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NOTES

A BETTER PUBLIC PERFORMANCE ANALYSIS FOR DIGITAL MUSIC LOCKER STORAGE

MICHAEL WALKER, JR.[†]

INTRODUCTION

Consider a scenario in which your computer crashes and you lose everything. Every song, video, picture, game, and document file stored on your computer vanishes in the blink of an eye. You now face the daunting task of locating whatever files you can and re-uploading them to your new or restored computer. What can be done about the various MP3 files lost in the computer crash? You backed up some, but not all, of the files prior to the crash. Some of the song files were from CDs that have since been damaged, lost, or destroyed. Other files were purchased solely in digital format, were stored exclusively on the damaged computer, and were permanently lost when your computer crashed. Similarly, imagine that when your CD player broke, so did many CDs in your collection. The thought is harrowing to any music fan.

Digital locker services, commonly referred to as “cloud computing,”¹ have emerged as a solution to data loss and other problems digital music collectors face. Digital lockers enable users to store remotely all of their digital music files in one

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¹ *Cloud Computing Definition*, PCMAG.COM, http://www.pcmag.com/encyclopedia_term/0,2542,t=cloud+computing&i=57964,00.asp (last visited Feb. 2, 2014) (defining “cloud computing” as “[u]sing the Web server facilities of a third party provider on the Internet (the ‘cloud’) to store, deploy and run applications and services”).

central location situated in “the cloud.”² Each user receives her own digital locker in which she may store and manage her MP3 files.³ Once the user uploads her MP3 files to her personal locker, she may stream or download the songs to her MP3 compatible devices.⁴ Crucially, users are no longer required to continually store every file on a local hard drive.⁵

To fully appreciate the potential impact of cloud-based locker storage, one must consider the progression of music consumption and the cycle of prominence and obsolescence that has characterized music-listening technologies. Ironically, the perpetual introduction of new and improved methods for listening to music has made it difficult for music fans to enjoy and access their music collections efficiently.⁶ In the past, the introduction of new hardware such as records, eight-track tapes, cassette tapes, and compact discs created this difficulty.⁷ When a new medium attained universal acceptance and rose to prominence, older media fell to the wayside and found its way to the bargain bins.⁸ As demand for music in the older medium steadily declined, so did the production of that medium and the devices for playing it.⁹ Consumers were forced to choose between maintaining multiple devices for playing music on different

² Mark Harris, *Best Free Music Storage Sites That Stream: Free Cloud Storage for Your Music*, ABOUT.COM, http://mp3.about.com/od/musiclibrarymaintenance/tp/free_streaming_music_storage.htm (last visited Feb. 5, 2014) (“There are free online music storage sites that provide the facility to stream your music via most Web browsers. Music lockers as they are sometimes called are excellent for organizing and storing all your MP3s online so you can gain access to them wherever you are.”).

³ See *infra* Part I.A.

⁴ See *infra* Part I.A.

⁵ See *infra* Part I.A.

⁶ See Rick Karr, *TechnoPop: The Secret History of Technology and Pop Music*, NPR (Sept. 20, 2002, 12:00 AM), <http://www.npr.org/templates/story/story.php?storyId=1150343>.

⁷ See Callie Taintor, *Chronology: Technology and the Music Industry*, PBS (May 27, 2004), <http://www.pbs.org/wgbh/pages/frontline/shows/music/inside/cron.html> (chronicling the changes in the music industry and stating that the evolution of MP3s allowed for a convenient way to transfer music collections).

⁸ See *id.*

⁹ Brian Berk, *DJ Products Take Turn for the Better*, THE MUSIC & SOUND RETAILER (Aug. 9, 2011), <http://www.msretailer.com/html/2011/08/coverB1.htm> (stating that sales of CD players fell over fifty percent in 2010 according to MI SalesTrak).

media, shelling out the money for hybrid players that were able to play music from multiple media, or re-purchasing music they already owned in the new medium.¹⁰

Fast-forward to the present day, where music listeners increasingly listen to music in MP3 format.¹¹ This format enables them to ditch the CD wallet and store hundreds, even thousands, of songs on a pocket-sized device.¹² Despite the convenience of MP3 technology, consumers still face significant hurdles to accessing their music. Unlike past physical formats which required an additional or separate device to play various, extractable sound recordings, MP3s are stored on the computers used to download them and the devices used to play them.¹³ Although individual MP3 files take up a relatively small amount of a computer's memory on their own, they can dominate a computer's memory when stored in the aggregate.¹⁴ Music owners may be forced to sacrifice their computer's functionality in order to store their music collections.¹⁵

At the same time, music listeners continue to find new devices on which they would like to hear their music collections. Listeners often upload music to, and purchase music on, multiple computers or other MP3-compatible devices.¹⁶ Modern music

¹⁰ See generally Taintor, *supra* note 7 (chronicling the quick change in music listening and recording formats and how quickly consumers had to adapt).

¹¹ Jacob Ganz, *The Decade in Music: The Way We Listen Now*, NPR MUSIC (Dec. 2, 2009), <http://www.npr.org/templates/story/story.php?storyId=121023882> ("During the past decade, the MP3 file has yanked music free from physical formats entirely, and the number of ways fans can experience music has exploded.")

¹² *Id.* (quoting music journalist Maura Johnston as saying, "When I was commuting, I used to bring this huge wallet of CDs with me, so I had 24 CDs, which was a big deal But, I mean, now you can just bring thousands of songs with you on the train. You don't have to make those choices" (internal quotation marks omitted)).

¹³ Michael Gowan, *How MP3 Works*, CNN (Feb. 3, 2000, 9:39 AM), <http://edition.cnn.com/2000/TECH/computing/02/03/mp3.works.idg/index.html>.

¹⁴ *Digital Audio 101: Everything You Need To Know About Audio File Formats*, CONSUMER ELECS. ASS'N, <http://www.ce.org/Consumer-Info/Audio/Want-It/Digital-Audio-101-Everything-you-need-to-know-abou.aspx> (last visited Feb. 3, 2014) (stating that a 160 GB hard drive can hold up to 1,860 albums).

¹⁵ See *Slow Computer, Causes, and Fixes (Windows)*, TOOLS AND TIPS BY JOE (Dec. 11, 2007, 8:52 PM), <http://toolsntipsbyjoe.blogspot.com/2007/12/slow-computer-fixes-windows.html>.

¹⁶ Geoffrey Goetz, *iTunes 101: Multiple Devices, One iTunes Account*, GIGAOM (Mar. 30, 2011, 11:02 AM), <http://gigaom.com/apple/itunes-101-multiple-devices-one-itunes-account> ("[Y]ou may want to manage multiple iOS devices from one and only one iTunes Account. This includes, but is not limited to, managing a mix of iPads, iPods, iPhones, Apple TVs, MacBooks, etc., all from the same iTunes Account.")

consumers commonly own multiple devices on which they download and listen to their audio files.¹⁷ Computers, MP3 players, phones, tablets, such as iPads, and video game consoles are all compatible with MP3 files.¹⁸ Some music listeners may even have multiple MP3 players and video game consoles. Thus, even where the functionality of a single machine is not at risk, the ability to access a unified library can prove to be a challenge.¹⁹ Such listeners must be able to access their music libraries or they may opt for a more convenient route such as illegal downloading.²⁰

Portability is also an issue. Unlike CDs, for example, which are easily ejected and brought wherever the owner desires, MP3s must be uploaded from a computer to an MP3 device or other disk if the owner does not want to lug her computer with her wherever she goes.²¹ This process can be cumbersome and time consuming, as transferring an album from a computer to an external MP3 player involves opening the requisite program, plugging in and syncing the MP3 device, and adding the music files to the device.²²

However, a solution to these functionality, librarying, and portability issues has been gaining momentum in the past few years: digital locker storage. The remote storage of music files frees up hard drive space on users' computers and provides a central location which the users may access from any MP3

¹⁷ *Id.*

¹⁸ *Id.*

¹⁹ See INT'L FED'N OF THE PHONOGRAPHIC INDUS., DIGITAL MUSIC REPORT 2012 10 (2012), available at <http://www.ifpi.org/content/library/DMR2012.pdf> (stating that Apple was the first company to allow easy access to a unified library across multiple devices).

²⁰ *BMG Music v. Gonzalez*, 430 F.3d 888, 889–90 (7th Cir. 2005) (finding defendant liable for copyright infringement despite the fact that she owned legitimate CD copies of some of the 1370 songs she illegally downloaded).

²¹ Ron Repking, *How To Transfer Music onto a Portable MP3 Player*, TECHLORE.COM (Dec. 28, 2004, 11:46 PM), <http://www.techlore.com/article/10385/How-to-Transfer-Music-onto-a-Portable-MP3-Player/?textpage=2> (“An easy way to understand MP3 player basics is to think of an MP3 player as a place to store files, much like a hard drive on your computer stores files or a digital camera stores pictures. All you need to do is transfer files in music format (such as MP3s) to the device from the computer.”).

²² *Id.*; Stephen Lilley, *How To Add Music to Your MP3 Player for Free*, OPPOSINGVIEWS.COM, <http://science.opposingviews.com/add-music-mp3-player-8927.html> (last visited Feb. 3, 2014).

compatible device with internet connectivity.²³ Digital lockers also safeguard against computer crashes and other problems that threaten digital music collections.²⁴

While digital locker services provide music listeners with a technologically efficient storage system for all of their music files, they simultaneously pose various copyright law issues, including the issue of whether an infringing public performance occurs when a user accesses her locker. Thus far, record labels have taken a strong stance against such services unless the digital locker service providers enter license agreements, which entitle the labels to a share of the revenues.²⁵ The record labels have asserted that unlicensed digital locker storage violates various exclusive rights in the bundle of sticks comprising copyright law.²⁶

One of those sticks is the public performance right.²⁷ This Note addresses, and disputes, the notion that music is publicly performed every time a person streams her own sound recordings to herself from her personal digital music locker. The current analysis used to determine whether a transmission constitutes a public performance turns on whether a digital locker service provider maintains a unique copy of each MP3 file.²⁸ This framework requires that providers maintain multiple, redundant copies of identical songs to avoid copyright liability.²⁹ The unique copy analysis is drawn from *Cartoon Network LP v. CSC Holdings*,³⁰ where the Second Circuit held that Cablevision did not publicly perform copyrighted television programs when its customers played recordings of the programs utilizing Cablevision's cable boxes.³¹ The court found that each recording

²³ See *infra* Part I.A.

²⁴ See *infra* Part I.

²⁵ Alex Pham, *Music Labels Lash Out at Amazon's Cloud Service*, L.A. TIMES (Mar. 30, 2011, 1:26 PM), <http://latimesblogs.latimes.com/entertainmentnewsbuzz/2011/03/music-labels-lash-out-at-amazons-cloud-service.html>.

²⁶ See *id.*

²⁷ The public performance right in "sound recordings" is limited to digital audio transmissions. 17 U.S.C. § 106(6) (2012). This Note will specify throughout whether it is discussing the public performance of a musical composition under § 106(4) or the public performance of a sound recording through a digital audio transmission under § 106(6). Both are protected as exclusive rights of the copyright owner. *Id.*

²⁸ See, e.g., *Capitol Records, Inc. v. MP3tunes, LLC*, 821 F. Supp. 2d 627, 649–50 (S.D.N.Y. 2011).

²⁹ See *infra* Part II.A.

³⁰ *Cartoon Network LP v. CSC Holdings, Inc.*, 536 F.3d 121 (2d Cir. 2008).

³¹ *Id.* at 139.

created by the customer was a “unique copy” that was accessible only by that customer and was, thus, not capable of receipt by the public.³² The court’s analysis clearly implied that a public performance would have been found if multiple users accessed a master copy of the program because the court premised its holding on a “single subscriber using a single unique copy produced by that subscriber.”³³

This Note argues that the touchstone for the public performance analysis should be accessibility to copyrighted content, not whether a digital locker service provider maintains a unique copy of each digital music file its users accumulate. From a technological efficiency perspective, digital locker service providers would be well-served by data deduplication technology, which reduces storage requirements by eliminating redundant data.³⁴ Data deduplication replaces portions of song files with a bookmark to pre-existing, identical portions contained in another user’s locker.³⁵ Although users may access only the exact version of the music file they uploaded to their lockers, it is conceivable that copyright owners may argue that these bookmarks draw from a master copy of a portion of the song file.³⁶ Under the unique copy analysis, a court might find that a public performance occurs when a user streams music from her locker even though she demonstrated ownership by uploading a lawfully acquired copy of the song and only she is capable of accessing that locker.³⁷

Part I of this Note discusses the shift in musical formats from physical, tangible items to digital, intangible files and provides an overview of the different digital locker storage services presently available to consumers. It then addresses data deduplication technology, and explains why it should not affect the public performance analysis. Part II examines the relevant copyright law statutory provisions, case law construing the public performance right, and the unique copy analysis. Part III briefly reviews the unique copy analysis as applied in a recent case

³² *Id.*

³³ *Id.*

³⁴ See *infra* Part II.B.

³⁵ See *Data Deduplication*, EMC², <http://www.emc.com/corporate/glossary/data-deduplication.htm> (last visited Feb. 3, 2014).

³⁶ See *Capitol Records, Inc. v. MP3tunes, LLC*, 821 F. Supp. 2d 627, 649–50 (S.D.N.Y. 2011).

³⁷ *Id.*

involving a digital music locker provider. Part III also argues that courts should apply a two-pronged analysis in the future to better assess whether a work accessed from a digital locker has been publicly performed. Finally, this Note concludes that the public performance analysis should center around who may access a digital locker, not whether each user's digital locker contains a unique copy of each musical work.

I. THE CHANGING LANDSCAPE OF MUSIC CONSUMPTION:
SHIFTING MUSICAL FORMATS AND DATA DEDUPLICATION FOR
MUSIC STORAGE

In the past decade, music consumption has shifted away from physical formats such as CDs, vinyl records, and cassette tapes.³⁸ Consumers increasingly opt to purchase music in the intangible, digital MP3 format despite the continued availability of physical formats, such as CDs.³⁹ Moreover, consumers who still purchase CDs frequently convert them to MP3 format and utilize the CD either as a physical backup to the MP3 file or as a collector's keepsake.⁴⁰

Various statistics demonstrate music listeners' growing propensity to purchase MP3s from online retailers rather than physical copies from brick-and-mortar stores. In 2011, digital music, that is, online MP3 purchases, accounted for 50.3% of all music purchases.⁴¹ Those sales figures represent the first year that digital music sales outnumbered physical music sales.⁴² Furthermore, "[d]igital track sales set a new record with 1.27 billion sales in 2011; an increase of 100 million sales (8.4%) over 2010."⁴³ Digital album sales also increased by 20% and reached

³⁸ See PFEIFFER CONSULTING, *WHY THE AUDIO CD IS DYING . . . AND WHAT WILL REPLACE IT* 2, 5 (2007).

³⁹ See *The Nielsen Company & Billboard's 2011 Music Industry Report*, BUSINESS WIRE (Jan. 5, 2012, 8:05 AM), <http://www.businesswire.com/news/home/20120105005547/en/Nielsen-Company-Billboard%E2%80%99s-2011-Music-Industry-Report>.

⁴⁰ See Larry Magid, *Soon There Will Be No More Shelves of Books & CDs*, FORBES (June 26, 2012), <http://www.forbes.com/sites/larrymagid/2012/06/26/soon-there-will-be-no-more-shelves-of-books-cds> (arguing that soon CDs will disappear as the MP3 format will take over).

⁴¹ *The Nielsen Company & Billboard's 2011 Music Industry Report*, *supra* note 39.

⁴² *Id.*

⁴³ *Id.*

an all-time high in 2011 of 103.1 million digital albums sold.⁴⁴ In contrast, physical album sales in 2011 declined by 5% from 2010 after the 2010 physical album sales declined 19% from 2009.⁴⁵ These statistical trends clearly illustrate the shift away from physical music formats in favor of their more convenient digital counterparts.

Despite the appearance of solely pertaining to the sale and distribution of copyrighted music, these statistics also lend themselves to public performance concerns. When music listeners buy a digital song or album, they want to ensure that they can listen to it for as long as they would like. Music purchasers are currently faced with many hurdles to achieving this goal. Where can they store their files if the device used to download the file runs out of memory? What happens if their device breaks or otherwise loses its memory and the online vendor they purchased the digital files from has since gone out of business? What happens when the consumer purchases a new device with which they would like to access their content? Various solutions exist for each of these problems, but one solution works for all of them: digital lockers utilizing cloud-computing technology.

A. *The Types of Services Offered by Digital Locker Service Providers*

The ultimate goal of digital locker services is to offer each digital music file owner a private, central location where she can conveniently store and access her files.⁴⁶ An individual's personal digital locker is, in essence, a glorified, futuristic CD rack, or, as Professor Paul Goldstein termed it, a kind of "celestial jukebox."⁴⁷ While CD racks provide for the efficient storage and display of physical CDs in a person's home, digital lockers offer remote storage of digital music files that are accessible wherever users have Internet access.⁴⁸ Methods of

⁴⁴ *Id.*

⁴⁵ *Id.*

⁴⁶ Many of the digital locker storage services also enable the user to store pictures, videos, documents, and other types of computer files. The focus of this analysis, however, is solely on music files.

⁴⁷ PAUL GOLDSTEIN, *COPYRIGHT'S HIGHWAY: FROM GUTENBERG TO THE CELESTIAL JUKEBOX* 21–22 (Stanford University Press, rev. ed. 2003).

⁴⁸ Services may also allow users to select specific artists, songs, albums, and/or playlists that they would like access on a device even when it is not connected.

access may vary because current technology enables locker owners to stream their files, download them, or both depending on the digital locker service provider's business model.⁴⁹ Three different business models currently exist for virtual locker services.

1. The Former Google Music Model

The Google cloud service, Google Play, reached undisclosed financial agreements with major record labels in December 2012 after initially refusing to entertain such offers.⁵⁰ Prior to reaching agreements with the major record labels, Google's cloud service did not utilize data deduplication technology and the service required its users to manually upload their music files. Although Google has updated its service, explaining how it used to function will help to illustrate an inefficiency that can arise by viewing personal transmissions from a person's digital locker as public performances.

Google's former service allows users to stream music files to their devices once the files have been manually uploaded to the users' lockers.⁵¹ As will be explained later, streaming music has been held to be a public performance.⁵² Because Google did not have any license agreements in place for performing or distributing music, it required each user to upload her own, unique copy.⁵³ No data deduplication procedures were utilized.

However, this function involves downloading music, not transmitting it as a public performance. *United States v. Am. Soc'y of Composers, Authors & Publishers*, 627 F.3d 64, 73–74 (2d Cir. 2010). Downloading music has been held to not be a public performance. *Id.*

⁴⁹ Mike Isaac, *Google Launches 'Music Beta,' a Streaming Cloud Service for Tunes*, WIRED (May 10, 2011 12:29 PM), <http://www.wired.com/epicenter/2011/05/google-music-beta-io>; Mark Hachman, *Amazon's Cloud Player Crackdown Punishes Cheapstakes*, READWRITEWEB (Aug. 2, 2012), <http://www.readwriteweb.com/cloud/2012/08/amazons-cloud-player-crackdown-punishes-cheapstakes.php>.

⁵⁰ Cyrus Farivar, *Google's Cloud-Based Music-Matching Service has Arrived... and It's Free*, ARS TECHNICA (Dec. 18, 2012, 3:40 PM), <http://arstechnica.com/business/2012/12/googles-cloud-music-service-has-arrived-and-its-free> ("Google is simply writing 'big up-front checks' to the major music labels.").

⁵¹ Isaac, *supra* note 49; see also *Get Started with Music on Google Play*, GOOGLE, https://play.google.com/music/listen#start_pl (last visited Feb. 3, 2014).

⁵² See *infra* notes 153–55 and accompanying text.

⁵³ *Additional Terms of Service for Music on Google Play*, GOOGLE (Mar. 6, 2012), <http://music.google.com/about/terms.html> ("By uploading Uploaded Content to Music Storage, you are storing a unique copy of such content and requesting Google to retain it on your behalf and to make it accessible to you through your Google

Although maintaining a unique copy of each song file helped Google avoid civil liability for copyright infringement, the Google business model had its share of downsides.

First, to reduce the risk of copyright infringement, users were required to manually upload their music files into their personal digital lockers.⁵⁴ Unfortunately for users as well as unlicensed digital locker service providers, the manual upload process can take a significant amount of time and is often quite cumbersome.⁵⁵ Attention has been called to the fact that, “requir[ing] every user to upload every song, regardless of whether other users ha[ve] uploaded the exact same file . . . leads to enormous bandwidth usage on the part of customers and disk space being wasted by Google.”⁵⁶ Although such a procedure poses an initial hindrance on digital locker users, and is not infallible, it is the best possible way for users to demonstrate ownership of the sound recording. Requiring users to demonstrate ownership of the files they store in their lockers is imperative for the protection of copyright owners. Furthermore, the burden posed by this procedure is minimal because users are only required to upload a song once.

Most importantly, once ownership has been established, the way in which unlicensed digital locker service providers store users' various uploads raises efficiency concerns. Indeed, maintaining hundreds if not thousands of identical files for the sake of eschewing license agreements and legal liability presents unlicensed digital locker service providers, like the former Google

account. . . . You may use the Music Services and the Music Content only for your personal, non-commercial entertainment use, subject to terms and conditions set forth in the Collective Terms. All other uses are prohibited.”).

⁵⁴ *See id.*

⁵⁵ Gavin Clarke, *Google and Amazon Cloud Music Nears Judgment Day*, REGISTER (May 27, 2011), http://www.theregister.co.uk/2011/05/27/robertson_predicts_cloud_music_victor/page3.html; Ryan Singel, *Amazon, Dropbox, Google and You Win in Cloud-Music Copyright Decision*, WIRED (Aug. 22, 2011, 6:47 PM), <http://www.wired.com/epicenter/2011/08/cloudmusic-is-not-a-crime> (“[It] can take weeks of uploading files to move your entire collection, depending on your connection speed.”).

⁵⁶ Singel, *supra* note 55.

service, with significant costs.⁵⁷ Unlicensed digital locker service providers must pay for added storage space to ensure that there is ample room for each user's unique copy.⁵⁸

2. The Apple, Amazon, and Current Google Models

The three major digital locker services—Apple's iCloud, Amazon Cloud Player, and Google Play—offer many advantages not provided by the former Google service and other unlicensed competitors. These advantages arise because Apple, Amazon, and Google have licensing agreements with each of the four major music labels.⁵⁹ One of the more significant advantages is the iTunes Match service, which pairs with the iCloud to enable users to upgrade any digital files they obtained outside of iTunes as long as they are available in the iTunes store.⁶⁰ Amazon also offers users the scan and match function.⁶¹ This means that all matching songs play back at a high sound quality even if the

⁵⁷ *See id.*

⁵⁸ *Cf id.* (implying that Google needed to pay more for the increased storage space necessary in its previous models).

⁵⁹ Farivar, *supra* note 50; Yukari Iwatani Kand & Ethan Smith, *Apple Readies iCloud Service*, WALL ST. J., June 1, 2011, <http://online.wsj.com/article/SB10001424052702303657404576357212657742024.html> (reporting that Apple reached a licensing agreement with Warner Music Group Corp., Sony Corp.'s Sony Music Entertainment, EMI Group Ltd., and Vivendi SA's Universal Music Group this week); Greg Sandoval, *Amazon's Cloud Music Service Gets Scan and Match*, CNET (July 31, 2012, 10:57 AM), http://news.cnet.com/8301-1023_3-57483608-93/amazons-cloud-music-service-gets-scan-and-match (reporting that Amazon obtained licenses from the four major record labels enabling it to offer scan and match to its users).

⁶⁰ Bryan M. Wolfe, *iTunes Match: What You Need To Know*, APPADVICE.COM (Aug. 30, 2011), <http://appadvice.com/appnn/2011/08/itunes-match-what-you-need-to-know> (“[iTunes Match] works by determining which songs in your collection are available in the iTunes Store. Any music with a match is automatically added to your iCloud music library Then, all songs that match play back at 256-kbps iTunes Plus quality—even if your original copy was of lower [quality].”); *Terms and Conditions*, APPLE.COM, <http://www.apple.com/legal/itunes/us/terms.html> (last updated Sep. 18, 2013) (“iTunes Match will automatically scan the song files and collect other information that may be used to identify media in your iTunes library, such as the names of songs, song artists or song durations. iTunes Match will use this information to match songs to those currently available on the iTunes Store, and will make matched songs available to you in the format then available on the iTunes Store. If the song is not successfully matched, your copy of the song will be uploaded to Apple in the same format or a format determined by Apple.”).

⁶¹ *About Matched Music*, AMAZON.COM, http://www.amazon.com/gp/help/customer/display.html/ref=hp_rel_topic?ie=UTF8&nodeId=201114040 (last visited Feb. 3, 2014) (“Matched music is delivered as a 256 Kbps variable bitrate MP3 regardless of whether the original audio quality is higher or lower than 256 Kbps.”).

original copy was inferior.⁶² Additionally, all digital files purchased through iTunes and Amazon are automatically included in the user's locker with that service.⁶³ Apple's Terms and Conditions specify that ten devices may be affiliated with one account, a device may only be affiliated with one account, and a device may only be switched to a different account once every ninety days.⁶⁴ Amazon also permits only ten authorized devices per account and one account per device.⁶⁵ Because Apple, Amazon, and Google have obtained license agreements to perform these activities, they do not face the same copyright uncertainty as unlicensed digital locker service providers. Importantly for Apple, Amazon, and Google, it is unlikely they will face any civil actions for copyright infringement from the four major labels as long as they adhere to the terms of the agreements. However, this business model is impractical for most other companies who may seek to offer digital locker services because few companies have either the deep pockets of Apple, Amazon, and Google or their stronghold on the online music market.⁶⁶

⁶² All matching songs play back at 256-kbps iTunes Plus quality regardless of the quality of the original song file. See *iTunes Store: iTunes Plus Frequently Asked Questions (FAQ)*, APPLE.COM, <http://support.apple.com/kb/ht1711> (last modified Dec. 5, 2012). 256-kbps iTunes Plus quality songs are "twice the audio quality of protected music purchases" and are "without digital rights management (DRM)." *Id.*

⁶³ *Terms and Conditions*, *supra* note 60; *Get Started with the Amazon MP3 Store & Cloud Player*, AMAZON, <http://www.amazon.com/b?ie=UTF8&node=2658409011> (last visited Feb. 5, 2014) ("MP3 songs and albums you purchase from Amazon—even those you purchased in the past – will be automatically saved to Cloud Player.").

⁶⁴ *Terms and Conditions*, *supra* note 60.

⁶⁵ *Authorizing Your Device*, AMAZON.COM, <http://www.amazon.com/gp/help/customer/display.html?nodeId=200897110> (last visited Feb. 5, 2014).

⁶⁶ Jacqui Cheng, *Music Industry Will Force Licenses on Amazon Cloud Player—or Else*, ARS TECHNICA (Mar. 31, 2011, 9:02 AM), <http://arstechnica.com/business/2011/03/music-industry-will-force-licenses-on-amazon-cloud-player-or-else/> (reporting a finding that Apple is the top music seller in the United States and currently owns sixty-six percent of the online music market and that Google, while not as big, is a big name); Dean Praetorius, *Apple's Value Tops \$300 Billion, Is World's Second Most Valuable Company*, HUFFINGTON POST (May 25, 2011, 7:20 PM), http://www.huffingtonpost.com/2011/01/03/apple-market-cap_n_803784.html (reporting that in the beginning of 2011, Apple was one of two companies in the world whose value exceeded \$300 million); Ethan Smith & Geoffrey A. Fowler, *Amazon Can't Dent iTunes*, WALL ST. J. (Dec. 16, 2010), <http://online.wsj.com/article/SB10001424052748704073804576023913889536374.html> ("Despite its cut-throat pricing, Amazon has made little headway against Apple, which closely ties its iTunes software to its iPods and other gadgets.").

3. MP3tunes Model

MP3tunes, the trendsetter for the current digital locker storage services, launched its service on August 24, 2006.⁶⁷ This came nearly five years before the launch of Amazon, Google, and Apple's services. The MP3tunes model was similar to the former Google service model in that it operated without any licenses from copyright owners.⁶⁸ It differed, however, in two important respects: data deduplication and sideloading capabilities.

Unlike the initial Google service, MP3tunes utilized disk-saving data deduplication technology which deleted redundant files.⁶⁹ As with the former Google service, users were required to manually upload each file from their computers to their clouds to demonstrate ownership.⁷⁰ However, once users demonstrated ownership through the uploading process, MP3tunes's data deduplication technology replaced data sequences already stored elsewhere in the MP3tunes cloud with bookmarks that pointed to the pre-existing, identical sequence.⁷¹ Importantly, users were not given access to a better or worse quality version than the file they owned. MP3tunes thus still maintained multiple files of different sizes and sound qualities for the same sound recording.

Data deduplication is not the only way to distinguish between MP3tunes and the Google model. Also distinct from the original Google offering, MP3tunes provided users the ability to use a search engine called Sideload.com in conjunction with its music lockers.⁷² Sideload.com enabled users to find music on the Internet and upload it directly—that is, “sideload” it—to their digital lockers.⁷³ Although such a service might readily lend

⁶⁷ *MP3tunes Specifications*, CNET, http://download.cnet.com/MP3tunes/3010-2141_4-10576270.html (last visited Feb. 5, 2014).

⁶⁸ See Singel, *supra* note 55.

⁶⁹ Timothy B. Lee, *Unlicensed: Are Google Music and Amazon Cloud Player Illegal?*, ARS TECHNICA (July 4, 2011, 7:00 PM), <http://arstechnica.com/tech-policy/news/2011/07/are-google-music-and-amazon-cloud-player-illegal.ars/1> (“[The] MP3tunes service deletes redundant copies if multiple users upload the same file.”).

⁷⁰ See *What Is a Locker?*, MP3TUNES (Apr. 16, 2008, 4:53 PM), http://web.archive.org/web/20120922221548/http://support.mp3tunes.com/index.php?_m=knowledgebase&_a=viewarticle&kbarticleid=164&nav=0.

⁷¹ Lee, *supra* note 69; MARK R. COPPOCK & STEVE WHITNER, DATA DEDUPLICATION FOR DUMMIES 10 (2008).

⁷² See Singel, *supra* note 55.

⁷³ Timothy B. Lee, *Record Labels Get Hollow Victory in MP3tunes Infringement Case*, ARS TECHNICA (Aug. 22, 2011, 6:39 PM), <http://arstechnica.com/tech-policy/news/2011/08/record-labels-get-hollow-victory-in-mp3tunes-infringement-case.ars>; Lee, *supra* note 69.

itself to copyright infringement due to its peer-to-peer nature, similar to Napster,⁷⁴ MP3tunes took steps to limit its liability. First, Sideload.com did not actually house any music but instead linked to files publicly available elsewhere on the Internet.⁷⁵ Second, Sideload.com, a public sharing forum, operated independently of MP3tunes which provided users with a “secure, private space online to keep [their] music.”⁷⁶ Finally, and most importantly, both the MP3tunes and Sideload.com websites (1) explicitly stated that they complied with the Digital Millennium Copyright Act (“DMCA”), (2) provided contact information for a company agent to notify of infringing material pursuant to the DMCA, and (3) provided a link to the U.S. Copyright Office website, thus reflecting their intentions to comply with copyright laws.⁷⁷ As explained below, however, these measures did not keep MP3tunes out of the courtroom.⁷⁸

B. Data Deduplication Analysis: Functionality and Benefits

Data deduplication is a data compression technique that eliminates redundant portions of computer files to minimize storage needs.⁷⁹ The deduplication process segments the incoming data stream into blocks, uniquely identifies each data segment, and assigns each data segment a unique digital signature.⁸⁰ Each digital signature is then indexed.⁸¹ Every

⁷⁴ Over a five-year period beginning on September 8, 2003, the Recording Industry Association of America “filed, settled, or threatened legal actions against at least 30,000 individuals” for sharing copyrighted songs on peer-to-peer file sharing networks. *RIAA v. The People: Five Years Later*, ELEC. FRONTIER FOUND. (Sept. 30, 2008, 3:47 PM), <https://www.eff.org/wp/riaa-v-people-five-years-later>; see also *A&M Records, Inc. v. Napster, Inc.*, 239 F.3d 1004, 1010-11 (9th Cir. 2001).

⁷⁵ *Sideload Frequently Asked Questions (FAQ)*, SIDELOAD.COM, <http://web.archive.org/web/20120503001617/http://www.sideload.com/cb/faq/> (last visited Feb. 5, 2014).

⁷⁶ *Id.*

⁷⁷ *Id.* (“If you believe in good faith that materials listed on Sideload.com infringe your copyright you (or your agent) may send us a notice requesting that the material be removed, or access to it blocked.”); *MP3tunes Terms of Use*, MP3TUNES, http://web.archive.org/web/20120205112449/http://www.mp3tunes.com/cb/terms_conditions/ (last visited Feb. 5, 2014) (utilizing the same language as Sideload).

⁷⁸ See *infra* notes 176–80 & accompanying text.

⁷⁹ *Data Deduplication Demystified*, EFY NEWS NETWORK (May 17, 2011, 4:16 PM), <http://www.efytimes.com/e1/creativenews.asp?edid=63054>.

⁸⁰ COPPOCK & WHITNER, *supra* note 71. This process is referred to as “hashing.” David Geer, *Reducing the Storage Burden via Data Deduplication*, 41 COMPUTER 11, 11 (Dec. 2008).

subsequent stream of data is similarly broken down into blocks and checked against the existing index.⁸² When an incoming data block matches any pre-existing data it is not stored again, instead a reference, referred to as a “pointer,” is stored.⁸³ The pointer links to the pre-existing data.⁸⁴ If multiple blocks of identical data are added into the system, multiple pointers are created and attach to the corresponding data in the index.⁸⁵ When a new block of data is introduced, the index notifies the system and the new segment is then indexed.⁸⁶ These indices are important to this Note’s analysis because how courts analyze the logistics of the indexing system has significant implications for digital locker services under the current public performance analysis.

An important aspect of the data deduplication indexing system is that it ensures that online service providers (“OSPs”) which utilize it do not grant users access to a better quality file than that which they uploaded.⁸⁷ MP3 files come in a variety of sizes and sound qualities based primarily on bitrate, which is commonly measured in kilobits.⁸⁸ Data deduplication perceives these differences, even inaudible differences, and indexes them separately. So rather than accessing one, uniform data block in the system for each copyrighted sound recording, pointers access only blocks of data that correspond exactly. This means that a file stored in a user’s locker may contain multiple pointers to various blocks of data contained in different files to ensure that

⁸¹ COPPOCK & WHITNER, *supra* note 71; This process is referred to as “hashing.” Geer, *supra* note 80.

⁸² See COPPOCK & WHITNER, *supra* note 71.

⁸³ *Id.* at 9.

⁸⁴ See *id.*

⁸⁵ *Id.* at 10.

⁸⁶ *Id.*

⁸⁷ *Online Service Provider*, WEBOPEDIA, http://www.webopedia.com/TERM/O/online_service_provider.html (last visited Feb. 5, 2014) (“Abbreviated as OSP, an *online service provider* is a generic term that describes any company, organization or group that provides an online service. These types of services may include Web sites, discussion forums, chat rooms, or Web mail.”).

⁸⁸ Bitrate “describes the rate at which bits are transferred from one location to another. In other words, it measures how much data is transmitted in a given amount of time.” TECHTERMS.COM, <http://www.techterms.com/definition/bitrate> (last visited Feb. 5, 2014). The higher the bitrate of the file, the higher the quality, “because more bits are used to represent the audio data for each second of playback . . . Just like the quality of an image is measured in resolution, the quality of an audio or video file is measured by the bitrate.” *Id.*

users are accessing identical track listing information, sound quality, and file size. Any differences between various files of the same sound recording, even modest differences, are preserved. Users effectively access the exact file they uploaded: no more, no less. There is no ultimate effect on the users because their ability to listen to their files is not affected by the method of storage. However, digital locker service providers will realize significant benefits from the utilization of data deduplication that could potentially lead to better, cheaper, and more environmentally friendly services for users.

Data deduplication is an optimal tool for digital locker service providers because it enables them to reduce costs and increase efficiency.⁸⁹ “By decreasing the amount of data in a system, deduplication . . . reduces the amount of storage needed, the power consumption resulting from handling large amounts of information, new and replacement equipment costs, and operational and management expenses.”⁹⁰ Furthermore, data deduplication reduces bandwidth needs because when less data is stored, less data needs to be moved.⁹¹ Decreased bandwidth requirements enable speedier replication of backup data thus making disaster recovery in the event of a system failure more efficient and effective.⁹²

II. CURRENT STATE OF THE LAW

A. *Pertinent Statutes and Case Law*

1. The Constitution and the Copyright Act

Article I of the Constitution grants authors the “exclusive Right to their respective Writings.”⁹³ This Constitutional grant reflects the United States’ utilitarian goal of promoting a social benefit, “the Progress of Science and useful Arts,” by incentivizing both innovation and creativity.⁹⁴ Pursuant to this

⁸⁹ *Data Deduplication Demystified*, *supra* note 79; Geer, *supra* note 80.

⁹⁰ Geer, *supra* note 80, at 13.

⁹¹ COPPOCK & WHITNER, *supra* note 71, at 7.

⁹² *Id.* at 7–8; Geer, *supra* note 80, at 13.

⁹³ U.S. CONST. art. I, § 8, cl. 8.

⁹⁴ *Id.*; Reed Elsevier, Inc. v. Muchnick, 130 S.Ct. 1237, 1241 (2010); Sony Corp. of Am. v. Universal City Studios, Inc., 464 U.S. 417, 429 n.10 (1984) (“The enactment of copyright legislation by Congress under the terms of the Constitution is . . . upon

goal, Congress enacted the Copyright Act which, in its current form, grants authors exclusive control over six enumerated categories of use.⁹⁵ Although there are six categories of exclusive rights, copyright infringement occurs when a single exclusive right is violated.⁹⁶ This Note addresses both the copyright holder's exclusive right "in the case of sound recordings, to *perform the copyrighted work publicly* by means of a digital audio transmission,"⁹⁷ and the related right to publicly perform the underlying composition.⁹⁸

The Copyright Act defines performing a work "publicly" using two separate clauses that are applied in different contexts.⁹⁹ The first clause defines a public performance as performing "at a place open to the public or at any place where a substantial number of persons outside of a normal circle of a family and its social acquaintances is gathered."¹⁰⁰ "One of the principal purposes of [this] definition was to make clear that . . . performances in 'semi-public' places such as clubs, lodges, factories, summer camps and schools are 'public performances' subject to copyright control."¹⁰¹ This clause makes clear that a person who sings or plays a song for a small group of family and friends gathered at her home is not publicly performing that song because her home is not "a place open to the public."¹⁰²

the ground that the welfare of the public will be served and progress of science and useful arts will be promoted by securing to authors for limited periods the exclusive rights to their writings.") (quoting H.R. REP. NO. 60-2222, at 7 (1909)); *Perfect 10, Inc. v. Amazon.com, Inc.*, 487 F.3d 701, 720 (9th Cir. 2007).

⁹⁵ 17 U.S.C. § 106 (2012).

⁹⁶ *Id.* § 501(a) ("Anyone who violates any of the exclusive rights of the copyright owner . . . is an infringer of the copyright.").

⁹⁷ *Id.* § 106(6) (emphasis added).

⁹⁸ *Id.* § 106(4).

⁹⁹ *Id.* § 101.

¹⁰⁰ *Id.*

¹⁰¹ *Columbia Pictures Indus., Inc. v. Prof'l Real Estate Investors, Inc.*, 866 F.2d 278, 281 (9th Cir. 1989).

¹⁰² 17 U.S.C. § 101.

The second clause, commonly referred to as the “Transmit Clause,” states that a work is also performed “publicly” when an unauthorized individual

transmit[s] or otherwise communicate[s] a performance or display of the work . . . by means of any device or process, whether the members of the public capable of receiving the performance or display receive it in the same place or in separate places and at the same time or at different times.¹⁰³

Although the Act does not define “otherwise communicate,” it defines “transmit” as “communicat[ing] [a performance or display] by any device or process whereby images or sounds are received beyond the place from which they are sent.”¹⁰⁴ This is where the public performance analysis becomes a bit counterintuitive. Just as a performance or transmission of a work to those in a “place open to the public” is a public performance,¹⁰⁵ so too is a performance transmitted or communicated in such a way that it is capable of being received by members of “the public” in the privacy of their own homes.¹⁰⁶ Members of the public do not need to actually receive the transmission. Rather, they simply must be “capable of receiving the performance.”¹⁰⁷ A public performance may even occur when nobody receives the transmission.¹⁰⁸ Moreover, those capable of receiving the transmission may be in separate places or capable of receiving the public performance at different times.¹⁰⁹

¹⁰³ *Id.*

¹⁰⁴ *Id.*

¹⁰⁵ *Id.*

¹⁰⁶ *Id.*

¹⁰⁷ *See id.*; *Cartoon Network LP v. CSC Holdings, Inc.*, 536 F.3d 121, 134 (2d Cir. 2008) (“This plain language instructs us that, in determining whether a transmission is ‘to the public,’ it is of no moment that the potential recipients of the transmission are in different places, or that they may receive the transmission at different times. The implication from this same language, however, is that it is relevant, in determining whether a transmission is made to the public, to discern who is ‘capable of receiving’ the performance being transmitted.”).

¹⁰⁸ *Cnty. Broad. Serv. v. Time Warner Cable, LLC*, Civ. No. 07-139-B-W, 2008 WL 3200661, at *9–10 (D. Me. Aug. 7, 2008).

¹⁰⁹ 17 U.S.C. § 101 (“[W]hether the members of the public capable of receiving the performance or display receive it in the same place or in separate places and at the same time or at different times.”).

2. Effect of the Digital Millennium Copyright Act on the Public Performance Analysis

The Transmit Clause applies to television networks, radio stations, online service providers, and other entities that transmit copyright protected works to members of the public.¹¹⁰ Although, based on their business models, television networks and radio stations have a large amount of, if not exclusive, control over the content they transmit, OSPs are afforded no such luxury.¹¹¹

OSP s operate in a more hands-off environment than traditional media outlets. As a result of the “read/write” structure of the Internet,¹¹² OSPs cannot reasonably expect to control, or even know about, every transmission, let alone whether the person who initiated the transmission was authorized to do so.¹¹³ This difficulty stems from the Internet’s functionality, which enables users to easily acquire and disseminate copyright protected material at the click of a button. While OSPs should be held accountable when they knowingly encourage and profit from rampant and continuous infringement,¹¹⁴ it makes little sense to penalize OSPs for

¹¹⁰ *See id.* (“To ‘transmit’ a performance or display is to communicate it by any device or process whereby images or sounds are received beyond the place from which they are sent.”).

¹¹¹ For purposes of the DMCA, “service provider” is defined as follows:

(A) As used in subsection (a), the term “service provider” means an entity offering the transmission, routing, or providing of connections for digital online communications, between or among points specified by a user, of material of the user’s choosing, without modification to the content of the material as sent or received.

(B) As used in this section, other than subsection (a), the term “service provider” means a provider of online services or network access, or the operator of facilities therefor, and includes an entity described in subparagraph (A).

17 U.S.C. § 512(k)(1).

¹¹² LAWRENCE LESSIG, REMIX: MAKING ART AND COMMERCE THRIVE IN THE HYBRID ECONOMY 57 (2008).

¹¹³ *Viacom Int’l, Inc. v. YouTube, Inc.*, 676 F.3d 19, 32 (2d Cir. 2012) (holding that for a service provider to be disqualified from the DMCA’s safe harbor, it must possess “actual knowledge or awareness of facts or circumstances that indicate specific and identifiable instances of infringement”).

¹¹⁴ *See id.* at 32–33; *A&M Records, Inc. v. Napster, Inc.*, 239 F.3d 1004, 1021 (9th Cir. 2001) (finding the defendant liable for contributory infringement, the court stated that “if a computer system operator learns of specific infringing material available on his system and fails to purge such material from the system, the operator knows of and contributes to direct infringement”).

infringement of which they are unaware. Congress realized as much, and passed the DMCA to insulate OSPs from liability for certain types of user behavior.

The DMCA amended Title 17 of the United States Code in 1998 to limit the liability of OSPs for copyright infringement by their users. Its purpose is “to balance the interests of copyright owners and online service providers by promoting cooperation, minimizing copyright infringement, and providing a higher degree of certainty to service providers on the question of copyright infringement.”¹¹⁵ To help realize these goals, the DMCA provides requirements that OSPs must follow to receive “Safe Harbor” protection.¹¹⁶ An important component of the DMCA is that when a copyright holder or her agent notifies an OSP of infringement, the OSP must promptly block access to, or remove altogether, the alleged infringing material.¹¹⁷

Digital locker service providers are most likely to face secondary liability claims because in most scenarios it is the user, rather than the OSP, who is the direct infringer. However, it is probable that the DMCA will serve as a safe harbor for digital locker service providers against charged public performance violations. This makes sense, as the DMCA functions to protect OSPs from liability for the infringement of users. Notably, in *Capitol Records, Inc. v. MP3tunes, LLC*,¹¹⁸ the court held that a digital locker service provider “satisfie[d] the threshold requirements to qualify for safe harbor protection

¹¹⁵ *Capitol Records, Inc. v. MP3tunes, LLC*, 821 F. Supp. 2d 627, 636 (S.D.N.Y. 2011).

¹¹⁶ See 17 U.S.C. § 512. An OSP is not liable for infringement if: (1) it does not possess knowledge of the infringing activity; (2) it “does not receive a financial benefit directly attributable to the infringing activity”; and (3) upon notification of claimed infringement it “responds expeditiously to remove, or disable access to, the material that is claimed to be infringing or to be the subject of infringing activity.” *Id.* § 512(c).

¹¹⁷ *Id.* Notification must identify the copyrighted work or a representative list of multiple works alleged to have been infringed. *Id.* Notification must also provide information “reasonably sufficient to permit the service provider to locate the material . . . [and] contact the complaining party.” *Id.* Finally, notification must include

[a] statement that the complaining party has a good faith belief that use of the material . . . is not authorized by the copyright owner, its agent, or the law[,] . . . that the information in the notice is accurate . . . [and] that the complaining party is authorized to act on behalf of the owner of an exclusive right that is allegedly infringed.

Id.

¹¹⁸ 821 F. Supp. 2d 627 (S.D.N.Y. 2011).

under the DMCA” although it was ultimately held liable for its actions, or lack thereof, which did not fully comply with the DMCA.¹¹⁹

As MP3tunes learned the hard way, digital locker service providers must be meticulous in complying with the DMCA. The Supreme Court has specified that all immunities from liability should be construed narrowly.¹²⁰ Furthermore, the DMCA specifies that an OSP must adopt and “reasonably implement[]” a repeat infringer policy as a condition of eligibility.¹²¹ Courts interpreting this provision “have held that implementation is reasonable if the service provider (1) has a system for responding to takedown notices, (2) does not interfere with the copyright owners’ ability to issue notices, and (3) under ‘appropriate circumstances’ terminates users who repeatedly or blatantly infringe copyrights.”¹²²

In sum, digital locker service providers fall into the category of OSPs that may qualify for DMCA safe harbor protection if they comply with all components of Section 512. However, OSPs often have difficulty fully complying with the DMCA’s requirements that causes them to lose safe harbor protection. This Note addresses public performance liability to the extent that the DMCA does not shield the OSP from liability, and provides an important analysis for OSPs who fail to qualify for DMCA safe harbor protection.

B. Interpretation of “Separate Places” and “Different Times,” and Application by Courts

The interpretation of the Transmit Clause language denoting “separate places” and “different times” is important to the analysis of many developing technological offerings, including cloud-based music locker storage services. The wording of the clause refers to both “the work” and “the performance” in the

¹¹⁹ *Id.* at 639, 646.

¹²⁰ *United States v. Texas*, 507 U.S. 529, 534 (1993); *see also* *Fame Publ’g Co. v. Ala. Custom Tape, Inc.*, 507 F.2d 667, 670 (5th Cir. 1975) (holding that statutes which provide exceptions to liability under the Copyright Act should be strictly and narrowly construed).

¹²¹ *See* 17 U.S.C. § 512(i).

¹²² *Capitol Records, Inc. v. MP3tunes, LLC*, 821 F. Supp. 2d 627, 637 (S.D.N.Y. 2011) (citing *Perfect 10 v. CCBill*, 488 F.3d 1102, 1109–10 (9th Cir. 2007)).

singular.¹²³ Applied literally, albeit impractically, this clause would find a public performance whenever a person transmits an MP3 file, CD, or other medium containing a popular song within her home simply because other members of the public are capable of transmitting their own copies of that song in separate places at different times.¹²⁴ Anybody playing a widely disseminated song or album in the comfort of her own home would be forced to obtain a performing rights license or face liability for copyright infringement. This application would be ludicrous.

Professor Nimmer provides a slightly more rational interpretation of the transmit clause: “[W]hat must have been intended was that *if the same copy* (or phonorecord) of a given work is repeatedly played (*i.e.*, ‘performed’) by different members of the public, albeit at different times, this constitutes a ‘public’ performance.”¹²⁵ This point is illustrated in *Columbia Pictures Industries, Inc., v. Redd Horne Inc.*,¹²⁶ where a video rental store, Maxwell’s, was held to have publicly performed copyrighted works when it rented movies to customers and then provided private rooms where the movies could be played.¹²⁷ Maxwell’s employees transmitted movies from a front showroom containing video equipment to small booths in the rear “showcase” area of the store.¹²⁸ Groups of two to four customers paid a fee to rent

¹²³ 17 U.S.C. § 101 (“[T]o transmit or otherwise communicate a performance or display of *the work* . . . to the public . . . whether the members of the public capable of receiving *the performance* . . . receive it in the same place or in separate places and at the same time or at different times.” (emphasis added)).

¹²⁴ In *Cartoon Network*, the Second Circuit rejected a literal application of transmit clause:

[The transmit] clause speaks of people capable of receiving a particular “transmission” or “performance,” and not of the potential audience of a particular “work.” Indeed, such an approach would render the “to the public” language surplusage. Doubtless the *potential* audience for every copyrighted audiovisual work is the general public. As a result, any transmission of the content of a copyrighted work would constitute a public performance under the district court’s interpretation. But the transmit clause obviously contemplates the existence of non-public transmissions; if it did not, Congress would have stopped drafting that clause after “performance.”

Cartoon Network LP v. CSC Holdings, Inc., 536 F.3d 121, 135–36 (2d Cir. 2008).

¹²⁵ 2 MELVILLE B. NIMMER & DAVID NIMMER, NIMMER ON COPYRIGHT § 8.14[C][3] (2011) (emphasis in original).

¹²⁶ 749 F.2d 154 (3d Cir. 1984).

¹²⁷ *Id.* at 156–57.

¹²⁸ *Id.* at 157.

one of eighty-five viewing booths in which to watch the movie they selected.¹²⁹ Strangers were not paired together.¹³⁰ The Third Circuit stated that the fees paid for private screening rooms were “analytically indistinguishable” from those paid for admittance to a public movie theater.¹³¹ The viewing rooms were open to “the public,” and thus, any transmission to the rooms was held to be to “the public.”¹³²

The application of public performance rights is very fact sensitive, however, and similar scenarios may produce different results. Furthermore, the technology underpinning much of the public performance precedent feels antiquated. For example, the court in *Columbia Pictures Industries, Inc. v. Professional Real Estate Investors, Inc.*,¹³³ held that a hotel’s rental of videodiscs to patrons who later viewed them in their own rooms was not a public performance.¹³⁴ The Ninth Circuit distinguished this case from *Redd Horne* “because [the hotel’s] ‘nature’ is the providing of living accommodations and general hotel services, which may incidentally include the rental of videodiscs to interested guests for viewing in guest rooms.”¹³⁵ The court further stated: “[G]uests do not view the videodiscs in hotel meeting rooms used for large gatherings. The movies are viewed exclusively in guest rooms, places where individuals enjoy a substantial degree of privacy, not unlike their own homes.”¹³⁶ In holding that no transmission or other public performance had occurred, the court stated that “[w]hile [the hotel] has indeed provided the videodisc player, television screens, guest rooms, and makes videodiscs available in the lobby, we are not persuaded that any transmission of the kind contemplated by the statute occurs.”¹³⁷ However, this holding does not mean that a hotel operator never transmits a work when renting to patrons.

¹²⁹ *Id.*

¹³⁰ *Id.*

¹³¹ *Id.* at 160 (distinguishing a movie rental for home viewing from the operation at Maxwell’s, where the movie never left the store and store employees “maintained physical dominion and control” over the movies and played the movies on its own machines).

¹³² *Id.*

¹³³ 866 F.2d 278 (9th Cir. 1989).

¹³⁴ *Id.* at 282.

¹³⁵ *Id.* at 281.

¹³⁶ *Id.*

¹³⁷ *Id.* at 282.

For example, in *On Command Video Corp. v. Columbia Pictures Industries*,¹³⁸ the court held that transmitting movies from a hotel's centralized equipment room to guests' rooms was a public performance.¹³⁹ Unlike *Columbia Pictures, Inc.*, where guests rented movies and brought them to their rooms instead of receiving transmissions,¹⁴⁰ guests at hotels using On Command's electronic delivery system operated the system from their hotel rooms by remote control.¹⁴¹ The court held that On Command transmitted movies because "[t]he system 'communicates' the motion picture 'images and sounds' by a 'device or process'—the equipment and wiring network—from a central console in a hotel to individual guest rooms, where the images and sounds are received 'beyond the place from which they are sent.'"¹⁴² Members of the public, here the hotel patrons, received transmissions of a single copy at separate places and different times.¹⁴³ The fact that hotel guests initiated the transmission by turning on their televisions and choosing a video was found to be "immaterial."¹⁴⁴ The court further stated that the transmissions were public because "[h]otel guests watching a video movie in their room through On Command's system are not watching it in a 'public place' . . . they are nonetheless members of 'the public.'"¹⁴⁵ Moreover, "[t]he non-public nature of the place of the performance has no bearing on whether or not those who enjoy the performance constitute 'the public' under the transmit clause."¹⁴⁶ While these cases clarified some of the public performance issues at the time they were decided, new questions continue to arise with new technological innovations.¹⁴⁷

¹³⁸ 777 F. Supp. 787 (N.D. Cal. 1991).

¹³⁹ *Id.* at 789–90.

¹⁴⁰ *Columbia Pictures Indus.*, 866 F.2d at 281.

¹⁴¹ *On Command Video*, 777 F. Supp. at 788.

¹⁴² *Id.* at 789–90.

¹⁴³ *Id.*

¹⁴⁴ *Id.* at 790.

¹⁴⁵ *Id.*

¹⁴⁶ *Id.* ("A performance may still be public under the transmit clause 'whether the members of the public . . . receive it in the same place or in separate places and at the same time or at different times.'" (quoting 17 U.S.C. § 101 (2012))).

¹⁴⁷ One writer has persuasively argued that section 110 of the Copyright Act should exempt iTunes from paying licensing fees for public performances of thirty-second samples of songs online because, like traditional "brick-and-mortar" record stores who are currently exempted from paying fees for listening stations, iTunes previews "are provided for the sole purpose of promoting the sale being transmitted." Jesse A. Bland, *Biting the Hand that Feeds: Why the Attempt To Impose Additional*

C. *Public Performance in the Digital Age*

As the Internet is rapidly becoming a common household service, it presents courts with a vast number of legal issues, including copyright infringement. The problem of online copyright infringement has been exacerbated as access to the Internet has become more widespread, connection speeds have increased, and Internet connections have become more stable. Significant to this analysis, courts have been confronted with the question of whether downloading or streaming copyrighted music constitutes a public performance.

1. Downloading Music

According to the Second Circuit, the act of downloading a digital music file does not constitute a public performance of that musical work.¹⁴⁸ The Second Circuit noted in *United States v. American Soc. of Composers, Authors and Publishers*,¹⁴⁹ that “[m]usic is neither recited, rendered, nor played when a recording (electronic or otherwise) is simply delivered to a potential listener.”¹⁵⁰ In reaching its decision, the court emphasized that the downloaded songs were not “contemporaneously perceived” during the transfers and, therefore, required the user to take some further action to play the songs after they had been fully downloaded.¹⁵¹ In the course of its analysis, the court also addressed the status of the ultimate performance by noting that “[since] the performance is made by a unique reproduction of the song that was sold to the user, the ultimate performance of the song is not ‘to the public.’”¹⁵² This statement is particularly pertinent to the cloud analysis because, as explained earlier, users of unlicensed digital locker service providers upload and access a “unique reproduction” of a song that they already own

Performance Fees on iTunes Is a Search for Dollars Without Sense, 2 HARV. J. SPORTS & ENT. L. 157, 187–88 (2011).

¹⁴⁸ *United States v. Am. Soc. of Composers, Authors & Publishers*, 627 F.3d 64, 85 (2d Cir. 2010).

¹⁴⁹ *Id.*

¹⁵⁰ *Id.* at 73 (“The downloads at issue in this appeal are not musical performances that are contemporaneously perceived by the listener. They are simply transfers of electronic files containing digital copies from an on-line server to a local hard drive.”).

¹⁵¹ *Id.* (“Because the electronic download itself involves no recitation, rendering, or playing of the musical work encoded in the digital transmission, we hold that such a download is not a performance of that work, as defined by § 101.”).

¹⁵² *Id.* at 75.

whether they later re-download the file or choose to stream it.¹⁵³ The Second Circuit did leave open the possibility that a public performance may be found if a user could listen to the song while she downloaded it.¹⁵⁴ A user's potential ability to listen to a work while it is being downloaded, however, falls under the analysis for performing music, which is different than the analysis applied to downloads.

2. Streaming Music

Streaming music from a third party via the Internet is akin to listening to music on the radio and has been deemed a public performance.¹⁵⁵ Streaming music, frequently referred to as "streaming audio," "refers to music performances over the Internet where the user is not provided with a permanent digital copy of the music but instead accesses copies residing on the provider's server computers."¹⁵⁶ Because music streaming is unaffected by the geographic limitations faced by conventional radio, Congress amended the Copyright Act in 1995 and 1998 to address licensing issues with respect to digital audio transmissions of sound recordings.¹⁵⁷ This Note, however, focuses only on whether accessing musical compositions and

¹⁵³ A valid argument may be made that the song files uploaded to, and later downloaded from, the cloud are distinguishable from the downloads at issue in *Am. Soc. of Composers, Authors & Publishers* because the cloud provider cannot establish that the files were legally obtained by the user. The issue of files obtained illegally, however, is beyond the scope of this Note. The focus here is on whether a user can prove that she owns a copy of the work, not whether she obtained ownership through illicit means.

¹⁵⁴ *Am. Soc. of Composers, Authors & Publishers*, 627 F.3d at 74 n.10 ("Our opinion does not foreclose the possibility, under certain circumstances not presented in this case, that a transmission could constitute both a stream and a download, each of which implicates a different right of the copyright holder.").

¹⁵⁵ *Id.* at 74 ("A stream is an electronic transmission that renders the musical work audible as it is received by the client-computer's temporary memory. This transmission, like a television or radio broadcast, is a performance because there is a playing of the song that is perceived simultaneously with the transmission.").

¹⁵⁶ Amy J. Everhart, *Intellectual Property Checklist for Marketing the Recording Artist Online*, 18 J. INTELL. PROP. L. 541, 545 (2010); see also *Metro-Goldwyn-Mayer Studios, Inc. v. Grokster, Ltd.*, 454 F. Supp. 2d 966, 998 (C.D. Cal. 2006) ("In a streaming performance, the user is not provided with a permanent digital copy of the streamed music, and instead accesses copies residing on the provider's server computers.").

¹⁵⁷ 17 U.S.C. § 114 (2012).

sound recordings from a digital locker should constitute a public performance, not which type of licensing agreements would be required if a public performance is found.

D. *The Unique Copy Analysis*

In *UMG Recordings, Inc. v. MP3.com, Inc.*,¹⁵⁸ defendant MP3.com, a forerunner in the realm of digital locker storage,¹⁵⁹ was found liable for copyright infringement.¹⁶⁰ Public performance was not mentioned once in the court's decision.¹⁶¹ Rather, infringement was premised on MP3.com's unauthorized copying,¹⁶² a separate exclusive right under section 106 of the Copyright Act.¹⁶³ MP3.com did not require its users to manually upload their music.¹⁶⁴ Users were only required to insert a CD into their computer's CD-ROM drive for a few seconds to "prove" ownership.¹⁶⁵ Once users had done this, they could access a master copy of the file created by MP3.com.¹⁶⁶ The court did not address the potential public performance implications of streaming a master copy to users because only one exclusive right of a copyright owner needs to be violated for a finding of copyright infringement.¹⁶⁷ Although premised on the exclusive right to reproduce a copyrighted work in copies or phonorecords, *UMG Recordings* is important to this analysis because it is the first action brought against a digital locker service provider. Digital locker service providers are now careful not to reproduce any copyrighted works themselves. Accordingly, copyright owners do not limit their complaints to a single exclusive right

¹⁵⁸ 92 F. Supp. 2d 349 (S.D.N.Y. 2000).

¹⁵⁹ *Id.* at 350 ("[D]efendant MP3.com, on or around January 12, 2000, launched its 'My.MP3.com' service, which is advertised as permitting subscribers to store, customize and listen to the recordings contained on their CDs from any place where they have an Internet connection.").

¹⁶⁰ *Id.* at 353.

¹⁶¹ *See generally id.* at 349–53.

¹⁶² *Id.* at 350 ("[D]efendant purchased tens of thousands of popular CDs in which plaintiffs held the copyrights, and, without authorization, copied their recordings onto its computer servers so as to be able to replay the recordings for its subscribers.").

¹⁶³ 17 U.S.C. § 106(1) (2012) (stating that the copyright owner has the "exclusive right[] . . . to reproduce the copyrighted work in copies or phonorecords").

¹⁶⁴ *See UMG Recordings, Inc.*, 92 F. Supp. 2d at 350.

¹⁶⁵ *Id.*

¹⁶⁶ *Id.*

¹⁶⁷ *See infra* note 189 and accompanying text.

under section 106. Rather, allegations of copyright infringement frequently include claims that multiple exclusive rights were violated.

In *Cartoon Network LP v. CSC Holdings, Inc.*,¹⁶⁸ the Second Circuit reviewed the public performance implications of Cablevision's "Remote Storage DVR System" (RS-DVR).¹⁶⁹ The RS-DVR service allowed Cablevision subscribers to record copyrighted programs on central hard drives housed and maintained by Cablevision at a "remote" location.¹⁷⁰ The user could later access and watch these programs on their TV sets using only a remote control and an RS-DVR equipped cable box.¹⁷¹ In its analysis, the Second Circuit ruled that the playback of an RS-DVR copy of a program "does not involve the transmission of a performance 'to the public.'"¹⁷² Its analysis hinged on "who precisely is 'capable of receiving' a particular transmission of a performance."¹⁷³ Multiple cable subscribers who recorded the same program aired on the same network at the same time could only access the individual recording they made rather than a single master copy.¹⁷⁴ The court ultimately held that "[b]ecause each RS-DVR playback transmission is made to a single subscriber using a single *unique copy* produced by that subscriber, . . . such transmissions are not performances 'to the public,' and therefore do not infringe any exclusive right of public performance."¹⁷⁵

The contours of the present public performance analysis as applied to digital locker services creates needless hurdles for music listeners and the OSPs who operate them while offering inadequate protection for copyright owners. Requiring digital locker service providers to maintain a unique copy of identical files for each user does not, by itself, limit the persons "capable of receiving" through a transmission the phonorecords contained in

¹⁶⁸ 536 F.3d 121 (2d Cir. 2008).

¹⁶⁹ *Id.* at 136. The reproduction right was also addressed in this decision. *Id.* at 133.

¹⁷⁰ *Id.* at 124.

¹⁷¹ *Id.*

¹⁷² *Id.* at 134.

¹⁷³ *Id.* at 135.

¹⁷⁴ *Id.*

¹⁷⁵ *Id.* at 139 (emphasis added).

a digital locker. Whether each user's locker contains a unique file does not fully address the most important consideration of whether a work has been performed publicly: access.

Thus far, the only case to analyze the public performance analysis with respect to digital locker services is *Capitol Records, Inc. v. MP3tunes, LLC*.¹⁷⁶ Although the court in *Capitol Records* stated that the plaintiff's reliance on *Cartoon Network* was "inapposite,"¹⁷⁷ it still viewed public performance through the "master copy" analysis propounded by that case.¹⁷⁸ Without addressing the issue of access, the court ruled that MP3tunes had not publicly performed copyright protected works because the data deduplication system it employed "uses a standard data compression algorithm that eliminates redundant digital data" and "preserves the exact digital copy of each song uploaded."¹⁷⁹ Based on this rudimentary explanation of data deduplication, the court concluded that there was no "master copy" of any of the plaintiff's songs.¹⁸⁰ This analysis oversimplified data deduplication so that it would fit neatly within the confines of the unique copy test. Furthermore, the court erred when it attempted to distinguish between using "a standard data compression algorithm that eliminates redundant digital data," that is, data deduplication, and using a "master copy."¹⁸¹

In the typical data deduplication process, when a block of data is *first* stored to an OSP's index it, in effect, creates a master copy of that block of data.¹⁸² That block of data is then referenced

¹⁷⁶ *Capitol Records, Inc. v. MP3tunes, LLC*, 821 F. Supp. 2d 627 (S.D.N.Y. 2011). This case is very significant to the cloud computing analysis because although it directly affects only MP3tunes, the ultimate outcome will certainly have an impact on others entering this industry without licenses. See Lee, *supra* note 69.

¹⁷⁷ The defendant in *Cartoon Network* was ineligible for the DMCA safe harbor provision. This is an important distinction because, as OSPs, digital locker service providers are eligible for the DMCA safe harbor provision and are thus afforded greater protection from infringement suits. 17 U.S.C. § 512(k)(1)(A) (2012) ("[T]he term 'service provider' means an entity offering the transmission, routing, or providing of connections for digital online communications, between or among points specified by a user, of material of the user's choosing, without modification to the content of the material as sent or received.")

¹⁷⁸ *Capitol Records, Inc.*, 821 F. Supp. 2d at 650.

¹⁷⁹ *Id.*

¹⁸⁰ *Id.*

¹⁸¹ *Id.*

¹⁸² Mark Rockwell, *Cost-Effective Cloud-Based Data De-duplication Could Bring 'Hiccup'*, GOV'T SEC. NEWS (Apr. 7, 2011, 5:08 PM), http://www.gsnmagazine.com/article/22913/cost_effective_cloud_based_data_de_duplication_cou ("Data deduplication technology . . . streamlines data storage needs by winnowing down

by the pointers, which are created when a subsequent identical block of data is uploaded to the system.¹⁸³ Technically, the user is actually accessing a unique pointer in her locker, which, in turn, accesses a master copy of any pre-existing data. But how distinguishable is a unique link to a master copy of a block of data from a master copy of a whole work that is accessed directly? Furthermore, is this distinction worth making once a user has demonstrated ownership of an MP3 file through the upload process? The real distinction between a public and private performance is who has access to the copyrighted work, which the method of storing uploaded files does not address.

How MP3 files are stored once a user demonstrates ownership via the uploading process does not affect whether members of the public other than that user are “capable of receiving” or accessing them. In *Cartoon Network*, cable subscribers accessed recordings of programming that they did not own.¹⁸⁴ Their initial means of access to the copyrighted programming was through a transmission from a remote location, which is undisputedly a public performance.¹⁸⁵ Digital music locker services are distinguishable because users, rather than the digital locker service providers, add the music files to their lockers. At no point do digital locker service providers initiate transmissions as did Cablevision in *Cartoon Network*. Rather, users initiate the transmissions from their music lockers similar to the secondary transmissions in *Cartoon Network* that were held not to be public performances.¹⁸⁶

The unique copy analysis set forth in *Cartoon Network* is also flawed because it creates a perverse incentive to set up a system where users make more unauthorized copies to avoid publicly performing a work. In essence, the master copy test attempts to protect one exclusive right, performing a copyrighted work publicly,¹⁸⁷ at the expense of another exclusive right,

thousands of files to a single master copy.”); see also *Data Deduplication Demystified*, *supra* note 79 (“Only one instance of the attachment is actually stored and each subsequent instance referenced back to the single, saved master copy.”).

¹⁸³ COPPOCK & WHITNER, *supra* note 71.

¹⁸⁴ *Cartoon Network LP v. CSC Holdings, Inc.*, 536 F.3d 121, 123–24 (2d Cir. 2008).

¹⁸⁵ *Id.* at 124.

¹⁸⁶ *See id.* at 140.

¹⁸⁷ 17 U.S.C. § 106(4), (6) (2012).

reproducing a copyrighted work.¹⁸⁸ This makes little sense considering copyright infringement only requires the violation of one exclusive right.¹⁸⁹ Fewer violations of the public performance right do not justify more potential violations of the reproduction right. A system that facilitates fewer, rather than more, copies would better protect copyright owners and be more consistent with copyright law.

III. A NEW ANALYSIS

This Note propounds a new analysis for reviewing the potential public performance implications of the remote storage of, and access to, copyrighted works when the digital locker service provider does not qualify for the DMCA safe harbor. The current application of the Transmit Clause to new forms of media has been over-simplified by the courts. Copyright holders, digital locker service providers, and consumers need a more justifiable test than the unique copy infringement analysis in *Cartoon Network* that was recently relied upon in *MP3tunes*. Lost in the unique copy analysis is the ultimate goal of that test: to determine whether a person or entity is publicly performing a copyright protected work by transmitting it to the public.

This Note proposes a two-prong alternative to the copy analysis test to determine whether the exclusive right to publicly perform a work has been exercised by a non-privileged digital locker service provider. The initial prong (“Prong 1”) asks two questions to determine the ownership of a copy. The first question is whether a user has demonstrated ownership of the copy. The second question asks whether a user is granted access to the exact file she uploaded to her digital locker.

The second prong (“Prong 2”) determines accessibility and addresses four separate questions. First, it must be determined whether the user’s locker can be accessed by more than one device at a time. Second, it must be determined whether a device may be simultaneously linked to multiple accounts with the same OSP. Third, it must be determined whether digital locker service providers allow a device to be linked with a single account more

¹⁸⁸ *Id.* § 106(1).

¹⁸⁹ *Id.* § 501(a).

than once. Finally, it must be determined whether digital locker service providers have set a reasonable limit on the number of devices that may be affiliated with an account at one time.

As the Second Circuit succinctly stated, “any factor that limits the *potential* audience of a transmission is relevant.”¹⁹⁰ Each factor of each prong contains its own important limitations that ensure copyright owners’ exclusive right to publicly perform their work is not infringed while simultaneously ensuring that users have a feasible method for accessing the copies of sound recordings they own.

A. *Prong 1: Ownership*

1. Have the Users Demonstrated Ownership

The threshold issue to address before any further public performance analysis may be undertaken is whether the users have demonstrated ownership of the files they store in their digital lockers. There are three ways for users to accomplish this. The first method, by which users may demonstrate ownership, is manually uploading each file to their digital lockers. As discussed earlier, this method has significant drawbacks, is not foolproof, and is less than ideal for file owners.¹⁹¹ The second method for demonstrating ownership is by purchasing the MP3 directly from the same OSP providing the digital locker service. In this scenario, the user would download the song directly to the device used to purchase the sound recording files and the OSP would add the file directly to the user’s locker as well. It makes little sense to require users to download the song from the OSP and then upload it to their locker.¹⁹²

The third method by which OSPs can assess ownership is by having users prove that they legally own the file. This can be done through a user agreement initiated when the locker is created. MP3tunes, which allowed users to “sideload” songs from third-party websites directly to their digital lockers, required users to claim that they had legal authorization to access the file

¹⁹⁰ *Cartoon Network*, 536 F.3d at 137.

¹⁹¹ See *supra* notes 54–56 and accompanying text.

¹⁹² This method assumes that the copyright owner has licensed the digital music locker provider to distribute phonorecords pursuant to § 106(3).

on the Internet and to add it to their respective digital lockers.¹⁹³ Although this method is an option, it would better serve as an accompaniment to the first two methods because users often ignore the terms of service agreements, are less than truthful when agreeing to the terms, or do not read them at all.

Of the three methods for proving ownership, the first two are superior because they best protect the rights of the copyright owner. Although the initial upload process of the first method may be burdensome to users, it only needs to be done once. The initial inconvenience to music listeners is justified by the protection offered to copyright owners of the sound recordings. Similarly, the second method of demonstrating ownership protects copyright owners because consumers can purchase sound recordings with the assurance that they can easily add them to their digital lockers. The fact that the sound recordings were actually purchased from a licensed distributor ensures that the copyright holder is receiving compensation for her work. Digital locker service providers, many of whom also offer music for purchase, may employ both of the first two methods because users may wish to store music they purchased from that provider as well as from other sources.

2. Users May Only Access the Exact File They Uploaded

The second requirement is that users of digital lockers only have access to the exact version of the digital music file they uploaded: no more, no less. This factor is geared toward data deduplication technology. However, it should also apply to future technological innovations that may be utilized by digital locker service providers. OSPs providing digital lockers aimed at music users should be given the same leeway in how they choose to store and maintain files that businesses and individual computer

¹⁹³ Brief for Public Knowledge et al. as Amici Curiae Supporting Defendants at 18, *Capitol Records, Inc. v. MP3tunes, LLC*, 821 F. Supp. 2d 627 (S.D.N.Y. 2011) (No. 07 Civ. 9931).

users are given.¹⁹⁴ The purpose of this requirement is simply to limit what individual users can access, not to limit how OSPs achieve this goal.

B. *Prong 2: Accessibility*

1. A Digital Locker May Be Accessed by Only One Device at a Time

The first accessibility question to assess whether an OSP is liable for infringing the exclusive right to publicly perform a work is how many devices can simultaneously access one digital locker. This question has a single acceptable answer for OSPs who seek to operate without a license: one. This should be the case whether the user is streaming, downloading, or uploading files. If multiple devices are allowed to access a single digital locker at the same time, then the Transmit Clause will likely be implicated.¹⁹⁵ The Transmit Clause is triggered because permitting multiple devices to simultaneously access the same digital locker would make members of the public capable of receiving the transmission in separate places at different times.¹⁹⁶ Furthermore, the digital locker user's legitimate needs are unaffected by such a limitation while the copyright holder's interests are better protected.

The user's needs are still met because the user has a central location to house his or her files and can access them from all of his or her devices. The user's ability to listen to his or her music will not be negatively impacted because there is no legitimate need to listen to music on two devices at the same time. Additionally, this rule does not prevent the user from listening to

¹⁹⁴ *Id.* at 20–21 (“Virtually every modern computer and computer user takes advantage of techniques such as data compression and deduplication. Every PDF and Microsoft Office file is compressed. Since the 1980s, ZIP files have allowed ordinary users to compress and deduplicate data. . . . [O]nline services like Amazon, eBay, and Facebook all use one form of data compression or another. Internal corporate networks use data deduplication to conserve disk space—for instance, many internal email systems (such as Microsoft Exchange) use deduplication for email attachments that are sent to multiple users simultaneously. Backup systems such as Apple’s ‘Time Machine’ use deduplication to increase storage efficiency and reduce bandwidth. These ubiquitous techniques take place in the background, but improve the user experience by making it more efficient. These technical details should have no bearing on the outcome of a lawsuit.” (footnotes omitted)).

¹⁹⁵ *See* 17 U.S.C. § 101 (2012).

¹⁹⁶ *See id.*

a file on one of his devices in the presence of “a normal circle of [his] family and its social acquaintances” as permitted by the Transmit Clause.¹⁹⁷ What this rule does prevent is unauthorized multiple-device access to a single digital locker at the same time without significant negative ramifications for the user.¹⁹⁸ This measure of limiting access to one device at a time, however, will give the digital locker owner pause over whether he should grant a third party access to his locker. If he grants access to a third party, he runs the risk of being excluded from his own digital locker at times when the third party is logged on.

2. A Device May Only Be Linked to One Account at a Time

The second inquiry to determine accessibility is the number of digital lockers a single device is permitted to access.¹⁹⁹ Again the only acceptable answer is one. The rationale behind this rule becomes clear when looking at the implications of allowing a device to link to multiple accounts. A device is typically registered in the name of one person. Recall that need for digital locker storage is generally created by individuals owning multiple devices, not multiple individuals owning a single device. If a device can link to two or more separately owned or registered accounts then, it must follow that, at least one digital locker is capable of being accessed by two people. This would constitute a public performance because members of the public would be capable of receiving the same performance in separate places and at different times.²⁰⁰ This limitation is important because the first part of the accessibility analysis only pertains to those capable of receiving the same performance at the same time.

3. A Device May Only Be Affiliated with an Account Once

The third requirement to determine accessibility is that a device may only be affiliated with a user’s digital locker account once, absent extenuating circumstances. The purpose of this requirement is to strike a balance between allowing people to sell

¹⁹⁷ *See id.*

¹⁹⁸ It is concededly impossible to ensure that any given device registered to a digital locker account actually belongs to the locker’s owner.

¹⁹⁹ It is possible that one device could link to multiple lockers by utilizing the locker services offered by various digital music locker providers. The focus of this Note is on the individual liability of the providers in operating their respective locker services, however, not the questionable behavior of potential users.

²⁰⁰ 17 U.S.C. § 101.

their old, unwanted devices in a secondary market while preventing users from abusing digital locker storage services. A more stringent requirement that permits access to only one digital locker for the duration of a device's lifetime would restrict its owner's ability to exercise her right to alienate under the first sale doctrine.²⁰¹ This is because potential buyers who store their music in a digital locker would be hesitant to buy a used device for fear that the seller had utilized the same digital locker service prior to the sale. Under this requirement, however, the purchaser of a used device would be able to fully enjoy the benefit of her digital locker without any hurdles. This still leaves unanswered the question of why a device cannot later be re-affiliated with a user's account once it has been removed.

Music consumers tend to find ways to circumvent restrictions and, absent this rule, users will certainly find a way around the above-mentioned requirement that a device may only be linked to one locker account at a time. Savvy users could remove a device from their account and add it to a friend's account when they want to access different music. This could easily be done if users reach a reciprocal agreement with one another whereby they share the log-on information for their respective cloud accounts and coordinate when each user may affiliate his device with and access each account. If permitted, this user action could potentially expose the digital locker service providers to liability because a public performance may be found where users are permitted to disassociate a device from their digital lockers, associate it with a different locker, and then re-associate with their personal lockers. A user accessing his own digital locker on various devices is still only a single member of the public.²⁰² A user using one device to access various digital lockers, on the other hand, indicates that at least one locker's transmissions are capable of being received by members of the public in separate places and at different times. This, by definition, is a public performance.²⁰³

²⁰¹ The owner of the device is permitted to sell that device in the same way that a person could sell their CD player. This does not mean that users are free to sell the MP3s contained on that device. This is beyond the scope of this Note, however, because it pertains to distribution rather than public performance.

²⁰² See 17 U.S.C. § 101 (specifying "*members* of the public," not a single member of the public (emphasis added)).

²⁰³ *Id.*

Such a limitation, however, has its pitfalls. Many devices capable of playing MP3s are prone to being stolen or lost because they are typically small, portable, and expensive. It is not difficult to imagine a scenario where a thief links a stolen MP3 player to his own digital locker. What happens if the thief is caught, and the MP3 player is returned to its rightful owner? Certainly the true owner should not be prevented from accessing her digital locker because of somebody else's wrongdoing. In this situation, the user should be given some leeway and be allowed to re-associate the device with her account despite the thief having connected the device to his own digital locker. This forgiving feature of the rule, however, lends itself to abuse by the unscrupulous user and, therefore, should come with a limitation that the user must promptly report the device as stolen to the OSP. This enables the OSP to block other accounts from adding that device and has the added bonus of helping to detect the crime. Furthermore, a user may only report each device affiliated with their digital locker as being stolen once. In the case of lost devices, however, the burden will be on the user to make a judgment call. They can assume it is stolen and report it as such, do nothing and hope it turns up, or remove it from their list of affiliated devices so that they may add another device.

4. The Number of Devices Capable of Accessing One Account Must Be Limited

The final requirement to determine accessibility demands that digital locker service providers set a reasonable limit on the number of devices that are allowed to access a digital locker. In an infringement claim the burden should be on the digital locker service provider to demonstrate the reasonableness of the limit they have selected. Because of the increasing number of devices capable of accessing the Internet and playing MP3 files, it is difficult and impractical to set a precise number. Furthermore, many digital locker services enable the storage of documents, pictures, and other files that the user may need to access on more devices than she would need for her music. Therefore, OSPs should be given leeway in setting a limit so long as the limit they set is reasonable.

The reasonable limit is important because it addresses a digital locker function that is not fully encompassed by the previous accessibility factors: downloading. Although it has been

held that downloads by themselves are not a public performance, the possibility was left open that a download could constitute a public performance if the user was able to contemporaneously perceive the song while it downloaded.²⁰⁴ Because digital locker services are capable of offering both downloading and streaming services, it is not a stretch of the imagination to consider that both could occur concurrently at some point in the future.

The primary concern this requirement addresses is that multiple users may eschew creating their own, individual digital lockers in lieu of creating a single, joint locker that all of their devices may link to. Absent this rule, those sharing the digital locker could coordinate times when they could download music and circumvent the aforementioned requirements that a digital locker can only be accessed by one device at a time and that a device may only be linked to one account at a time. Parties opting for such an arrangement would simply avoid streaming the music in favor of downloading the files they wanted directly to their devices. This arrangement is problematic because, although only the user who uploads the file demonstrates ownership, other users who have not demonstrated ownership could still access it. Even absent downloading, this digital locker-sharing scheme would constitute a public performance under the separate places and different times language of the Transmit Clause.²⁰⁵

CONCLUSION

The unique copy test introduced in *Cartoon Network* and employed in *MP3tunes* lacks the precision necessary to adequately determine whether a digital locker service publicly performs the works it transmits. The existence of multiple, distinct copies of an identical song file in each user's digital locker does not, standing alone, limit the members of the public capable of receiving a transmission therefrom. In future disputes involving digital lockers and other variations of cloud storage

²⁰⁴ *United States v. Am. Soc'y of Composers, Authors & Publishers*, 627 F.3d 64, 74 n.10 (2d Cir. 2010). ("Our opinion does not foreclose the possibility, under certain circumstances not presented in this case, that a transmission could constitute both a stream and a download, each of which implicates a different right of the copyright holder.")

²⁰⁵ *See* 17 U.S.C. § 101.

systems, courts should focus on who can access stored content and initiate a transmission rather than on how digital locker service providers opt to maintain their systems.