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## Infringers or Innovators? Examining Copyright Liability for Cloud-Based Music Locker Services

Brandon J. Trout

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# Infringers or Innovators? Examining Copyright Liability for Cloud-Based Music Locker Services

## ABSTRACT

*Music lockers—Internet sites where users may store a copy of their music for later playback—have revolutionized the way people listen to music, allowing them to take their music with them anywhere in the world. However, rights holders are concerned that these locker services potentially infringe music copyrights when they allow their users to upload and stream music and when they use a space-saving technology called “deduplication.” This Note delineates the separate rights guaranteed under the Copyright Act as applicable to music lockers: the right to copy and the right of public performance. The analysis looks at several music locker services to determine if they are directly or secondarily liable for copyright infringement, and, if they are, whether the Digital Millennium Copyright Act (DMCA) Safe Harbor could ultimately prevent judgment against them. Although a court may find locker services secondarily liable for infringement, the DMCA may still provide a safe harbor. Furthermore, this Note argues that Congress should update and clarify the Copyright Act to legalize the use of deduplication and to better define the DMCA’s public performance right.*

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Internet music lockers have revolutionized the way people listen to music. These services allow their users to upload their music to the services' Internet servers in order to listen to it from anywhere in the world.<sup>1</sup> While a user may think that a company that uses this business model is climbing a stairway to heaven, it is actually on the highway to hell. License holders who own the rights to the music the cloud service users have uploaded can now sue these music services for millions of dollars under theories of direct and secondary copyright infringement. Grooveshark,<sup>2</sup> iTunes,<sup>3</sup> and Google Music<sup>4</sup> are all music locker services located on the Internet, or "cloud," where users may upload their music collections to the cloud and then access that music at any time from any Internet-connected device.<sup>5</sup> Because courts have not yet fully resolved whether these new services may be liable for copyright infringement,<sup>6</sup> these companies have attempted to use

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1. See, e.g., *iTunes in the Cloud*, APPLE, <http://www.apple.com/icloud/features> (last visited Jan. 26, 2012).

2. *Grooveshark for iPhone*, GROOVESHARK, <http://mobile.grooveshark.com/phones/iphone> (last visited Feb. 10, 2012).

3. *iTunes in the Cloud*, *supra* note 1.

4. *About Google Music*, GOOGLE, <http://music.google.com/about> (last visited Jan. 24, 2012).

5. See sources cited *supra* notes 2-4.

6. See *infra* Part II.

different technical methods of uploading, storing, and streaming their users' music in order to limit potential liability.<sup>7</sup>

This Note analyzes the liability of music locker services under existing copyright law. The analysis will address two main issues: how the Digital Millennium Copyright Act (DMCA) applies to music lockers, and how Congress could amend the DMCA to achieve its dual objectives of protecting copyright owners while simultaneously fostering innovation and efficiency. Users' personal liability is beyond the scope of this Note.

Cloud-based music locker services represent a new and evolving form of media consumption, one that Congress could not have fully comprehended when, in 1998, it added the DMCA to the 1976 Copyright Act. Because legislators cannot write laws that place specific regulations on unforeseen future technologies, courts must analogize to older forms of technology such as VCRs, eight-track players, and cable television.

Part I of this Note explains the business models of various music locker services and provides background information on their services, the separate rights guaranteed to rights holders under the Copyright Act, and background information on the DMCA and its safe harbor provision. Part II analyzes the music locker services for direct and secondary liability. Finally, this Note concludes by identifying several points of law for Congress to clarify in the DMCA: specifically, affirming that music locker services may use deduplication technology and explaining who does the performing when a user streams a musical work from an online music locker.

## I. SETTING THE STAGE—LOCKER SERVICES, THE DMCA, AND THE RIGHTS GUARANTEED TO COPYRIGHT HOLDERS

Several features differentiate the locker services, the most salient of which are the use of deduplication and the existence of licensing from copyright holders. In order to analyze liability for these music locker services, this Part will delineate the separate rights guaranteed to the copyright holder by the DMCA, which include the right to copy and the right to public performance.

### A. Music Locker Services

This Note will analyze several different services, including Apple, Spotify, Google, Amazon, Dropbox, Grooveshark, and MP3tunes. There are several distinguishing features among these

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7. See *infra* Part I.A.

locker services. The largest factor is licensing; other factors include the use of deduplication (the automatic elimination of redundant data on a server), music-sharing capabilities for users, and streaming options.<sup>8</sup>

Spotify, which has recently entered the US market from Europe,<sup>9</sup> has established a licensing scheme with the four major US music labels: Sony Music Entertainment, EMI Group, Warner Music Group, and Universal Music Group.<sup>10</sup> Spotify allows all users to listen to its licensed library of songs for free, and allows paying customers to stream music to their mobile devices.<sup>11</sup>

Apple's iTunes Match service is similar to Spotify's in that it also has licensing agreements with the four major music labels.<sup>12</sup> iTunes Match works by scanning users' music libraries and then giving users access to iTunes songs that correspond with those on their computers, regardless of whether the user purchased them legitimately or pirated them.<sup>13</sup> If a song is not already stored on Apple's servers, the server uploads and stores it as the master copy for future users to access.<sup>14</sup> Users only receive access to the songs that they have uploaded, unlike with other services that grant access to any song that exists on the server.<sup>15</sup>

Grooveshark only has a licensing deal with EMI, which resulted after EMI sued it for copyright infringement; however, Grooveshark stores any music that its users upload.<sup>16</sup> Users are able to listen to any song on Grooveshark for free and paying users can

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8. See *infra* text accompanying notes 9-21.

9. Jason Ankeny, *Spotify Goes Live in the U.S. After Clinching Warner Music Deal*, FIERCE MOBILE CONTENT (July 14, 2011, 7:57 AM), <http://www.fiercemobilecontent.com/story/spotify-goes-live-us-after-clinching-warner-music-deal/2011-07-14>.

10. *Id.*

11. *What Can Spotify Do?*, SPOTIFY, <http://www.spotify.com/us/about/features> (last visited Feb. 6, 2012).

12. Chris Foresman, *Why iTunes Match Has Indie Soul Label Singing the Blues*, ARS TECHNICA, <http://arstechnica.com/apple/news/2011/06/why-itunes-match-has-indie-soul-label-singing-the-blues.ars> (last visited Jan. 26, 2012).

13. *iTunes in the Cloud*, *supra* note 1 (explaining how iTunes match works). The concern with this system is that a user could pirate thousands of songs and then use iTunes Match to gain access to legitimate copies of his music. See *infra* Part II.A.

14. *iTunes in the Cloud*, *supra* note 1.

15. *Id.*

16. Jon Healey, *Looking for Napster 2.0*, L.A. TIMES, Oct. 15, 2007, <http://www.latimes.com/news/opinion/la-oe-w-healey15oct15,0,1679894.story>; Eliot Van Buskirk, *EMI Drops Suit Against Grooveshark Music Service, Licenses It Instead*, WIRED (Oct. 13, 2009, 12:00 PM), <http://www.wired.com/epicenter/2009/10/emi-drops-suit-against-grooveshark-music-service-licenses-it-instead>.

stream music to their mobile devices, including music that others have uploaded.<sup>17</sup>

Dropbox and MP3tunes both use a new technology called “deduplication” in their storage of user-uploaded media.<sup>18</sup> Deduplication is a technical process that analyzes new data to be stored on a server and compares it to information that is already stored there.<sup>19</sup> The server catalogues and eliminates any redundant data, thus saving valuable storage space, bandwidth, and costs.<sup>20</sup> When a user uploads his music library to MP3tunes, its servers only upload the songs that are not already on the server, simultaneously retaining a unique copy of each song for the user while eliminating redundant data on the server.<sup>21</sup>

### B. Rights Granted by the DMCA

The Copyright Act guarantees copyright holders an exclusive and specific bundle of rights.<sup>22</sup> These rights include the right to copy and the right to public performance.<sup>23</sup> Because courts may find liability for a breach of any one of these rights, this Note delineates between the different Copyright Act rights that music locker services implicate. The right to copy becomes relevant when a user uploads a song to a music locker’s servers, and the right of public performance stems from the streaming of the song back to the user.

#### 1. The Right to Copy

First in the list of rights delineated in the US Copyright Act is the copyright holder’s exclusive privilege to reproduce his works.<sup>24</sup>

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17. *Grooveshark for iPhone*, *supra* note 2; *Terms of Service*, GROOVESHARK, <http://www.grooveshark.com/terms> (last updated Jan. 9, 2012).

18. *Capitol Records, Inc. v. MP3tunes, LLC*, No. 07 Civ. 9931 (WHP), 2011 U.S. Dist LEXIS 93351, at \*50 (S.D.N.Y. Aug. 22, 2011); Ed Silverstein, *FTC Gets Complaint on Dropbox Related to Deduplication*, TMCNET.COM (May 17, 2011), <http://www.tmcnet.com/topics/articles/175730-ftc-gets-complaint-dropbox-related-deduplication.htm>.

19. *Data Deduplication (Intelligent Compression or Single-Instance Storage)*, SEARCHSTORAGE, <http://searchstorage.techtarget.com/definition/data-deduplication> (last updated Sept. 2008) [hereinafter *Data Deduplication*].

20. *Id.*

21. *MP3tunes*, 2011 U.S. Dist LEXIS 93351, at \*50.

22. 17 U.S.C. § 106 (2006); *see* *Cartoon Network LP v. CSC Holdings, Inc. (Cablevision II)*, 536 F.3d 121, 126 (2d Cir. 2008), (applying the rights to copy and public performance to television shows stored on a remote server), *vacating in part, rev’g in part* *Twentieth Century Fox Film Corp. v. Cablevision Sys. Corp. (Cablevision I)*, 478 F. Supp. 2d 607, 622-23 (S.D.N.Y. 2007).

23. 17 U.S.C. § 106; *Cablevision II*, 536 F.3d at 126.

24. 17 U.S.C. § 106(1).

The Act defines copies as “material objects . . . in which a work is fixed by any method . . . and from which the work can be . . . reproduced.”<sup>25</sup> The work must be stored for longer than a “transitory duration.”<sup>26</sup>

The US Court of Appeals for the Second Circuit applied this definition in the 2008 case *Cartoon Network LP v. CSC Holdings, Inc. (Cablevision II)*, where defendant Cablevision, a cable television service provider, implemented a recording system that allowed users to record television shows that Cablevision transmitted to them.<sup>27</sup> The court specifically looked to Cablevision’s copyright liability, not the liability of its subscribers.<sup>28</sup> When Cartoon Network aired a television program, it would stream that program to Cablevision, which would in turn transmit the program to the customer.<sup>29</sup> If the customer chose to record the program, Cablevision’s system would record the show as Cartoon Network transmitted it, maintaining a unique, individual copy on its own servers for each customer who recorded the program.<sup>30</sup> If a customer did not choose to record the program, Cablevision did not maintain any copy of the program for that customer.<sup>31</sup>

The two issues were whether Cablevision’s temporary copy or its permanent storage of the cable video stream were each a “copy” under the DMCA.<sup>32</sup> The court found that the buffered stream, which Cablevision saved for 1.2 seconds, existed only for a transitory duration and thus was not legally a copy; however, the more permanent recording that remained on Cablevision’s servers was a copy.<sup>33</sup> Additionally, a separate court recognized that there was no question that when a user copies a work onto an Internet Service Provider’s (ISP) servers, he makes a copy for DMCA purposes.<sup>34</sup>

## 2. The Right of Transmission and Public Performance

The second right guaranteed to copyright holders is the right to transfer, or perform, a work to the public.<sup>35</sup> This right contains three

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25. *Id.* § 101.

26. *Id.* (defining “fixed” under the Copyright Act).

27. *Cablevision II*, 536 F.3d at 124, 127.

28. *Id.* at 140.

29. *Id.* 536 F.3d at 124.

30. *Id.*

31. *Id.* at 124-25.

32. *Id.* at 127.

33. *Id.* at 129-30.

34. *In re Aimster Copyright Litig.*, 252 F. Supp. 2d 634, 648 (N.D. Ill. 2002) (citing *NLFC, Inc. v. Devcom Mid-Am., Inc.*, 45 F.3d 231, 235 (7th Cir. 1995)).

35. 17 U.S.C. § 106(4) (2006).

parts: (1) the work that is being performed,<sup>36</sup> (2) the audience of the performance,<sup>37</sup> and (3) the transfer or performance of the work.<sup>38</sup> Courts disagree on whether performing a single copy of a work to multiple people or performing a single copy, unique to each user who receives it, of a given work may violate the public performance right.<sup>39</sup> It is settled, however, that the work at issue is the original work that was created,<sup>40</sup> and the performance of that work is the act of transmission to the public.<sup>41</sup> Thus, for this Note, the transmission of a performance is the streaming of a song, which is the original work, to a service's subscriber.

Applying this test in *Columbia Pictures Industries, Inc. v. Redd Horne, Inc.*, the US Court of Appeals for the Third Circuit found that a single copy of a work, performed to the public, constituted a public performance in the case of a video rental store.<sup>42</sup> Redd Horne operated a video rental store where customers could rent and privately view videos in Redd Horne's in-store viewing booths.<sup>43</sup> Because many customers were able to watch a single copy of a videocassette individually, the store's actions triggered the public performance right.<sup>44</sup> The court relied heavily on the fact that Redd Horne played the same copy of a videocassette for each of its customers who viewed it.<sup>45</sup>

Extending the Third Circuit's ruling, the Second Circuit in *Cablevision II* held that the use of distinct copies of television programs for each subscriber was essential to defeating a claim of infringement of the public performance right.<sup>46</sup> That court found that

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36. *Cablevision II*, 536 F.3d at 135.

37. 17 U.S.C. § 101; *Cablevision II*, 536 F.3d at 134-35.

38. *Cablevision II*, 536 F.3d at 134-35.

39. *Compare id.* (holding that a system that maintains a unique copy of a television show for each user, and only accessible by that user, does not violate the public performance right), with *Capitol Records, Inc. v. MP3tunes, LLC*, No. 07 Civ. 9931 (WHP), 2011 U.S. Dist LEXIS 93351, at \*50 (S.D.N.Y. Aug. 22, 2011) (suggesting that a system that employs a "master" or single copy of a work that is accessible to many users may violate the public performance right).

40. *See Cablevision II*, 536 F.3d at 136 (holding that the transmission of a performance to the public refers to the performance that is created "by the act of transmission"). Plaintiffs unsuccessfully argued that the transmission referred to the "original performance" or work, which would imply that the potential audience for any transmission not only encompasses those currently receiving the transmission, but any potential audience who may receive a transmission of the underlying work. *Id.*

41. *Id.*

42. *Columbia Pictures Indus., Inc. v. Redd Horne, Inc.*, 749 F.2d 154, 159 (3d Cir. 1984).

43. *Id.* at 156-57.

44. *Id.*

45. *Id.* at 159.

46. *Cablevision II*, 536 F.3d 121, 138-39 (2d Cir. 2008).

the use of a unique copy for each viewer was significant because it limited the number of people who might view each transmission, a relevant factor in determining whether Cablevision made a transmission to the public.<sup>47</sup>

The second part of the test to determine if a party has violated the public performance right looks to the audience of the performance.<sup>48</sup> The Copyright Act defines performing a work “publicly” as either performing the work at a place “open to the public,” or transmitting a performance of the work “to the public . . . whether the members of the public capable of receiving” the transmission receive it at separate times or places.<sup>49</sup> The *Cablevision II* court noted that defining who constitutes the “universe of people capable of receiving” the transmission of the performance, rather than those who actually receive the transmission of the performance, is essential in order to determine liability in this context.<sup>50</sup>

In determining the size of Cablevision’s viewing audience, the court cited the legislative history surrounding the most recent overhaul of the Act in 1976.<sup>51</sup> The 1976 House Report states that courts should consider a transmission “public” even if none of the “*potential recipients* was operating his receiving apparatus at the time of the transmission. The same principles apply whenever the *potential recipients of the transmission* represent a limited segment of the public, such as . . . the subscribers of a cable television service.”<sup>52</sup> Additionally, the court cited a 1967 House Report that had addressed this same issue, noting that the transmission clause would be implicated when the transmission is “capable of being performed or displayed *at the initiative of individual members of the public.*”<sup>53</sup> This analysis leaves room for non-public transmissions.<sup>54</sup>

It is important to clarify the difference between the transmission of a “work”—the transmission of the original creation, which does not violate an author’s rights under the Act—and the transmission of a “performance”—any transmission of a particular copy of a work, which may lead to liability for infringement.<sup>55</sup> The

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47. *Id.* at 138.

48. *Id.* at 134.

49. 17 U.S.C. § 101 (2006).

50. *Cablevision II*, 536 F.3d at 134, 137.

51. *Id.* at 135 (citing H.R. REP. NO. 94-1476, at 64-65 (1976), *reprinted in* 1976 U.S.C.C.A.N. 5659, 5678).

52. *Id.* (quoting H.R. REP. NO. 94-1476, at 64-65 (1976), *reprinted in* 1976 U.S.C.C.A.N. 5659, 5678).

53. *Id.* (emphasis added) (citing H.R. REP. NO. 90-83, at 29 (1967)).

54. *Id.* 536 F.3d at 136.

55. *See* 17 U.S.C. § 101 (2006); *see also Cablevision II*, 536 F.3d at 135-36.

district court in *Twentieth Century Fox Film Corp. v. Cablevision Systems Corp. (Cablevision I)* had concluded that a transmission of the same television program to members of the public would constitute a public performance, regardless of whether Cablevision maintained individual copies of the program for each user.<sup>56</sup> The problem with such an approach is that the *potential* audience for a work is the public in general.<sup>57</sup> Under this court's analysis, *any* transmission of *any* work could implicate the public performance clause because anyone else could potentially receive a transmission of the work, even though he may not be able to receive the same transmission as other audience members.<sup>58</sup>

On appeal, the plaintiffs in *Cablevision II* asked the court to interpret the transmission clause as implicating any transmission of the original performance to the public.<sup>59</sup> The court of appeals rejected this argument, noting the unworkable result: if a customer were to transfer a song from a compact disc he owns to his computer, he would be liable under the public performance clause "simply because some other party had once transmitted the same underlying performance to the public."<sup>60</sup> Congress surely did not intend such "odd results," the court posited.<sup>61</sup>

The crux of the analysis in *Cablevision II* is that a court must examine specifically who is "capable of receiving" the transmission of a performance.<sup>62</sup> Appellate courts seem to be in agreement that if an ISP transmits to only one subscriber, using a copy of the work that subscriber made himself, then the only person capable of receiving the transmission is that individual subscriber.<sup>63</sup> The right of reproduction bolsters protection for copyright holders because, although a rights holder may not be able to recover damages for a non-public transmission, he may be able to recover for the copying that preceded the transmission.<sup>64</sup>

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56. *Cablevision I*, 478 F. Supp. 2d 607, 622-23 (S.D.N.Y. 2007), *vacated in part by, rev'd in part sub nom. Cablevision II*, 536 F.3d 121.

57. *Cablevision II*, 536 F.3d at 135-36.

58. *Id.*

59. *Id.* at 136.

60. *Id.*

61. *Id.*

62. *Id.* at 135.

63. *Id.* at 137; *see* *Capitol Records, Inc. v. MP3tunes, LLC*, No. 07 Civ. 9931 (WHP), 2011 U.S. Dist LEXIS 93351, at \*50 (S.D.N.Y. Aug. 22, 2011).

64. 17 U.S.C. § 106(1) (2006); *Cablevision II*, 536 F.3d at 138.

### C. The DMCA: A Modern Addition to the Copyright Act

Congress adopted the DMCA in 1998 in response to growing concerns over digital piracy.<sup>65</sup> Copyright holders believed the 1976 Act was insufficient to protect their interests because it did not contemplate copyright protection in a modern digital world, and therefore they lobbied Congress to implement the DMCA.<sup>66</sup> Generally, the DMCA heightens liability for copyright infringement, but it also provides a safe harbor for ISPs who comply with certain provisions.<sup>67</sup>

The DMCA applies to ISPs, defined broadly as “a provider of online services,” including any service that provides “digital online communications, between or among points specified by a user, of material of the user’s choosing.”<sup>68</sup> Cloud-based music locker services meet this definition because they exist to allow users to transfer communications (music) between or among points (the user’s computer and the ISP’s server) of the user’s choosing.<sup>69</sup> The use of ISP in this Note—technically defined as any service provider on the Internet—should not be confused with the colloquial definition of ISP (a company that provides Internet access, such as Comcast).<sup>70</sup>

The safe harbors built into the DMCA include offsetting the penalties for direct copyright infringement.<sup>71</sup> Congress designed the safe harbors to give immunity to those ISPs that are “innocent,”<sup>72</sup> and the US Supreme Court has stated that courts should construe these safe harbors narrowly.<sup>73</sup> As a threshold matter, an ISP must implement a repeat infringer policy in order to qualify for safe harbor immunity.<sup>74</sup> Essentially, the requirement creates a strong incentive for ISPs to make some reasonable effort to prevent repeat infringers from abusing their services.<sup>75</sup>

65. Diane Leenheer Zimmerman, *Adrift in the Digital Millennium Copyright Act: The Sequel*, 26 U. DAYTON L. REV. 279, 279 (2001).

66. *Id.*

67. *Id.*

68. 17 U.S.C. § 512(k); *ALS Scan, Inc. v. RemarQ Cmty., Inc.*, 239 F.3d 619, 623 (4th Cir. 2001) (finding that a provider of access to online newsgroups is a service provider under the DMCA).

69. See 17 U.S.C. § 512(k); see also *ALS Scan*, 239 F.3d at 623.

70. See *Internet Service Provider*, DICTIONARY.COM, <http://dictionary.reference.com/browse/internet+service+provider> (last visited Mar. 15, 2012).

71. See 17 U.S.C. § 512(g).

72. *Capitol Records, Inc. v. MP3tunes, LLC*, No. 07 Civ. 9931 (WHP), 2011 U.S. Dist LEXIS 93351, at \*17 (S.D.N.Y. Aug. 22, 2011) (quoting *ALS Scan*, 239 F.3d at 625).

73. *Id.* (citing *United States v. Texas*, 507 U.S. 529, 534 (1993)).

74. 17 U.S.C. § 512(i).

75. See, e.g., *In re Aimster Copyright Litig.*, 252 F. Supp. 2d 634, 655 (N.D. Ill. 2002); see also *Corbis Corp. v. Amazon.com, Inc.*, 351 F. Supp. 2d 1090, 1100-01 (W.D. Wash. 2004) (holding that Congress designed § 512(i) to prevent websites from receiving immunity from

Courts have identified three threshold requirements that a service provider must comply with in order to be eligible for one of the DMCA's safe harbors<sup>76</sup>: (1) an ISP must implement some system for receiving and executing takedown notices,<sup>77</sup> (2) it must not interfere with the copyright holder's right to submit takedown notices,<sup>78</sup> and (3) the service must block access to those users who are repeated infringers.<sup>79</sup> However, in order to identify repeat infringers, the ISP does not have a duty to actively police and investigate its users; instead, the responsibility rests on the rights holder.<sup>80</sup>

Assuming that a locker service satisfies the threshold requirements, the safe harbor provision most applicable to online locker services is found in § 512(c), which addresses files that a user stored on an ISP's servers.<sup>81</sup> To become eligible for the safe harbor, the service (1) must not have actual knowledge of infringing material or activity,<sup>82</sup> (2) must not be aware of facts or circumstances from which infringing activity is apparent,<sup>83</sup> (3) must work quickly to remove infringing material upon notice of its existence,<sup>84</sup> and (4) must not receive a financial benefit directly resulting from the infringing activity.<sup>85</sup>

Included in the awareness requirement is the "red flag" knowledge doctrine.<sup>86</sup> Under this doctrine, an ISP may not assert a safe harbor defense if it is aware of certain red flags, such as a user linking to a website with a title containing words like "pirate" or "bootleg."<sup>87</sup> However, courts have held that a "general awareness" of

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liability if they allow users to violate copyright); *Perfect 10, Inc. v. Cybernet Ventures, Inc.*, 213 F. Supp. 2d 1146, 1178 (C.D. Cal. 2002).

76. See 17 U.S.C. § 512(i); *MP3tunes*, 2011 U.S. Dist LEXIS 93351, at \*19-20; see also *Perfect 10, Inc. v. CCBill L.L.C.*, 488 F.3d 1102, 1109-10 (9th Cir. 2007).

77. *MP3tunes*, 2011 U.S. Dist LEXIS 93351, at \*19-20.

78. *Id.* at \*20.

79. *CCBill*, 488 F.3d at 1109-10 (finding that a service provider did not meet the § 512(i) standard because it intentionally encrypted user information, and thereby prevented any enforcement of its anti-infringement policy).

80. *Id.* at 1111.

81. 17 U.S.C. § 512(c); *MP3tunes*, 2011 U.S. Dist LEXIS 93351, at \*24.

82. 17 U.S.C. § 512(c)(1)(A)(i).

83. *Id.* § 512(c)(1)(A)(ii).

84. *Id.* § 512(c)(1)(A)(iii), (c)(1)(C).

85. *Id.* § 512(c)(1)(B).

86. *Viacom Int'l Inc. v. YouTube, Inc.*, 718 F. Supp. 2d 514, 520-21 (S.D.N.Y. 2010).

87. See S. COMM. ON JUDICIARY, THE DIGITAL MILLENNIUM COPYRIGHT ACT OF 1998, S. REP. NO. 105-190, at 40-44 (1998).

infringement on an ISP's service is insufficient to constitute either actual or red flag knowledge.<sup>88</sup>

#### D. Deduplication

Another issue linked to the right to copy is the technology of deduplication, which, as mentioned above, is a method of eliminating redundant data in order to reduce storage and bandwidth costs.<sup>89</sup> For example, a server could back up one copy of a one-megabyte email attachment sent to one hundred people rather than an individual copy for each person, thus reducing storage requirements by orders of magnitude.<sup>90</sup> Additionally, deduplication systems use a related technology called "hashing" that assigns each unique file a "hash tag" (or "digital fingerprint") based on the contents of the file.<sup>91</sup> If a user tries to upload a song to a music locker's servers and the server determines that the song has an identical hash tag as a song that is already on the server, then the server does not upload the duplicate copy, but instead grants the user access to the file that already existed on the server.<sup>92</sup>

Deduplication, which merely eliminates redundant data, is distinct from maintaining a master copy of a song that is accessible to any of an ISP's users. Apple uses licensed master copies in its iTunes Match service.<sup>93</sup> When a user tries to upload a song, the server recognizes that individual song, and rather than uploading a new copy of it, the server gives that user access to the master copy: the server's existing copy of that song.<sup>94</sup> The resulting reduction of bandwidth and storage costs provides a strong economic incentive for implementing this system.<sup>95</sup>

Courts are still split on whether unlicensed deduplication results in an illegal master copy or whether it is in itself illegal.<sup>96</sup> The

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88. See *Viacom*, 718 F. Supp. 2d at 523-25 (holding that although YouTube might have a general awareness of the proclivity of its users to upload infringing content, finding YouTube liable without actual knowledge would "contravene the structure and operation of the DMCA").

89. *Data Deduplication*, *supra* note 19; see also *supra* notes 18-20 and accompanying text.

90. *Data Deduplication*, *supra* note 19.

91. See Ralph C. Losey, *Hash: The New Bates Stamp*, 12 J. TECH. L. & POL'Y 1, 2 (2007) (providing an example hash tag as "162B6274FFEE2E5BD96403E772125A35").

92. See *Capitol Records, Inc. v. MP3tunes, LLC*, No. 07 Civ. 9931 (WHP), 2011 U.S. Dist LEXIS 93351, at \*50 (S.D.N.Y. Aug. 22, 2011); *Data Deduplication*, *supra* note 19.

93. Timothy Lee, *Are Google Music and Amazon Cloud Player Illegal?*, WIRED (July 9, 2011, 9:30 AM) <http://www.wired.com/epicenter/2011/07/google-amazon-illegal/all/1>; see also *supra* notes 13-15 and accompanying text.

94. See *Lee supra*, note 93; see also notes 13-15 and accompanying text.

95. See *Data Deduplication*, *supra* note 19.

96. See *infra* notes 97-102.

*Cablevision II* court found that because Cablevision kept an individual copy of the shows for each user, there could not be a performance to the “public” because the shows were available only to that user and not for the general public to view.<sup>97</sup> However, the court explicitly limited the holding to that narrow scenario.<sup>98</sup> Because the court declined to extend its holding to any other form of media,<sup>99</sup> it avoided a more general ruling to guide liability determinations in future deduplication cases.<sup>100</sup> The court in *Capitol Records, Inc. v. MP3tunes, LLC*, on the other hand, came down squarely in favor of allowing unlicensed deduplication, noting that MP3tunes removed “redundant digital data” and did not keep a master copy of any of EMI’s songs on its servers.<sup>101</sup> The court highlighted this distinction as important, suggesting that MP3tunes may have been liable if it had used a master copy.<sup>102</sup>

Because the legality of deduplication itself is still up in the air, it is unclear whether it might constitute infringement in the context of music lockers. The *Cablevision II* decision implied that anything but a distinct, individual copy for each user could constitute a transmission to the public, because the public at large could potentially view a single copy open to multiple viewers.<sup>103</sup> The *MP3tunes* court, however, ruled that a locker service may still maintain, through deduplication, what amounts to an exact digital copy of each user’s files without violating the public performance right.<sup>104</sup> This rule, however, contravenes the *Red Horne* ruling, where the video store maintained an exact copy of each client’s video, albeit embodied in one videocassette.<sup>105</sup>

The difficulty arises when trying to delineate what constitutes a performance of a song that, through deduplication, represents unique copies for each user that has uploaded it. Does the single copy embodied on the server still represent a unique file for each user who

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97. *Cablevision II*, 536 F.3d 121, 139 (2d Cir. 2008).

98. *Id.* at 139-40.

99. *Id.*

100. *See id.* at 138-39.

101. *Capitol Records, Inc. v. MP3tunes, LLC*, No. 07 Civ. 9931 (WHP), 2011 U.S. Dist. LEXIS 93351, at \*50 (S.D.N.Y. Aug. 22, 2011).

102. *See id.*

103. *See Cablevision II*, 536 F.3d at 138.

104. *See MP3tunes*, 2011 U.S. Dist. LEXIS 93351, at \*50-51.

105. *Compare id.* (holding that the elimination of redundant data does not constitute infringement on a copyright owner’s public performance right in the absence of a master-copy system), with *Columbia Pictures Indus., Inc. v. Redd Horne, Inc.*, 749 F.2d 154, 159 (3d Cir. 1984) (holding that a store violated a copyright owner’s public performance right by allowing its customers to watch a single master copy of a videocassette individually).

has uploaded it, as the *Cablevision II* court would find?<sup>106</sup> Or is it no less infringing than a single videocassette that any number of users may play?<sup>107</sup>

## II. THEORIES OF LIABILITY FOR MUSIC LOCKER SITES UNDER THE DMCA

This Part analyzes whether the various music locker sites described in Part I should face either direct or secondary liability for copyright infringement. First, this Note analyzes direct liability for the music locker services under both the copy and public performance right, concluding that courts should not hold the services directly liable for copying because they fail the volitional act test. However, there is no easy answer under existing law with respect to the public performance right.<sup>108</sup> Furthermore, there are potential DMCA safe harbor defenses that music locker services could assert against direct liability claims.

Additionally, ISPs may potentially face secondary liability under three different theories: inducement of infringement, contributory infringement, and vicarious infringement. After a careful analysis, a court might conclude that the services face liability under the theories of inducement and vicarious infringement.

### A. Direct Liability

This Section begins by analyzing the history of direct copyright liability from its original two-prong test, Congress' addition and codification of a volitional requirement test, and finally its present interpretation in DMCA case law.<sup>109</sup> Following that, this Note will apply the DMCA case law to the several features of digital cloud lockers.

#### 1. History of Direct Liability under the Right to Copy

Historically, courts have found that a claim of direct infringement had two requirements: (1) the plaintiff's alleged ownership of a valid copyright, and (2) unauthorized copying or a

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106. See *Cablevision II*, 536 F.3d at 137-38.

107. See, e.g., *Redd Horne*, 749 F.2d at 159 (holding that because many of a store's customers were able to watch a single copy of a videocassette individually, the playing of the videos was a "public performance").

108. See *infra* Part III (discussing potential solutions to this issue).

109. *Religious Tech. Ctr. v. Netcom On-Line Comm'n Servs., Inc.*, 907 F. Supp. 1361 (N.D. Cal. 1995).

violation of one of the other “bundle of rights” granted to copyright holders.<sup>110</sup> Several older cases shed light on the historical contours of direct liability for copying.

The court in *Elektra Records Co. v. Gem Electronic Distributors, Inc.* found that a plaintiff record company had established a likelihood of success on the merits in a direct infringement action against a store owner for allowing customers to use its eight-track tape<sup>111</sup> copy machine to reproduce copyrighted tapes from the store’s library when customers purchased blank tapes.<sup>112</sup> Although store employees did not load tapes into the machine or perform the actual copying, the court found the store directly liable because the store clearly profited from the infringement.<sup>113</sup>

Furthermore, in *Princeton University Press v. Michigan Document Services, Inc.*, the US Court of Appeals for the Sixth Circuit found a copy shop liable for copying textbooks for professors without seeking permission from the rights holders or paying any royalties.<sup>114</sup> The court noted that the copy shop was actually making the copies, even though it was the customer who initiated the transaction.<sup>115</sup>

Another case, *Religious Technology Center v. Netcom On-Line Communication Services, Inc.*, better delineated the contours of the direct liability doctrine when applied to ISPs.<sup>116</sup> In *Netcom*, the issue was whether an ISP that provided Internet access and an online bulletin board service (BBS) was liable for direct infringement when serving as a “passive conduit” for copyright infringers.<sup>117</sup> BBS users posted copies of the plaintiff’s copyrighted photographs online, albeit without any volitional action on behalf of the service.<sup>118</sup> The court decided it would be unfair to hold the ISPs directly liable for the affirmative actions of a third party when the ISPs had not performed

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110. *ALS Scan, Inc. v. RemarQ Cmty., Inc.*, 239 F.3d 619, 621 (4th Cir. 2001) (citing *Keeler Brass Co. v. Cont’l Brass Co.*, 862 F.2d 1063, 1065 (4th Cir. 1988)).

111. An eight-track cassette is an older version of a tape cassette. *Vintage Audio History*, VIDEO INTERCHANGE, [http://www.videointerchange.com/audio\\_history.htm](http://www.videointerchange.com/audio_history.htm) (last updated Dec. 9, 2011).

112. *See Elektra Records Co. v. Gem Elec. Distribs., Inc.*, 360 F. Supp. 821, 824-25 (E.D.N.Y. 1973).

113. *See id.* at 823.

114. *See Princeton Univ. Press v. Mich. Document Servs., Inc.*, 99 F.3d 1381, 1383 (6th Cir. 1996).

115. *See id.* at 1388-89.

116. *See Religious Tech. Ctr. v. Netcom On-Line Commc’n Servs., Inc.*, 907 F. Supp. 1361, 1368-73 (N.D. Cal. 1995).

117. *See id.* at 1365-66.

118. *Id.*

those actions themselves.<sup>119</sup> Furthermore, the court realized that such a system would result in finding essentially the entire Internet liable for the infringing acts of one user.<sup>120</sup>

Congress subsequently adopted *Netcom's* volitional act test and incorporated it into the DMCA.<sup>121</sup> The House Report accompanying the DMCA states that "the bill essentially codifies the result in the leading and most thoughtful judicial decision to date: *Religious Technology Center [v]. Netcom On-Line Communications Services, Inc.*"<sup>122</sup> In the new law, Congress clearly states that ISPs are not directly liable in cases where an infringer uses an automated system that the ISP has implemented.<sup>123</sup> Essentially, if there is no volitional conduct on the part of an ISP, there is no direct liability.<sup>124</sup> Courts have repeatedly applied this test when analyzing direct infringement liability for ISPs.<sup>125</sup> Although copyright holders may claim that requiring volitional conduct on the part of ISPs will never result in liability when it is the ISP's users who are infringing copyrights, courts are quick to note that plaintiffs may still pursue a remedy under theories of contributory liability.<sup>126</sup>

Courts have applied the DMCA's volitional act test in recent cases as well.<sup>127</sup> In *Cablevision II*, the volitional conduct doctrine was the key to determining precisely who made the infringing copy of a cable show.<sup>128</sup> The court recognized two distinct volitional acts: Cablevision's creation and maintenance of a system designed solely to make copies, and the customer who uses that system to create a specific copy.<sup>129</sup> The system is similar to a VCR in that an ISP created it knowing its reproduction capabilities, and a user took advantage of those capabilities on his own volition.<sup>130</sup> Because the ISP is not itself actively copying, it should not be held directly liable for a customer's infringing activities.<sup>131</sup>

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119. *Id.* at 1372-73.

120. *Id.* at 1372.

121. H.R. REP. NO. 105-551, pt. 1, at 11 (1998).

122. *Id.*

123. *Id.*

124. See 17 U.S.C. § 512(a)(1)-(5) (2006).

125. See, e.g., *Cablevision II*, 536 F.3d 121, 130-31 (2d Cir. 2008).

126. See, e.g., *id.*

127. *Id.* at 131.

128. See *id.*

129. *Id.*

130. *Id.*

131. *Id.* at 132.

## 2. Direct Liability for Infringement of the Right to Copy

Because a music locker service does not copy files itself,<sup>132</sup> it does not commit the volitional act required for direct infringement liability. Therefore, a court should not find it directly liable. To succeed in a claim of direct liability, a copyright holder must show (1) a valid copyright, and (2) that the service violated that right.<sup>133</sup> Assuming that a rights holder has a valid copyright to a song, the analysis moves to the second prong: whether or not the ISP directly violated the right to copy. This section also assumes that the music locker service does not maintain a license agreement with the rights holder for the music its users upload.

There is no question that when a user uploads a song to an ISP's servers, a copy is made.<sup>134</sup> Under the DMCA, the copy here is a "material object[]" which is "fixed" on the ISP's servers, and "from which the work can be . . . reproduced."<sup>135</sup> The issue is *who* made the copy.<sup>136</sup> If a music locker service does not use deduplication, when a user uploads a song, the server makes a copy of the song from the user's computer and stores that copy on the locker's server.<sup>137</sup> The user directs the upload, taking advantage of the service's ability to make a copy for his individual locker. This is similar to *Cablevision II*, where a user could employ a remote control to make an individual copy of a streaming television show on Cablevision's servers.<sup>138</sup> The end result is that the ISP becomes a "passive conduit" that a user may direct to make legal or infringing copies.<sup>139</sup> Because the service is merely an automatic tool, the ISP does not take any affirmative action in the user's copying, and thus should not be directly liable for his actions.<sup>140</sup>

132. See, e.g., *Capitol Records, Inc. v. MP3tunes, LLC*, No. 07 Civ. 9931 (WHP), 2011 U.S. Dist LEXIS 93351, at \*51 (S.D.N.Y. Aug. 22, 2011) (explaining that MP3tunes' subscribers directed the server's passive software to make copies, MP3tunes did not direct the copying).

133. *ALS Scan, Inc. v. RemarQ Cmty., Inc.*, 239 F.3d 619, 621 (4th Cir. 2001).

134. See *In re Aimster Copyright Litig.*, 252 F. Supp. 2d 634, 648 (N.D. Ill. 2002) (citing *NLFC, Inc. v. Devcom Mid-Am., Inc.*, 45 F.3d 231, 235 (7th Cir. 1995)).

135. 17 U.S.C. § 101 (2006) (defining "copies" of a work).

136. See *Cablevision II*, 536 F.3d at 130.

137. See, e.g., *About Google Music*, *supra* note 4 (explaining how a user may upload and store his music on Google's servers).

138. See *Cablevision II*, 536 F.3d at 124-25.

139. *Religious Tech. Ctr. v. Netcom On-Line Comm'n Servs., Inc.*, 907 F. Supp. 1361, 1369 (N.D. Cal. 1995).

140. See *id.*

### 3. Direct Liability under the Public Performance Right

Since no court has addressed the public performance right under the theory of direct liability, it is difficult to predict whether or not a court might find direct liability for public performance in the music locker context.<sup>141</sup> This section analyzes the liability of locker services under the difference technical models that they employ. This analysis resolves two interrelated questions in particular: (1) is there a public performance, and if so, then (2) who is performing, the locker service or the user? The two parts to public performance analysis are that the court must consider both the work that is performed and the audience receiving the performance.<sup>142</sup> If there is no public performance by either party, there can be no direct liability for the locker service.<sup>143</sup> Furthermore, if the ISP does not itself perform to the public, then a court cannot hold it directly liable because it fails the DMCA's volitional requirement test.<sup>144</sup>

#### *a. There is no Public Performance When a Locker Service does not Use Deduplication.*

A court should not find that a public performance exists when a music locker service maintains individual copies of each user's uploads and only allows each user to access his own music. The ISPs that utilize this technical model are Google, Apple, and Amazon.<sup>145</sup> Because these services maintain an individual copy of each song that each user uploads and do not use deduplication, every time a user streams his music from one of these servers, the work that is "performed" to him is the same file that he already uploaded.<sup>146</sup> Essentially, the work is the individual copy of that user's song. Thus, this method likely fails the first part of the public performance test because the work is only capable of being performed to one person, not the public. This is functionally identical to *Cablevision II*, where the court held that it was essential for the ISP to maintain individual copies of each user's recorded television shows in order to defeat the public performance infringement claim.<sup>147</sup> Furthermore, the court

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141. See *infra* Part III (suggesting a solution to this issue).

142. See *supra* Part I.B.2.

143. *Cablevision II*, 536 F.3d at 139-40.

144. See *Netcom*, 907 F. Supp. at 1370.

145. See Lee, *supra* note 93.

146. See *About Google Music*, *supra* note 4 (explaining how a user may upload his music to Google's servers and stream it to any place in the world).

147. *Cablevision II*, 536 F.3d at 138-39.

held that the individual copies were significant to the resolution of the second prong: Who is the audience that receives the performance?<sup>148</sup>

When the work performed is only available to a single user of a music locker service, a transmission of the work is not considered a public performance because it is performed to an audience of one.<sup>149</sup> The *Cablevision II* court correctly interpreted “the public” from Congress’s definition of “publicly” as the class of people to whom the work is capable of being performed.<sup>150</sup> Because these locker services maintain an individual copy of each song for each user, that user is the only available “universe of people capable of receiving” a performance.<sup>151</sup> Thus, there is no public performance and no direct liability under the public performance right for Google, Amazon, or Apple. Since there is no public performance, there is no need to consider who might constitute the performer.<sup>152</sup>

*b. It Is Unclear Whether There Is a Public Performance When a Locker Service Uses Deduplication.*

It is less clear whether there would be direct liability under the public performance right for Dropbox or MP3tunes due to the use of deduplication on their servers.<sup>153</sup> Again, the analysis turns on whether there is a public performance involved in such a system, and if so, who does the performing?

Using the *Cablevision II* framework, one must begin by specifying the work being performed: Is the work a master copy, or is it a user’s individual, unique copy of that master copy? There is no clear answer to this question because courts have disagreed on this point.<sup>154</sup> The Second and Third Circuits have concluded that deduplication results in a master copy of a performance.<sup>155</sup> If that is true, then under a deduplication system, the performance a music locker service transmits to one user is the same as the performance it transmits to another user, even if each user individually uploads his copy. However, a court following the reasoning of a US district court’s recent decision in *MP3tunes* would find that deduplication does not

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148. *Id.* at 138.

149. 17 U.S.C. § 101 (2006) (defining “publicly”).

150. *Id.*; *Cablevision II*, 536 F.3d at 134.

151. *See Cablevision II*, 536 F.3d at 137; *Capitol Records, Inc. v. MP3tunes, LLC*, No. 07 Civ. 9931 (WHP), 2011 U.S. Dist LEXIS 93351, at \*50 (S.D.N.Y. Aug. 22, 2011).

152. *See Cablevision II*, 536 F.3d at 134.

153. Recall that deduplication is a technical measure implemented to reduce storage costs by eliminating redundant data. *See supra* Part I.D.

154. *See supra* Part I.D.

155. *See Cablevision II*, 536 F.3d at 130, 138-39; *Columbia Pictures Indus., Inc. v. Redd Horne, Inc.*, 749 F.2d 154, 156-59 (3d Cir. 1984).

result in a master copy; instead, it is merely an economically efficient method of reducing data duplication and costly storage hardware.<sup>156</sup> Under this framework, the server retains an exact digital copy of each uploaded song, and thus each user still receives the exact music that he uploads rather than an infringing reproduction of the original file.<sup>157</sup> The *MP3tunes* framework is more persuasive, and courts should follow its precedent because it allows for music locker services to increase efficiency and does not prevent rights holders from legitimately enforcing their rights.

#### 4. Who Creates the Public Performance?

The next part of the analysis under *Cablevision II*'s framework looks to the makeup of the performance audience.<sup>158</sup> Under the Second and Third Circuits' framework—where deduplication results in a master copy—the storage of one song on a locker's servers results in a performance transferrable to an infinite number of persons (albeit restricted to the users who upload the song).<sup>159</sup> Thus, the server may transmit the song to the public, creating a public performance. Consequently the second question, the identity of the performer, comes into play in order to determine liability.

In contrast, under the *MP3tunes* framework—where deduplication does not result in a master copy—a court may not find that a public performance exists because the deduplication process still allows the server to maintain a perfect copy of each user's upload.<sup>160</sup> The case becomes analogous to *Cablevision II*, with each performance accessible to only one individual user.<sup>161</sup> Thus, because the performance cannot be transmitted to the public, there is no public performance.

Even if a court finds that deduplication does not result in a single master copy, it could still determine that a public performance took place. If the court were to find that the identical parts of a performance that were deduplicated on an ISP's server constituted a performance, then transfer of that piece of data to separate users could constitute public performance. A court would then analyze the second part of the test for liability: Who does the performing?

Current case law does not dictate whether a court should consider the music locker or its users as performers for purposes of

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156. *MP3tunes*, 2011 U.S. Dist LEXIS 93351, at \*50.

157. *Id.*

158. *See supra* Part I.B.

159. *See Cablevision II*, 536 F.3d at 138-39; *Redd Horne*, 749 F.2d at 156-59.

160. *See MP3tunes*, 2011 U.S. Dist LEXIS 93351, at \*50.

161. *See Cablevision II*, 536 F.3d at 126.

direct liability claims.<sup>162</sup> The *Cablevision II* court sidestepped this issue, as it found that no public performance had occurred in the first place.<sup>163</sup> It did note that although the customer—not Cablevision—did the copying, that did not imply that the customer performed the work.<sup>164</sup> The *MP3tunes* court also avoided the issue by finding that MP3tunes.com was eligible for a DMCA safe-harbor defense.<sup>165</sup>

If a court were to transplant the volitional act test that courts use to analyze direct infringement of the right to copy into this context,<sup>166</sup> it would find that it is the customer—not the ISP—who transmits the performance, because the customer commits the volitional act of copying. The ISP's role is passive, as it simply lets the user make a copy on its server.

### B. Secondary Liability

Secondary liability is arguably more important to rights holders than direct liability, because where it may be difficult for a court to find direct liability, the court may find secondary liability relatively easily.<sup>167</sup> This section analyzes the separate theories of secondary liability under which a court may find an ISP liable for copyright infringement: inducement of infringement, contributory infringement, and vicarious infringement.

#### 1. Inducement of Copyright Infringement

The inducement doctrine stems from the Supreme Court's 2005 decision in *MGM Studios Inc. v. Grokster, Ltd.*<sup>168</sup> The defendant, Grokster, promoted and distributed a computer program that enabled users to download copyrighted material illegally online.<sup>169</sup> It intended its users to download copyrighted material, even advertising and promoting its service as such.<sup>170</sup> For a plaintiff to succeed with an infringement claim under this theory, he must show that the defendant “distributes a device with the object of promoting its use to infringe copyright, as shown by clear expression or other affirmative

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162. See *infra* notes 163-165.

163. *Cablevision II*, 536 F.3d at 134 (declining to rule on which party transmits the performance).

164. *Id.*

165. *MP3tunes*, 2011 U.S. Dist LEXIS 93351, at \*50-51.

166. See *infra* Part III.

167. See, e.g., *Cablevision II*, 536 F.3d at 132 (holding that the court's refusal to find direct liability is “buttressed by the existence and contours of . . . contributory liability”).

168. *MGM Studios, Inc. v. Grokster, Ltd.*, 545 U.S. 913, 939-41 (2005).

169. *Id.* at 919-23.

170. *Id.* at 916.

steps taken to foster infringement.”<sup>171</sup> The Court set the bar even higher by stating that if an ISP has actual knowledge of its users’ infringing activities, that knowledge alone does not give rise to a claim of inducement.<sup>172</sup> Ultimately, the issue turns on whether the ISP actively and purposefully engages in conduct that induces copyright infringement.<sup>173</sup>

The court in *Arista Records LLC v. Usenet.com, Inc.* analyzed the actions of the *Grokster* defendant, and found four factors that illustrated the defendant’s inducement of infringement.<sup>174</sup> First was the defendant’s aim to fill the market niche left by the shutdown of the file-sharing program, Napster.<sup>175</sup> Second, the court noted that the defendants failed to implement any filtering tools or other software to protect against infringement.<sup>176</sup> Third, the defendant’s business model depended on infringement.<sup>177</sup> Finally, the court noted the “classic” form of inducement: advertising that provokes others to infringe.<sup>178</sup>

Analyzing the factors presented and examined in *Grokster* and *Arista Records*, it is unlikely a court would find a music locker service liable for copyright infringement under the inducement theory. Three of the four *Grokster* factors weigh in favor of the locker services.<sup>179</sup> First, none of the locker services aim to fill a void left by some infringing service, nor do they exist but for copyright infringement.<sup>180</sup> Given that several lockers have licensing agreements with music labels,<sup>181</sup> it is plain that the purpose of these services is to provide legitimate music purchasers an outlet to store and stream their music libraries.<sup>182</sup>

The second factor does weigh against the locker services, as they do not maintain active filters against infringing activity on their servers; however, they all comply with the DMCA

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171. *Id.* at 919.

172. *Id.* at 936-37.

173. *Id.*

174. *Arista Records LLC v. Usenet.com, Inc.*, 633 F. Supp. 2d 124, 151 (S.D.N.Y. 2009).

175. *Id.*

176. *Id.*

177. *Id.*

178. *Id.*

179. *See* *MGM Studios, Inc. v. Grokster, Ltd.*, 545 U.S. 913, 939 (2005).

180. *Id.*; *see supra* Part I (explaining that Grooveshark exists to allow its users to store their music and thus be able to listen to it anywhere unlike file-sharing websites, which hold themselves out as locations to pirate copyrighted music).

181. Spotify, Apple, and Grooveshark all have licensing deals. *See supra* Part I.A.

182. *See, e.g.*, Foresman, *supra* note 12 (explaining Apple’s licensing scheme with the major US music labels).

notice-and-takedown provision.<sup>183</sup> Because the lockers comply with the DMCA requirement, a court may not give this factor much weight.

Third, the services do not depend on piracy in order to be profitable. One could argue that Grooveshark—which makes all songs users have uploaded to its server publicly available—could benefit from piracy, because it would increase the number of songs it could make available through user uploads.<sup>184</sup> However, it is difficult to argue that Grooveshark exists because of and in furtherance of music piracy; its service is readily distinguishable from that of Grokster or other file-sharing websites.<sup>185</sup>

The fourth point, actual inducement, weighs in favor of the lockers.<sup>186</sup> None of the locker services advertise to infringers, nor do any of their websites even suggest the possibility of using their services for piracy. Therefore, it is unlikely that a court would find the locker services secondarily liable based on inducement.

## 2. Contributory Copyright Infringement

There are two parts to the test for contributory copyright infringement: (1) whether the ISP has actual or constructive knowledge of infringing activity, and (2) whether it “induces, causes, or materially contributes to the infringing conduct of another.”<sup>187</sup> Although the requirements for contributory infringement are similar to those for inducement of infringement, the Supreme Court appears to have made them separate issues.<sup>188</sup>

Courts have applied several different standards to determine whether an ISP knows about infringing activity. This knowledge may be actual or constructive; if the ISP has “reason to know”<sup>189</sup> of infringement, that will be sufficient for establishing contributory liability under the “[t]urning a ‘blind eye’” standard.<sup>190</sup> The *MP3tunes* court found that the ISP in that case had knowledge of its users’

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183. See *supra* Part I.

184. See *supra* Part I.

185. Compare *supra* Part I (explaining Grooveshark’s service which profits by selling streaming access to a user’s music locker), with *Arista Records LLC v. Usenet.com, Inc.*, 633 F. Supp. 2d 124, 131-32 (S.D.N.Y. 2009) (explaining how USENET enables a user to pay to have access to hundreds of thousands of files, and markets that service as an “alternative to peer-to-peer file sharing programs”).

186. See *Arista Records*, 633 F. Supp. 2d at 151.

187. *Id.* at 154 (quoting *Gershwin Publ’g Corp. v. Columbia Artists Mgmt., Inc.*, 443 F.2d 1159, 1162 (2d Cir. 1971)).

188. See *MGM Studios, Inc. v. Grokster, Ltd.*, 545 U.S. 913, 936 (2005).

189. *Arista Records*, 633 F. Supp. 2d at 154 (quoting *A&M Records, Inc. v. Napster, Inc.*, 239 F.3d 1004, 1020 (9th Cir. 2001)).

190. *Id.* (citing *In re Aimster Copyright Litig.*, 334 F.3d 643, 650 (7th Cir. 2003)).

infringing activities based on the takedown notices it received from EMI as well as personal knowledge of its own users' infringements.<sup>191</sup>

The second prong of the contributory infringement test is whether the ISP has materially contributed to the direct infringement of its users.<sup>192</sup> The provider's contribution to the infringing activity must be "substantial";<sup>193</sup> for example, supplying the "site and facilities" or "environment and market" for the infringement.<sup>194</sup>

Two cases illustrate the "material contribution" standard. First, in *Arista Records*, the court found that the defendant provided the entire "site and facilities" to enable its users to directly infringe copyrights by supplying a website and service where a user could search for copyrighted songs and other media and then download them for free onto his own computer.<sup>195</sup> The court rejected the defendant's argument, based on *Sony Corp. of America v. Universal City Studios, Inc.*, that there was a defense to contributory liability for a product that is "capable of substantial noninfringing uses."<sup>196</sup> In the second case, *A&M Records, Inc. v. Napster, Inc.*, the court found that the ISP established everything its users would need in order to find and download music illegally.<sup>197</sup> The court noted that Napster's users would not be able to pirate the music they wanted without Napster's service.<sup>198</sup> The *In re Aimster* district court opinion, in applying *Napster*, drew a distinction between innocent ISPs that people might use for infringement and ISPs like Napster or Aimster without which a user would be unable to find and download copyrighted music.<sup>199</sup>

It is possible for a court to find contributory liability for music locker services under the two-part test. A rights holder could probably show that the locker services have knowledge of infringing activity. The second prong—material contribution—would be harder to prove; however, it is still probable that a court would find that a music locker service meets the standard for material contribution.<sup>200</sup>

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191. *Capitol Records, Inc. v. MP3tunes, LLC*, No. 07 Civ. 9931 (WHP), 2011 U.S. Dist. LEXIS 93351, at \*45-46 (S.D.N.Y. Aug. 22, 2011).

192. *In re Aimster*, 334 F.3d at 651.

193. *Arista Records*, 633 F. Supp. 2d at 155.

194. *Id.* (quoting *Fonovisa, Inc. v. Cherry Auction, Inc.*, 76 F.3d 259, 264 (9th Cir. 1996)).

195. *Id.*

196. *Id.* at 155-56 (quoting *Sony Corp. of Am. v. Universal City Studios, Inc.*, 464 U.S. 417, 442 (1984)).

197. *A&M Records, Inc. v. Napster, Inc.*, 114 F. Supp. 2d 896, 919 (N.D. Cal. 2000). Although courts have criticized this case, the material contribution standard lives on. *E.g.*, *In re Aimster Copyright Litig.*, 252 F. Supp. 2d 634, 652 (N.D. Ill. 2002).

198. *A&M Records, Inc.*, 114 F. Supp. 2d at 920.

199. *In re Aimster*, 252 F. Supp. 2d at 652.

200. *See generally Arista Records*, 633 F. Supp. 2d at 154 (applying the material contribution test).

A court is likely to find that a music locker service has knowledge of infringing activity under multiple theories.<sup>201</sup> First, because the ISPs retain control over their services, they are able to see which users are uploading which songs.<sup>202</sup> Thus, they could have actual knowledge of infringing activity among their users.<sup>203</sup> Second, the ISPs are put on notice—and thus have actual knowledge—of their users' infringements when rights holders send DMCA takedown notices.<sup>204</sup> Finally, an ISP would have knowledge if it were to turn a blind eye to infringement, though it does not appear this is occurring.<sup>205</sup>

As to the second prong, a court is likely to find that the music lockers materially contribute to copyright infringement. While the locker services do not exhibit the same unclean hands that Napster<sup>206</sup> or Usenet<sup>207</sup> did by supplying copyrighted music for download, the legal standard for material contribution may still lead to liability for music locker services operating in good faith. Under the “site and facilities” or “environment and market” test, a court would likely find that a music locker service provides the necessary function and equipment for a user to infringe on a copyright, because these services allow the user to upload music that he illegally obtained elsewhere and then stream that music to himself.<sup>208</sup> The locker service's contribution is substantial, and the copyright infringement (uploading a copyrighted song to the locker's servers) could not have taken place but for the existence of the facilities of the ISP.<sup>209</sup> Thus, the locker service satisfies this prong of the contributory liability test.

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201. See *id.* at 154-55 (holding that a plaintiff may show actual or constructive knowledge, or that defendant ISP “turn[ed] a ‘blind eye’ to infringement”).

202. See *Capitol Records, Inc. v. MP3tunes, LLC*, No. 07 Civ. 9931 (WHP), 2011 U.S. Dist LEXIS 93351, at \*46 (S.D.N.Y. Aug. 22, 2011) (finding it “undisputed” that MP3tunes keeps track of its users' infringing music files); see also *In re Aimster*, 252 F. Supp. 2d at 651 (noting that the owner of an ISP is able to see the people who use it and how they use it).

203. *In re Aimster*, 252 F. Supp. 2d at 651.

204. See *DMCA Complaint Form*, GROOVESHARK, [http://www.grooveshark.com/dmca\\_form](http://www.grooveshark.com/dmca_form) (last visited Jan. 26, 2012); see also *Fonovisa, Inc. v. Cherry Auction, Inc.*, 76 F.3d 259, 264 (9th Cir. 1996) (finding that there was no question that the defendant had knowledge when it received letters from the police informing it of vendors selling infringing materials at its swap meet).

205. See *In re Aimster Copyright Litig.*, 334 F.3d 643, 650 (7th Cir. 2003).

206. See *A&M Records, Inc. v. Napster, Inc.*, 114 F. Supp. 2d 896, 919 (N.D. Cal. 2000).

207. See *Arista Records LLC v. Usenet.com, Inc.*, 633 F. Supp. 2d 124, 132-33 (S.D.N.Y. 2009).

208. See *supra* Part I.

209. *Arista Records*, 633 F. Supp. 2d at 155.

### 3. Vicarious Copyright Infringement

Vicarious copyright liability is based solely on the financial benefit to the secondary infringer, regardless of the knowledge or intent of that party.<sup>210</sup> The first prong of the vicarious liability test asks whether the ISP profited from direct infringement.<sup>211</sup> In order to constitute a direct financial benefit, the infringing activity must be a “draw” to the service’s users; however, the degree that this “draw” contributes to the overall appeal of the service to its users is irrelevant.<sup>212</sup> Furthermore, the benefit to the service does not need to be great or even substantial. The fact that a financial benefit exists at all is sufficient.<sup>213</sup>

The second prong of the vicarious liability test analyzes whether the ISP declined to stop or limit the infringement.<sup>214</sup> This analysis is based on an ISP’s ability to control its users’ actions, including terminating and limiting access to users.<sup>215</sup> In *Arista Records*, the court found the defendant vicariously liable because, although it was able to control its users by terminating their accounts, it failed to do so.<sup>216</sup>

A court will likely find that music locker services meet the first requirement but not the second, and therefore vicarious liability should not apply to these services. All of the locker services stand to benefit from piracy because a user can upload a pirated song to any locker and then stream it, which adds to the user base of the service and consequently increases its revenue. Thus, plaintiffs should find it easy to prove the first prong. Satisfying the second prong, however, will be virtually impossible as long as locker services comply with DMCA notice-and-takedown requests and implement a repeat infringer policy.<sup>217</sup> Exercising such control over their users and actively trying to prevent piracy should be sufficient to safeguard them from vicarious liability.

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210. *Id.* at 156.

211. *MGM Studios, Inc. v. Grokster, Ltd.*, 545 U.S. 913, 930 (2005).

212. *Arista Records*, 633 F. Supp. 2d at 157 (“The essential aspect of the ‘direct financial benefit’ inquiry is whether there is a causal relationship between the infringing activity and any financial benefit a defendant reaps, regardless of how substantial the benefit is in proportion to a defendant’s overall profits.” (quoting *Ellison v. Robertson*, 357 F.3d 1072, 1079 (9th Cir. 2004))).

213. *Id.*

214. *Id.*

215. *Id.*

216. *Id.* at 157-58.

217. *See id.*

## III. HOW TO AMEND THE COPYRIGHT ACT TO PROMOTE MUSIC LOCKERS

There are many problems with the DMCA and its potential application to music locker services; however, Congress could fix several of them by amending the DMCA. This Part discusses two amendments to the DMCA as solutions to these issues: allowance for deduplication and clarification of the public performance right. This update should help further the primary goal of the original Copyright Act: to promote innovation while protecting rights holders.

*A. Deduplication*

The biggest issue that affects music locker services is whether or not they are legally allowed to engage in deduplication, and current case law has not satisfactorily resolved the issue. There are two different methods for applying deduplication technology to eliminate redundant data. Under the first method, an ISP makes a single master copy available to multiple users who all have the right to that individual file.<sup>218</sup> The second method is a more technical measure that runs on the music locker's servers, where the server analyzes the individual bits of data from each file to determine if any strings of data from that song are already on the server.<sup>219</sup> If the song contains bits of data that are already on the server, the server does not upload any substantial repetition of data, but instead inserts a link to a preexisting copy of that string of data.<sup>220</sup> This second form is what the *MP3tunes* court seemed to allow in its holding.<sup>221</sup>

As a practical matter, there is no reason to deem deduplication illegal. There is no functional difference between two users uploading identical songs, with each user listening to the copy that he uploads, and the same two users listening to a master copy. However, under current case law, the first scenario seems to be allowable, but the second may constitute a public performance and thus result in copyright infringement.<sup>222</sup>

The main rationale behind allowing music lockers to use deduplication is economic efficiency. Apple's iTunes Match system allows users to upload entire music libraries in mere minutes, while a service like Google's or Amazon's may require weeks to upload an

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218. See, e.g., Foresman, *supra* note 12; see also *iTunes in the Cloud*, *supra* note 1.

219. See *supra* Part II.

220. See *supra* Part II.

221. *Capitol Records, Inc. v. MP3tunes, LLC*, No. 07 Civ. 9931 (WHP), 2011 U.S. Dist. LEXIS 93351, at \*50 (S.D.N.Y. Aug. 22, 2011).

222. See, e.g., *Cablevision II*, 536 F.3d 121, 138 (2d Cir. 2008).

entire library of music.<sup>223</sup> In addition to the time and bandwidth costs of uploading and downloading the same song over and over, the storage space that music locker services require would be reduced by several orders of magnitude. Cloud-based lockers must exist in a physical location, and contain many servers filled with hard drives. Using deduplication would result in a massive reduction in the number of hard drives needed, which results in lower costs for locker services. The benefits grow exponentially when Congress applies this same principle to all media—including videos—that users can store in the cloud.

### *B. Clarifying the DMCA*

Although Congress created the DMCA with new and innovative technologies in mind, it needs to update the statute regularly to ensure that the law covers technologies that have already arrived. While it is generally within the purview of the courts to interpret Congress's words, when the courts avoid an issue, Congress should step in and clarify itself. Specifically, Congress should identify who is performing and to whom the performance is made when a user streams his music on a music locker's servers to himself.<sup>224</sup>

The best solution to this issue is to adopt the volitional act test that courts already use to determine direct liability for copying.<sup>225</sup> Although this test itself is not new, no court has used it to analyze public performance liability; a statutory solution should give the courts better direction for resolving this issue. This test would allow courts to easily determine who is performing the work—the person who directs the locker's service to play back a stored copy. Under such a theory, courts would not find music locker services directly liable under the public performance right because these lockers lack the volitional requirement; all that the services have done is implement an independent system that their subscribers direct and use. Furthermore, secondary liability will remain available to protect the interests of copyright holders, while the DMCA safe harbors will allow clean-hands music lockers to continue to function.<sup>226</sup>

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223. See Mark Milian, *Court Clears Cloud Music Providers to Expand Features*, CNN (Aug. 23, 2011), [http://articles.cnn.com/2011-08-23/tech/cloud.music\\_1\\_arash-ferdowsi-google-s-music-music-beta](http://articles.cnn.com/2011-08-23/tech/cloud.music_1_arash-ferdowsi-google-s-music-music-beta).

224. See *supra* Part II.D.

225. See *supra* Part II.A.

226. See *Cablevision II*, 536 F.3d at 132.

## IV. CONCLUSION

If music locker services continue to operate as they are now under the existing DMCA, it is likely that a court could find them secondarily liable for copyright infringement. It is also possible that a court could similarly find that locker services using deduplication are directly liable. Although DMCA safe harbors are available in some cases, and courts generally look to whether the service has clean hands in determining liability, the existing case law suggests that these innovators, who make no effort to advance infringement or piracy, could still be liable for infringement.

Because of the uncertainty in the case law and the DMCA today, Congress should update the DMCA to allow innovators to develop new technologies without worrying about lawsuits when they have done nothing wrong. As legislators update the DMCA to clarify certain points of law, including the legality of deduplication, these music locker services—and by extension, the public—will benefit from both the enhanced certainty of the law and the increased economic efficiency that deduplication will allow.

*Brandon J. Trout\**

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\* J.D. Candidate, Vanderbilt University Law School, 2013; B.S. Business Management-Finance, Brigham Young University, 2010. The Author would like to thank his wife, Anna, for her support and patience, and the members of the VANDERBILT JOURNAL OF ENTERTAINMENT AND TECHNOLOGY LAW Editorial Board for their help in editing and publishing this Note.

