended to a twenty-eight year term, renewable for twenty-eight more years. \textit{Id.}
\textsuperscript{103} See VAIDHYANATHAN, supra note 101, at 25.
\textsuperscript{104} See supra Section I.E.
related rights. Signatories to the Berne Convention, the most important international treaty to copyright law, are required to protect copyright for a minimum term of the life of the author plus fifty years.107

Within ten years of joining the Berne Convention, ostensibly to harmonize with E.U. law, but at least partially due to intense lobbying by the content industries,108 U.S. law was further amended to increase the term of copyright protection from life plus fifty years to life plus seventy years, or ninety-five years for works made for hire.109 Despite increasing the term of protection enormously and getting the registration requirement eliminated, copyright owners continue to argue for further strengthening of their rights.110

Some exceptions have been drafted into statutes to protect technology industries and the public domain from the very broad powers of copyright holders.111 Probably the most important protections in U.S. law for those providing platforms for UGC were created in the 1990s in the Digital Millennium Copyright Act (“DMCA”).

1. A Balancing Act for the Digital Millennium

In 1998, the U.S. Congress passed the DMCA112 to implement the World Intellectual Property Organization (“WIPO”) treaties.113 It included a provision of liability limitation for copyright infringement for “service providers” (“ISPs”) for various common activities.114 These so called “safe harbors” are proving to be important protections for Web 2.0 companies that host creative content.115

Before the Act’s passage the Senate Committee on the Judiciary Report on the DMCA noted the concerns of copyright owners about the digital revolution, stating that because of “the ease with which digital works can be copied and distributed

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111 See, e.g., 47 U.S.C § 230 (2012).


114 DCMA sec. 202, § 512, 112 Stat. at 2877–86. A service provider is defined as “an entity offering the transmission, routing, or providing of connections for digital online communications . . . of material of the user’s choosing, without modifications to the content of the material as sent or received” and as “a provider of online services or network access[,]” Id. sec. 202, § 512(k)(1).

worldwide virtually instantaneously, copyright owners will hesitate to make their works readily available on the Internet without reasonable assurance that they will be protected against massive piracy.”116 The Committee also foresaw how copyright liability could chill innovation online.117 “[W]ithout clarification of their liability, service providers may hesitate to make the necessary investment in the expansion of the speed and capacity of the Internet.”118 The purpose of Title II of the DMCA was to “[ensure] that the efficiency of the Internet [would] continue to improve and that the variety and quality of services on the Internet [would] expand” by limiting the liability of service providers for their users’ copyright infringement.119

The Act left the law on secondary liability for copyright infringement in its evolving state,120 but opted “to create a series of ‘safe harbors’ for certain common activities of service providers”—a term which covers internet service providers like Yahoo! and Web 2.0 sites like YouTube—such as transmitting material uploaded by third parties,121 “storage at the direction of a user,”122 or providing “information location tools.”123 The exemptions from liability are subject to various conditions including, in most cases, that the service provider must not have “actual knowledge, [nor be] aware of facts or circumstances from which infringing activity is apparent[].”124 If the service provider obtains actual knowledge of infringement, it must act expeditiously to remove the material.125 The service provider must also provide a designated agent to receive such notifications of claimed infringement.126 This means that a webhost that falls within the definition of a service provider should not have to be concerned about being held liable for copyright infringement for material hosted on its site absent actual knowledge of specific acts of infringement or information from which infringement is apparent. Defining this so-called “red flag” knowledge has been one of the biggest challenges for courts in determining whether sites are exempt from liability under the DMCA safe harbors for their users’ infringing activities.127

Unfortunately, the DMCA was passed long before the participative internet became a reality (the earliest file-sharing site, Napster, was created seven months after the act was signed),128 and some argue that it is not always easy to adapt to issues arising on today’s internet.129 The Act raises a number of interesting

117 Id.
118 Id.
119 Id.
120 Id. at 19.
122 Id. § 512(c)(1).
123 Id. § 512(d).
124 Id. § 512(c)(1)(A)(i).
125 Id. § 512(c)(1)(A)(ii).
126 Id. § 512(c)(2).
127 See, e.g., Viacom Int’l, Inc. v. YouTube, Inc., 676 F.3d 19, 31 (2d Cir. 2012); UMG v. Shelter Capital, 667 F.3d 1022, 1038–40 (9th Cir 2011).
questions with respect to Web 2.0 internet platforms. The primary issue is what circumstances are sufficient to give rise to “red flag” knowledge of infringement and, especially, whether generalized knowledge of infringement is sufficient to lose the safe harbor protection.\footnote{Viacom Int’l, Inc. v. YouTube, Inc., 676 F.3d 19 (2d Cir. 2012). The Second Circuit Court of Appeals in Viacom v. YouTube held that YouTube is protected from liability except where the company was willfully blind to infringement. \textit{Id.} at 35. For an analysis of the court’s ruling, see Corynne McSherry, \textit{Viacom v. Google: A Decision at Last, and It’s Mostly Good (for the Internet and Innovation)}, ELECTRONIC FRONTIER FOUND. (Apr. 5, 2012), https://www.eff.org/deeplinks/2012/04/viacom-v-google-decision.} It also remains unclear, due to differences in the case law, which types of activities by service providers can cause them to lose protection.\footnote{Compare Viacom Int’l, Inc. v. YouTube, Inc., 676 F.3d 19, 36–37 (2d Cir. 2012) (holding that knowledge of specific and identifiable infringements, combined with the replication, transmittal or display of videos on a website may cause a service provider to lose protection), with UMG Recordings, Inc. v. Shelter Capital Partners, LLC., 667 F.3d 1022, 1041–43 (9th Cir. 2011) (holding that “[a] service provider is eligible for [safe harbor protection] only if it ‘does not receive a financial benefit directly attributable to the infringing activity, in a case in which the service provider has the right and ability to control the infringing activity’”).}

2. Copyright Holders Reassert Themselves to Stop Online Piracy

Copyright industry lobbying efforts have redoubled of late. The Stop Online Piracy Act (“SOPA”) originated in the United States House of Representatives as an attempt to combat the continued infringement of copyrighted works on the internet. SOPA takes aim at search engines like Google and Yahoo, payment processors, ad servers, ISPs, and other online services.\footnote{Copyrights and Internet Piracy (SOPA and PIPA Legislation), N.Y. TIMES, http://topics.nytimes.com/top/reference/timestopics/subjects/c/copyrights/index.html?offset=0&s=newest (last updated Feb. 8, 2012). One controversial measure later reconsidered by lawmakers would have required “Internet service providers to block access to sites that offer or link to copyrighted material.” \textit{Id.}} Under SOPA, private companies could simply serve notices on ISPs for hosting content that they say infringes copyright, a departure both from the immunity granted to online service providers by the DMCA\footnote{Compare Stop Online Piracy Act, H.R. 3261, 112th Cong. § 103 (2011) (explaining that a plaintiff may notify a payment network provider or Internet advertising service of infringing activity and action must be taken to remedy the situation within five days), with Digital Millennium Copyright Act, Pub. L. No. 105-304, sec. 202, § 512, 112 Stat. 2860, 2877–86 (1998) (codified as amended at 17 U.S.C. § 512 (2012)) (providing a defendant ISP with immunity from copyright infringement if certain conditions are met).} and also the requirement to prove a case in court. Its Senate counterpart, the Protect Intellectual Property Act (“PIPA”), targets domain name providers and ad servers, but not ISPs.\footnote{David Carr, \textit{The Danger of an Attack on Piracy Online}, N.Y. TIMES, http://www.nytimes.com/2012/01/02/business/media/the-danger-of-an-attack-on-piracy-online.html?ref=copyrights (last updated Jan. 5, 2012).} Provisions in SOPA would allow rights holders to proceed against allegedly infringing sites without any court hearing or judicial intervention and allow the government to prevent search engines from pointing to such sites. Both pieces of legislation regulate domestic operations because most of the foreign-
based pirate sites in question operate outside of the U.S. legal system. In the U.S., the bills are supported by copyright lobbyists like the Motion Picture Association of America as well as the United States Chamber of Commerce and opposed by free speech advocates and internet companies. SOPA and PIPA have taken center stage in the discussion of both how and how much the government should regulate the use of intellectual property in the age of Web 2.0.

Lamar Smith, the United States Representative from Texas who introduced SOPA, has noted that the legislation is supported by multiple industries and has questioned the “motives of ‘big Internet guys,’ like Google, that oppose SOPA.” Smith argues that SOPA is designed to serve the important purpose of protecting consumers and businesses from the illegal theft of American intellectual property. Of course, copyright holders have a strong interest in this protection and enthusiastically support SOPA. Cary Sherman, the chairman of the Recording Industry Association of America, writes that pirate sites are a substantial reason for the industry’s seven billion dollar decline in revenue during the last decade and, therefore, that protecting IP rights is imperative. Sherman argues that the interests of the entertainment industry and internet community are not counter to each other, but rather are intertwined: By supporting SOPA and protecting rights holders, we can “stimulate further legitimate online growth by making sure that thieves operating offshore can’t tilt the playing field against legal services.”

This view is not held unanimously. In a letter to Congress, a collection of technology companies wrote about SOPA and PIPA:

We support the bills’ stated goals—providing additional enforcement tools to combat foreign “rogue” websites that are dedicated to copyright infringement or counterfeiting. Unfortunately, the bills as drafted would expose law-abiding U.S. Internet and technology companies to new and uncertain liabilities, private rights of action, and technology mandates that would require monitoring of websites.

The sentiment voiced in the letter has been echoed by other commentators. A general concern, voiced by First Amendment lawyer Laurence H. Tribe, is that SOPA’s “very existence would dramatically chill protected speech by undermining the openness and free exchange of information at the heart of the Internet.” According
to Mark Lemley, David S. Levine, and David G. Post, the notification procedures used in SOPA and PIPA are inconsistent with the United States’ history of protecting free expression; they argue that SOPA and PIPA and their underlying philosophy “represent a dramatic retreat from this country’s tradition of leadership in supporting the free exchange of information and ideas on the Internet.” They note that the bills would codify in U.S. law principles closely associated with repressive foreign governments, namely “a right to insist on the removal of content from the global Internet, regardless of where it may have originated or be located, in service of the exigencies of domestic law.”

The White House has replied in kind to the controversy surrounding the legislation. In response to two petitions, executive officials posted an online summary of the White House position called Combating Online Piracy While Protecting an Open and Innovative Internet. The response emphasizes two points: (1) that “[a]ny effort to combat online piracy must guard against the risk of online censorship of lawful activity and must not inhibit innovation” and (2) that “[w]e must avoid creating new cybersecurity risks or disrupting the underlying architecture of the Internet.”

A day of protest by millions of internet websites and users had the intended effect of defeating the bill. The day after, the Justice Department shut down the popular file-sharing site, Megaupload, demonstrating to many observers that it had ample powers to deal with online piracy without new laws. However, although their push for stronger copyright protection online was defeated in this instance, it seems that the copyright industries have not given up on passing legislation and are already trying to revive SOPA in a new form.

11-1. Tribe breaks down various SOPA provisions and analyzes the ways in which they violate the Constitution. Id. at 7–21.

142 Mark Lemley et al., Don’t Break the Internet, 64 STAN. L. REV. ONLINE 34, 37 (2011), available at http://www.stanfordlawreview.org/sites/default/files/online/articles/64-SLRO-34_0.pdf.

143 Id.

144 Victoria Espinel et al., Combating Online Piracy While Protecting an Open and Innovative Internet, THE WHITE HOUSE, https://www.whitehouse.gov/petition-tool/response/combating-online-piracy-while-protecting-open-and-innovative-internet (last visited Dec. 2, 2012). This was the official White House response to two petitions, which are listed at the above web address: “Stop the E-PARASITE Act” and “VETO the SOPA bill and any other future bills that threaten to diminish the free flow of information.” Id.

145 Id.


C. The Common Law Doctrines in a Digital World

In addition to legislation, two doctrines of the common law of copyright—fair use and secondary liability—are also very important in framing the rights of copyright owners and ISPs in the online environment.

1. Fair Use

a. The Purpose

For almost as long as copyright has been protected by statute, courts have recognized the doctrine of fair use as an important counterweight to the monopoly rights provided by the law. Fair use recognizes that if it is an aim of copyright law to promote creative expression, overly strong copyright protection should be avoided. Creativity is generally derivative: “There is no such thing as a wholly original thought or invention. Each advance stands on building blocks fashioned by prior thinkers.” The derivation of new works from old would be impeded by a copyright protection scheme unlimited by some legally sanctioned fair uses by secondary creators. In addition to derivative works, new intellectual activity often uses already created works as references; news reporting, criticism, educational use, and historical analysis all fall into this category. The absence of legal exceptions to copyright protection would also impede referential analysis. If the purpose of copyright is to promote creativity, then, the law must allow some uses unsanctioned by the copyright owner. Fair use ensures that secondary creators are not completely prohibited from recycling, reusing, or referencing copyrighted works. As such, it is “a rational, integral part of copyright, whose observance is necessary to achieve the objectives of that law.”

b. Fair Use Factors and Uncertainty

Now codified in U.S. law as § 107 of the 1976 Copyright Act, fair use works as a positive defense to a claim of copyright infringement. In determining whether a claim of fair use will succeed, a court will consider the four factors set out in § 107: “(1) the purpose and character of the use, including whether such use is of a commercial nature or is for nonprofit educational purposes; (2) the nature of the copyrighted work; (3) the amount and substantiality of the portion used in relation to the copyrighted work as a whole; (4) and the effect of the use upon the potential market for or value of the copyrighted work.” Courts have held that these four factors are illustrative, but not exclusive, and that other parameters can also be

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149 Chik, supra note 1, at 252.
151 Id. at 1107.
The factors are also treated as non-conclusive on whether a use is permitted or not. Unfortunately, a vague, non-exclusive and non-conclusive set of factors have created a doctrine of broad and uncertain application, which has been heavily criticized as an inadequate protection for those using copyrighted works without permission. Critics note that “[f]air use cases are often marked by frequent reversals, split courts and inconsistency even on the Supreme Court level.” Twenty years ago, in the pre-internet era, a judge noted that much fair use case law shows that “[j]udges do not share a consensus on the meaning of fair use.” This state of affairs has not changed much in the digital age where fair use is assuming new importance as a way of protecting both reuses of copyrighted work by secondary users using new technology and the new technology creators themselves.

The lack of clarity surrounding the scope of the doctrine’s protection causes many defendants simply to capitulate when faced with a copyright infringement claim rather than argue that their particular use constitutes fair use. Individual defendants, such as the creators of UGC, often “lack the resources and knowledge to defend themselves from threats of copyright action . . . .” Many individuals do not challenge DMCA take down notices on the basis of fair use because it requires resources and legal knowledge to do so. It is easy to see why many creators of UGC do not even attempt to reuse or recycle existing copyright materials because they fear lawsuits or DMCA takedowns.

Some recent empirical studies and court cases show that the doctrine does have, or is gradually acquiring, clearer parameters and is, thus, perhaps “fairer” than its critics allow. However, there is still a perception that copyright holders tend to aggressively assert their rights and recent cases offer evidence of attempts to actively suppress uses that benefit society without harming the copyright user. Righthaven LLC, a copyright troll, licensed copyrights from several newspapers and used them to sue large numbers of online users who linked or copied and pasted these articles to their blogs. The Righthaven experiment has been halted, for now, largely because public advocacy groups like the EFF fought on behalf of some of Righthaven’s victims to expose that the company lacked ownership of the copyrights in question and, thus, standing to sue. The EFF also successfully argued that

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154 Id.
155 Helman & Parchomovsky, supra note 15, at 43.
156 Leval, supra note 150, at 1106.
158 Chik, supra note 1, at 256.
160 E.g., Kelly v. Arriba Soft Corp. 336 F.3d 811, 818–20 (9th Cir. 2003).
162 Id.
Righthaven was attempting to redefine fair use as restrictively as possible. Alarmed at Righthaven’s failures, the music and publishing industries have requested permission in one of the Righthaven appeals to file an amicus brief to argue for limiting the fair use defense as they have “an interest in promoting a balanced and pragmatic approach to fair use as an important affirmative defense to copyright infringement.” Copyright owners would prefer that the doctrine of fair use continues to provide a Web 2.0 end user, who has used copyrighted material, with little more than the vague right to hire an attorney rather than a clear and specific defense.

c. Fair Use and Web 2.0

The two main Web 2.0 fair use issues are the parameters for reuse of copyrighted works online and the effect of new technological uses of copyrighted works. The generative nature of Web 2.0 has undoubtedly created a more collaborative internet and increased opportunities for the use of copyrighted material in new ways that may or may not be regarded as infringing by copyright owners. In one of the most famous examples of overzealous copyright protection, involving an individual reusing copyrighted works on Web 2.0, Universal Music Publishing Group (“UMPG”) requested that YouTube remove Stephanie Lenz’s video, posted for friends and family, of her thirteen-month-old son dancing to Prince’s “Let’s Go Crazy.” UMPG claimed the video infringed upon its copyright in the song—although the song could barely be heard in the background—and sent a takedown notice to YouTube. Lenz sued UMPG, seeking a declaratory judgment that her home video did not, in fact, infringe UMPG’s copyright and eventually won a victory by using the fair use defense. Like Lenz’s video, much UGC is arguably “fair use” of copyrighted works as it is non-commercial (factor one of the four factor test), but many copyright owners have reacted violently to almost any unsanctioned use of their works. In response, commentators have argued that the law is strangling creativity online and that the
non-commercial use of copyrighted work should be specifically permitted under either the fair use doctrine or a new statutory exemption.\textsuperscript{171} Because the passage of new statutory law is unlikely, the doctrine would benefit from judicial decisions.

Many Web 2.0 cases now revolve around questions of intermediary liability for users’ online content manipulation. Unfortunately, “the enumerated list of fairness factors constitutes considerations that were more relevant in a non-digital context and the pre-internet society . . . .”\textsuperscript{172} The four factors used to determine whether a use is fair or not tend to focus on primary infringement in the offline world from the perspective of copyright owners’ interests and do not take into account “the social utility and benefits of mechanical and electronic duplication”\textsuperscript{173} or whether use is for “a new or value-adding purpose.”\textsuperscript{174} Those who provide tools that manipulate already created content in some new way need clarity on what types of uses are permissible.\textsuperscript{175} “Despite the importance of fair use involving technologies, our understanding of technological fair use is thin. Courts have not formally recognized the concept of ‘technological fair use[. . . .]’”\textsuperscript{176} The problem with the paucity of clear guidance on what constitutes technological fair use is that it is difficult “for technology companies and venture capitalists to make investments, as companies and venture capitalists may decide against investing in developing new technologies that run the risk of a copyright lawsuit . . . .”\textsuperscript{177} This is leading to a permission-based culture where requesting permission for new uses is perceived as safer than relying on the fair use doctrine.\textsuperscript{178} Judicial guidance for technological fair use is particularly important given that new technologies are less likely to come from established firms than from individuals and startups,\textsuperscript{179} who may not be able to afford to test the limits of fair use in court.\textsuperscript{180}

Many copyright lawsuits have shown that the copyright industries of music and film seem particularly likely to undervalue the benefits of new technologies, even ones from which they subsequently benefit, perhaps because their own business model has remained relatively unchanged. In any event, these industries have a history of overreacting to any new technologies that copy content. In recent years, we have witnessed the advent of several new technologies that have created entirely

\begin{thebibliography}{180}

\bibitem{note1} Chik, \textit{supra} note 1, at 270–71, 278–79.
\bibitem{note2} Id. at 254.
\bibitem{note3} Id. at 252.
\bibitem{note4} Lee, \textit{supra} note 17, at 835.
\bibitem{note5} See Perfect 10, Inc. v. Amazon.com, Inc., 508 F.3d 1146, 1177 (2007); see also Sony Corp. of Am. v. Universal City Studios, Inc., 464 U.S. 417, 456 (1984) (holding that “[owners of copyrights on television programs] failed to demonstrate that time-shifting would cause any likelihood of nonminimal harm to the potential market for, or the value of, their copyrighted works]” and therefore the home videotape recorder was capable of substantial noninfringing uses).
\bibitem{note6} Lee, \textit{supra} note 17, at 801.
\bibitem{note7} Id. at 802.
\bibitem{note9} Lee, \textit{supra} note 17, at 824.
\bibitem{note10} Mark A. Lemley, \textit{Cultural Environmentalism @ 10}: \textit{Should a Licensing Market Require Licensing?}, 70 L. & CONTEMP. PROBS 185, 185–86 (2007).
\end{thebibliography}
new markets or transformed the way we use copyrighted materials. Courts have already determined the fate of VCRs, but new technologies and ways of manipulating content are created constantly. Viacom v. YouTube may yet be appealed to the Supreme Court, and many current technologies raise questions of fair use not yet litigated. Many new and socially beneficial technologies yet to be discovered will undoubtedly continue to raise fair use questions as well.

2. Secondary Liability

Clearly, as a matter of positive law, the individuals who post infringing content, absent fair use, bear responsibility for their actions. The question is what types of activities should give rise to secondary liability for copyright infringement? Although the Copyright Act does not provide for third party liability for infringement, the Supreme Court has held that “the absence of such express language in the copyright statute does not preclude the imposition of liability for copyright infringements on certain parties who have not themselves engaged in the infringing activity.” U.S. law imposes indirect liability on those who contribute or are vicariously responsible for the acts of copyright infringers.

a. Three Types of Liability

Modern case law appears to recognize three formulations of secondary liability: contributory, vicarious and inducement liability. Contributory copyright infringement imposes liability for those who knowingly contribute to the infringing conduct of another. Vicarious liability is imposed for those who have “the right and ability to supervise the infringing activity and also [have] a direct financial interest in such activities.” More recently, the Supreme Court established a third theory of liability called inducement infringement, where the court considers “evidence of active steps taken to encourage direct infringement,” including “statements or actions directed to promoting infringement . . . .”

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181 WILLIAM PATRY, MORAL PANICS AND THE COPYRIGHT WARS 149–50 (2009). And, of course, copyright owners are often wrong in their assessment of the effects of new technologies. Id. The DVR, about which Hollywood was so terrified, helped rather than hurt the movie industry. Id.
183 See James Boyle, Hot News: The Next Bad Thing, FIN. TIMES (Mar. 31, 2010), http://www.ft.com/intl/cms/s/0/0c1efcf4-3d11-11df-b81b-00144feabdc0.html#axzz1owI7iZs6 (discussing whether intellectual property can be used to protect “hot news”).
184 Helman & Parchomovsky, supra note 15, at 1197–98.
187 Gershwin Publ’g Corp. v. Columbia Artists Mgmt., Inc., 443 F.2d 1159, 1162 (2d Cir. 1971).
b. Secondary Liability and Web 2.0

In the first major case where copyright owners sought to block the use of a new technology, VCRs, the Supreme Court determined that if a technology was capable of “substantial non-infringing uses,” its creators would not be liable for contributory copyright infringement. Sony argued successfully in the case that the main use of its devices was to allow viewers to record television shows for later viewing (dubbed time-shifting). The Court determined this was a fair use and, thus, held that Sony could not be liable for contributing to infringement by users on the basis that the VCR had substantial non-infringing uses.

The next case to reach the Supreme Court concerning the use of new technology to infringe a copyright was Grokster. There, the Court clarified the inducement theory of infringement, stating that the active promotion of copyright infringing technology created another type of liability. The court found Grokster liable for copyright infringement because “they were aware of, financially benefited from, participated in, or promoted illegal uses of those devices.”

As with fair use, the internet era and digital technology create several new difficulties for the application of the doctrine of secondary liability. After Grokster, the scope of the common law doctrine became so broad that, in principle, indirect liability could attach to most active web platforms that enable user participation. It is also still somewhat unclear how secondary liability and the DMCA safe harbor interact. Under one interpretation, if web hosts induce copyright infringement, they are ineligible for the 512(c) safe harbor.

III. CASE LAW DEVELOPMENTS IN THE COPYRIGHT WARS

Legislation and the common law doctrines are interpreted in case law, and the copyright wars between the copyright industries, the new technology companies, and ISPs continue to be fought in the courts. The next section traces the arguments put forward by both sides in recent cases. Whether the legal claim is based on fair use, secondary liability, or the DMCA safe harbor, the copyright owners’ arguments tend to focus on two themes: the need to compensate them for the value of copyrighted works, however and wherever those works are used, and the need for others to

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190 Id. at 442.
191 Id. at 423.
192 Id. at 456.
195 Helman & Parchomovsky, supra note 15, at 1199.
196 Id. at 1206.
197 See, e.g., Monseau, supra note 86, 662–63 (2009); MUSIC BUS. GROUP, RESPONSE TO UK IPO CONSULTATION ON COPYRIGHT EXCEPTIONS (2008) [hereinafter RESPONSE TO UK IPO CONSULTATION], available at
help copyright holders protect their rights because of the new challenges created by
the digital world.\(^{198}\) The main counter themes of the technology industries and their supporters are essentially that courts should focus on the immense social benefits of these innovations and that courts should focus on the lack of control over the users of these technologies.\(^{199}\)

There is strong rhetoric on both sides. Viacom’s appeal brief is a good example.\(^{200}\) It makes a case based on both themes: the value of copyright and the need for assistance in policing infringement. The brief states that if the judgment in favor of YouTube were upheld, it “would radically transform the functioning of the copyright system and severely impair, if not completely destroy, the value of many copyrighted creations[,]”\(^{201}\) and goes on to claim that “available technology would have enabled YouTube to easily find and remove the infringing material” on its site.\(^{202}\) YouTube’s lawyers’ counterargument is that “[t]he safe harbors have allowed YouTube and services like it to flourish as platforms for creative, political, and social expression.”\(^{203}\)

\[\text{http://www.ukmusic.org/assets/media/The\%20Music\%20Business\%20Group\%20Response\%20to\%20the\%20UK\%20IPO\%20Consultation\%20on\%20Copyright\%20Exceptions.pdf}\]

\(^{198}\) See JESSICA LITMAN, DIGITAL COPYRIGHT 25–29 (2006); Peter K. Yu, The Copyright Divide, 25 CARDOZO L. REV. 331, 442–43 (2003) (discussing copyright holders’ tendency to lobby the government and/or solicit support from other industries against digital infringers).

\(^{199}\) Brief for Defendants in Viacom v. YouTube, supra note 80, at 3.


\(^{201}\) \textit{Id.} at 3.

\(^{202}\) \textit{Id.} at 20–21.

\(^{203}\) Brief for Defendants in Viacom v. YouTube, supra note 80, at 3.

\(^{204}\) See Eric Matthew Hinkes, Access Controls in the Digital Era and the Fair Use/First Sale Doctrines, 23 SANTA CLARA COMPUTER & HIGH TECH. L.J. 685, 686 (2007). Technology companies like Apple quickly developed new ways to monetize the new ability to share music files, much like when VCRs first became available a new industry to rent films sprung up. \textit{Id.}
digital music services was due to the use of their creative content for which they ought to be compensated.\textsuperscript{205}

The statutory copyright monopoly has long been the basis of the copyright industry business model.\textsuperscript{206} So wedded are the industries to this model that, in \textit{Sony}, the movie studios even objected that the practice of time-shifting deprived them of value.\textsuperscript{207} In his dissent, Justice Blackmun stated that “[t]he Studios correctly argue that they have been deprived of the ability to exploit this sizable market.”\textsuperscript{208} The studios did not appear to have indicated that they had plans to exploit this market. The unfairness was that another entity, the creators of VCRs, had done so without consulting them. Fortunately, this protectionist argument did not prevail in \textit{Sony}.\textsuperscript{209}

In considering \textit{Sony}’s fair use claim, the majority held that “a use that has no demonstrable effect upon the potential market for, or the value of, the copyrighted work need not be prohibited in order to protect the author’s incentive to create.”\textsuperscript{210} The fair use doctrine rests on the concept of value. Three of the four fair use factors include considerations that relate largely to the value of the copyrighted work, specifically the purpose and character of the use, the amount of the copyrighted work used, and its effect on the value of the copyrighted work.\textsuperscript{211} Innovations in Web 2.0 technology have often involved creating new ways to manipulate and use content; a few examples would include search, mash-ups and aggregation, tweeting, and pinning.

In contrast to the explosion of creativity and new uses of content evident on Web 2.0, most copyright industries tend not to be very innovative: “[T]hese industries are not themselves typically in the business of developing new technologies. The business models of these industries have remained fairly unchanged for many years—the basic model is to sell and distribute books, music, and movies to the public after choosing or financing the works.”\textsuperscript{212} This means that the copyright industries tended to be very wary of new technologies even before the current innovation in digital technologies and the advent of Web 2.0.\textsuperscript{213}

There is a good reason that copyright owners cling to the copyright value chain. It has served them well, enabling them to monetize creative content and helping them to avoid the difficult business of predicting the success of new technologies. As Edward Lee explains, established companies and industries, like the copyright

\textsuperscript{205}Monseau, \textit{supra} note 86, at 662–63. \textit{See generally} \textit{RESPONSE TO UK IPO CONSULTATION, supra} note 197 (representing the view of the UK music industry, stating in part, “It is imperative that creators and performers should benefit directly from this value; ultimately it is their creativity which underpins the entire value chain.”).

\textsuperscript{206}L. Ray Patterson, \textit{Copyright in the New Millennium: Resolving the Conflict Between Property Rights and Political Rights}, 62 OHIO ST. L.J. 703, 706 (2001) (“[D]uring the nineteenth, and much of the twentieth century, copyright was a regulatory monopoly limited to the marketing of works and could be defined as consisting of limited rights to which a given work was subject for a limited period of time.”).


\textsuperscript{208}\textit{Id.} at 485.

\textsuperscript{209}\textit{Id.} at 484–86.

\textsuperscript{210}\textit{Id.} at 450.

\textsuperscript{211}17 U.S.C. § 107 (2012).

\textsuperscript{212}Lee, \textit{supra} note 17, at 825.

\textsuperscript{213}PATRY, \textit{supra} note 181, at 149–50.
industries, are often particularly bad at recognizing or developing innovative ideas or new markets because they are limited by their own value network and their need to get investors to agree to new business ideas.214

The copyright industries’ poor track record in determining the value of new technologies was well-established before the acceleration in innovation of the digital age. There are many examples of technologies that these industries have opposed, which later have created new businesses from which the copyright industries themselves have then profited.215 “One (in)famous example can be found in Hollywood’s unsuccessful attempt to ban the VCR--which eventually brought the movie studios their biggest source of revenue.”216 The movie studios were wrong about VCRs217 and may also be wrong about the value that YouTube or other content sharing sites can add to their bottom lines. As the EFF points out, despite its lawsuit against YouTube, Viacom is currently already making money directly from its share of advertising on YouTube and indirectly from the promotional value of the site for its content.218

Because technological innovation often produces new ways to create value for copyright owners and others, the law should err on the side of caution when determining the balance for protecting copyright value against technological innovation. Copyright owners have complained about each new technological advance from the time phonographs took over sheet music and have often been proved wrong about the benefits of new technologies.

We should also be wary of overprotecting the copyright industries from technological innovation given the relative economic contributions of the major copyright industries—film, music, and publishing—and the information/communications technology (“IT”) sector to the U.S. economy. According to the Bureau of Economic Analysis’ statistics, the IT sector grew by almost nine percent real gross domestic product (“GDP”) between 2006 and 2011 when the copyright industries saw almost no change remaining at a fairly steady 3.8% of the U.S. economy.219 As Lee points out, “[t]hese numbers indicate that any sound economic policy for the United States must attempt to continue to spur the growth of the IT sector... It would be foolish to cut off our IT growth to spite our copyright

214 Lee, supra note 17, at 824–25.
215 Compare Fred Von Lohmann, CEA Defends Home Recording, ELECTRONIC FRONTIER FOUND. (June 20, 2006 7:24 AM), https://www.eff.org/deeplinks/2006/06/cea-defends-home-recording (“The public will not buy songs that it can hear almost at will by a brief manipulation of the radio dials.”) (quoting Record Label Executive on FM Radio (1925)) with Lee, supra note 17, at 826–27 (“Sometimes, the new technologies foster the development of consumer activities or new markets that complement or add even more to the copyright holder’s market.”), and Fred von Lohmann, Fair Use as Innovation Policy, 23 BERKELEY TECH. L.J. 829, 841–42 (2008) (“The widespread deployment of portable digital music players appears to be a factor in the popularity of new digital download services, including most prominently Apple’s iTunes Store, which now sells more than five million songs each day and has become the leading music retailer in the United States.”).
216 Lee, supra note 17, at 826.
217 Id.
219 Lee, supra note 17, at 828.
So, while copyright protection is necessary to enable content creators to derive value from their investments, courts should not overprotect copyright when faced with technology that uses copyright content to create value in new ways. The purpose of copyright is to promote innovation, and this may sometimes mean permitting rather than limiting new uses or ways to manipulate copyright content and create value, even when the copyright holders object that they do not share in the newly created value. The doctrine of fair use can develop to encourage the development of new technological uses of copyright.

2. Policing Copyright Infringement

The other oft heard complaint of copyright owners is that copyright infringing activity is so prevalent, and so much more difficult to combat in the online world than in the offline world, that the technology companies, whose services enable this infringement, must assist IP owners in enforcing their legal rights. Trademark and copyright owners both use this argument. This is the rationale for the litigation around the world against eBay by trademark owners concerned about the sale of counterfeit products on their site. Trademark owners, like copyright owners, want to shift the difficult burden of policing the online world onto the technology companies. This argument was most powerfully made in copyright terms by the music industry against the Napster and Grokster file-sharing services. In _Grokster_, the Supreme Court acknowledged that:

> When a widely shared service or product is used to commit infringement, it may be impossible to enforce rights in the protected work effectively against all direct infringers, the only practical alternative being to go against the distributor of the copying device for secondary liability on a theory of contributory or vicarious infringement.

In their article, _The Best Available Technology Standard_, Lital Helman and Gideon Parchomovsky focus on the difficulties of policing online infringement, stating that “the high expenditures involved in policing the Internet on a regular basis and issuing takedown requests may be prohibitive for many content owners, particularly individual authors, and independent studios and publishers. Cooperation with webhosts may be the only feasible way to enforce the rights of these content owners.” The doctrine of secondary liability enables copyright owners to focus on the necessity of assistance in policing online copyright infringement.

While there are undoubtedly copyright owners who suffer economically because of the online copyright infringement of their works, courts should generally still err
on the side of limiting secondary liability for copyright infringement. Copyright
owners have already won very broad and powerful statutory rights that can be used
to chill innovation. The courts are aware of this and need to assume the role of
tempering the balance. In Grokster, where copyright owners argued that the
Grokster file-sharing service was liable for its users’ copyright infringement, Justice
Souter observed that “[t]he more artistic protection is favored, the more technological
innovation may be discouraged; the administration of copyright law is an exercise in
managing the tradeoff.”225 He also agreed that judges should be cautious, noting that
copyright law should be administered with the aim of providing “breathing room for
innovation and a vigorous commerce.”226 The purpose of copyright law must remain
to strike a balance between the rights of copyright owners and the public domain;
this encourages copyright owners to create, while still allowing the public to benefit
from that creativity and encourages secondary users, like technology innovators, to
create new uses of copyrighted works. Statutes lengthening and broadening the term
of copyright protection have skewed the balance in favor of the status quo. Judges
ought to consider this, particularly in light of the innovation and creativity now
enabled by Web 2.0.

While copyright owners have significantly expanded their statutory rights over
the last twenty years, as Justice Souter recognized, judges should be very cautious of
increasing these rights further by fashioning onerous policing burdens for technology
innovators using the doctrine of secondary liability. Developers of new technologies
need the freedom to innovate, and the law can best enable this by limiting secondary
enforcement of intellectual property rights against innovators of new technologies.227
As technological development requires financial investment, it is also necessary for
the law to strive for clarity to enable new companies to attract investors for their
ideas. “Because copyright law ultimately serves the purpose of enriching the general
public through access to creative works, it is peculiarly important that the
boundaries of copyright law be demarcated as clearly as possible.”228 Technological
innovators often do not have large financial resources, and so, in line with the
ultimate purpose of copyright law to encourage creativity, the burden of enforcing
copyright law should be kept as minimal and as clear as possible within the statutory
protections provided to copyright holders.

3. Copyright Industry Successes: Napster and Grokster

The copyright industries were initially quite successful in using their value and
policing arguments to hold new technology innovators liable for copyright
infringement. “Napster [was] the first case to interpret certain provisions of the
DMCA,” when a new online service was sued for copyright infringement by the

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225 Grokster, 545 U.S. at 928.
226 Id. at 933.
227 Lee, supra note 17, at 824.
music industry. The Napster service was revolutionary at the time, allowing music listeners to download music files from a central server without charge. The Recording Industry Association of America (“RIAA”) asked for an injunction to shut down this music sharing service, making both of the familiar copyright owner arguments: that the music publishers were being shut out of the value chain made possible by the new use of their product (music), and that Napster should assist RIAA members in policing its new service. Specifically, the RIAA claimed that “Napster harm[ed] the market in ‘at least’ two ways: it reduce[d] audio CD sales among college students, and it ‘raise[d] barriers to plaintiffs’ entry into the market for the digital downloading of music.” The RIAA argued that Napster should have been helping the RIAA members police infringement of music copyrights.

The appellate court agreed with the district court that Napster had a “deleterious effect on the present and future digital download market” and that Napster had actual and constructive knowledge of direct infringement by the users of its service. The court held that the Sony exemption for a technology with substantial non-infringing uses did not apply to Napster. There was “a clear distinction between the architecture of the Napster system and Napster’s conduct in relation to the operational capacity of the system.” Napster had apparently thought it could benefit from the Sony exemption because it did not actually commit copyright infringement itself, even though it knew the likelihood that its users would use its file-sharing service to do just that. However, the district court dismissed this argument summarily: “The evidence indicates that Napster executives downloaded infringing material to their own computers using the service and promoted the website with screen shots listing infringing files.” This conduct convinced the court that Napster, with its actual knowledge of infringement, should not be permitted to seek the benefit of the DMCA safe harbor for its service. Any defendant who has “actual knowledge that the material or activity is infringing” or is “aware of facts or circumstances from which infringing activity is apparent” would be a contributory infringer and not protected by the DMCA safe harbor. Napster’s bad faith, while causing the loss of value to copyright owners and turning a blind eye to policing its service for users’ infringement, was crucial to the RIAA’s litigation success against Napster.

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230 A&M Records, Inc., 239 F.3d at 1017.
231 Id. at 1023.
234 A & M Records, 239 F.3d at 1017.
235 Id. at 1019.
236 Id. at 1020.
237 Id. at 1021.
238 A&M Records, 114 F. Supp. 2d at 919.
240 Id. § 512 (d)(1)(B).
Unfortunately for copyright owners, the RIAA’s win and the subsequent shut down of the Napster site did little to either encourage compliance with copyright law among music listeners or reduce the activities of websites allowing individuals to share music files online. This led the music industry to start pursuing an aggressive litigation strategy on two different fronts. It began suing its own customers, the actual infringers, as well as pursuing cases based on secondary liability theories against other websites and services that enabled infringement.

One of the next litigation targets was another file-sharing service: Grokster. The problem for Grokster was that its whole business model was clearly predicated on knowledge of the copyright infringing activities of its users. An internal company e-mail stated:

We have put this network in place so that when Napster pulls the plug on their free service . . . or if the Court orders them shut down prior to that . . . we will be positioned to capture the flood of their 32 million users that will be actively looking for an alternative.

Grokster was clearly designed around the court decision in *Napster*. This bad faith, again, made it easier for the plaintiff, MGM, to make the familiar arguments that Grokster was designed to deprive the copyright owners of the value of their work and that Grokster was failing to assist the industry in policing the infringing activity that it knew its site encouraged.

The Grokster case made it to the Supreme Court, which found unanimously in favor of the music industry. Justice Souter wrote: “We hold that one who distributes a device with the object of promoting its use to infringe copyright, as shown by clear expression or other affirmative steps taken to foster infringement, is liable for the resulting acts of infringement by third parties.”

The justices were mindful that their holding could upset the balance between the supporting creative pursuits through copyright protection and promoting innovation in new communication technologies by limiting the incidence of liability for copyright infringement. Nevertheless, a unanimous court imposed indirect liability on Grokster for its users’ copyright infringing activities because it was “impossible to enforce rights in the protected work effectively against all direct infringers, the only practical alternative being to go against the distributor of the copying device for secondary liability on a theory of contributory or vicarious infringement.” In addition to intent to bring about infringement and distribution

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245 *Id.* at 924–25 (internal quotation marks omitted).
246 *Id.* at 939.
247 *Id.* at 913.
249 *Id.* at 928.
250 *Id.* at 929–30.
of a device suitable for infringing use, the recording industry also successfully argued the inducement theory, which the Supreme Court held required evidence of actual infringement by users and “[e]vidence of ‘active steps . . . taken to encourage direct infringement,’ such as advertising an infringing use or instructing how to engage in an infringing use . . . .”251 There was little dispute between the parties that there was evidence of infringement by Grokster users on a gigantic scale and that Grokster knew of and encouraged the infringement.252 It did this in at least three ways, according to the Court: It satisfied demand from former Napster users, failed to develop filtering tools, and made money from the infringement by selling advertising space.253

The Supreme Court was well aware that “[t]he tension between the competing values of supporting creativity through copyright protection and promoting technological innovation by limiting infringement liability is the subject of this case.”254 However, the justices held that “[t]he argument for imposing indirect liability in this case is . . . a powerful one, given the number of infringing downloads that occur every day using [respondents’] software,”255 The Grokster service so clearly and blatantly encouraged mass copyright infringement and failed to make any meaningful effort to protect copyright content that the balance was very much in favor of ignoring any benefits of the new technology and protecting copyright owners’ rights.

Despite the strength of the music industry case, the decision in Grokster has come under some criticism.256 It is a case that attempts to balance the interests of copyright holders and technological innovators in a way that seems reasonable on its facts—given Grokster’s clear intentions to reap a financial benefit from the illegal activities of its users—but the breadth of the decision and the new inducement theory it creates could be applied to chill innovation and collaboration online. A U.K. government-commissioned review of intellectual property law counseled against adoption of the approach taken in Grokster, arguing that the concept of inducement set out in the case should not be introduced into U.K. law because imposing “secondary liability on technology purveyors would stifle the availability of public domain works and may chill technological innovation.”257 The copyright industries were successful against file-sharing sites like Napster and Grokster, set up primarily to aid their users in copyright infringement, but other technology innovators, who have fitted their new services within the DMCA safe harbor infrastructure, have been more successful in limiting the application of copyright protection to their services.

251 Id. at 936 (internal citation omitted).
252 Id. at 940.
254 Id. at 914.
255 Id. at 929.
B. The Benefits of Technology and the DMCA Cases

This section considers the technology and internet companies’ counter arguments based on the theme that their innovations enable creative new uses of copyright content. In *Sony*, Justice Blackmun championed the traditional copyright holders’ position that judges should treat new technology that enabled copyright infringement with skepticism and should limit the use of any technology that risked depriving copyright holders of control over their works, saying:

> It may be tempting, as, in my view, the Court today is tempted, to stretch the doctrine of fair use so as to permit unfettered use of this new technology in order to increase access to television programming. But such an extension risks eroding the very basis of copyright law, by depriving authors of control over their works and consequently of their incentive to create.  

The argument that control of creative works should remain exclusively with the copyright owners in order to give them an incentive to create did not win in *Sony* with the majority determining that the VCR served the public interest. The fact that new technologies can provide great benefits to the public that override the copyright owners’ value and policing arguments has been successfully argued in many recent cases, most often where the DMCA safe harbor has been evoked to protect the technology in question.

In *Napster*, the DMCA safe harbor was introduced as a defense, but the Ninth Circuit declined to consider the issue:  “We do not agree that Napster’s potential liability for contributory and vicarious infringement renders the Digital Millennium Copyright Act inapplicable per se. We instead recognize that this issue will be more fully developed at trial.” However, courts have started to be more receptive to the idea that new technologies can provide “great value to the public[,]” and technology companies have started to use the DMCA safe harbor to insulate their services from claims of copyright infringement.

1. Early DMCA Cases

In one of the earliest cases to invoke the DMCA, *In re Aimster Copyright Litigation*, a case which, like *Napster* and *Grokster*, concerned a music file-sharing service, the safe harbor defense was unsuccessful because of the bad faith and lack of social value of the Aimster service.

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259 Id. at 425.
260 See, e.g., UMG Recordings, Inc. v. Shelter Capital Partners, LLC., 667 F.3d 1022, 1050 (9th Cir. 2011).
261 A&M Records, Inc. v. Napster, Inc., 239 F.3d 1004, 1025 (9th Cir. 2002).
264 Id. at 659.
between users and argued that this encryption prevented the company from knowing if any particular transfer included copyright material, so that it was impossible for it to gain actual knowledge or awareness of facts and circumstances from which it could conclude that its service was being used for copyright infringement. 265 “Defendants’ encryption argument, clever though it may be, does not convince us that they lack actual knowledge of infringement.”266 Like Grokster, the whole service was predicated upon “furnishing a ‘road map’ for users to find, copy, and distribute copyrighted music.”267 Thus, the court had little difficulty finding Aimster’s argument that it was protected by the DMCA safe harbor § 512(c) “by reason of the storage at direction of a user”268 unconvincing. The court agreed that the safe harbor provisions were not conditioned upon a service provider “monitoring its service or affirmatively seeking facts indicating infringing activity,”269 and it clearly accepted that the DMCA represented a legislative determination that copyright owners, not service providers, must bear the burden of policing for infringing activity.270 However, in the view of the court, Aimster lost any chance to claim § 512(c) safe harbor protection because, although it had a written policy to remove repeat infringers, in reality, it did not do so. Aimster used the disingenuous argument that its own encryption system prevented it from identifying any infringers. Holding that Aimster was not entitled to the safe harbor because its actions enabled its users’ to commit copyright infringement, the court agreed with the Plaintiff’s brief which stated, “Aimster predicates its entire service upon furnishing a ‘road map’ for users to find, copy, and distribute copyrighted music.”271 The Aimster court, like several subsequent decisions,272 clearly confirmed that the DMCA requires copyright owners to bear the burden of policing for infringing activity, but the court was not prepared to allow a provider that set up its service so that it could not monitor its users’ infringement to benefit from its wrongfulness. Aimster’s clear bad faith actions to blind itself to its users’ activities prevented it from gaining any traction with an argument about the social benefits of its service.

A series of lawsuits by Perfect 10, an online provider of adult entertainment, enabled the Ninth Circuit to clarify several important issues in protecting webhosts and internet service providers. For example, it pointed out that copyright owners should police their property online and that determinations on the common law doctrines of fair use or secondary liability claims are irrelevant as to whether or not the DMCA safe harbor defense is available.273 In Perfect 10 v. CCBill LLC, the Ninth Circuit made clear that it was not the job of internet service providers to police their sites for copyright infringement. The appellate court stated, “[t]he DMCA notification procedures place the burden of

265 Id. at 641.
266 Id. at 651.
267 Id. at 652.
269 In re Aimster Copyright Litig., 252 F. Supp. 2d 634, 657 (N.D. Ill. 2002) (citing 17 U.S.C. § 512(m)).
270 Id.
271 Id. at 652.
272 See, e.g., Perfect 10, Inc. v. CCBill LLC, 488 F.3d 1102, 1113, 1117 (9th Cir. 2007).
273 Perfect 10, Inc. v. Amazon.com, Inc., 508 F.3d 1146, 1176–77 (9th Cir. 2007).
policing copyright infringement—identifying the potentially infringing material and adequately documenting infringement—squarely on the owners of the copyright. We decline to shift a substantial burden from the copyright owner to the provider.274

Having been unsuccessful in shifting the burden to police for copyright infringement to internet service providers, copyright owners have tried to limit the application of the DMCA safe harbor in other ways, generally arguing that the various DMCA safe harbors are lost by particular activities of the internet service providers or webhosts.

When Perfect 10 sued Google’s image search service,275 the Ninth Circuit found that the search service was protected as fair use, did not constitute secondary copyright infringement, and was likely entitled to the protection of the DMCA.276 The district court had not originally considered the DMCA claim because it determined that Google was not secondarily liable on contributory or vicarious liability grounds for copyright infringement.277 On appeal, the Ninth Circuit held that the determination of secondary liability was separate from the DMCA defense and focused on the fact that Google and Amazon’s search services were beneficial to the public.278 It noted that the Supreme Court “has directed us to be mindful of the extent to which a use promotes the purposes of copyright and serves the interests of the public.”279

Copyright owners have repeatedly attempted to argue that the DMCA safe harbors should not apply to most Web 2.0 content-sharing websites because it is well known to the webhosts that their sites attract a high proportion of copyright infringing content. This is an attempt by copyright owners to destroy ISPs contentions about the social benefit of their services by alleging that the ISPs know that so much copyright material is infringing.

In UMG Recordings v. Veoh Networks,280 a district court in California determined that Veoh’s internet-based video-sharing service was protected by the DMCA safe harbor from music industry claims of secondary liability for copyright infringing user-submitted videos. The Ninth Circuit upheld this decision in December 2011,281 unfortunately, after legal costs associated with the case forced Veoh into bankruptcy.282 UMG had argued that Veoh must have known that some of the content in the user videos was unauthorized, given its general knowledge that its services could be used to post infringing material.283 UMG urged the court that this

274 Perfect 10, Inc. v. CCBill LLC, 488 F.3d 1102, 1113 (9th Cir. 2007).
275 Perfect 10, Inc. v. Amazon.com, Inc., 508 F.3d 1146, 1175 (9th Cir. 2007).
276 Id. at 1176–77.
277 Id.
278 Id. at 1166.
279 Id.
281 UMG Recordings, Inc. v. Shelter Capital Partners, LLC., 667 F.3d 1022, 1026 (9th Cir. 2011).
283 UMG Recordings, Inc. v. Shelter Capital Partners, LLC, 667 F.3d 1022, 1036 (9th Cir. 2011).
fact sufficiently demonstrated Veoh’s knowledge of infringement and constituted a so-called “red flag” which should have alerted Veoh to take down the infringing videos. Judge Fisher upheld the district court decision, saying that “Veoh’s general knowledge that it hosted copyrightable material and that its services could be used for infringement is insufficient to constitute a red flag.”

In its lawsuit against YouTube, Viacom has continued to press the argument that awareness of facts and circumstances from which infringing activity is apparent can be satisfied by a generalized knowledge that a service can be used for copyright infringement. While this seems an issue that has finally been decided on the side of ISPs, other issues of the application of the safe harbor and copyright law remain unclear or unresolved by case law.

2. Viacom v. YouTube Saga

The facts of the long running Viacom v. YouTube dispute are simple. Viacom objected to the widespread availability of clips from its TV shows on YouTube. Viacom’s main argument focuses on the theme that Viacom needs help policing the dangerous online environment that is rife with copyright infringement and that YouTube is failing to provide this help. In its appeal brief, Viacom reiterated that “YouTube could easily have discovered and removed the massive quantities of infringing videos” on the service. In Viacom’s view, “YouTube had the ability to forestall virtually all infringing activity during the upload process through the use of commercially available fingerprint filtering technology . . . .” Viacom claimed that because YouTube knowingly enabled the uploading of large amounts of copyrighted videos, YouTube should have become liable for the copyright infringement of its users. These claims intend to demonstrate that ISPs, like YouTube, are not beneficial because they are acting in bad faith in providing users with easy ways to infringe copyright when they should be assisting copyright owners with policing their sites and allowing them to share in the new value created by their copyright content.

YouTube countered with the familiar focus on the theme that its service is socially beneficial. According to YouTube, “[t]he safe harbors have allowed YouTube

284 Id.
286 UMG Recordings, Inc. v. Shelter Capital Partners, LLC, 667 F.3d 1022, 1038 (9th Cir. 2011).
288 Id. at 31–32. The Appeals Court discussed various recent decisions on the DMCA and, while declining to adopt the reasoning of those courts, said: “we note that no court has embraced the contrary proposition—that the red flag provision ‘requires less specificity’ than the actual knowledge provision.” Id.
289 Id. at 26.
290 Opening Brief for Plaintiffs in Viacom v. YouTube, supra note 200, at 45.
291 Id.
and services like it to flourish as platforms for creative, political, and social expression.” Its service “has allowed performers and artists to rocket from oblivion to fame; has given politicians, pundits, protesters, and the Pope a powerful new way to communicate with the public.” These accomplishments are only possible because Congress realized that internet services would be valuable and revolutionary and embedded a safe harbor into the DMCA to protect them.

Often commentators have also convincingly argued that the benefits of Web 2.0 technologies (and particularly the creation of UGC) include economic, social, and public interest concerns in terms of human rights, “particularly free speech and self-expression, political and artistic truth, and free press.” An amicus brief by intellectual property and internet law professors linked the substantial benefit YouTube and other Web 2.0 sites provide to the public with the DMCA. The “extraordinary and unprecedented growth in innovative Internet services” is only possible because of the DMCA.

Without the limitations on liability provided by the DMCA’s safe harbors, the legal exposure for a service provider relying upon vast numbers of users freely exchanging content with one another would be entirely unmanageable; a business built on such a foundation could hardly have attracted financing in any rational marketplace, given the astronomical scope of the potential liability.

This statement illustrates how copyright law could inhibit the growth of Web 2.0 platforms. The law provides for vast damages to be awarded for copyright infringement absent a showing of actual loss. This creates significant potential financial risks for technology innovators and for their investors and explains why the DMCA safe harbor is so crucial to promoting investment in new technology.

At the district court level, Judge Stanton was certainly persuaded that the DMCA safe harbor protected YouTube’s service, stating succinctly that “[g]eneral knowledge that infringement is ‘ubiquitous’ does not impose a duty on the service provider to monitor or search its service for infringements.” The fact that much material uploaded to YouTube infringed copyright was irrelevant, unless YouTube ignored specific notifications about infringing content. Judge Stanton decided that YouTube did not have knowledge of “specific and identifiable infringements.”

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293 Brief for Defendants in Viacom v. YouTube, supra note 80, at 3.
294 Id.
295 Id. at 19–20.
296 Chik, supra note 1, at 258–59.
298 Id.
299 Id. at 6.
302 See id. at 529.
Viacom immediately appealed Judge Stanton’s decision, clearly hoping to impose a much stronger duty to monitor for copyright infringement on YouTube and other service providers and also limit any fair use arguments about the reuse of copyrighted material. Viacom claimed in a press release that “America’s economic future will be largely built on innovation, information and the growth of trade in intellectual property. However, an information-based economy cannot exist if the products and ideas developed are not protected under U.S. law.” This ignores that much current innovation in the U.S. is in communications and information technology and that U.S. law, in the form of the DMCA safe harbor, does protect that innovation by placing the duty to monitor copyright infringing activity on the copyright owner and not on the internet service provider who has created the new technology. The legislative intent was clearly to encourage the development of the internet. The explosive growth in technology and creation of Web 2.0 suggests that the policy of placing the policing burden on copyright owners rather than the creators of new technology has been successful in promoting the innovation in the “information-based economy” described by Viacom.

Copyright owners, like Viacom, dislike the DMCA safe harbors for Web 2.0 sites, like YouTube, because the protections require that copyright owners must either use the takedown notification system created by the DMCA to request removal of copyright content or litigate individually against infringers. Although judges have now clearly interpreted the takedown system as placing the duty to police copyrights squarely on the copyright owners. Service providers are not required even to monitor their sites for infringement unless they are made aware of facts and circumstances from which infringing activity is apparent. However, Viacom is still arguing that copyright owners require more protection. Apart from the lack of policing and monitoring assistance required of ISPs by the DMCA, copyright owners also dislike the notification and the takedown system used under the Act because much non-commercial UGC probably meets fair use standards, and some users will not be silenced by a takedown notice. However, the efficacy of the current takedown system is remarkable, as is pointed out by YouTube in its appeal brief: “YouTube implemented a rigorous and efficient notice-and-takedown program that made it easy for copyright owners to send takedown notices[]” In fact, at one point, Viacom sent 100,000 takedown notices to YouTube in the course of one day, and YouTube was able to remove the vast majority of the infringing videos from view by the next business day.

Judge Stanton’s judgment in Viacom stands out as noticeably more supportive of technology companies than do earlier decisions in cases like Napster and Grokster.

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308 Viacom Int’l, Inc. v. YouTube, Inc., 676 F.3d 19, 31 (2d Cir. 2012).
310 Brief for Defendants in Viacom v. YouTube, supra note 80, at 88.
In his judgment, he focuses heavily on the benefit of the YouTube service and the shield provided by the DMCA: “To let knowledge of a generalized practice of infringement in the industry, or of a proclivity of users to post infringing materials, impose responsibility on service providers to discover which of their users’ postings infringe a copyright would contravene the structure and operation of the DMCA.”

Stanton has been criticized for expanding the DMCA safe harbor by finding that general knowledge of massive infringement does not constitute a “red flag.” The argument is that there is no distinction in his judgment between knowledge of actual infringement and awareness of facts and circumstances from which infringing activity is apparent. However, copyright owners, in seeking such enormous statutory damages from legitimate and useful web services, may have themselves to blame for the approach of judges, like Stanton, to the statutory construction of the level of knowledge of infringing activity to cause an internet service to lose DMCA safe harbor protection. Viacom’s potential statutory damages claim for the approximately 150,000 clips it alleged infringed its copyrights could cripple most ISPs, including YouTube. With a broad definition of “red flag” knowledge, any Web 2.0 platform and its investors would be in danger of incurring massive potential liability for infringement by allowing sharing on their site. The size of statutory damages claims could be enormous for the infringement of even a few copyrighted works against copyright owners because the legal risks of liability for copyright infringement are unmanageable without the DMCA safe harbors. If a court finds that any service provider has actual or “red flag” knowledge of copyright infringement and is ignoring it, a massive and crippling damages award is the likely result. This should make, and has made, courts cautious of holding that otherwise socially beneficial services fall outside the safe harbor.

The amici brief filed by intellectual property and internet lawyers focused on the theme of the social benefit of Web 2.0, warning that if Viacom prevailed on appeal, “tomorrow’s Internet will almost assuredly be less innovative, less dynamic, and less participatory than today’s, as developers of new, user-driven services and applications—and the people who invest in them—reassess the risks and costs of doing business online.”

Although the eagerly awaited appeal decision in Viacom overturned parts of Judge Stanton’s decision and was thus seen as a victory for Viacom by some, it in fact broadly upheld the most important part of Stanton’s judgment, especially that a generalized knowledge of infringing activity does not cause an ISP to lose safe harbor.

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312 Id. at 523.
The court commended the district court for identifying that the crux of the inquiry with respect to YouTube’s copyright liability was whether the statutory phrases “actual knowledge that the material or an activity using the material on the system or network is infringing,” and “facts or circumstances from which infringing activity is apparent” would encompass a general awareness that such activities are infringements (as urged by Viacom) or would require actual or constructive knowledge of specific and identifiable infringements of individual items. Judge Cabranes, writing for the majority, held that interpretation of the language of the DMCA compelled the decision that “the basic operation of § 512(c) requires knowledge or awareness of specific infringing activity” and therefore general awareness of infringement is insufficient to lose this DMCA safe harbor protection. Judge Cabranes explained his holding that general knowledge was not enough to lose safe harbor protection in terms of the section’s requirement for removal of any infringing material, stating that “expeditious removal is possible only if the service provider knows with particularity which items to remove. Indeed, to require expeditious removal in the absence of specific knowledge or awareness would be to mandate an amorphous obligation to ‘take commercially reasonable steps’ in response to a generalized awareness of infringement.”

Judge Cabranes then drew a new distinction in DMCA case law between subjective knowledge, which he saw as covered by the “actual knowledge” requirement in § 512(c)(1)(A)(i), and objective knowledge, which he held meant knowledge of “facts or circumstances from which infringing activity is apparent;” covered by § 512(c)(1)(A)(ii). This division of knowledge of specific infringing activity into two sorts provides a role for both sections. The judge did not accept the Viacom argument that knowledge of “facts or circumstances from which infringing activity is apparent” expanded secondary liability to web hosts and ISPs with a generalized knowledge of infringement activity, nor did his two types of knowledge—subjective and objective—require webhosts to take steps to monitor their sites for infringement. The Second Circuit’s main disagreement with Judge Stanton was on whether summary judgment was premature given that, on the facts of the case, “a reasonable juror could conclude that YouTube had actual knowledge of specific infringing activity, or was at least aware of facts or circumstances from which specific infringing activity was apparent.” The Second Circuit also remanded the decision for fact finding on three other questions. First, it asked whether YouTube willfully blinded itself to knowledge of specific infringement while noting that “willful blindness cannot be defined as an affirmative duty to monitor.” Second, it rejected Stanton’s construction of whether YouTube “receive[d] a financial benefit directly attributable to the infringing activity, in a case in which [it had] the right and ability

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318 Id. at 29.
319 Id. at 30.
320 Id. at 30–31.
321 Id. at 31.
322 Id. at 31–32.
324 Id. at 35.
to control such activity. This put the court at odds with the construction of the section recently adopted by the Ninth Circuit in *Veoh*, which was the same as Stanton’s: namely that the “right and ability to control” under § 512(c) requires control over specific infringing activity the provider knows about. The Ninth Circuit held that an ISP’s general right and ability to remove materials from its service is, alone, insufficient. The difficulty with this construction is summed up by Judge Cabranes:

Any service provider that has item-specific knowledge of infringing activity and therefore obtains financial benefit would already be excluded from the safe harbor under section 512(c)(1)(A) for having specific knowledge of infringing material and failing to effect expeditious removal. No additional service provider would be excluded by section 512(c)(1)(B) that was not already excluded by section 512(c)(1)(A).

However, although the appellate court did not agree with Judge Stanton or the Ninth Circuit on what an ISP had to know in order to be excluded from the safe harbor by § 512(c)(1)(B), it also disagreed with Viacom’s interpretation of this provision as a codification of the common law doctrine of vicarious liability. It determined, somewhat unhelpfully, that the “right and ability to control” infringing activity “requires something more than the ability to remove or block access to materials posted on a service provider’s website.” The more difficult question, according to the court, was how to define the “something more” that is required. Unfortunately, the court’s answer to this question was not to provide guidance on when an ISP would lose safe harbor protection and become liable for infringement because it had the right and ability to control infringing activity. The court remanded the case to the district court for more fact finding on whether Viacom had adduced sufficient evidence to allow a reasonable jury to conclude that YouTube had the right and ability to control the infringing activity and received a financial benefit directly attributable to that activity. It is important that subsequent decisions clarify what type of ability to control users’ activity will lead to the loss of the safe harbor protection. Both the Ninth Circuit and Second Circuit agree that § 512(c)(1)(B) does not import vicarious liability into the DMCA, essentially a victory for ISPs over the copyright owner argument that ISPs should help police copyright infringement because they control the activity on their sites. The Ninth Circuit decision has the virtue of being clearer for service providers—only the failure to control specific infringing activity will cause the loss of the safe harbor under § 512(c)(1)(B).

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325 Id. at 36; see 17 U.S.C. § 512(c)(1)(B) (2012).
326 UMG Recordings, Inc. v. Shelter Capital Partners, LLC., 667 F.3d 1022, 1041 (9th Cir. 2011).
327 Viacom Int'l, Inc. v. YouTube, Inc., 676 F.3d 19, 36 (2d Cir. 2012).
328 Id. at 37.
329 Id. at 38.
330 Id.
331 Id.
Lastly, while the Second Circuit accepted that certain of YouTube's software functions were ones that it undertook “by reason of the storage at the direction of a user,” it determined that one software function was “the closest case” and might cause the safe harbor to be lost. The court agreed with the district court that transcoding, playback (functions which involve making copies of videos that are viewable over the internet and delivering these copies to users' browsers), and the “related videos” function (an algorithm that identifies and displays thumbnails of “related” videos for users to view) could all be said to be functions related to and following from the storage itself. However, the court was not convinced that one of YouTube's software functions—third-party syndication or licensing—similarly fell within the safe harbor that protects activities done “by reason of” user storage, although it appeared that none of the clips in suit were actually syndicated.

Altogether, the court remanded four issues to the district court for further fact finding. These were whether the record showed that YouTube had actual or objective knowledge or awareness of specific acts of infringement; whether the record showed that YouTube willfully blinded itself to specific infringements; whether YouTube lost the safe harbor protection by reason of receiving a financial benefit from activities it had the right and ability to control (and what was meant by right and ability to control in this section); and whether any of the clips-in-suit were syndicated to a third party and, if so, whether such syndication was a software function that could be said to be by reason of the storage at the direction of the user so that YouTube could claim the protection of the § 512(c) safe harbor for that activity.

The appellate court has at least clarified that specific, not general, knowledge of infringing activity is required for loss of the safe harbor protection in § 512(c). But what remain murky are the sort of facts that will constitute objective knowledge of facts and circumstances from which infringing activity is apparent, what constitutes willful blindness, and what type of control over user activity and what software functions might cause the loss of the safe harbor protection. These details may be worked out from a remand and examination of the factual record in Viacom or they may require more decisions. There is little doubt that, given YouTube's expeditious compliance with Viacom's takedown notice for over 100,000 clips, most, if not all, of the clips-in-suit are protected by the DMCA safe harbors, and this particular case has shrunk to questions about, at most, a tiny number of videos—all long since removed from YouTube's site. Despite the remand, the case does not substantially advance the main copyright owners' arguments that they should be able to control and derive value from all uses of copyrighted work and that ISPs should be required to help them police the internet for infringement. However, there are still some gray areas for ISPs on the value and policing arguments. What level of knowledge of specific acts of infringement, what type of control over users, and what specific software functions will lead to a loss of the crucial safe harbor protection?

332 Id. at 38, 40.
333 Id. at 40.
335 Id. at 41–42; 17 U.S.C. § 512(c)(1) (2012).
C. Technology Users

The discussion in this paper has so far focused mainly on copyright owners and technology innovators. However, in the copyright wars, there are three conflicting constituencies affected by the development of new technologies for manipulating content. As well as copyright owners and technology innovators, whose battles have been the most familiar to the courts in recent years, the rights of users of the new technologies are often in conflict with those of copyright owners. The common law doctrine of fair use is the most relevant legal concept for protecting the rights of the third constituency, although it is also increasingly relevant as a defense for technology innovators themselves.336 In his dissent in Sony, Justice Blackmun argued that the fair use doctrine only permits copyrighted works to be used without consent of the owner for “socially laudable purposes.”337 However, the majority in Sony held that any use that served the public interest (in that case, the interest was increasing access to television programming) could be a fair use.338 Fair use has often been criticized even before the recent Web 2.0 explosion as vague and unclear. Courts have had difficulty in applying it to new technology,339 while copyright owners have continued to argue forcefully that any clarification or extension of the doctrine risks depriving them of control of the value of their work and thus of incentives to create.340

As various commentators have recognized, the protection of fair use should be more than an exception to copyright protection. It should be treated as an integral part of the copyright scheme if the objective of copyright law is truly to promote innovation.341 The purpose of fair use is to prevent copyright owners from overprotecting their works by requiring permission for the reuse of their content, even when it is reused in ways that are creative and transformative.342 Transformative uses actually further the objectives of copyright law rather than thwart them. Unfortunately, the standard four factors used to determine whether or not a particular use is fair343 tend to relate better to traditional offline uses of existing copyright by primary infringers in activities such as news reporting, commentary, and education. The factors are not as well adapted for determining whether the creation of new ways to manipulate existing copyright material by technology innovators is beneficial and serves the public interest in some way.344

One of the obvious ways that Web 2.0 tools serve the public interest is the way that they have facilitated the creation of UGC. Some people have argued that typical UGC should always be protected as fair use.345 It complies with many of the factors

336 See Lee, supra note 17, at 802.
338 Id. at 425, 456.
339 See, e.g., Lee, supra note 17.
340 See Opsahl, supra note 163.
341 Leval, supra note 150, at 1107.
343 Id.
344 See, e.g., Lee, supra note 17, at 802.
345 See, e.g., Chik, supra note 1.
in the four factor test for fair use. It is transformative, non-commercial, and generally does not affect the market for a copyrighted work. However, uncertainty about whether or not a court will always apply the fair use exception to protect UGC likely chills at least some creative reuses of existing copyright materials. Web 2.0 users create vast amounts of UGC, and a specific statutory exemption for UGC has been suggested. A clear rule that permits typical non-commercial transformative UGC, so that the creators and enablers of UGC need not fear takedown notices or lawsuits, could potentially promote the ISPs theme that the web is socially beneficial by encouraging online innovation.

Canada has recently amended its copyright law to include a specific exception for non-commercial UGC. The Gowers Review of U.K. Intellectual Property Law also suggested a similar change to U.K. law, which would require the creation of a specific exception in the European Union Copyright Directive for UGC. Gowers argued that this would enable creators to rework materials to create new value and even new markets. In making his argument, he pointed to the broader fair use exception in U.S. law as the reason for the vitality of online creativity in the U.S.

The more recent Hargreaves Review also recommended that U.K. law be amended to exempt non-commercial uses and UGC from copyright infringement. Both the U.K. and Canadian copyright regimes have traditionally container fewer and more limited exceptions to copyright law than the U.S., and like Gowers and Hargreaves, various commentators have pointed to the benefits of the broader fair use exception under U.S. law for fostering creativity. Ironically, however, because the broader fair use exception is dependent on a number of factors, decisions as to whether particular UGC is permissible are made on a case-by-case basis, which renders fair use into an uncertain doctrine. The protection of particular uses only clear from a court decision rather than a reading of a statute with a specific exception. This causes technology users and innovators to avoid relying on the uncertainty of the protection provided by the exception. Thus, they will either avoid using the material or seek permission from the copyright owner, both of which chill innovation.

UGC is not the only type of new use of copyrighted material where technology creators and users would benefit from a clearer understanding of what is and is not legally permissible as fair use. Many other new uses of copyrighted material are being made possible through Web 2.0 innovations. Various internet search services, the Google books project, and new Web 2.0 sites, like Pinterest, allow

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347 Chik, supra note 1, at 257–58.
348 Copyright Modernization Act, S.C. 2011, c. 22, § 29.21(1)(a-d) (Can.).
349 See GOWERS, supra note 257, at 68.
350 Id. at 66.
351 Id.
353 See, e.g., Michael Geist, Conclusions of Copyright Debate Leave Many What Ifs..., MICHAELGEIST.CA (May 28, 2012), http://www.michaelgeist.ca/content/view/6510/159/.
354 See, e.g., David Pogue, Going Beyond Search Into Fetch, N.Y. TIMES, May 24, 2012, at B1 (describing Google Fetch, a search service which delivers snapshots of information from websites, rather than the websites that contain it, directly to your computer).
users to manipulate material on the internet in different ways. More new online services are likely to be created. Some will be fads, but others may create new value and even new markets. It is a hallmark of the Web 2.0 world that it has created, and continues to create, many new tools to manipulate and make sense of data. These innovations will inevitably continue to give rise to new questions about whether or not they constitute fair use of the material reused. Courts will likely wrestle with issues relating to new technological uses of copyrighted materials until the parameters of technological fair use become clear. It would be preferable for these parameters to be set by court decisions rather than by private agreements where technology providers seek permission from copyright owners to use copyright work, giving rise to a permission-based culture rather than a creative one.

It is often hard, even for the creators of new technologies, to assess at their inception what the benefits of the technology may be, so courts should avoid as much as possible decisions which limit or prohibit technologies that make new uses of copyrighted works. The guiding principle should be to protect copyright as minimally as necessary to encourage content owners to continue to create. Justice Souter’s advice in *Grokster*, that copyright law should be administered with the aim of providing “breathing room for innovation and a vigorous commerce,” should be followed rather than the outcome of that case, which held that the technology in question was not a fair use essentially because of the bad faith of its promoters. There are far fewer precedents considering technology in terms of fair use than in terms of the DMCA. Court decisions are needed to provide clarity and legal certainty on the parameters of fair use because it is a needed protection in order to promote new and innovative technological uses of content online.

IV. FOSTERING THE DEVELOPMENT OF WEB 2.0 WITHOUT DESTROYING THE CONTENT

This section describes the lessons, so far, from the case law concerning copyright on Web 2.0 and considers what questions remain uncertain or unanswered. It argues that recent judicial decisions have been generally helpful in shaping and fostering Web 2.0 innovation by interpreting the DMCA safe harbor broadly and limiting the application of copyright secondary liability without destroying copyright owners’ incentives to create content. But, the coverage of secondary liability for webhosts and the parameters of fair use protection for new technologies are still unclear.

The growth of Web 2.0 shows no sign of abating and Web 3.0 and the creation of further new uses of “big data” (which will likely often include copyrighted

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356 See GOWERS, supra note 257, at 66.
357 Lee, supra note 17, at 802 (discussing the concept of technological fair use).
360 Id. at 941.
materials) are apparently just around the corner. While the Second Circuit clarified some important aspects of the DMCA safe harbors for ISPs in Viacom, it has unfortunately prolonged the uncertainty about other aspects by choosing to remand the case for further fact finding. There may also yet be an appeal of this decision to the Supreme Court.

At this juncture, it remains hard to predict with certainty the future balance of power on the web between copyright content owners, service providers, and technology users. Although, it is probably safe to assume that there will be both further attempts to legislate stronger copyright protections and more litigation. Copyright owners continue to claim that “massive online piracy” is destroying value and that it is making the burden of policing copyrights online too great to manage without help. Webhosts and ISPs are less cohesive as a group, but have focused on how the technological innovations of Web 2.0 enable socially and economically beneficial creativity to flourish and argued that technology creators should not be blamed for any copyright infringement of their users. Users want to enjoy the ability to post, link, tweet, pin, mash, sample, or manipulate content in other yet-unknown ways without fearing liability for copyright infringement. Courts have, so far, clearly held that, in the majority of circumstances, copyright holders should be responsible for policing their own copyrights online and that this burden cannot be shifted to ISPs, absent some evidence of bad faith on their part. The Grokster and Napster services demonstrated this bad faith, but the websites Veoh and YouTube generally did not. The DMCA safe harbor for actions related to “storage at the direction of the user” has now been interpreted in several cases to place the burden of policing copyrights online on the copyright holder and not to import secondary liability law into the DMCA. Copyright owners have not been successful in either the Ninth Circuit or the Second Circuit in arguing that this safe harbor protection is lost through a general awareness that a site is used for infringing activity. Rather, ISPs must be aware of, or willfully blind to, specific instances of infringement on their sites and ignore them in order to lose the safe harbor protection. What remains unclear is what types of activities carried out by webhosts can cause the loss of the safe harbor protections. What level of knowledge of evidence relating to infringement, or level of willful blindness to this kind of evidence by the webhost or service provider, will result in a loss of protection of the safe harbor protections? Are there other common software activities in which webhosts or service providers engage that will result in a loss of protection? The appeal court in Viacom called the syndication of users’ videos by YouTube “the closest case” and declined to decide whether or not this activity related to “storage at the direction of the user” and was thus protected by the safe harbor or whether it was a commercial activity which would cause the loss of the protection of the DMCA. There are likely other types of software activities undertaken by webhosts that may cause them to lose safe harbor protection and expose them to secondary liability for their users’ actions. As far as possible, legitimate webhosts of UGC should be able to avoid

362 See, e.g., Metz, supra note 41.
363 See UMG v. Shelter Capital, 667 F.3d 1050 (9th Cir. 2011).
365 Id. at 40.
secondary liability for the activities of their users if they expeditiously remove material, which they are informed is infringing. Therefore, webhosts need to be clear on which activities are permissible and which will cause them to lose the safe harbor protection and become liable for any infringement on their sites.

Many ISPs and technological innovators use existing copyright material, and the doctrine of fair use is the obvious way to protect innovative new uses of content from restriction by copyright owners. However, courts have not yet considered fair use much in relation to recent Web 2.0 innovations, and its parameters and protection need to be clarified by case law. The fact that new ways to manipulate copyrighted material do not immediately create value for the copyright owner has often been used as an argument by copyright owners to prohibit use of those materials. However, oftentimes, even the creators of new technologies are unclear initially as to what value or market their technology will create. There have also been several instances where valuable new markets for the copyright owners have been created by new technologies that the same copyright owners initially treated with great suspicion and alarm. With the rise in new technologies, fair use is an obvious choice as a defense for technology companies. However, it appears that many consider it too risky to rely on fair use as a strategy for investing in developing new technologies and prefer to license permissible uses. Hopefully, this cautious approach changes for the sake of future technological development. Judges need to clarify fair use so that it provides breathing room for new technologies to develop and find investors.

Absent aggressive, new, SOPA-like copyright legislation providing stronger statutory secondary liability claims against a broad array of internet services, lawsuits based on the DMCA safe harbor and the common law doctrines of secondary liability and, to a lesser extent, fair use will remain the most likely method of regulating the various constituencies creating content, inventing new technologies, and using Web 2.0 tools.

368 See generally Jessica Litman, Antibiotic Resistance, 30 CARDOZO ARTS & ENT. L.J. 53 (2012). Professor Litman notes that dozens of start-ups relying on fair use and DMCA defenses to copyright infringement have been shuddered in the last ten years. Id. at 53. Further, she argues that, since such start-ups are subject to unpredictable and expensive litigation, investment has flowed to two groups that rely on permissible uses rather than fair use: distribution systems owned by copyright owners themselves, and “new entrants with the stamina and resources to survive copyright infringement suits.” Id. at 65.
CONCLUSION

Judicial decisions are gradually creating a clearer picture of the liabilities of ISPs and technology companies for the use of creative content on their sites. These sites are the generative heart of Web 2.0, and their development is essential to ensuring the web’s continued potential as a transformative technology. Sites from YouTube to individual blogs, wikis, and social media platforms, like Facebook, are all being used to create and disseminate a wealth of information and cultural material, and it is important that copyright owners—powerful under the status quo—are not able to dictate the terms on which information is accessible and used through these sites without input from other web users. Copyright owners are an older, more well-organized lobbying group than are technology and ISPs and have, until recently, been successful in protecting and strengthening their rights through legislation. But, courts ultimately interpret those rights. Recent judicial developments have started to clarify the protections afforded by the DMCA safe harbor provisions and also have removed some of the pressure from webhosts and ISPs regarding their secondary liability for copyright infringement by their users. However, the doctrine of fair use remains underdeveloped in the Web 2.0 world. It would benefit technological innovators and serve the public interest for courts to clarify the fair use doctrine to cover all socially beneficial new technologies that use copyrighted materials in a transformative and/or non-commercial way. Clear judicial decisions are good for encouraging investment in online innovation. They can restore a fairer balance in intellectual property law between the rights of copyright owners and the rights of technology innovators and users—a balance that has been skewed by recent legislation.

371 See Wortham, supra note 106 (discussing lobbying by copyright and technology industries for copyright change).
372 See, e.g., UMG v. Shelter Capital, 667 F.3d 1022 (9th Cir 2011); Viacom Int’l, Inc. v. YouTube, Inc., 676 F.3d 19 (2d Cir. 2012).