Music Lockers: Getting Lost in a Cloud of Infringement

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INTRODUCTION

A group of friends networking and trading information and files over the Internet may do so legally. These particular friends, however, employ a service devoted solely to the online storage for songs, called a “music locker.” They share access by using a common username and password. Each participant places songs in storage, which every other contributor may then download to their own personal computer. It seems harmless at first, but soon the storage space contains 200,000 songs, none of which anyone legally purchased. Under certain circumstances, they would face liability for copyright infringement, but copyright owners lack the ability to discover that this is occurring. Nor can they rely on help from the online service provider (OSP) whose service became the tool for infringement because the law, as interpreted by the courts, provides an almost complete shield against copyright infringement for “music lockers.” The law allows the OSP to remain complacent, without fear of liability. This is the case even if the OSP knows of the infringement or, in some instances, facilitates it.

United States Copyright Law contains numerous examples where courts sought to adapt the law to technological innovations by harmonizing its interpretation to allow for the inclusion of these advancements.1 The explosive growth of technology and the Internet over the last two decades led to wildfire-like growth of copyright infringement2 due to the new-found ease in producing and distributing high quality copies of protected works.3 As technology and infringement continue to expand, both the legislature and courts struggle to

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2. See Scope of the Problem, RIAA.COM, http://www.riaa.com/physicalpiracy.php?content_selector=piracy-online-scope-of-the-problem (last visited Oct. 6, 2011). Since the advent of Napster and other peer-to-peer filing sharing services, U.S. music sales have dropped from $14.6 billion to $7.7 billion, a 47 percent decrease. Id. Digital piracy of copyrighted content is estimated to take up 24 percent of global bandwidth and 17.5 percent of the bandwidth in the United States. Id. Estimates indicate that around 30 billion songs were downloaded illegally between 2004 and 2009. Id.
maintain the balance between technology and the integrity of artistic works protected under United States intellectual property laws.

The struggle to protect copyrighted musical works on the Internet gained public notoriety with the music industry’s challenge of peer-to-peer file sharing services, such as Napster and bittorrent providers. Now the music industry fears that “music lockers” will become a conduit for infringement. “Music lockers” present copyright owners with greater challenges in combating infringement than those faced in their attempts to thwart infringers who plied the pathways of peer-to-peer services.

Until recently, very few OSPs employed what is known as “cloud computing” to provide subscribers with an online application designed for the limited purpose of storing one’s music library, but Google, Amazon, and iTunes all recently released their own versions of “music lockers.” iTunes, prior to the introduction of its “music locker,” obtained licenses from the major labels permitting it to store copyrighted songs. By receiving a license, iTunes negated any possibility of subjecting itself to copyright infringement liability from the


6. For the last several years, cloud computing has been used by OSPs to give users a storage space for data, such as documents or even music, but none had developed a storage service devoted solely for the storage of music besides MP3tunes. See, e.g., DROPBOX, https://www.dropbox.com (last visited Oct. 17, 2012); GOOGLE CLOUD PLATFORM, https://cloud.google.com/products/cloud-storage (last visited Oct. 17, 2012).

7. Called Google Music Beta, Amazon Cloud Player, and iTunes Scan and Match respectively. Lee, supra note 5.

8. Id.
major labels. Amazon and Google, however, after unsuccessfully attempting to negotiate licenses, chose to proceed without the blessing of music labels, thereby, creating the risk of liability. Instead, Amazon and Google placed their reliance on the safe harbors found in the Digital Millennium Copyright Act (DMCA), specifically the affirmative defense provided by 17 U.S.C. § 512(c).

Initially, proceeding without licenses meant Google and Amazon faced the very real threat of liability for contributory infringement, since, at the time of their services

9. iTunes does face liability from minor record labels if a user uploads a song from such a label if it did not negotiate licenses with the smaller labels. Id.

10. Id. Since finishing this comment, about a year after first offering its cloud service, Amazon obtained licenses from all major music labels for its cloud storage service. See Greg Sandoval, Amazon’s music cloud is licensed by all top labels, CNET (June 15, 2012, 9:06 AM), http://news.cnet.com/8301-1023_3-57453873-93/amazons-music-cloud-is-licensed-by-all-top-labels. To date, however, Google has yet to obtain licenses from the music labels. But, even though, Amazon has since garnered licenses, it faced the possibility of liability for infringement for nearly a year.

11. (c) Information residing on systems or networks at direction of users.
   (1) In general. – A service provider shall not be liable . . . 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 that 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, act 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 as described in paragraph (3), responds expeditiously to remove, or disable access to, the material that is claimed to be infringing or to be the subject of infringing activity.

12. “Contributory infringement occurs when a defendant induces, causes, or materially contributes to the infringing conduct of another, with knowledge of the infringing activity.” 3-12A Melville B. Nimmer & David Nimmer, NIMMER ON COPYRIGHT § 12A.01(Matthew Bender, rev. ed. 2012); see, e.g., Metro-Goldwyn-Mayer Studios Inc. v. Grokster, Ltd., 545 U.S. 913 (2005) (finding a peer-to-peer service provider liable for contributory infringement because it induced its users to commit direct infringement); Sony Corp. of Am. v. Universal City Studios, Inc., 464 U.S. 417 (1984) (discussing whether a manufacturer of video cassette recorders could be liable for contributory infringement for owners of the recorders who use them to copy television programs); Fonovisa, Inc. v. Cherry Auction, Inc., 76 F.3d 259 (9th Cir. 1996) (finding plaintiff could state a claim for contributory infringement against the owner of
announcement, it remained uncertain whether “music lockers” could qualify for protection under § 512(c). Judge William Pauley answered this question, at least for the interim, by holding that a “music locker” could qualify for the safe harbor of § 512(c) if the OSP met its requirements. Judge Pauley’s ruling sustained the trend began by previous courts, which continually frustrates the music industry’s efforts to protect its works on the Internet. In reaching his decision, Judge Pauley employed a standard of apparent knowledge that, in fact, is actual knowledge. And, further, the standard of actual knowledge Judge Pauley and other courts currently employ effectively eliminates any possibility of finding it exists, absent the copyright owner actually informing the OSP of that specific infringement.

The definitions of apparent and actual knowledge employed by the courts, along with the courts’ strict requirements for issuing a compliant takedown notice, create substantial hurdles for copyright owners who endeavor

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13. Amazon, Google, and iTunes all announced their music lockers prior to the decision in MP3tunes. See Capitol Records, Inc. v. MP3tunes, L.L.C., 821 F. Supp. 2d 627 (S.D.N.Y. 2011); Lee, supra note 5.


17. (3) Elements of notification:

(A) To be effective under this subsection, a notification of claimed infringement . . . [must] include[] 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 material that is claimed to be infringing, or, if multiple works at a single online site are covered by a single notification, a representative list of such works at that site.

(iii) Identification of the material that is claimed to be infringing or to be the subject of infringing activity and that is to be removed or access to which is to be disabled, and information reasonably sufficient to permit the service provider to locate the material.

DMCA § 512(c)(3)(A)(i)-(iii).
to prevent infringement on “music lockers.” This note will examine the safe harbor and takedown procedures found in § 512(c) and its application to “music lockers.” It will demonstrate that the courts’ interpretation of § 512(c) shields OSPs from liability by misconstruing the standards of actual and apparent knowledge as enacted by Congress. This misapplication creates barriers that inhibit the music industry’s ability to combat infringement on “music lockers” because their characteristics make issuing a takedown notice a practical impossibility. In addition, the combination of heightened knowledge standards and the copyright holders’ inability to issue takedown notices has the potential to allow “music lockers” to become safe harbors for infringement.

Part I A will provide background on the general aspects of cloud computing as employed by “music lockers” while identifying the differences among Amazon, Google, and iTunes’s “music lockers.” Part I B discusses the safe harbor provision and the notice and takedown procedures provided by § 512(c) of the DMCA. Part II examines the development of the application § 512(c)’s knowledge and takedown provisions through case law. Part III develops a functional standard for assessing the liability of a “music locker,” which is based on courts’ decision construing § 512(c). Part IV poses alternative solutions that would ensure that copyright owners received compensation for the use of their works on “music lockers” without subjecting the OSPs to liability for contributory infringement.

18. Not only do the courts’ interpretations of § 512(c) have ramifications on the music industry in preventing infringement on cloud services but also the video game industry, as there have been recent shifts to increasingly employ cloud computing in the distribution and storage of video games. See IGDA Chief: Cloud Gaming Costs to Rise, GAMESPOT.COM (Jan. 17, 2012, 2:39 AM), http://www.gamespot.com/news/igda-chief-cloud-gaming-costs-to-rise-6348679; see, e.g., ONLIVE, http://www.onlive.com (last visited Oct. 17, 2012).
I. THE CLOUD AND THE DMCA: “GIMME SHELTER”19 FROM INFRINGEMENT

A. Cloud Computing: Bringing “Music Lockers” to a Computer Near You

The increasing use and popularity of cloud computing is attributable to the efficiencies and cost savings it provides.20 Early development and implementation of cloud computing occurred in the private sector, but since that time, its application has expanded to the public sector.21 “Music lockers,” such as those offered by Amazon, Google, and iTunes, are only made available through the use of cloud computing.22 An apt analogy is that “music lockers” are external hard drives on which only songs can be stored, but instead of connecting to the computer via a USB cable one connects to it through the Internet.23

All uses of cloud computing are classified as one of three models; platform as a service (PaaS), infrastructure as a service (IaaS), or software as a service (SaaS).24 “Music lockers” constitute SaaS;25 other SaaS providers, that many are familiar with, include YouTube and Facebook.26 SaaS clouds are accessible through the Internet by using a web browser27 or through downloadable applications, or “apps.”28

19. THE ROLLING STONES, Gimme Shelter, on LET IT BLEED (Decca 1969).
21. Id.
22. Tschmuck, supra note 5.
23. Id.
25. See id.
26. Marc Aaron Melzer, Copyright Enforcement in the Cloud, 21 FORDHAM INTELL. PROP. MEDIA & ENT. L.J. 403, 405 (2011). Megaupload was also a SaaS cloud platform before the Federal Government shut it down. See id. See, Jeremy Pelofsky, U.S. accuses Megaupload of copyright infringement, REUTERS (Jan 19, 2012 6:23 PM), http://www.reuters.com/article/2012/01/19/us-usa-crime-piracy-idUSTRE80I2422012011, for a discussion Megaupload’s copyright infringement, which demonstrates the concerns that the music industry has over the development of cloud storage for songs.
27. BADGER ET AL, supra note 20, at 2-1.
28. Amazon, Google, and iTunes’s “music locker” programs are downloaded as
A user in a SaaS cloud, unlike a user in PaaS and IaaS clouds, exercises little control of the cloud. Instead, the OSP retains much of the influence over the program’s features.

Broad network access is an essential characteristic of cloud based “music lockers,” meaning that a user may access a “music locker” through standard internet-capable devices connected to the network. These devices include cellphones, laptops, and tablets. The free sharing and access of other users’ files, provided by broad network access, is what makes it so attractive. Yet, the same reasons for its attractiveness, also makes it a potential threat as a vehicle for infringement.

“Music lockers,” however, contrary to the majority of broad network access services, do not allow the free exchange of files between users. Instead, a user’s music catalog remains viewable and accessible only to that user. While this may at first appear beneficial to copyright holders by making infringement more difficult, they fear users will share passwords. In addition, copyright holders are also apprehensive due to the lockers’ inaccessibility, which make it challenging to adequately identify and locate incidents of infringement.

“Music lockers” can employ one of two methods to store the songs on their servers. The first method involves the OSP storing an individual copy of each song uploaded for every user, potentially resulting in the OSP storing millions of identical copies of the same song. This option comes with two prominent drawbacks: (1) long upload times for users compared to other storage methods because of massive

apps for phones, tablets, PCs, and other devices with such functionality.

29. BADGER ET AL., supra note 20, at 2-1; Melzer, supra note 26, at 410.
30. BADGER ET AL., supra note 20, at 2-1; Melzer, supra note 26, at 410.
31. Melzer, supra note 26, at 409. YouTube and Facebook are also broad network access services. Id. at 405, 408.
32. BADGER ET AL., supra note 20, at 2-1; see also Melzer supra note 26, at 407-08.
33. BADGER ET AL., supra note 20, at 2-1; Melzer, supra note 26, at 408.
34. Melzer, supra note 26, at 407; see also BADGER ET AL., supra note 20, at 5-1.
35. See, BADGER ET AL., supra note 20, 5-6-5-7 for a description of how a SaaS provider can isolate users preventing the free sharing of files.
36. This is due to the required specificity of notice in issuing a compliant takedown notice. See infra Part I.C.
37. Tschmuck, supra note 5.
38. Id.
bandwidth usage, and (2) it requires the OSP to devote more servers to storage capabilities than it may need to otherwise.  

Google and Amazon both elected to employ this storage option, despite its shortcomings, for legal reasons. Both still remain uncertain as to whether a “music locker” can qualify for the safe harbor of § 512(c) because of the potential reversal of Judge Pauley’s decision in *MP3tunes* on appeal. As a result of this uncertainty, Amazon and Google continue to store songs this way because it would allow them to assert a defense based on the Second Circuit’s holding in *Cartoon Network, L.L.P. v. CSC Holdings, Inc.* In *Cartoon Network*, the defendant, a cable provider, was held not liable for contributory infringement when its customers used digital recording devices to copy television programs because the court determined that the users, not the cable provider, created the infringing copies. For the same reasons that the court found the defendant not liable in *Cartoon Network*, Amazon and Google hope to garner a similar declaration if sued for infringement because their users direct the locker to make the copies of the songs.

The second storage method which OSPs may employ is “a ‘real’ cloud based solution.” When using this option the OSP divides an uploaded song into separate digital portions. These portions are called hash tags and are later used to identify and reassemble the song when users wish to download or stream it from their lockers. If another user uploads a song that the OSP already created hash tags for, the OSP will recognize the song through the previously made hash tags, and then delete the newly created, redundant tags. Essentially, the OSP server stores a single copy of a

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39. Singel, *supra* note 5
40. *Id.*
41. Lee, *supra* note 5.
42. *Cartoon Network, L.L.P. v. CSC Holdings, Inc.*, 536 F.3d 121 (2d Cir. 2008); see also Lee, *supra* note 5.
43. *Cartoon Network*, 536 F.3d at 140.
44. Lee, *supra* note 5.
45. Tschmuck *supra* note 5.
47. *Id.*
48. See *id.*
song, which all users owning that song share.\textsuperscript{49} Because an OSP does not need to store multiple copies of the same song it is left with other options to employ its resources. It can either devote server space to other purposes, or it can forego the use of extra servers, thereby, saving on costs.\textsuperscript{50} Also, not only do OSPs reap the rewards of the “real’ cloud based solution”\textsuperscript{51} but users also benefit by experiencing shorter upload times than the method employed by Google and Amazon allows.\textsuperscript{52}

As for the legality of this method of storage, MP3tunes created hash tags to store its music,\textsuperscript{53} and the court in permitting MP3tunes the safe harbor of § 512(c) paved the way for Google and Amazon to adopt this method.\textsuperscript{54} Dropbox, a SaaS cloud storage service, though not a “music locker,” also employs hash tags for all users’ files uploaded: including movies, documents, and songs.\textsuperscript{55} iTunes, not fearing liability because of the licenses it obtained from the music labels,\textsuperscript{56} chose this approach for storage as well.\textsuperscript{57}

Cloud computing, as applied in “music lockers,” offers OSPs innovative approaches to develop new services for users which can benefit the music industry by limiting a user’s ability to commit infringement. But, as with most other online services, it can also facilitate infringement. As a result of the insulation offered by the “music lockers,” hurdles exist for copyright holders in combating infringement unless the OSPs aid copyright holders in their enforcement efforts.

B. The Digital Millennium Copyright Act’s Limitations on Liability for Copyright Infringement § 512: The Dual

\textsuperscript{49} Tschmuck, supra note 5.
\textsuperscript{50} Singel, supra note 5.
\textsuperscript{51} Id.
\textsuperscript{52} Id.
\textsuperscript{53} Capitol Records, 821 F. Supp. 2d at 634; see also Singel, supra note 5.
\textsuperscript{54} The OSP, however, would not be able to use that same song file merely because it possessed the same song title; all aspects of the uploaded file must be identical. Singel, supra note 5.
\textsuperscript{55} Id.
\textsuperscript{56} Lee, supra note 5. iTunes is free to use master copies of songs, in addition to hash marks, and does not have to worry about matching file sizes and other aspects of uploaded files because of the licenses. Singel, supra note 5. Further, iTunes scan and match also provides users with a higher quality copy of a song if the song the user uploads quality is inferior compared to that available on iTunes. Id.
\textsuperscript{57} Tschmuck, supra note 5.
Goals of Internet Copyright Law

The Constitution empowers Congress with the ability to promote the advancement of science and art by securing monopolies for creators for a limited time for their works. With the rise of the digital age and the expansion of the Internet, the monopolies granted to musical works faced increasing threats of infringement. In order to provide copyright holders with “reasonable assurance that they will be protected against massive piracy,” and to provide assurance to OSPs by clarifying their liability, Congress passed the DMCA in 1998. The act was an attempt to balance the concerns of both copyright owners and OSPs in its approach to infringement and, thereby, promote both the sciences and the arts.

First, the DMCA departed from previous copyright laws in one of its two articles by focusing on preventing parties from tampering with tools, known as digital rights management (DRM), which are imbedded in copyrighted works to prevent potential infringers from copying the work. Thus, instead of protecting the copyrighted works themselves, Congress chose to protect the means of protection. Congress provided these protections fearing that “copyright owners [would] hesitate to make their works readily available on the Internet without reasonable assurance that they [would] be protected against massive piracy.”

The other portion of the act, found in the safe harbors of § 512, addresses the concerns of OSPs by offering them, “greater certainty... concerning their legal exposure for

59. See Scope of the Problem, supra note 2.
61. Id.
63. See S. REP. NO. 105-190, at 8.
64. DRM has been largely unsuccessful in preventing infringement of musical works compared with other industries in which it is used. See Aldrich, supra note 3 (discussing types of DRM employed by copyright owners in the entertainment industry).
65. 17 U.S.C. § 1201 (2006); see also; Lohman, supra note 3 at 638. See generally Aldrich, supra note 3.
66. S. REP. NO. 105-190, at 8.
infringements..." To fulfill this goal, § 512 contributes a set of affirmative defenses, "if the provider is found to be liable under existing principles of law." The limitations on liability do not completely shelter OSPs; they merely lay out a framework of conditions, which if met, allow an OSP to assert one of § 512's defenses.

Section 512 grants protection to four types of OSPs: transitory digital network communications; system caching; information residing on systems or networks at the direction of users; and information location tools. Of the four, "music lockers" qualify for § 512(c), because a user's songs are stored on the "music locker's" system or network at the direction of the user.

Yet, before an OSP can claim the protection under one of the safe harbors of § 512(a)-(d), it must first meet § 512(i)'s threshold requirements. The subsection prescribes that an OSP institute a policy which provides for the termination of users who are guilty of repeated incidents of infringement. And, the service provider must reasonably implement that policy while informing its subscribers of its existence. In addition, the OSP must also accommodate, and not interfere with, standard technological measures employed by copyright owners. Only if the OSP adheres to the strictures of § 512(i) can the analysis proceed to the requirements of the safe

67. Id. at 40.
68. Id. at 19. The affirmative defenses found in § 512 primarily address circumstances where the OSP would be liable for contributory infringement.
69. Id. at 41; see 17 U.S.C. § 512 (2006).
70. § 512(a).
71. § 512(b).
72. § 512(c).
73. § 512(d).
74. See Capitol Records, Inc. v. MP3tunes, LLC., 821 F. Supp. 2d 628, 646 (S.D.N.Y. 2011) (finding a "music locker" qualifies for the safe harbor of § 512(c)).
75. Perfect 10, Inc. v. CCBill L.L.C., 488 F.3d 1102, 1109 (9th Cir. 2007); Io Group, Inc. v. Veoh Networks, Inc., 586 F. Supp. 2d 1132, 1142 (N.D. Cal. 2008).
76. § 512(i)(1)(A).
77. Id.
In order to raise § 512(c) as a defense to contributory infringement, the OSP must not have been aware of the alleged infringement. Section 512(c) determines the presence of such awareness through the dichotomy of actual and apparent knowledge. An OSP is said not to possess actual knowledge if it is unaware of the infringing material the user placed on its system or network. As for apparent knowledge, the OSP cannot have an awareness of “facts or circumstances from which infringing activity is apparent.”

To facilitate a court’s determination of whether an OSP possesses apparent knowledge, Congress developed a “red flag.” The test contains both a subjective and an objective element. According to the subjective element, the court must determine the facts and circumstances under which the OSP labored when the complaining party located the alleged infringement. The objective test then directs the court to ask, under the previously ascertained circumstances, “whether infringing activity would have been apparent to a reasonable person operating under the same or similar circumstances.” But, even if an OSP possesses either actual or apparent knowledge of infringement, it may still claim the shelter of § 512(c) if it acts, “expeditiously to remove or disable access to the infringing material.”

Yet, even if an OSP never actually or apparently knew of infringement, it may still find itself disqualified from § 512(c) if it receives a financial benefit directly attributable to the infringement and maintains the ability and right to control the infringement. The financial benefit is attributable to

80. See § 512(c)(1)(A)(i)-(ii).
81. § 512(c)(1)(A)(i).
83. § 512(c)(1)(A)(ii).
84. S. REP. No. 105-190, at 44.
85. Id.
86. Id.
87. Id.
90. § 512(c)(1)(B); see also Io Group, Inc. v. Veoh Networks, Inc., 586 F. Supp. 2d
infringement if the OSP employs a discriminatory pricing scheme, where infringing and non-infringing users pay different rates; 91 but when the OSP’s pricing plan is nondiscriminatory, it will not lead to its disqualification from § 512(c). 92 An OSP has the ability and right to control infringement if a defendant exercises control over a direct infringer when he has both a legal right to stop or limit the activity, as well as the practical ability to do so. 93 Liability only exists when both of the above conditions exist. 94

Finally, the OSP must designate an agent with the Register of Copyrights to receive takedown notices from copyright holders. 95 If the agent receives a takedown notice, in compliance with § 512(c)(3), the OSP must disable access and remove the infringing material from its system or network. 96 When an OSP fails to adequately respond to a valid takedown notice, it becomes liable for the identified infringement, because the takedown notice then becomes the basis for the imputation of actual knowledge to the OSP. 97

C. “Help on the Way” 98 The Copyright Owner’s Remedy: Takedown and Notice

In Section 512(c)(3), the DMCA affords copyright owners the means to protect his or her works from infringement through a takedown notice. The takedown compels OSPs to remove and disable access to identified infringing material. 99 In order for a takedown notice to obligate an OSP to act, it
must meet § 512(c)(3)’s firm guidelines.

Of these strictures, two especially salient requirements exist, and unlike the other requirements of § 512(c), these are not merely procedural. First, the takedown must identify the work subject to infringement.\textsuperscript{100} If several works are the target of the infringement, a representative list of works is sufficient.\textsuperscript{101} The reasoning for requiring such specificity is to inform the OSP of the scope of the infringement.\textsuperscript{102} In addition, a description of the location of the alleged infringement, enabling the OSP to easily locate it, must accompany the representative list.\textsuperscript{103} The URL address where the infringement resides sufficiently serves as a form of location.\textsuperscript{104}

When a copyright owner issues an OSP a takedown notice complying with § 512(c)(3)’s strictures, the OSP must disable and remove access to the infringing material or face liability.\textsuperscript{105} Liability results because courts may then impute knowledge to the OSP, based on receipt of the copyright holder’s notice.\textsuperscript{106} If the takedown notice fails to substantially comply with the prescriptions of § 512(c)(3),\textsuperscript{107} however, the OSP has no duty to act, nor can the notice be used by a court to impute knowledge.\textsuperscript{108}

\textsuperscript{100} § 512(c)(3)(A)(ii).
\textsuperscript{101} \textit{Id.}
\textsuperscript{102} See \textsc{S. Rep. No. 105-190}, at 46.
\textsuperscript{103} § 512(c)(3)(A)(iii).
\textsuperscript{104} \textsc{S. Rep. No. 105-190}, at 46.
\textsuperscript{105} § 512(c)(1)(C); \textsc{Capitol Records, Inc. v. MP3tunes, L.L.C.}, 821 F. Supp. 2d 627, 640 (S.D.N.Y. 2011).
\textsuperscript{106} See § 512(c)(1)(C), (c)(3)(B)(i); see also \textsc{Capitol Records, Inc.}, 821 F. Supp. 2d at 648.
\textsuperscript{107} “[S]ubstantial compliance standard in subsections . . . (c)(3) be applied so that technical errors . . . do not disqualify . . . copyright owners from the protections afforded under subsection (c).” \textsc{S. Rep. No. 105-190}, at 47. Errors that a copyright owner may commit while still substantially complying include typos and failures to update information such names or addresses. \textit{Id.}
\textsuperscript{108} § 512(c)(3)(B); \textsc{S. Rep. No. 105-190}, at 46; see also \textit{Perfect 10, Inc. v. CCBill L.L.C.}, 488 F.3d 1102, 1113 (9th Cir. 2007).
II. SAFE HARBOR OF § 512(C): LOST IN THE “PURPLE HAZE”\textsuperscript{109} OF KNOWLEDGE

A. Clouds of Infringement: Vanishing of Actual and Apparent Knowledge

Since the inception of the DMCA’s safe harbors, courts have grappled over the appropriate application of the knowledge dichotomy in § 512(c).\textsuperscript{110} And, in the end, the standards courts adopted exasperate copyright owners because they permit OSPs to operate until they receive a takedown notice from a complaining party, even though they are aware of the presence of infringement. This frustration is due, in large part, to a heightened standard of actual knowledge and an interpretation of apparent knowledge that confuses itself with actual knowledge.\textsuperscript{111}

\textit{Perfect 10, Inc. v. CCBill LLC} became one of the first cases to truly address the knowledge requirements under § 512(c).\textsuperscript{112} Perfect 10, an adult entertainment magazine, filed suit against CCBill alleging that images posted by users on CCBill’s services were stolen, and, as such, infringed upon Perfect 10’s copyright in those images.\textsuperscript{113} Prior to the commencement of litigation, Perfect 10 sent multiple letters and emails to CCBill’s designated agent to receive takedown notices, thereby alerting it of the infringement.\textsuperscript{114} However, it never transmitted a statutorily compliant takedown notice.

The court, after determining CCBill met the threshold requirements of § 512(i),\textsuperscript{115} considered whether it held apparent knowledge of infringement under the “red flag” test.\textsuperscript{116} Perfect 10 asserted that names of websites\textsuperscript{117} and password hacking sites hosted by CCBill constituted “red

\textsuperscript{109} JIMI HENDRIX, \textit{Purple Haze, on ARE YOU EXPERIENCED} (MCA Records 1967).
\textsuperscript{110} See \textit{Perfect 10, Inc.}, 488 F.3d 1102; Io Group, Inc. v. Veoh Networks, Inc., 586 F. Supp. 2d 1132 (N.D. Cal. 2008). See generally Black, supra note 16; Chang, supra note 16.
\textsuperscript{111} Black, supra note 16, at 773; Chang, supra note 16, at 203.
\textsuperscript{112} See \textit{Perfect 10, Inc.}, 488 F.3d 1102.
\textsuperscript{113} \textit{Id.} at 1108.
\textsuperscript{114} \textit{Id.}
\textsuperscript{115} \textit{Id.} at 1109; see 17 U.S.C. § 512(i) (2006).
\textsuperscript{116} \textit{Perfect 10, Inc.}, 488 F.3d at 1114.
\textsuperscript{117} Names of the websites included illegal.net and stolencelebritypics.com. \textit{Id.}
flags.”\textsuperscript{118} In order to determine if those websites infringed copyrights, the court found that CCBill would need to undergo investigations.\textsuperscript{119} The court declined to impose such investigative duties on an OSP; therefore, no “\textit{per se} ‘red flags’ of infringement” existed.\textsuperscript{120}

Perfect 10 also endeavored to convince the court to impute knowledge to CCBill based on the emails and letters it previously sent.\textsuperscript{121} After examining each piece of correspondence separately the court found that each letter and email individually failed to substantially comply with § 512(c)(3).\textsuperscript{122} Thus, they could not provide a basis for the imputation of knowledge.\textsuperscript{123} “[A] notification must do more than identify the infringing files. The DMCA requires a complainant to declare, under penalty of perjury, that he is authorized to represent the copyright holder and that he has a good-faith belief that the use is infringing.”\textsuperscript{124} In so stating, the court indicated the strict standard copyright owners would be held to in ensuring that notices strictly complied with § 512(c)(3), and that mere mistakes may not be excused.\textsuperscript{125}

Following \textit{Perfect 10}, a court next addressed § 512(c) in \textit{Io Group, Inc. v. Veoh Networks, Inc.}\textsuperscript{126} Io brought suit against Veoh, claiming that ten adult videos, ranging from clips of a few seconds to twenty minutes, were posted on Veoh without permission and infringed Io’s copyright in those films.\textsuperscript{127} In a somewhat astonishing declaration, the court held no actual knowledge existed because, “[Io] provided no notice to Veoh of any claimed copyright infringement. Thus, there [remained] no question . . . that Veoh lacked actual knowledge of the

\begin{itemize}
\item \textsuperscript{118} \textit{Id.}
\item \textsuperscript{119} \textit{Id.}
\item \textsuperscript{120} \textit{Id.} The court inferred that an OSP need not undergo an investigation due to 17 U.S.C. § 512(m)(1), which states that nothing in subsections (a) through (d) requires a “service provider [to monitor] its service or affirmatively [seek] facts indicating infringing activity.” § 512(m)(1).
\item \textsuperscript{121} \textit{Perfect 10, Inc.}, 488 F.3d at 1111-13.
\item \textsuperscript{122} \textit{Id. at 1113}.
\item \textsuperscript{123} \textit{Id.}
\item \textsuperscript{124} \textit{Id. at 1112}.
\item \textsuperscript{125} \textit{But see S. REP. NO. 105-190, at 47.}
\item \textsuperscript{126} \textit{Io Group, Inc. v. Veoh Networks, Inc.}, 586 F. Supp. 2d 1132 (N.D. Cal. 2008).
\item \textsuperscript{127} \textit{Id. at 1136}.\
\end{itemize}
alleged infringing activity at issue."\textsuperscript{128}

Turning to whether Veoh had apparent knowledge, the court stated that “the question is not what a reasonable person would have deduced given all the circumstances,”\textsuperscript{129} but whether the OSP “turned a blind eye to red flags of infringement.”\textsuperscript{130} Finding no evidence of apparent knowledge and lack of notice from Io, Veoh obtained shelter under the umbrella of § 512(c).\textsuperscript{131}

Soon after the decision in \textit{Io Group}, Veoh became the target of another infringement action instituted by Universal Music Group (UMG).\textsuperscript{132} UMG argued that Veoh possessed actual knowledge of infringing material beyond the works which Recording Industry Association of America (RIAA) cited in a previously transmitted takedown notice.\textsuperscript{133} UMG claimed that Veoh had actual knowledge because it knew that it was not permitted to host music content subject to copyright protection yet still permitted users to upload it,\textsuperscript{134} and that the list of artists in the RIAA’s previous takedown notice provided actual knowledge of infringement of all of those artists’ works that were uploaded to Veoh thereafter.\textsuperscript{135} The court, however, rejected these arguments, because they would require Veoh to perform searches, and “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.”\textsuperscript{136}

The court next concluded that while Veoh was generally aware of the existence of infringement on its service, such awareness could not reach the level required to constitute apparent knowledge.\textsuperscript{137} The court’s decision was based on the

\begin{itemize}
\item \textsuperscript{128} \textit{Id.} at 1148.
\item \textsuperscript{129} \textit{Id.} (citing Corbis Corp. v. Amazon.com, Inc., 351 F. Supp. 2d 1090, 1108 (W.D. Wash. 2004)).
\item \textsuperscript{130} \textit{Id.}
\item \textsuperscript{131} \textit{Id.} at 1154-1155.
\item \textsuperscript{133} \textit{Id.} at 1108.
\item \textsuperscript{134} \textit{Id.}
\item \textsuperscript{135} \textit{Id.} at 1109.
\item \textsuperscript{136} \textit{Id.} at 1110; see also Perfect 10, Inc. v. CCBill LLC, 488 F.3d 1102, 1113 (9th Cir. 2007).
\item \textsuperscript{137} UMG Recordings, Inc., 665 F. Supp. 2d at 1111.
\end{itemize}
fact that UMG could not cite any authority that general awareness results in apparent knowledge.\textsuperscript{138} Yet, the court, itself, neglected to provide any specific authority for its rationale that general awareness does not constitute apparent knowledge.\textsuperscript{139} Although, the court did attempt to construct a tenuous connection to the Senate Report by citing it when trying to establish its proposition: the “safe harbor would not serve its purpose of ‘facilitate[ing] the robust development and . . . expansion of electronic commerce, communications, research, development, and education in the digital age.’”\textsuperscript{140} This citation, however, is to the general purpose of the DMCA,\textsuperscript{141} and leads to no inferences that general awareness cannot constitute apparent knowledge.

Many of the same arguments offered by the plaintiff in \textit{UMG Recordings} were later raised in \textit{Viacom Int’l, Inc. v. YouTube, Inc.}\textsuperscript{142} Viacom claimed that the prevalence of infringement was to such an extent that the it alone raised YouTube’s level of awareness to actual knowledge.\textsuperscript{143} The court continued the trend begun in \textit{UMG Recordings},\textsuperscript{144} holding that widespread infringement could not result in knowledge because “[m]ere knowledge of prevalence of such activity in general is not enough.”\textsuperscript{145} The court went a step further though, by clarifying what it would consider to constitute apparent knowledge: there must be instances “of specific and identifiable infringements of particular individual items.”\textsuperscript{146}

Viacom also claimed that YouTube should face liability because it failed to comply with its takedown notice.\textsuperscript{147} Upon receipt of the notice, YouTube only disabled access to videos whose location Viacom specifically identified, but declined to remove identical videos located elsewhere on the site.\textsuperscript{148}

\begin{itemize}
  \item \textsuperscript{138} \textit{Id.}
  \item \textsuperscript{139} \textit{See id.}
  \item \textsuperscript{140} \textit{Id.} at 1111 (citing S. REP. NO. 105-190, at 1-2 (1998)).
  \item \textsuperscript{141} \textit{See S. REP. NO. 105-190, at 1-2.}
  \item \textsuperscript{142} \textit{Viacom Int’l, Inc. v. YouTube, Inc.}, 718 F. Supp. 2d 514 (S.D.N.Y. 2010), \textit{rev’d on other grounds}, 676 F.3d 19 (2d Cir. 2012).
  \item \textsuperscript{143} \textit{Id.} at 518.
  \item \textsuperscript{144} \textit{UMG Recordings, Inc.}, 665 F. Supp. 2d at 1110.
  \item \textsuperscript{145} \textit{Viacom Int’l, Inc.}, 718 F. Supp. 2d at 523.
  \item \textsuperscript{146} \textit{Id.} (emphasis added).
  \item \textsuperscript{147} \textit{Id.} at 528.
  \item \textsuperscript{148} \textit{Id.}
Quashing Viacom’s argument, the court averred that requiring OSPs to remove infringing material when the copyright owner identified no location would “eviscerate the required specificity of notice.”\textsuperscript{149} A representative list was sufficient to identify the works subject to infringement, but the duty to disable and remove access only extended to those works for which Viacom supplied a specific location.\textsuperscript{150} Therefore, YouTube, having disabling access to the infringing material at the identified locations, avoided liability, at least momentarily because of §512(c).\textsuperscript{151}

Recently, the Second Circuit, affirmed the District Court’s construction of the both knowledge standards in Viacom but remanded the case for further determination as to whether YouTube was, in fact, aware of specific facts and circumstances of infringement and/or willfully blind to infringement.\textsuperscript{152} So, while the Court of Appeals chastised the District Court for its application § 512(c)’s knowledge provisions to the case’s facts, it endorsed the general assertion, made by many of the decisions previously discussed, that apparent knowledge requires the identification of specific incidents of infringement of which the OSP knew, or that the OSP turned a blind eye to infringement in order to be liable.\textsuperscript{153}

The courts, in developing the jurisprudence of § 512(c), have limited the scope of apparent knowledge and actual knowledge, easing the fear that OSPs might become liable for users’ infringement. At the same time, however, courts

\textsuperscript{149}. Id. at 528-9; see also 17 U.S.C. § 512(c)(3)(A)(iii) (2006).

\textsuperscript{150}. Viacom Int’l, Inc., 718 F. Supp. 2d at 528-9.

\textsuperscript{151}. Id. at 529.

\textsuperscript{152}. See Viacom Int’l, Inc. v. YouTube, Inc., 676 F.3d 19, 41-42 (2d Cir. 2012).

\textsuperscript{153}. See generally YouTube, Inc., 676 F.3d 19. Some may claim the Second Circuit’s decision signals a sea change in the application of § 512(c), but this author believes that the decision is largely a pyrrhic victory for copyright holders, at least in terms of the interpretation of § 512(c), because no court could justifiably ignore the blatant disregard for infringement that was evidenced in the internal emails and reports of YouTube employees and executives. See id. at 32-34 (discussing the evidence demonstrating that YouTube was aware of the infringement). And, thus, it remains to be seen how this will have an effect on less blatant defendants, or where the infringement is not as expansive as on YouTube. Further, one might even argue that YouTube’s actions show that it, in fact, facilitated and induced infringement, and an OSP which induces infringement is provided no defense by § 512. See infra, note 218. Although, the decision does indicate, that OSPs will not automatically be awarded summary judgment simply by raising the specter of § 512(c).
established that they would hold copyright owners to a high standard in issuing takedown notices that meet the statutory criteria of § 512(c)(3).

B. MP3tunes: “A Hard Rain’s a-Gonna Fall”\textsuperscript{154} of Copyright Infringement

The most recent decision involving the application of § 512(c)’s safe harbor occurred in \textit{Capitol Records, Inc. v. MP3tunes, LLC}.\textsuperscript{155} The defendant, MP3tunes, one of the first “music locker” providers, operated with membership terms akin to those of Amazon and Google’s lockers.\textsuperscript{156} MP3tunes’s locker, however, functioned more like iTunes’s “music locker,” particularly with regards to the storage method employed.\textsuperscript{157}

MP3tunes’ locker, in addition to the standard features present in Amazon, Google, and iTunes’s lockers, also contained an application called “sideload.”\textsuperscript{158} “Sideload” functioned as a search engine, allowing users to enter a song or artist into it.\textsuperscript{159} “Sideload” then located free music available on third-party websites that matched the search terms entered by the user.\textsuperscript{160} Once “sideload” returned the search results to users, those users could connect to the third-party site and were given the option to click on a button which would “sideload,” or copy, the music from the third-party website into their lockers without charge.\textsuperscript{161}

MP3tunes maintained records of all “hits” returned for “sideload’s” searches.\textsuperscript{162} It also kept records of the particular users who “sideload-ed” songs from third-party sites.\textsuperscript{163} If the

\textsuperscript{154} BOB DYLAN, \textit{A Hard Rain’s a-Gonna Fall}, on \textit{THE FREEWHEELIN’ BOB DYLAN} (Columbia 1963).
\textsuperscript{156} \textit{Id.} at 633; \textit{see also} Lee, \textit{supra} note 5; Singel, \textit{supra} note 5. Just as Amazon’s and Google’s plans provide a limited amount of storage for free, and users can obtain more storage space by paying a monthly or yearly fee so could MP3tune’s subscribers. See Tschmuck, \textit{supra} note 5.
\textsuperscript{157} \textit{Capitol Records, Inc.}, 821 F. Supp. 2d at 634; \textit{see also supra} Part I.B. (describing the real cloud based method of storage).
\textsuperscript{158} \textit{Capitol Records, Inc.}, 821 F. Supp. 2d at 634.
\textsuperscript{159} \textit{Id.}
\textsuperscript{160} \textit{Id.} Google could provide a similar service by coupling its search engine with its locker. Lee, \textit{supra} note 5.
\textsuperscript{161} \textit{Capitol Records, Inc.}, 821 F. Supp. 2d at 634.
\textsuperscript{162} \textit{Id.}
\textsuperscript{163} \textit{Id.} at 648
third-party website removed the song, or if the website itself became unavailable at a later time, MP3tunes removed the link from “sideload.”164 But, users who previously “sideloaded” music from the disabled website retained the copies they “sideloaded” in their “music lockers.”165

Prior to the commencement of litigation, MP3tunes received multiple takedown notices alerting it to infringing songs found on third-party websites available via “sideload.”166 MP3tunes responded by disabling access to the sites and removing the links on “sideload” connecting users to those infringing sites, but it permitted users to retain songs they previously “sideloaded” from the infringing sites in their lockers.167

Continuing the trend that general awareness of infringement could not constitute apparent knowledge,168 the court found that “MP3tunes [was] aware that some infringement occurs. . . . [but] did not have specific ‘red flag’ knowledge of infringement with respect to any particular link on [“sideload”]. . . .”169 Among the evidence the court declared insufficient to constitute “red flags” were MP3tunes’s executives “sideload-ing” of infringing songs170 and emails from users of MP3tunes alerting it to possible incidents of infringement.171 Despite evidence that would make a reasonable person likely to conclude there were further incidents of infringement, the court found MP3tunes only had specific “red flag” knowledge of the infringement on URLs contained in the takedown notices.172

But, even though the court held that MP3tunes lacked knowledge of any infringement beyond that identified in the takedown notice, it still declared MP3tunes liable.173

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164. Id. at 634. It is likely that the song or website became unavailable after being targeted for copyright infringement.
165. Id. at 634-35.
166. Id. at 635.
170. Id. at 644-45.
171. Id.
172. Id. at 648.
173. Id. at 649.
MP3tunes only disabled access to the third-party sites on “sideload.”\(^{174}\) It refused to remove the songs from the users’ lockers which were “sideload-ed” from those sites.\(^{175}\) Since MP3tunes maintained records allowing it to readily ascertain which users “sideload-ed” songs from the infringing sites, it would not need to undergo an investigation to locate the infringement.\(^{176}\) Therefore, the court allowed the takedown notice to be used as the basis to impute knowledge to MP3tunes for the infringing “sideload-ed” songs located in users’ lockers.\(^{177}\)

Thus, the MP3tunes court continued the trend began by earlier decisions previously discussed in its application of § 512(c) by employing elevated standards of apparent and actual knowledge. The ruling, however, did offer some relief to copyright owners, by establishing that if an OSP can track transfers of infringing material on its service, for which it was given a compliant takedown notice, a duty exists to remove all of the infringing material traceable from the originally identified location.

III. “TOMORROW NEVER KNOWS”\(^{178}\) THE SCOPE OF KNOWLEDGE IN § 512(C)

The courts’ standards for both actual and apparent knowledge elevates the requirements a copyright owner must show to eject an OSP from § 512(c)’s embrace. Both interpretations of actual and apparent knowledge present copyright owners with exceptional difficulties in protecting their works on “music lockers” because of the required specificity demanded by courts in takedown notices.\(^{179}\) In order for copyright owners to adequately protect their work on “music lockers,” or anywhere, they must first know the scopes of apparent and actual knowledge.

\(^{174}\) Id. at 635.

\(^{175}\) Capitol Records, Inc., 821 F. Supp. 2d at 635.

\(^{176}\) See id at 648; see also Perfect 10, Inc. v. CCBill L.L.C., 488 F.3d 1102, 1114 (9th Cir. 2007).

\(^{177}\) Capitol Records, Inc., 821 F. Supp. 2d at 649; see also 17 U.S.C § 512(c)(1)(C) (2006).

\(^{178}\) The Beatles, Tomorrow Never Knows, on Revolver (Parlophone 1966).

\(^{179}\) See Perfect 10, Inc., 488 F.3d at 1112.
A. Apparent Knowledge: “Huh, Good God, What is it Good For?, Absolutely Nothing”

Much of the case law has grappled with what constitutes apparent knowledge. Many agree the resulting standard developed by courts creates a higher threshold than what § 512(c)’s plain language and legislative history anticipates. Currently, a nebulous understanding of this high threshold exists because no copyright owner has ever succeeded when relying on apparent knowledge to show an OSP was aware of infringement.

Courts consistently state that in order for apparent knowledge to exist under the “red flag” test, a copyright owner must show that the OSP knew of “specific instances of infringement” or that the OSP “turned a blind eye to infringement.” Some courts go so far as to insist that apparent knowledge is not “what a reasonable person would have deduced.” This contradicts Congress’s interpretation. The “red flag” test proclaims apparent knowledge exists when “infringing activity would have been apparent to a reasonable person operating under the same or similar circumstances.” By stating that it is not “what a reasonable person would have deduced” courts generally overlook the objective part of the “red flag” test. Nowhere does the test call for the

180. EDWIN STARR, War, on HE WHO PICKS THE ROSE (Gordy 1970).
182. Black, supra note 16 at 773; Chang, supra note 16 at 203.
183. Chang, supra note 16, at 203. Although, this may change on remand based upon the decision by the Second Circuit that YouTube may have been willfully blind to infringement. See Viacom Int’l, Inc. v. YouTube, Inc., 676 F.3d 19, 35 (2d Cir. 2012) (discussing willful blindness in the context of the DMCA).
186. Id. (citing Corbis Corp. v. Amazon.com, Inc., 351 F. Supp. 2d 1090, 1108 (W.D. Wash. 2004)).
187. S. REP. NO. 105-190, at 44.
188. See id. The Second Circuit does note that the apparent knowledge is an objective determination but still insists that the OSP be aware of specific incidents of infringement. See Viacom Int’l, Inc. v. YouTube, Inc., 676 F.3d 19, 31 (2d Cir. 2012). Yet, the objective portion of the “red flag” test, as described by Congress, does not call for the OSP to be aware of specific incidents of infringement. As Congress explained, a court must look at the facts and circumstances of which the OSP was aware (a
identification of "specific instances of infringement." Courts, by requiring specificity and ignoring the objective element of the "red flag" test, have thus driven apparent knowledge into the realm of actual knowledge.

Furthermore, the application of the "turned a blind eye to infringement" test in evaluating the presence of apparent knowledge also indicates that courts consistently require actual instead of apparent knowledge. This standard is that of willful blindness, and "the traditional rationale for the doctrine is that defendants who behave in this manner are just as culpable as those who have actual knowledge." As such, when a defendant is found to exhibit willful blindness, courts declare that the defendant possesses actual knowledge under whatever statute he or she is being prosecuted. Thus, those courts requiring a defendant to willfully ignore incidents of infringement in fact mandate that the copyright holder show actual, instead of apparent, knowledge under § 512(c)(1)(A)(ii).

Further, the use of the tests discussed above in determining if an OSP possess apparent knowledge creates a redundancy in § 512(c) between actual and apparent knowledge, giving both subsections the same effect that subjective question), and then, and only then, objectively determine from those facts and circumstances whether a reasonable person would conclude infringement was apparent. See S. REP. No. 105-190 at 44.

189. Viacom Int'l, Inc., 714 F. Supp. 2d at 523 (emphasis added); See also S. REP. No. 105-190, at 44.


191. Willful blindness is the "[d]eliberate avoidance of a crime, esp. by failing to make a reasonable inquiry about suspected wrongdoing despite being aware that it is highly probable." BLACK'S LAW DICTIONARY (9th ed. 2009). In fact, the Second Circuit specifically condoned the use of willful blindness in determining if an OSP had apparent knowledge. See YouTube, Inc. 676 F.3d at 34-35.


193. See id. at 2072 (holding that a finding of willful blindness was sufficient to establish actual knowledge of the existence patent in a suit for patent infringement).

194. See Jane C. Ginsberg, Separating the Sony Sheep from the Grokster Goats: Reckoning the Future Business Plans of Copyright-Dependent Technology Entrepreneurs, 50 ARIZ. L. REV. 577, 598 (2008) ("[A]pparent does not mean 'in fact illegal,' nor does it mean 'conclusively exists.' Such an interpretation would allow the service provider to 'turn a blind eye' to infringements because the provider could claim the possibility that some files might be fair use means that infringement can never be 'apparent' as to any file.").

195. Brief of Appellant at 3 Viacom Int'l, Inc. v. YouTube, 676 F.3d 19 (2nd Cir.
is, if courts used the correct standard of actual knowledge. Such an interpretation goes against a fundamental principle of statutory interpretation: “that no provision should be construed to be entirely redundant.” If the redundancy was eliminated and apparent knowledge construed as intended, general awareness of infringement could constitute apparent knowledge under the reasonable person interpretation in the Senate Report. It is difficult to imagine that apparent knowledge cannot exist when, according to one report, 90% of the material residing on locker services is copyrighted material posted illegally, and the report further states that illegal content download makes up 73.2% of all non-pornographic traffic from various forms of online lockers. If courts correctly applied the “red flag” test, as originally intended, apparent knowledge would likely exist with such high percentages of infringement occurring on OSPs. It would certainly make infringement apparent to a “reasonable person operating under the same or similar circumstances.” In fact, the defendants in Viacom and UMG Recording would face liability if courts used such an application of the apparent knowledge standard.

The present interpretation of § 512(c)(1)(A)(ii) leads to a redundancy that prevents the correct application of the “red flag” test in determining whether an OSP possesses apparent
knowledge. Under the courts’ heightened interpretation of apparent knowledge it succeeds in meeting one of the dual goals of the DMCA by ensuring OSPs will not face crushing liability for infringement, but it undermines the DMCA’s other goal, to ensure the copyright owners works “will be protected against massive piracy.” The standard of the “red flag” undermines the cooperation that § 512 meant to foster between OSPs and copyright owners.

B. Actual Knowledge: Does it Exist?

Due to courts elevating the standard of apparent knowledge to that of actual knowledge, copyright owners are left with one option: to show that an OSP possessed actual knowledge of infringement. But just as with apparent knowledge, courts have raised the bar for actual knowledge. This elevation allows OSPs to operate with awareness that infringement is occurring on their services, and in some cases facilitate it.

Black’s Law Dictionary states that actual knowledge arises with “direct and clear knowledge.” Despite this high standard a copyright owner would face if courts applied the true test of actual knowledge, courts limit the language of § 512(c)(1)(A)(i) further. They require that the OSP receive a takedown notice from the copyright owner, substantially complying with § 512(c)(3) to evidence actual knowledge.

203. Id. at 8.
204. Id.
205. See S. REP. NO. 105-190, at 40; see also Chang, supra note 16, at 219; Michael S. Sawyer, Note, Filters, Fair Use & Feedback: User-Generated Content Principles and the DMCA, 24 BERKLEY TECH. L. J. 363, 372 (2009) (stating that the courts’ interpretation of subjective awareness under apparent knowledge could lead to OSPs purposefully designing their sites to prevent the possibility of awareness of red flags arising).
207. BLACK’S LAW DICTIONARY (9th ed. 2009).
208. See 17 U.S.C. § 512(c)(3) (2006). Compare Viacom Int’l, Inc. v. YouTube, Inc., 718 F. Supp. 2d 514, 525 (S.D.N.Y. 2010) (finding that the OSP possessed actual knowledge because it received a takedown notice), with Io Group, Inc. v. Veoh Networks, Inc., 586 F. Supp. 2d 1132, 1148 (N.D. Cal. 2008) (stating that the OSP lacked actual knowledge because the OSP never received a takedown notice from the plaintiff). Further, the Second Circuit’s decision does not indicate that this is likely to
The *Io* court definitively adopted this standard when stating, “[p]laintiff provided no notice to Veoh of any claimed infringement. Thus, there is no question . . . that Veoh lacked actual knowledge of the alleged infringing activity at issue.”

While later courts have not specifically cited *Io* for this proposition, they continue to apply this standard. If, as was the case in *Viacom*, notice is sent to an OSP, actual knowledge of infringement will only exist for those works identified with a specified location despite the fact that one can infer from the takedown that all copies of the identified works on the site are infringing. Further supporting the proposition is the fact that courts only examine whether an OPS has actual knowledge in cases which an OSP receives a takedown notice from the complaining copyright holder, and, in cases where the OSP never receives a takedown notice, courts limit their discussion to apparent knowledge after briefly discussing the inapplicability of actual knowledge.

As it stands, courts will not find the presence of actual knowledge under § 512(c)(1)(A) unless the OSP receives a takedown notice from the complaining copyright holder. Congress, however, made clear that a takedown was not required for copyright holders to enforce their rights. In fact, Congress confirmed that a takedown notice was change because on remand the court is to examine whether YouTube had knowledge of specific incidents of infringement based on the internal emails and reports of YouTube’s. See *Viacom Int’l, Inc. v. YouTube*, 676 F.3d 19, 41-42 (2d Cir. 2012). Yet, nowhere does court consider that these can constitute actual knowledge, despite their contents evidencing that the executives and employees were actually aware that copyrighted material was posted on the site illegally. See *id.* at 33-34 (demonstrating that YouTube employees knew that users had posted copyrighted material illegal on it).

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212. See *Io Group, Inc.*, 586 F. Supp. 2d at 1148.
213. See Greg Jansen, *Whose Burden is it Anyway? Addressing the Needs of Content Owners in DMCA Safe Harbors*, 62 FED. COMM. L.J. 153, 162-63 (2010) (claiming that courts will only find an OSP to have actual knowledge if the copyright owner previously sent it a takedown notice pursuant to § 512(c)(3)).
214. “Under this subsection [§ 512(c)(3)], the court shall not consider such notifications as evidence of whether the service provider has actual knowledge, is aware of facts or circumstances . . . .” S. REP. No. 105-190, at 46 (1998).
unnecessary to evidence knowledge. The intersection of a takedown notice and knowledge only establishes that if the takedown notice is faulty by not complying with the requirements of § 512(c)(3), it cannot be the foundation for imputing knowledge of infringement to the OSP. The courts’ interpretation of actual knowledge under § 512(c)(1)(A)(i) ignores Congress’s explicit statement that “copyright owners are not obligated to give notification of claimed infringement in order to enforce their rights.” Yet, by requiring a takedown notice to show actual knowledge, courts do, in fact, require notification for copyright owners to enforce their rights.

Courts’ confusion of apparent knowledge with actual knowledge, coupled with the heightened standard of actual knowledge requiring the receipt of a takedown notice to show its presence, means copyright owners must rely on their own actions to prevent infringement. By requiring copyright owners to issue a takedown notice in order to show that an OSP possessed actual or apparent knowledge of infringement, the courts place copyright holders’ rights in jeopardy, especially on “music lockers.”

C. Liability and Protection in the Cloud: Can Copyright Owners Protect Their Works in the Cloud

As a result of the melding of apparent knowledge and actual knowledge, and the strict requirements to issue a takedown notice, only two circumstances exist by which copyright owners within the music industry can prevent infringement on “music lockers.” The first exists where the OSP actually based its entire business model on the premise that its “music locker” would induce users to commit

215. “Section 512 does not require use of the notice and take-down procedure. A service provider wishing to benefit from the limitation of liability under subsection (c) must ‘take down’ or disable access to infringing material . . . of which it has actual knowledge or that meets the ‘red flag’ test, even if the copyright owner or its agent does not notify it of a claimed infringement.” Id. at 45 (emphasis added).

216. Id.; see 17 U.S.C. § 512(c)(1)(C), (3)(B)(ii) (2011); see also Perfect 10, Inc. v. CCBILL L.L.C., 488 F. Supp. 2d 1102, 1112-13 (9th Cir. 2007) (refusing to impute knowledge to an OSP because notice provided by the copyright holder did not substantially comply with § 512(c)(3)).

217. S. REP. No. 105-190, at 45.
infringement resulting in contributory liability.\textsuperscript{218}

The second case involves the copyright owner first issuing a takedown notice to the “music locker,” forcing the OSP to remove the infringing material.\textsuperscript{219} There are two ways in which sending the takedown notice could conclude. First, a situation similar to that in \textit{MP3tunes} could occur where, after receiving a takedown notice, the OSP fails to adequately respond thereby becoming liable for infringement as a result of the imputation of knowledge disqualifying them from the safe harbor of § 512(c).\textsuperscript{220} The other scenario results when the OSP acts expediently by removing access to the infringing material and thus avoids liability.\textsuperscript{221}

Issuing the takedown notice, however, presents copyright owners in the music industry with a quandary. The private characteristic of “music lockers” makes issuing a compliant takedown notice nearly impossible because of the need for the identification of the specific location of infringement,\textsuperscript{222} that is, unless the “music locker” has a feature such as MP3tunes’s “sideload.”\textsuperscript{223} All “music lockers” permit access to a locker only with the correct username and password. Since parties seeking to issue takedown notices will not have access to these keys, they are unable to issue a substantially compliant takedown notice because the copyright owner cannot provide the OSP with the required specificity of location.\textsuperscript{224}

Due to the difficulties in issuing substantially compliant takedown notices to “music lockers,” OSPs are allowed to remain complacent, since they need not fear reprisal because

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\item \textsuperscript{218} See Metro-Golwyn-Mayer Studios Inc. v. Grokster, Ltd., 545 U.S. 913 (2005).
\item Grokster, as a peer-to-peer file sharing platform, could not qualify for any of § 512’s safe harbors but under the Court’s ruling any OSP whose sole purpose was to promote infringement on their service would be contributorily liable no matter if they fit into one of § 512’s safe harbors.
\item \textsuperscript{219} See 17 U.S.C. § 512(c)(1)(C), (c)(3) (2006).
\item \textsuperscript{221} The only instance in which the DMCA’s dual goals are actually fulfilled.
\item \textsuperscript{223} See Capitol Records, Inc., 821 F.Supp. 2d at 648-49; see also supra Part II.B (discussing the function of “sideload”).
\item \textsuperscript{224} See § 512(c)(3)(A)(iii); see also Perfect 10, Inc. v. CCBill L.L.C. 488 F. Supp. 2d 1102, 1112-13 (9th Cir. 2007); Capitol Records, Inc., 821 F. Supp. 2d at 642-42; Viacom Int’l, Inc. v. YouTube, Inc., 718 F. Supp. 2d 514, 528-29 (S.D.N.Y. 2010).
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the courts’ heightened knowledge standards. This results from the fact that OSPs “have no affirmative duty to police their users”\textsuperscript{225} and “the DMCA notification procedures place the burden of policing copyright infringement . . . squarely on the owners of the copyright.”\textsuperscript{226} The burden resting on the copyright owners to prevent infringement, and their inability to issue the takedown notices to “music lockers,” allows the OSPs to ignore users’ infringement, thereby, creating a safe harbor for infringement on “music lockers.”

IV. A BALANCE OF INTERESTS IN PREVENTING INFRINGEMENT

“Music lockers” were unanticipated technology in 1998 when Congress passed the DMCA. While “music lockers” fit neatly into the definition of an OSP which qualifies for the safe harbor of § 512(c), the nature of “music lockers” make a copyright owner’s remedies in the section largely irrelevant. Instead, what is needed to both prevent the crushing liability feared by OSPs and to ensure that the music industry is compensated for the use of its copyrighted works, is an alternative solution to the one provided by the DMCA. Without an adequate system in place to provide those who own the musical copyrights with compensation, revenues will continue to drop as the Internet increasingly becomes the dominant vehicle for music commerce.\textsuperscript{227} This could result in the failure of one of copyright law’s primary goals – to promote the arts\textsuperscript{228} – by diminishing the incentive of artists to produce new musical works.

\textsuperscript{225}. Capitol Records, Inc., 821 F. Supp. 2d at 637. \textit{But see} Ginsberg, supra note 194, at 597 (“§ 512(m)’s dispensation of service providers from ‘affirmatively seeking facts indicating infringing activity,’ should not entitle a service provider to remain militantly ignorant.”).


\textsuperscript{228}. See U.S. CONST. art. I, § 8, cl. 8.
A. The Audio Home Recording Act: Framework for A Future

The Audio Home Recording Act of 1992\textsuperscript{229} (AHRA) could provide Congress with the guidelines to build a new statute giving copyright holders in the music industry their desired compensation for the storage of their songs on “music lockers” without resulting in the liability feared of by OSPs. The Act provides that two percent of the transfer price of every “digital audio device imported into and distributed in the United States” is to be collected for royalty payments, and payable by the first person to manufacture and distribute the device.\textsuperscript{230}

Previously, commentators suggested adding computers to the list of digital recording devices,\textsuperscript{231} but this casts the net too wide because not every computer is employed for music purposes. Instead, the better targets are “music lockers” themselves. Requiring the OSPs to distribute a select percentage of their revenues to copyright owners would remedy copyright holders concerns about the lack of compensation for the use of their works.\textsuperscript{232} In addition, a provision similar to the AHRA pertaining to “music lockers” would also assuage OSPs’ fears of crushing liability. This is because under the AHRA, when a party fails to remit the required fees, that party only becomes liable for the statutorily imposed royalty payments\textsuperscript{233} rather than facing the imposition of damages for infringement.\textsuperscript{234}

The more difficult question in employing such a scheme is its application to cloud storage services not solely devoted to the storage of songs.\textsuperscript{235} In such circumstances, a yearly audit could be conducted to determine the percentage of such

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\item \textsuperscript{229} See 17 U.S.C. § 1004 (2006).
\item \textsuperscript{230} § 1004(a)(1).
\item \textsuperscript{231} See Aldrich, supra note 3, at 15.
\item \textsuperscript{232} Some “music lockers” do not charge users for storage, however, these locker make their profits from ad revenue which can still be sizable. YouTube, whose main source of revenue is ads, made $450,000 million in revenue in 2009. Ryan Lawler, YouTube Revenues More Than Doubled in 2010, GIGAOM.COM (Jan. 20, 2011), http://www.gigaom.com/video/youtube-revenues-doubled.
\item \textsuperscript{233} “[A]ctual damages shall constitute the royalty payments that should have been paid . . . the court, in its discretion, may award an additional amount of not to exceed 50 percent of the actual damages.” 17 U.S.C. § 1009(d)(1)(A)(ii) (2006).
\item \textsuperscript{234} “No action may be brought under this title alleging infringement of copyright . . . .” 17 U.S.C. § 1008 (2006).
\item \textsuperscript{235} Such services include Livedrive, the rackspace cloud, Mozy, and dropbox.
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lockers which are employed to store music. That percentage could then be the basis for calculating the required remittance of royalties to copyright owners.

B. “Do You Realize??” The Need for a New Statutory License

Another possible solution is the creation of a new statutory license. Contained within the Copyright Act are numerous sections which create compulsory licenses for the use of copyrighted works. Anyone wishing to use a copyrighted musical work may do so simply by following the procedure prescribed within the statutory license.

Storing songs in “music lockers” does not fall under the canopy of § 114, the compulsory license for the distribution by public performance of a digital audio record, since streaming music is not considered a public performance, and the argument that “music lockers” provide public performances is even more tenuous. A clarification establishing when a license is required to utilize or profit from an artist’s copyrighted musical works on “music lockers” is achievable through a new statutory license in the Copyright Act.

A new section can be instituted requiring a license for “music lockers” wishing to store copyrighted works on its service based on § 115, the compulsory license for making and distributing sound recordings. As such, the OSP need not obtain permission from the copyright owners to operate a music locker; it only needs to provide the required notice that it intends to exercise its right to use the musical work. After providing the copyright owner notice, the OSP would need to ensure that the statutorily prescribed licensing fees were submitted to the correct parties. If the fees failed to be remitted, only then would the OSP face liability for

236. THE FLAMING LIPS, Do You Realize, on YOSHIMI BATTLES THE PINK ROBOTS (Warner Bros. 2002).
238. § 114.
241. See § 115(b).
242. See § 115(c)(5).
The applicable rates for a license can be determined just as under § 115. The rate can be freely negotiated between the copyright owners and the OSP, or if a licensing rate cannot be agreed upon, they would be required to use the reasonable rates as determined by the Copyright Royalty Judges. On the possibility that rates, as determined by the Royalty Judges, would appear unfair to the OSP, for instance where the storage service was not solely devoted to store songs, then either the copyright owner or OSP could challenge the fees set by the Royalty Judges in the Court of Appeals for the District of Columbia.

CONCLUSION

The use of Internet applications to commit infringement consistently denies copyright owners the compensation to which they are entitled. “Music lockers,” more so than other online services, present copyright with more pernicious complications in combating infringement. The heightened standards of knowledge developed by the courts in construing § 512(c) lie at the heart of these difficulties. Without legislative intervention, “music lockers” have the capability of becoming safe harbors for infringement just as § 512(c) provides safe harbors to “music lockers.”

243. See § 115(c)(6).

244. See § 115(c)(3)(D). For an interesting decision holding the insulation from removal violated the Appointments Clause, see Intercollegiate Broad. Sys., Inc. v. Copyright Royalty Bd., 684 F.3d 1332 (D.C. Cir. 2012).