NOTE

COPYRIGHT IN CYBERSPACE: WHY OWNERS SHOULD BEAR THE BURDEN OF IDENTIFYING INFRINGING MATERIALS UNDER THE DIGITAL MILLENNIUM COPYRIGHT ACT

Anna Katz*

I. INTRODUCTION

II. THE VIACOM LITIGATION
   A. Viacom v. YouTube: United States District Court
   B. Viacom v. YouTube: Second Circuit Appeal

III. THE DIGITAL MILLENNIUM COPYRIGHT ACT
   A. Historical Overview
      i. Legislative History
      ii. Legal History

IV. MARKET ANALYSIS: ECONOMIC GAINS AND LOSSES IN THE DIGITAL REALM
   A. Infringement and Economic Losses
   B. Infringement and Economic Gains

V. FAIR USE ANALYSIS: WHAT SHOULD “IMPACT ON THE MARKET” MEAN IN THE DIGITAL AGE?
   A. Sony: Cabining the Fair Use Doctrine
   B. Updating Economic Analysis: Freeing the Constraints on the Fair Use Doctrine
   C. In re Aimster: A Holistic Approach to the Weighing of Economic Concerns

VI. IF NOT FAIR USE, THEN WHAT? DEVISING A Viable FRAMEWORK FOR BURDEN ALLOCATION UNDER THE DMCA

VII. CONCLUSION

* J.D., Boston University School of Law, Class of 2012.
B.U. J. SCI. & TECH. L.  [Vol. 18:

I. INTRODUCTION

The dominant paradigm for understanding and justifying copyright law is an economic one; lawmakers balance the social good of incentivizing the creation of artistic works against the harm of limiting the public’s right to access such works.1 This balancing act manifests such that market effects inform both statutory and case law.2 Traditional economic analysis, however, may no longer fully capture market impacts in the digital age.3 Instead, the Internet and digital media, dealing in information goods, have changed the contours of the marketplace.

Information goods exhibit two complementary phenomena . . . . First, most information goods are nonexcludable, barring protective measures . . . . Digital technology has exponentially increased information goods’ nonexcludability by making them much easier to copy . . . . On the other hand, digital distribution has generated immense opportunities not only for uncompensated copying, but also for costless distribution, of copyright holders’ work.4

Thus, as technological developments enable Internet users to freely and easily exchange media files, copyright owners grow increasingly uneasy over cyberspace’s creation of a platform that facilitates mass infringement.5 Yet, harm from infringing activities exists in tandem with copyright owners’ ability to leverage Internet-based distribution of copyright-protected works to reinvigorate products’ positions in existing markets and to capture new market shares.6 Consequently, infringement may not be an outright economic loss for

1 ROBERT P. MERGES ET AL., INTELLECTUAL PROPERTY IN THE NEW TECHNOLOGICAL AGE, 14 (5th ed. 2010).
2 See, e.g., 17 U.S.C. § 107 (2006) (determining whether a defendant can assert a fair use defense turns on, among other considerations, “the effect of the use upon the potential market for or value of the copyrighted work.”).
3 See EDUARDO MOISES PEÑALVER & SONIA K. KATYAL, PROPERTY OUTLAWS 172-74 (2010).
5 See PEÑALVER & KATYAL, supra note 3, at 111.
In response to both ever-increasing fear of the loss of sales to file sharing as well as service providers’ anxiety over susceptibility to legal action, Congress passed the Digital Millennium Copyright Act (“DMCA”) in 1998. The DMCA codified a “notice-and-takedown” procedure, whereby copyright owners became responsible for locating infringing materials and notifying service providers, which, in turn, were required to expeditiously remove infringing materials in order to avoid liability.

In March 2010, Viacom, an entertainment content company whose holdings include MTV Networks, VH1 Networks, BET Networks, and Paramount Pictures, tested the outer bounds of the “notice-and-takedown” provisions of the DMCA in landmark litigation against Google, one of the Internet’s premier search engines, and YouTube, a Google subsidiary. The case considers the critical issue of whether the statutory language of the DMCA’s notice-and-takedown provision requires nothing more than a general awareness of infringing activities or demands constructive knowledge of specific, identifiable infringement of individual works. If specific knowledge is required, then the court must assign the burden of locating infringing materials to either the content owner or the service provider. In other words, the issue

7 This note assumes the DMCA definition of “service provider;” a “service provider” is “a provider of online services or network access, or the operator of facilities therefor, and includes an entity ‘offering the transmission, routing, or providing of connections for digital online communications, between or among points specified by a user, of material of the user’s choosing, without modification to the content of the material as sent or received’.” 17 U.S.C. § 512(k)(1)(B) (2006) (citing 17 U.S.C. § 512(k)(1)(A) (2006)).

8 See Peñalver & Katyal, supra note 3, at 111.

9 Jane C. Ginsburg, Separating the Sony Sheep from the Grokster Goats: Reckoning the Future Business Plans of Copyright-Dependent Technology Entrepreneurs, 50 ARIZ. L. REV. 577, 596 (“Once the service provider becomes aware of apparent infringements, it must ‘act[] expeditiously to remove, or disable access to, the material.’” (citing 17 U.S.C. § 512(c)(1)(A) (2006))).


11 Id. at 518 (considering the following statutory language: “actual knowledge that the material or an activity using the material on the system . . . is infringing” and “facts or circumstances from which infringing activity is apparent” (citing 17 U.S.C. § 512(c) (2006))).

12 See id. at 524.
presented was whether a copyright owner need only submit a representative list of infringing activities to a service provider, whereupon the service provider would have to locate and takedown all related infringing activities, or whether the owner was responsible for identifying and reporting each specific instance of infringement in order to compel the service provider to remove the content from its site. Answers to these questions hinge on economic analysis, necessitating a sincere attempt to fully understand the financial gains and losses present in digital age infringement.

Part II of this note will introduce the Viacom litigation in detail, establishing the case as a vehicle for framing an economic analysis. Part III will consider the legislative and legal history behind both copyright laws generally and the specific aims and intentions of the DMCA. After a discussion of the current understanding of the DMCA, Part IV will analyze copyright owners’ conflicting interests in the cyberspace marketplace. The focus here will be on capturing precisely where economic losses and gains may lie in the digital age. Part V will then evaluate these transactions and their consequences through a more traditional branch of copyright law—fair use. Part VI will subsequently draw parallels between the fair use analysis and the DMCA in order to introduce an alternative framework for allocating investigation and notice burdens under the DMCA. Ultimately, this note will support the adoption of the interpretation of the DMCA put forward by the United States District Court for the Southern District of New York in the Viacom litigation, namely that copyright owners should bear the burden of providing service providers with “knowledge of specific and identifiable infringements of particular individual items[,] knowledge of prevalence of such activity in general [should not be] enough.”

II. THE VIACOM LITIGATION

Viacom’s billion-dollar lawsuit against Google and its video-sharing subsidiary aimed to elucidate the copyright controversy. Founded in February 2005, YouTube is self-described as “a forum for people to connect . . . [that] acts as a distribution platform for . . . content creators and advertisers.” In 2007, episodes and clips of the popular children’s program SpongeBob Squarepants, shown on Nickelodeon, a Viacom subsidiary, began

---

13 See id. at 518-19.
15 See supra Part I.
16 About YouTube, YOUTUBE, http://www.youtube.com/t/about_youtube (last visited Jan. 30, 2011); see also infra Part II.
appearing with increasing frequency on YouTube. While Viacom initially explored a content-sharing agreement with YouTube, negotiations broke down in March 2007, and Viacom filed suit.

A. Viacom v. YouTube: United States District Court

Viacom’s claims against Google and YouTube for direct and secondary infringement came as a result of the regular distribution and consumption by YouTube users of copyright-protected materials. In particular, Viacom alleged that tens of thousands of video clips sponsored on the YouTube platform infringed Viacom’s copyrights. According to Viacom, “[YouTube’s] business model, which is based on building traffic and selling advertising off of unlicensed content, is clearly illegal and is in obvious conflict with copyright laws.”

Both Viacom as well as Google and YouTube looked to the DMCA to support their cases. In the United States District Court for the Southern District of New York, Viacom moved for partial summary judgment against Google and YouTube on its intentional infringement, vicarious infringement, and direct infringement claims. Viacom further alleged that Google and YouTube: (1) had actual knowledge of infringing activities but failed to act expeditiously to prevent such infringement; (2) received a financial benefit from the infringing activity; (3) had the right and ability to supervise and regulate the activity; and (4) did not infringe solely as a result of providing “storage at the direction of a user” or other function specified in the DMCA’s safe harbor provisions. Viacom claimed “tens of thousands of videos on YouTube, resulting in hundreds of millions of views, were taken unlawfully

---

18 Id.
23 See id.
from Viacom’s copyrighted works without authorization.”24

Google and YouTube similarly moved for summary judgment. Mounting a defense, Google and YouTube argued that they were protected by the safe harbors provided by the DMCA, because Viacom had not provided sufficient notice of the alleged infringing activities.25 The DMCA provides safe harbors for certain service providers:

A service provider shall not be liable . . . for infringement of copyright . . . if the service provider—(A)(i) does not have actual knowledge that . . . an activity using the material on the system or network is infringing; (ii) in the absence of such actual knowledge, is not aware of facts or circumstances from which an infringing activity is apparent; or upon obtaining such knowledge . . . acts expeditiously to remove, or disable access to, the material; (B) 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 such activity; and (C) upon notification of claimed infringement . . . responds expeditiously to remove, or disable access to, the material that is claimed to be infringing . . . .26

The DMCA further lays out requirements for sufficient notice of claimed infringing activity; such notice must be in writing and include, among other things, “[i]dentification of the copyrighted work claimed to have been infringed or, if multiple copyrighted works at a single online site are covered by a single notification, a representative list of such works at that site.”27

To support their position, Google and YouTube submitted into evidence YouTube’s policies and procedures for removal of infringing materials following receipt of notification of infringing activities.28 The Internet heavy-

---

24 Id. at 518 (citation omitted).
25 Id. at 516.
28 Viacom Int’l Inc., 718 F. Supp. 2d at 519; see also Copyright Infringement Notification, YOUTUBE.COM, http://www.youtube.com/t/dmca_policy (last visited Aug. 12, 2012) (“To file a copyright infringement notification with us . . . . send a written communication that includes substantially the following[.]: i. A physical or electronic signature of a person authorized to act on behalf of the owner of an exclusive right that is allegedly infringed.; ii. Identification of the copyrighted work claimed to have been
hitters went on to demonstrate one of the most noteworthy instances of compliance with takedown procedures following notification: Viacom sent a mass notice of one hundred thousand infringing videos sponsored on YouTube’s platform, and YouTube had removed the videos within twenty-four hours.\textsuperscript{29} Viacom, however, maintained that YouTube’s removal only of the specifically identified clips constituted a deficient response in light of YouTube’s alleged knowledge of other media files that equally infringed Viacom-owned works and YouTube’s alleged general encouragement of infringing activities.\textsuperscript{30} To support this argument, Viacom relied on § 512(c) of the DMCA, which states,

To be effective under this subsection, a notification of claimed infringement must be a written communication provided to the designated agent of a service provider that includes substantially the following: . . . Identification of the copyrighted work claimed to have been infringed, or, if multiple copyrighted works at a single online site are covered by a single notification, a representative list of such works at that site. \textsuperscript{31}

Effectively, Viacom argued that once Viacom had supplied a “representative” list to YouTube, the language found at § 512(c) placed the burden on the service provider to engage in a factual search to remove all related infringing content.\textsuperscript{32}

In his decision, Judge Stanton noted that, “the critical question is whether the statutory [language] . . . mean[s] a general awareness that there are infringements . . . or rather mean[s] actual or constructive knowledge of specific and identifiable infringements . . . .”\textsuperscript{33} However, Judge Stanton’s

\textsuperscript{29} See Viacom Int’l Inc., 718 F. Supp. 2d at 524.
\textsuperscript{30} See id. at 528.
\textsuperscript{31} 17 U.S.C. § 512(c) (2006); see also Viacom Int’l Inc., 718 F. Supp. 2d at 528-29.
\textsuperscript{32} See Viacom Int’l Inc., 718 F. Supp. 2d at 528.
\textsuperscript{33} Viacom Int’l Inc., 718 F. Supp. 2d at 519 (citing 17 U.S.C. § 512(c)(3)(A)(i) and (ii)); see generally Sam Gustin, Viacom Appeals ‘Flawed’ $1 Billion YouTube Verdict,
discussion of the requisite level of knowledge to confer liability on a service provider ultimately centered on the question of burden bearing under the notification requirements laid out by the DMCA. Following an analysis of both the legislative and common law history surrounding the DMCA, the court concluded that, “[T]he DMCA notification procedures place the burden of policing copyright infringement—identifying the potentially infringing material and adequately documenting infringement—squarely on the owners of the copyright.”

Addressing Viacom’s reliance on § 512(c), Judge Stanton responded that adopting Viacom’s proposed “representative list” standard would eviscerate the specificity demanded by the DMCA. Furthermore, Judge Stanton noted that, “the subsection which immediately follows [§ 512(c)(3)(A)(ii)] requires that the identification of the infringing material that is to be removed must be accompanied by ‘information reasonably sufficient to permit the service provider to locate the material.’” Relying on the statutory language as well as legislative history that identified uniform resource locators (“URLs”) as sufficient to fulfill the § 512(c) requirement, Judge Stanton adopted an interpretation of the DMCA that, to constitute satisfactory notice, identification of infringing materials must include information that will enable a service provider to locate specific, individual instances of infringement. The court declined to shift the burden of identifying specific infringing materials from copyright owners to service providers and consequently granted summary judgment to Google and YouTube.

B. Viacom v. YouTube: Second Circuit Appeal

In August 2010, Viacom appealed the district court’s decision to the U.S. Court of Appeals for the Second Circuit, which vacated the summary judgment and remanded the case back to the district court in April 2012. Concerning


34 Viacom Int’l, 718 F. Supp. 2d at 516-25.
35 Id. at 523 (quoting Perfect 10, Inc. v. CCBill LLC, 488 F.3d 1102, 1113 (9th Cir. 2007)).
36 Id. at 528-29.
37 Id. at 529 (quoting 17 U.S.C. § 512(c)(3)(A)(iii)).
38 Id. at 529 (citing H.R. REP. NO. 105-551, pt. 2, at 55 (1998)).
39 Id. at 523-29.
40 Gustin, supra note 33; Viacom Int’l, Inc. v. YouTube, Inc., 676 F.3d 19, 41-42 (2d Cir. 2012).
the issue of specific knowledge or awareness, the Second Circuit substantially affirmed the district court’s holding that “the statutory phrases ‘actual knowledge that the material . . . is infringing’ and ‘facts or circumstances from which infringing activity is apparent’ refer to ‘knowledge of specific and identifiable infringements.’”\footnote{Viacom Int’l, 676 F.3d at 30 (citing Viacom Int’l Inc., 718 F. Supp. 2d at 523).} Despite this affirmation, however, the Second Circuit determined that the district court’s grant of summary judgment was premature.\footnote{Id. at 32.} First, internal communications between YouTube employees suggested that “a reasonable jury could find that YouTube had actual knowledge or awareness of specific infringing activity on its website.”\footnote{Id. at 26-35.} Second, the appeals court responded to Viacom’s argument that “YouTube was ‘willfully blind’ to specific infringing activity.”\footnote{Id. at 34; see also supra Part II(a).}

The Second Circuit began its analysis by defining the common law notion of willful blindness. According to the court, “[a] person is ‘willfully blind’ or engages in ‘conscious avoidance’ amounting to knowledge where the person ‘was aware of a high probability of the fact in dispute and consciously avoided confirming that fact.’”\footnote{Viacom Int’l, 676 F.3d at 35 (citing United States v. Aina-Marshall, 336 F.3d 167, 170 (2d Cir. 2003)).} Notably, however, in cases where a statute speaks directly to a common law tenant, that statute will abrogate the common law principle.\footnote{Id.} The DMCA provision most relevant to the abrogation inquiry is § 512(m), which provides that safe harbor protection shall not be conditioned on ‘a service provider monitoring its service or affirmatively seeking facts indicating infringing activity . . . .’\footnote{Id. (citing 17 U.S.C. § 512(m)(1)).} According to the Second Circuit, the DMCA is explicit: “safe harbor protection cannot be conditioned on affirmative monitoring by a service provider.”\footnote{Id.} While this conclusion led the court to establish that “§ 512(m) is incompatible with a broad common law duty to monitor or otherwise seek out infringing activity based on general awareness that infringement may be occurring[,] that fact does not . . . dispose of the abrogation inquiry.”\footnote{Id. at 35 (citing 17 U.S.C. § 512(m))).} Instead, the court held that since § 512(m) does not directly speak “to the willful blindness doctrine, § 512(m) limits—but does not abrogate—the doctrine. Accordingly, [the court held] that the willful
blindness doctrine may be applied, in appropriate circumstances, to demonstrate knowledge or awareness of specific instances of infringement under the DMCA.\textsuperscript{50}

The district court’s failure to “expressly address the principle of willful blindness or its relationship to the DMCA safe harbors” caused the Second Circuit to hold that the question of whether Google and YouTube deliberately avoided guilty knowledge was one for a jury to decide.\textsuperscript{51} Determining the contours of a service provider’s duty to investigate entries on representative lists when responding to takedown requests now falls to a jury.\textsuperscript{52}

III. THE DIGITAL MILLENNIUM COPYRIGHT ACT

A. Historical Overview

Article I of the United States Constitution states, “The Congress shall have Power . . . To promote the Progress of Science and the useful Arts, by securing for limited times to Authors and Inventors the exclusive right to their respective Writings and Discoveries.”\textsuperscript{53} This Constitution-based grant of power is the cornerstone of copyright law.\textsuperscript{54} As a body, copyright law aims to balance the economic interests of copyright owners and the access rights of consumers.\textsuperscript{55} Technological advancements that facilitate easy dissemination, transfer, and sharing of copyrighted works have magnified the concerns entwined within this balancing act due to two conflicting principles: technological progress and its accompanying social benefits versus eroding rights of copyright owners.\textsuperscript{56} The DMCA was a legislative response attempting to achieve some balance between these principles.\textsuperscript{57}

i. Legislative History

Congress devised the DMCA to “facilitate the robust development and world-wide expansion of electronic commerce, communications, research,

\textsuperscript{50} Id.
\textsuperscript{51} Id.
\textsuperscript{52} Id.
\textsuperscript{53} U.S. CONST. art. I, § 8, cl. 8.
\textsuperscript{54} JULIE E. COHEN ET AL., COPYRIGHT IN A GLOBAL INFORMATION ECONOMY, 3 (3d ed. 2010).
\textsuperscript{55} Id. at 6-7.
\textsuperscript{56} Id. at 7.
\textsuperscript{57} Id.
development, and education in the digital age.”58 Through the creation of certain safe harbors for service providers, Congress hoped to clarify and limit the scope of service providers’ liability to ensure the continued investment in and expansion of the Internet.59

17 U.S.C. §§ 512(a)–(d) details four categories of activities for which service providers can receive limited liability.60 The Viacom litigation specifically calls into question 17 U.S.C. § 512(c) and the “applicable knowledge standard” developed by the legislative history.51 § 512(c) states that a service provider shall not be liable for infringement if the service provider (1) lacks either “actual knowledge that the material . . . is infringing” or awareness “of facts or circumstances from which infringing activity is apparent;” (2) does not receive a direct financial benefit from the infringing activity when the service provider “has the right and ability to control [infringing] activity;” and (3) acts expeditiously to remove the infringing material from the website upon either obtaining “notification of claimed infringement” from a copyright owner or developing actual knowledge or awareness of infringing activities.62 For notification of claimed infringement to be sufficient under the DMCA, § 512(c) requires that the notification be a written communication that substantially includes, among other things, the following: (1) “[i]dentification of the copyrighted work claimed to have been infringed, or, if multiple copyrighted works . . . are covered by a single notification, a representative list” of those works; and (2) identification of the alleged infringing material and “information reasonably sufficient to permit the service provider to locate the material.”

Congress devised § 512(c) as a “red flag” test.64 According to Senate Report 190, “a service provider need not monitor its service or affirmatively seek facts indicating infringing activity . . . . However, if the service provider becomes aware of a ‘red flag’ from which infringing activity is apparent, it will

59 Id. at 8.
61 See generally Viacom Int’l Inc. v. YouTube, Inc., 718 F. Supp. 2d 514 (S.D.N.Y. 2010); see also H.R. REP. NO. 105-551, pt. 2, at 53-54 (1998) (“[The applicable knowledge standard] is met either by actual knowledge of infringement or in the absence of such knowledge by awareness of facts or circumstances from which infringing activity is apparent.”).
63 Id.
64 S. REP. NO. 105-190, at 44 (1998).
lose the limitation of liability if it takes no action.”  

17 U.S.C. § 512(c) defines actual knowledge and knowledge qualifying as such under the “red flag” test and requires that a copyright owner provide information reasonably sufficient to enable a service provider to identify and locate infringing materials. Such notice may include “a copy or description of the allegedly infringing material and the URL address of the location (web page) which is alleged to contain the infringing material.”

However, in cases of multiple acts of infringement of the same copyrighted work, complications arise due to the § 512(c) notice requirements that, at times, are both broad and specific. While § 512(c) demands only a “representative list of [infringing] works at [the service provider’s] site,” the subsection of the DMCA also requires, “information reasonably sufficient to permit the service provider to locate the material.”

The development of the “red flag” test suggests that Congress intended copyright owners to be responsible for shouldering the burden of identifying and reporting infringing activity with the goal of providing service providers with “adequate information to find and address the allegedly infringing material expeditiously.”

While the tenor of the legislative history suggests that “mere knowledge of prevalence of [infringing] activity in general is not enough” due to the concern that liability based on mere knowledge would contravene the goals of the DMCA, the nature of the statutory language leaves room for judicial interpretation.

---

65 Id. (referencing 17 U.S.C. § 512(l)).
66 Id. at 44-46 (citing 17 U.S.C. § 512(c) (“A service provider shall not be liable for monetary relief, or . . . for injunctive or other equitable relief, for infringement of copyright by reason of the storage at the direction of a user of material that resides on a system or network controlled or operated by or for the service provider, if the service provider - (A)(i) does not have actual knowledge that the material or an activity using the material on the system or network is infringing; (ii) in the absence of such actual knowledge, is not aware of facts or circumstances from which infringing activity is apparent; or (iii) upon obtaining such knowledge or awareness, acts expeditiously to remove, or disable access to, the material . . . .”)).
67 Id. at 46.
70 S. REP. NO. 105-190, at 45.
ii. Legal History

After Congress passed the DMCA, several court decisions supported a preference for copyright owners to submit specific notice of individual instances of infringement to service providers rather than a representative list of infringing activities that would require service providers to locate each case of infringement covered by such. In 2004, the United States District Court for the Western District of Washington decided *Corbis Corp. v. Amazon.com, Inc.*.  

Corbis Corp., a company that represents, distributes, and licenses art images, including photographs of celebrities, filed suit against Amazon.com, Inc., the Internet commerce giant, for allegedly infringing its copyright interests in photographs placed on a third party’s website and sold by other named defendants through Amazon.com’s website. The court determined that the issue at hand was not whether Amazon.com possessed a general awareness that certain items for sale on its site could be infringing; rather the issue was whether Amazon.com actually knew that specific vendors were selling infringing items. The distinction was significant, insofar as it recognized that while a sponsoring website might have a general knowledge of the fact that its users may engage in infringing activities through the website’s platform, such a website is only liable for its users’ specific acts of infringement of which the website has actual knowledge. According to the court, actual knowledge required a “showing that [the sites selling infringing items] contained the type of infringing activity that would have sent up a red flag for Amazon.” Absent the evidence of red flags, i.e. notice of specific and individual instances of infringement, Amazon.com could not be considered aware of the infringing activity.

The Corbis Corp. litigation provided one of the first clear instances of a court rejecting the idea that the law requires a service provider to “police” its content for infringing materials and activities. Subsequent cases also failed to place the burden on service providers to investigate their hosted content for

---

73 Id. at 1093-96.
74 Id. at 1109 (“There is simply nothing to suggest that the vendor listings contained evidence of blatant copyright infringement. As a result, even if the notices of infringement would have caused Amazon to examine the content of the zShops sites, Corbis has failed to close the link by showing that those sites contained the type of blatant infringing activity that would have sent up a red flag for Amazon.”).
75 Id.
76 Id.
77 Id. at 1104.
infringement. In *Perfect 10, Inc. v. CCBill LLC*, Perfect 10, owner and publisher of an adult entertainment website and magazine, alleged that CCBill LLC, a company that “allows consumers to use credit cards or checks to pay for subscriptions to e-commerce venues,” violated copyright laws, because it hosted websites that posted stolen images, the copyright of which existed with Perfect 10. At issue in *Perfect 10* was what constituted reasonable implementation of a service provider’s policy for terminating repeat infringers’ memberships and user agreements. In the *Perfect 10* litigation, the Court of Appeals for the Ninth Circuit determined that “a service provider need not affirmatively police its users for evidence of repeat infringement.”

Moreover, in the court’s discussion of whether Perfect 10’s notice of infringing activities to CCBill LLC was adequate, the court pointed out that Perfect 10’s notices failed to sufficiently meet the DMCA criteria. According to the court, “Perfect 10’s communications do not substantially comply with the requirements of § 512(c)(3). Each communication contains more than mere technical errors; often one or more of the required elements are entirely absent.” The court further reasoned that holding the notices to be sufficient would burden CCBill LLC unduly when responding to claims of copyright infringement. The court emphasized that the “burden of policing copyright infringement—identifying the potentially infringing material and adequately documenting infringement—[is] squarely on the owners of the copyright.”

The United States District Court for the Central District of California followed the Ninth Circuit’s reasoning in *UMG Recordings, Inc. v. Veoh Networks Inc.* Veoh was a service provider that enabled users to upload and

---

78 *Perfect 10, Inc. v. CCBill LLC*, 488 F.3d 1102, 1108 (9th Cir. 2007).
79 *Id.* at 1111.
80 *Id.*
81 *Id.* at 1112.
82 *Id.*
83 *Id.*
84 *Id.* at 1113 (“Permitting a copyright holder to cobble together adequate notice from separately defective notices also unduly burdens service providers. Indeed, the text of § 512(c)(3) requires that the notice be “a written communication.” (Emphasis added). Again, this requirement is not a mere technicality. It would have taken Fisher substantial time to piece together the relevant information for each instance of claimed infringement. . . . The DMCA notification procedures place the burden of policing copyright infringement—identifying the potentially infringing material and adequately documenting infringement—squarely on the owners of the copyright.”).
85 *UMG Recordings, Inc. v. Veoh Networks Inc.*, 665 F. Supp. 2d 1099, 1108 (C.D. Cal.)
share videos. UMG Recordings, Inc., a music group owning “the rights to millions of copyright sound recordings and musical compositions,” filed notices alleging infringing activities and materials through its agent, the Recording Industry Association of America, a trade organization that operates to protect the intellectual property of its member music labels. While the notices provided identifying information to facilitate the location and removal of the infringing materials, they neither identified UMG Recordings, Inc. as the owner of the copyrights nor asserted rights to all works by the artists listed in the notices. The court declared that “CCBill teaches that if an investigation of ‘facts and circumstances’ is required to identify material as infringing, then those facts and circumstances are not ‘red flags.’”

At first blush, the legislative history and precedent seem to be on the side of Google and YouTube. However, the cases can all be distinguished. In Corbis Corp., Corbis Corp. failed to provide Amazon.com with notice of the infringing activities until Corbis Corp filed suit. Perfect 10 failed to meet the notice requirements of the DMCA. Finally, UMG Recordings, Inc. failed to assert rights to all violations of its copyright holdings through the compilation of a representative list. Thus, the Viacom litigation stands to be the first instance that truly tests the conflict language of the DMCA at § 512(c) by asking whether providing a “representative list” of infringing content satisfies the requirement that “[i]dentification of the material . . . [must be] reasonably sufficient to permit the service provider to locate the material.”

Furthermore, in its holding, the Second Circuit explicated the “red flag” test’s relevance to the DMCA. The court clarified that “actual knowledge” denotes subjective belief, while knowledge of facts or circumstances—the so-called “red flag knowledge provision” of § 512(c)—“turns on whether the [service] provider actually was subjectively aware of facts that would have made the specific infringement ‘objectively’ obvious to a reasonable person . . .

2009).

80 Id. at 1101.
87 Id. at 1099-1104; see also Who We Are, RIAA, http://www.riaa.org/aboutus.php (last visited Aug. 12, 2012).
89 Id. at 1108.
91 Perfect10, Inc. v. CCBill LLC, 488 F.3d 1102, 1113 (9th Cir. 2007).
. . [and applies] only to specific instances of infringement.”94 Thus, the Second Circuit affirmed that “red flag knowledge” requires “specific knowledge of particular infringing activity” (as opposed to investigation of facts and circumstances), because the law does “not place the burden of determining whether [materials] are actually illegal on a service provider.”95 Thus, the “red flag” test only disqualifies a service provider from the DMCA safe harbor where the service provider has “awareness of facts or circumstances that indicate specific and identifiable instances.”96 The “red flag” test analysis triggered review of YouTube’s business practices and internal communications as a means of evaluating YouTube’s “awareness of specific instances of infringement.”97 However, the “red flag” test is not determinative regarding a service provider’s potential willful blindness and duty to investigate representative lists of infringing activities.98

IV. MARKET ANALYSIS: ECONOMIC GAINS AND LOSSES IN THE DIGITAL REALM

At issue in the Viacom-Google/YouTube litigation is more than simply an interpretation of the DMCA. Defining the scope of the economics of infringement in the digital age is necessary to come to a balanced law. Two opposing sides face off in this query: “[s]ome entertainment conglomerates perceive the sites’ blatant and severe copyright infringement as a beneficial promotional tool, embracing and/or partnering with the sites, while others argue that [service providers] are reaping benefits they do not deserve to reap” to the detriment of copyright owners.99

A. Infringement and Economic Losses

Infringement traditionally is understood to be an economic loss.100 Copying

94 Viacom Int’l, 676 F.3d at 31.
95 Id. (citing UMG Recordings, Inc. v. Shelter Capital Partners LLC, 667 F.3d 1022, 1037-38 (9th Cir. 2011)).
96 Id. at 31.
97 Id. at 32-34.
98 See id. at 34.
COPYRIGHT IN CYBERSPACE

2012

a work costs far less than creating and developing it. Copyists can undercut copyright owners in pricing, and copyright owners are unable to recoup their resource investment. The result is a diminished incentive for the creation of original works. Doug Morris, formerly chairman and CEO of Universal Music Group, Inc. and now chairman and CEO of Sony Music Entertainment, considers media-sharing sites such as YouTube to be a substantial detractor from corporate bottom lines. Morris argues that such sites are purely copyright infringers that owe copyright owners millions in royalties and damages. The infringement occurs in two different respects: (1) when copyrighted works themselves are shared; and (2) when users of media sites use copyrighted works, such as songs, in the process of creating their own content.

The recording industry is a primary example of the losses associated with Internet-based infringement. According to Big Champagne, a media measurement service that utilizes software to analyze information “about the sale, broadcast, and consumption of popular entertainment media,” approximately “[thirteen] billion songs were available for unauthorized free trading on online swap networks in 2004.”

101 See id.
102 See id.; see also Pamela Samuelson et al., A Manifesto Concerning the Legal Protection of Computer Programs, 94 COLUM. L. REV. 2308, 2382 (1994) (“[T]he real problem with exact copying of [works] is not that the prose constituting the copyrighted text has been plagiarized, but that the copyist has acquired . . . equivalence at no cost and with no independent development effort. From an economic standpoint, the copying . . . presents the most serious danger of market failure, because it undermines opportunities for the [copyright owner] to recoup its considerable . . . costs. The second comer, having essentially no development costs, can undercut the first developer’s price.”).
103 Jay Dratler, Jr., Trademark Protection for Industrial Designs, 1988 U. ILL. L. REV. 887, 908 n.113 (1988) (“A rational producer, anticipating [a copyist’s ability to undercut him or her in the marketplace], would forego innovation without legal or practical protection against copying by competitors.”).
106 Id.
107 See id.
approximately two hundred million songs via digital retailers, such as Apple iTunes, in the same year.\textsuperscript{109} Thus, despite the fact that the “number of units of music produced rose two percent in 2004, the entertainment industry’s overall sales decreased.”\textsuperscript{110} Such problems are magnified for “smaller companies and creators, who make their living off of licensing and royalty payments . . . .”\textsuperscript{111} While media conglomerates may be able to absorb the losses associated with Internet-based infringing activities, small-scale copyright holders do not have such luxury.\textsuperscript{112}

\textbf{B. Infringement and Economic Gains}

The view that infringing activities necessarily equate to wholesale loss is the standard conception of copyright infringement.\textsuperscript{113} Informed by an outdated understanding of consumption, people are conditioned to view infringement as unmitigated loss.\textsuperscript{114} The notion that “any given uncompensated copy is a lost sale at full price” is fundamentally flawed in two ways: (1) many copyists would be either unwilling or unable to pay for a copied work; and (2) digital networks enable copyright owners to indirectly appropriate the value of their work.\textsuperscript{115} The traditional view of infringement fails to appreciate the complexity of information economics, which suggests that “any particular use of a copyrighted work is likely to have not only negative, substitution effects on the market for the work, but also positive, complementary effects.”\textsuperscript{116} For example, while music sales dropped in 2004 despite increased production,
ticket revenues for concerts spiked from $1.5 billion in 1999 to $4.6 billion in 2009.\textsuperscript{117} Among certain copyright owners, increased concert sales support the view that fans who pay to see an artist in concert oftentimes discover that particular artist through illegal downloading.\textsuperscript{118}

In fact, numerous media conglomerates and content owners have recognized these complementary effects. For example, the National Hockey League (“NHL”) has publicly recognized the value of YouTube in facilitating connections with fans.\textsuperscript{119}

The NHL will upload game highlights directly onto YouTube’s website as part of a broader agreement that is designed to help the league . . . profit from . . . hockey-related video that appears online. The agreement . . . also promises the NHL a share of revenue generated by online advertising that appears on web pages with hockey-related video.\textsuperscript{120}

Meanwhile, NBC Universal, a leading entertainment company, entered into a content-sharing agreement following a YouTube user’s uploading of a Saturday Night Live skit entitled “Chronicles of Narnia.”\textsuperscript{121} The video was viewed approximately five million times.\textsuperscript{122} While NBC Universal sent a takedown request, it did so only after the video had reached its “peak download period,” suggesting that NBC recognized the promotional value in “allowing the clip to be seen by millions of viewers.”\textsuperscript{123} The YouTube-NBC Universal agreement, effective in June 2006, was a manifestation of the realization that, “by allowing viewers to watch a skit from a program that had seemingly lost its spark, new interest in the program could be generated and, consequently, a new spark ignited.”\textsuperscript{124}

Even Viacom has recognized the benefits brought by the de facto free

\textsuperscript{117} Steve Knopper, Summer Tour Meltdown, ROLLING STONE, June 24, 2010, at 15, 16.
\textsuperscript{119} Greg Johnson & Lance Pugmire, NHL, YouTube Reach Video Agreement, L.A. TIMES, Nov. 15, 2006, at D3.
\textsuperscript{120} Id.
\textsuperscript{121} Frey, supra note 99, at 186.
\textsuperscript{122} Id.
\textsuperscript{123} Id.
\textsuperscript{124} Id.
advertising. Following the holding by the U.S. District Court for the Southern District of New York, the unsealing of materials submitted by Viacom in the lawsuit against Google and YouTube revealed that while Viacom’s legal team had been pursuing action against YouTube and Google for copyright infringement, the media mogul’s marketing team was secretly uploading copyrighted media clips to the YouTube website.\textsuperscript{125} The unsealing of the materials prompted admission from Viacom’s chief counsel, Zahavah Levine, that, while litigating in court:

Viacom was also using at least 18 marketing agencies to secretly upload its videos to YouTube. It even had the agencies “rough up” the clips before uploading, wrote Levine, so that they’d appear to be illegitimate, smuggled copies, imbued with forbidden sexiness. He claimed that in a moment of Pythonesque petard-hoisting,\textsuperscript{126} Viacom even sent copyright complaints to YouTube over some of these videos, which it subsequently followed up with sheepish retractions when it became clear that the infringer in question was another arm of Viacom.\textsuperscript{127}

Economic gains from infringing activities fall to more than major media giants. Artists have credited file and media sharing sites as an important means “for artists to distribute their material outside of the [record] label system.”\textsuperscript{128} Smaller-scale copyright holders of cult classics, such as Lucas Films, Inc., owner of the Star Wars franchise, have realized that YouTube


\textsuperscript{127} Doctorow, \textit{supra} note 125.

\textsuperscript{128} Miller, \textit{supra} note 110, at 186.
plays a substantial role in providing an outlet for fans to distribute their tributes to the film series. Like NBC Universal’s experience with *Saturday Night Live*, Lucas Films, Inc. values YouTube for its ability to maintain high interest in the pre-existing fan base as well as reach untapped fan bases.\textsuperscript{129} The entertainment company has recognized the economic prudence of a de facto waiving of its copyright rights in favor of fostering a robust community of fans, fueled by fan-created, albeit oftentimes infringing, content.\textsuperscript{130}

As media-sharing sites like YouTube succeed in building communities of interest in various content-types, “such communities may whet consumer appetites for paid uses of copyrighted content.”\textsuperscript{131} In other words, as consumers are exposed to and become interested in content through the Internet, they may decide to purchase items related to that content such as DVDs, concert tickets, or services that provide access to a greater range of higher quality material, such as Hulu, “an online video service that offers a selection of hit shows, clips, movies” from over two hundred content companies, including ABC, Fox, and NBC Universal.\textsuperscript{132} Additionally, prevalent initial use of a technology is not determinative of that technology’s use in the future.\textsuperscript{133} Thus, media sharing may prove to lead to increased innovation and expansion of media industries.\textsuperscript{134} For example, “Napster and similar file sharing services have also done the recording industry an invaluable service—they have acclimated millions of individuals to the idea of searching for and enjoying music on the web, and have catalyzed a new responsiveness to consumer demands that may ultimately prove very profitable to the industry.”\textsuperscript{135} Thus, the consumers’ ability to access infringing content and/or engage in infringing activities may ultimately provide alternate vehicles for copyright owners to monetize their holdings.


\textsuperscript{130} *Id.*

\textsuperscript{131} Pasquale, *supra* note 4, at 130.


\textsuperscript{133} Pasquale, *supra* note 4, at 130.

\textsuperscript{134} *Id.* at 131; *see also infra* Part VI.

\textsuperscript{135} Pasquale, *supra* note 4, at 131.
V. FAIR USE ANALYSIS: WHAT SHOULD “IMPACT ON THE MARKET” MEAN IN THE DIGITAL AGE?

Infringing uses are either substitutional or complementary. To the extent that media sharing sites reduce overall consumption of information goods, they may be deemed substitutional. Alternatively, to the extent that sites such as YouTube increase consumer appetite for or devotion to certain content, the use is complementary. As discussed below, these divergent use-types invite analysis of the DMCA through a fair use lens. Since the fourth factor of copyright law’s fair use doctrine “calls for judicial inquiry into the potential [market] effects of uses enabled by new technology,” this factor stands as a possible effective framework from which to evaluate the Pareto optimality of new technologies. The fair use doctrine is an affirmative defense available to copyright infringement defendants, whereby, “the fair use of a copyrighted work, including such use by reproduction in copies or phonorecords or by any other means specified by that section, for purposes such as criticism, comment, news reporting, teaching . . . scholarship, or research, is not an infringement of copyright.” Adopting a fair use approach to interpretation of the DMCA permits a needed emphasis on the underlying economic balancing goals of copyright law, generally, in tandem with an eye to complementary uses.

A. Sony: Cabining the Fair Use Doctrine

The Supreme Court’s holding in Sony Corporation of America v. Universal City Studios marked a defining moment in copyright law’s consideration of modern technology. Sony demanded consideration of whether contributory liability would attach to the producer of Betamax VCRs. The Sony plaintiffs

---

136 Ty, Inc. v. Publications Int’l Ltd., 292 F.3d 512, 518 (7th Cir. 2002).
137 Pasquale, supra note 4, at 95.
138 Id.
139 Pareto optimality is a concept within the field of economics and defines allocations of goods within a set of individuals. An allocation is considered “Pareto optimal” when no change can be made that would make “at least one individual better off without making any other individual worse off.” Pareto efficiency, WIKIPEDIA.COM, http://en.wikipedia.org/wiki/Pareto_efficiency (last visited Feb. 10, 2012).
140 Pasquale, supra note 4, at 135.
142 See Pasquale, supra note 4, at 135.
were owners of certain television shows and contended that “Sony became liable for copyright infringement by selling VCRs to members of the public who used the VCRs to copy the plaintiffs’ work for later viewing.”\footnote{Id.} The Court held that the non-commercial recording of television shows for the purposes of time shifting, i.e. the ability to watch the program at a time later than the original broadcast, was a “fair use” of the shows.\footnote{Id. at 94-95; see also Sony Corp. of Am. v. Universal City Studios, Inc., 464 U.S. 417, 442 (1984) (“[T]he contributory infringement doctrine is grounded on the recognition that adequate protection of a monopoly may require the courts to look beyond actual duplication of a device or publication to the products or activities that make such duplication possible. The staple article of commerce doctrine must strike a balance between a copyright holder’s legitimate demand for effective-not merely symbolic-protection of the statutory monopoly, and the rights of others freely to engage in substantially unrelated areas of commerce. Accordingly, the sale of copying equipment, like the sale of other articles of commerce, does not constitute contributory infringement if the product is widely used for legitimate, unobjectionable purposes. Indeed, it need merely be capable of substantial noninfringing uses.”).} The Court’s holding turned on an analysis of the full spectrum of economic impacts that a technology may have on the market, signaling that holistic market evaluations were a necessary and valid aid to ruling on infringement cases.\footnote{Pasquale, supra note 4, at 105.} However, while the Sony economic analysis defined the analytical approach to liability in infringement cases, the distinctions in the case—most importantly the relatively small scale of copying at issue—necessarily mean that the current quandary cannot be solved by the Sony holding.

Sony clarified another problem inhibiting direct application of the fair use doctrine to contemporary infringement litigation:

\begin{quote}
[T]here is bound to be some judicial resistance to a fourth factor [of the fair use doctrine] analysis that takes into account all of the effects of unauthorized use on the value of copyrighted work . . . . However, that resistance is based not on the copyright law itself, but rather on a misinterpretation of the relevant fair use provisions (namely, 17 U.S.C. § 107(4)’s requirement that the court consider the effect of unauthorized use on ‘the potential market for or the value of the copyrighted work’).\footnote{Pasquale, supra note 4, at 105.}
\end{quote}
This mode of resistance through statutory interpretation can be seen throughout the body of case law. The misinterpretation of the relevant fair use provision is most clearly expressed, however, in Justice Blackmun’s dissent in Sony, which criticized the majority holding for finding a personal use “fair.”

The requirement [is] that a putatively infringing use of a copyright work, to be ‘fair,’ must not impair a ‘potential’ market for the work . . . . [To prevail, an infringer must demonstrate that he had not impaired the copyright holder’s ability to demand compensation from (or deny access to) any group who would otherwise be willing to pay to see or hear the copyrighted work.

Justice Blackmun’s dissent illustrates the trend in infringement litigation that equates the statutory requirement to balance the effect of the use on “the potential market for or the value of the copyrighted work” with a restriction of an examination of the effect of the infringement on one potential use, specifically a use that would require a license agreement in the absence of a fair use determination. This approach is fundamentally flawed, because the statutory language defines no such artificial restriction. Instead, the fair use doctrine defines “market” broadly, as seen through its equation with “value of” the copyrighted work. Defining “market” as limited to a “small subdivision of potential licensees” is effective only to cabin the meaning of the term. However, such a narrow interpretation is illogical in the context of fair use analysis, because “[t]he argument that ‘lost’ permission fees are proof of fourth factor harm has as its premise the legal conclusion at issue: that the use at issue is not a fair use and, therefore, the owner is allowed to charge permission fees .

---

148 See, e.g., Video Pipeline, Inc. v. Buena Vista Home Entm’t, Inc., 342 F.3d 191, 201-03 (3d Cir. 2003) (holding that unauthorized use of video trailers blocked plaintiffs’ right to charge for content, but not considering the inverse effects on viewership on movies that would counterbalance the loss); see also Campbell v. Acuff-Rose, 510 U.S. 569, 593-94 (1994) (remanding the case for further consideration of the reduction of value to the copyright owner via displacement).

149 Pasquale, supra note 4, at 105-06.

150 Sony, 464 U.S. at 484-85 (Blackmun, J., dissenting).

151 Pasquale, supra note 4, at 106.

152 Id.

153 Id.
Lost licensing revenue is possible, if not a foregone conclusion, in any infringement case; such narrow interpretation of “market” necessarily eviscerates any determinative power held by the fourth prong of the fair use defense.

B. **Updating Economic Analysis: Freeing the Constraints on the Fair Use Doctrine**

The problematic interpretation of “market” that has found a substantial following within the judiciary is compounded by the failure of classical economic analysis of intellectual property to fully account for transactions in the digital economy. Instead, courts should evaluate the benefits of mass use—whether authorized or not—with an eye to economic benefits for the used goods. Adopting a categorical evaluative framework of network effects and complementarity is key to accomplishing this endeavor.

Network effects “occur whenever the prevalence of a certain good leads to an increase in the demand for the good.” That is, a good’s value to the individual consumer increases as a greater number of other consumers possess the good. The result is the creation of positive feedback mechanisms related to consumer consumption of both “content and the media that carry it.”

Network externalities arise when the utility that a user derives from a product increases with the number of other individuals who also use the product. These externalities have several sources. Direct[, positive] network externalities exist when the number of users affects the quality of the product itself.

---

154 *Id.* (citing Lydia Pallas Lorren, *Redefining the Market Failure Approach to Fair Use in an Era of Copyright Permission Systems*, 5 J. INTELL. PROP. L. 1, 4 (1997)).


157 *See Pasquale, supra note 4*, at 110.

158 *Id.* at 111.

159 *Id.*

In the case of media-sharing sites, this phenomenon may simultaneously encourage more users to access content through digital platforms and create openings in the market for expansion of distribution.

In close relationship with network effects is complementarity, the notion that spinoff goods will enter the marketplace to facilitate the use of other goods.\(^{161}\) In other words, the existence of one good “enhances demand for another good.”\(^{162}\) Complementarity exists “when the number of users [of a good] affects the availability of complementary products and services, which in turn affects the value of the core product.”\(^{163}\) For example, as a greater number of individuals purchase DVD players, film distributors will release a greater number of films in DVD format to increase profits. As the number of films released in DVD format increases, the value of any given DVD player increases concurrently.\(^{164}\) “Complementarity means that consumers in these markets are shopping for systems . . . rather than individual products.”\(^{165}\) Increased prevalence of a given component in the system within the market necessarily increases demand for the other components of the system.\(^{166}\) Considered together, network effects and complementarity suggest that greater numbers of users will access media-sharing sites and create increased demand for other goods.

Shifting focus to “the long-term impact of dynamics like network effects and complementarity” would both permit courts to conduct a more comprehensive investigation into “effect on the market” and remedy the failings of a narrow interpretation of fourth factor fair use analysis.\(^{167}\) Courts may find that any positive gains to copyright owners do not outweigh the substitution effects of internet-based technologies. “However, incorporating systematic inquiry into the positive effects of new technologies on content owners would enable courts to more fairly assess their effect on the market for copyrighted works.”\(^{168}\) One prominent example of this is software piracy. The retail cost of software is only a small percentage of the total cost associated

\(^{161}\) Pasquale, *supra* note 4, at 110.
\(^{162}\) *Id.*
\(^{163}\) Wagner, *supra* note 160.
\(^{164}\) *Id.*
\(^{166}\) *Id.*
\(^{167}\) Pasquale, *supra* note 4, at 112.
\(^{168}\) *Id.* at 133.
with the product; “the costs of learning and personalizing a software program, with complex productivity programs sometimes requiring several hundred hours for their mastery” loom largest.\textsuperscript{169} Such post-purchase costs yield complementary products such as guidebooks and “how-to” computer magazines and articles.\textsuperscript{170} Positive network externalities thus arise, “because the larger a program’s user base[,] the greater are the opportunities for economizing on postpurchase [sic] costs.”\textsuperscript{171} Here, production of complementary products does not depend on whether the program users bought or pirated the software; “[w]hat counts for the production of these compliments is the size of the total installed base—buyers plus pirates.”\textsuperscript{172} While piracy directly causes decreased sales of the software itself, since “the value of a software program is directly enhanced by the opportunities to reduce learning and customization costs . . . then piracy, because it increases the size of the total installed base, may raise the value of the program to all users.”\textsuperscript{173} Thus, the net effect of software piracy “depends on balancing piracy’s value enhancing effects against the sales that are lost.”\textsuperscript{174}

C. \textit{In re Aimster: A Holistic Approach to the Weighing of Economic Concerns}

In 2003, Aimster came under the scrutiny of the Seventh Circuit Court of Appeals.\textsuperscript{175} The \textit{In re Aimster} case involved copyright owners of popular music filing suit against Aimster, a peer-to-peer Internet service.\textsuperscript{176} “The Aimster service, which could be downloaded for free and utilized America Online’s instant-messaging service (AIM), enabled users to communicate and


\textsuperscript{170} \textit{Id.}
\textsuperscript{171} \textit{Id.}
\textsuperscript{172} \textit{Id.} at 126.
\textsuperscript{173} \textit{Id.} at 127.
\textsuperscript{174} \textit{Id.}
\textsuperscript{175} Miller, \textit{supra} note 110, at 203.
\textsuperscript{176} \textit{In re Aimster} Copyright Litig., 334 F.3d 643, 645 (2003).
share files.” 177

Writing for the Seventh Circuit, Judge Posner advanced a novel approach to the question of liability for infringement. 178 As opposed to the Sony approach “of determining whether non-infringing uses of the technology were possible,” Judge Posner asserted that a consideration of the “magnitudes of [infringing as well as non-infringing] uses is necessary for a finding of contributory infringement.” 179

In essence, the court wanted to examine the array of potential uses to determine just how infringing the product was . . . . By establishing the threshold as actual use, [where ‘actual use’ is a comprehensive view of infringing and non-infringing uses,] the record would likely show that Aimster is predominantly used to infringe copyrighted content at trial. 180

Thus, In re Aimster takes a first step towards applying a more complete evaluative framework, because the judicial determination was informed by both losses and gains associated with infringement.

Despite compelling evidence for the value of incorporating economic analyses that account for the complexities of network effects and the complementarity, courts are likely to resist adopting analytical approaches that consider the full impact of these phenomena. 181 While cases like Sony demonstrate an ability on the part of the judiciary to engage in careful economic analysis, most judges are not experts on intellectual property valuation. 182 In the absence of sophisticated understanding, judges may substitute readily accessible indicators of value such as market price. 183 However, such indicators suffer from the same problem as the outmoded “effect on the market analysis:” market price likely does not capture the full range of value—a good’s resonance in the market place, its redounding social value, both presently and into the future. 184 Consequently, courts may not be able to adequately or efficiently engage in the necessary abstract accounting of

177 Miller, supra note 110, at 203 (citing Id.).
178 Id.
179 In re Aimster Copyright Litig., 334 F.3d at 649.
180 Miller, supra note 110, at 203.
181 Pasquale, supra note 4, at 119.
182 Id.
183 See id.
184 Id. at 125-26.
the intellectual property in question.

VI. IF NOT FAIR USE, THEN WHAT? DEVISING A VIABLE FRAMEWORK FOR BURDEN ALLOCATION UNDER THE DMCA

Despite the likely reluctance or inability to infuse a more abstract economic analysis into judicial holdings, the fourth prong analysis debate is useful for providing insight as to how to interpret the knowledge and notice requirements laid out under the DMCA. In the presence of informational asymmetries, a judge’s best guess as to defining which party is superiorly situated to be able to evaluate costs, benefits, and likely outcomes of a range of possible actions inform numerous judicial holdings.\footnote{See Craig Crawford, Comment, Delgado v. Trax Bar & Grill: Determining the Scope of the Prior Similar Incidents Test in Terms of Efficient Resource Allocation, 39 U.S.F. L. Rev. 499, 518 (2005) (“Efficient resource allocation requires liability rules that assign legal obligations to the party who is in the best position to access and analyze information relevant to an intelligent decision.”).} Able to act more efficiently ex ante, courts may assign legal burdens to these better-situated parties.\footnote{Aranda v. Cardenas, 159 P.3d 76, 83 (Ariz. Ct. App. 2007).}

Applying this logic to the DMCA problem of notice, content owners emerge as the party best situated to assume the burden of providing service providers with specific notice of infringing content. Copyright owners operate within the entertainment market to understand and monetize market trends.\footnote{See Tanya M. Woods, Working Toward Spontaneous Copyright Licensing: A Simple Solution for a Complex Problem, 11 Vand. J. Ent. & Tech. L. 1141, 1165 (2009).} Consequently, owners have the most intimate knowledge of both their content and the financial gains and losses associated with such content.\footnote{See supra Part IV.b. (demonstrating industry copyright holders’ recognition of the business benefits associated with the capitalizing on media-sharing technology and user bases).} This is true both from the vantage point of a more concrete, traditional economic analysis as well as from a more abstract perspective that aims to understand the more intangible elements of market value. The result is that copyright holders are best able to engage in a cost-benefit analysis, whereby they can quantify potential losses due to infringement relative to the cost of monitoring service providers for infringing content. Such an approach reduces inefficient and incomplete judicial evaluations as well as the problem of economic analysis of an activity that content owners effectively engage in every day—the building and maintenance of their business.

This kind of ex ante approach is hinted at in the majority’s holding in Sony:
“To the extent any decrease in advertising revenues would occur, the [district] court concluded that the Studios had ‘marketing alternatives at hand to recoup some of that predicted loss,’”\textsuperscript{189} since “[plaintiffs] stand ready to make their product available in cassettes and compete with the [videotape recorder] industry.”\textsuperscript{190} The \textit{Sony} court seemed to hold that the onus to adjust to new technology was placed squarely upon content owners.\textsuperscript{191}

More than simply providing an efficient means of achieving Pareto-optimality, assigning a specific knowledge requirement to be enforced by copyright holders has additional positive effects in the market. Placed in the position to fully account for the monetization of their holdings, copyright owners will have an incentive to privately contract with service providers, resulting in an expansion of economic benefits.\textsuperscript{192} More than simply increasing the aggregate number of beneficial private negotiations, incentivizing parties to deal directly with one another decreases the administrative costs and social harms associated with perpetual litigation.\textsuperscript{193}

In addition to incentivizing private negotiations between parties, a legal

\textsuperscript{189} \textit{Sony}, 464 U.S. at 484 (quoting Universal City Studios v. Sony Corp. of Am., 480 F. Supp. 429, 452 (C.D. Cal. 1979)).

\textsuperscript{190} Universal City Studios, 480 F. Supp. at 452.

\textsuperscript{191} Pasquale, \textit{supra} note 4, at 96.

\textsuperscript{192} \textit{See, e.g., supra} Part IV.b (noting examples of content-sharing contracts that arose from economic evaluations of initially infringing activities); \textit{see also} Johnson, \textit{supra} note 105 (“YouTube announced a deal with the giant Warner Music Group that may pave the way for a more peaceful coexistence with copyright. . . . Warner music videos will go up on YouTube for its users to enjoy. Users will also be granted license to use songs from artists in the stable, which includes the Atlantic, Warner Bros., Rhino and Sire labels. In return, YouTube is implementing a system that will search its site for copyrighted material and pay royalties to the copyright holder, provided that holder has authorized YouTubers to use its content.”).

\textsuperscript{193} \textit{See William W. Bratton \\& Joseph A. McCallery, Incomplete Contracts Theories of the Firm and Comparative Corporate Governance, 2 THEORETICAL INQUIRIES L. 745, 757 n.31 (2001) (“Transaction costs theory. . . turns on the notion that the institution of \textit{ex ante} contracting, broadly conceived, self-sufficiently supports efficient transactional relationships . . . . First, actors who put capital at risk can be expected to design \textit{ex ante} governance structures that minimize the costs of future uncertainty. Second, even though legal decision-makers must assist the parties by filling in omitted terms \textit{ex post}, those terms may be cast from an \textit{ex ante} time perspective and, indeed, should be so cast in order to guard against disruption of the parties’ allocation of financial risk and to minimize future transaction costs.” (citing \textit{William W. BRATTON ET AL., Repeated Games, Social Norms, and Incomplete Corporate Contracts, in FAIRNESS AND CONTRACT 163, 166-71 (Christopher Willets ed., 1996)).
standard under which copyright holders are responsible for monitoring Internet activity and identifying specific acts of infringement may create new business opportunities within the entertainment market. For example, Snocap was a “digital rights and content management startup.”\footnote{Snocap, CRUNCHBASE.COM, http://www.crunchbase.com/company/snocap (last visited May 15, 2012).} Founded by ex-Napster employees, Snocap “allows copyright holders to recover compensation for selling their work on [peer-to-peer] networks and through other digital retailers.”\footnote{Miller, supra note 110, at 226.} Snocap responds directly to copyright owners’ concerns regarding digital markets by providing “owners with the ability to ‘pre-determine business rules, and set pricing and filtering terms on an ongoing basis,’ allowing these owners to maintain complete control of their works.”\footnote{Id. (citing Frequently Asked Questions, SNOCAP.COM, http://www.snocap.com/about/faq).} The business model is one that could only come into being and succeed in an environment in which copyright holders have a need to proactively assert their economic rights.

VII. CONCLUSION

Law is a reactionary art, and this is particularly true where the law’s responses to technology are concerned. While legislators and judges make best efforts at crafting a dynamic body of statutory and case law responsive to the needs of our ever-changing, technology-driven world, oftentimes technology-facilitated activities—particularly infringing activities in the realm of media consumption—simply outstrip the legal protections in place.\footnote{See Daniel Gervais, The Regulation of Inchoate Technologies, 47 HOUS. L. REV. 665, 683-84 (2010).} That a certain amount of infringement will always exist in the marketplace is more or less inevitable, but a black and white dichotomy of “infringement is bad” does not capture the interaction between copyright owners and infringing uses. The judiciary should take a more flexible approach to the law, developing an analytical framework that does not place paramount importance on the legal and social mores defined by the pre-21st century era. Instead, emphasis should be on the underlying philosophies of copyright—namely, providing copyright owners with economic rights against certain parties to incentivize further production—with the understanding that infringing activities may sometimes be an economic boon to copyright owners. The fact that the judiciary may not have the best information to make the kinds of
sophisticated economic analyses required should not be a barrier to achieving the necessary analytical framework.

The current controversy over interpretations of the DMCA, encapsulated by the Viacom-Google/YouTube litigation, is an ideal opportunity to achieve the best legal and economic outcome by defining copyright holders’ responsibilities in relation to service providers. The DMCA was enacted by Congress to respond to contemporary intermixing of market, copyright law, and technological concerns. Judicial interpretation of the DMCA should be similarly minded. An interpretation of the DMCA that both requires constructive knowledge and is favorable to service providers places parties with superior information—the copyright owners—in a position to act while simultaneously recognizing the complexities of the economics involved in a given copyright infringement claim, particularly the interaction of network effects and complementarity.

In the case of Viacom, infringing activities that occur via Internet-based platforms such as YouTube likely increases demand for Viacom products, evidenced by Viacom’s marketing team’s capitalization if the service provider’s service. Additionally, web-based infringement has conditioned consumers to access media files via the Internet. The result is that Viacom may capitalize on both expanded distribution avenues and reinvigorated interest in its products that may result in increased sales in merchandising, DVD, and other markets in which Viacom already operates. In addition, Viacom is positioned to develop complementary products in response. For example, Viacom has the ability, given the openings in market development facilitated through infringement, to follow the lead of companies such as Virgin Digital, a division of Virgin Group and “a leading branded venture capital organization . . . [that has grown] successful businesses in sectors ranging from mobile telephony to transportation, travel, financial services, media, music and fitness.” In 2004, Virgin Digital launched “a competitive ‘all you can eat’ streaming service . . . . Virgin subscribers will pay $7.99 per month to access a catalog of over one million songs; [the] service will be coupled with Virgin Electronics’s new music player, which has more capacity

198 See PEÑALVER & KATYAL, supra note 3, at 110.
199 Doctorow, supra note 125.
and less weight than a similarly priced iPod.\footnote{202}

Regardless of the ways in which Viacom monetizes Internet-sourced infringing activities, it will heed consumer expectations so as to increase the value of its products.\footnote{203} Consumers likely will be receptive to paying for products and services that they perceive as possessing increased value.\footnote{204} Since Viacom is best situated to quantify its infringement-based losses and able to develop and “price particular [products] . . . to increase the monetary recovery of [its] property,” it is able to price offerings to recoup losses.\footnote{205} A reading of the DMCA that holds Viacom and other similarly situated media companies responsible for the task of identifying specific instances of infringement is a reasonable burden in light of such. Additionally, assigning the burden of “policing” websites for infringing activities to copyright owners achieves a balance between the conflicting policies of copyright law—maintaining protection for copyright owners, while enabling—if not de facto forcing—market expansion, technological development, and increased choice in goods for consumers.\footnote{206}

Media companies have and will continue to devise new means of monetizing copyrighted works.\footnote{207} Viacom’s foray into viral marketing is one example of this trend, as are NBC Universal, Warner Music Group, and Lucas Films, Inc.’s responses to the emergence of media-sharing digital platforms.\footnote{208} Consequently, these copyright owners are in a uniquely privileged position to best evaluate the cost of infringing activities relative to the financial gains that may come from network effects and complementarity. If our body of law is to infuse efficiency into transactions and relationships between parties, then a judicial interpretation of the DMCA’s notice requirement that both demands actual knowledge of individual acts of infringement and places monitoring and investigative responsibility on copyright owners—those best able to fully

\footnotesize{202 Einhorn & Rosenblatt, supra note 200, at 247.}
\footnotesize{203 Id. at 252.}
\footnotesize{204 ERNST & YOUNG, MONETIZING DIGITAL MEDIA: CREATING VALUE CONSUMERS WILL BUY 33 (2010), available at http://www.ey.com/Publication/vwLUAssets/Monetizing_digital_media:_creating_value_consumers_will_buy/$FILE/Monetizing%20digital%20media.pdf (“An emerging consensus is that giving consumers a more enhanced digital experience will encourage consumers to pay for content . . . .”).}
\footnotesize{205 Einhorn & Rosenblatt, supra note 200, at 252.}
\footnotesize{206 See supra Part VI.}
\footnotesize{207 See, e.g., Einhorn & Rosenblatt, supra note 200, at 243-51.}
\footnotesize{208 See supra Part IV.b.}
evaluate the costs and benefits of infringing activities—is necessary.