

Copyright, Consumerism, and the Cloud: Proposing Standards-Essential Technology to Support First Sale in Digital Copyright

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*“[S]ound policy, as well as history, supports [the Court’s] consistent deference to Congress when major technological innovations alter the market for copyrighted materials. Congress has the constitutional authority and the institutional ability to accommodate fully the varied permutations of competing interests that are inevitably implicated by such new technology.”*¹

-U.S. Supreme Court

I. INTRODUCTION

“If what you own cannot be protected, you own nothing.”² These were the words of Jack Valenti, the outspoken president of the Motion Picture Association of America, when he testified before Congress in 1982. At the time, he was predicting the death of the motion picture industry by a new technology called the videocassette recorder.³ There is no doubt that America’s entertainment industry, and the creative talent that drives it, is a national treasure. Equally valuable, however, is America’s drive and commitment toward technological innovation. The entertainment industry consistently uses copyright law to resist advances in

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1. *Sony Corp. of Am. v. Universal City Studios, Inc.*, 464 U.S. 417, 431 (1984).

2. *Home Recording of Copyrighted Works: Hearing on H.R. 4783, H.R. 4794, H.R. 4808, H.R. 5250, H.R. 5488, and H.R. 5705 Before the Subcomm. on Courts, Civil Liberties, & the Admin. of Justice of the H. Comm. on the Judiciary*, 97th Cong. (1983) (statement of Jack Valenti, President, Motion Picture Association of America, Inc.) [hereinafter Statement of Jack Valenti], available at <http://cryptome.org/hrcw-hear.htm>.

3. *Id.*

technological innovation that it views as a threat to its existing business models.⁴

This historic tension dates back to at least 1908, when the U.S. Supreme Court was asked to determine whether the makers of piano rolls for automatically playing pianos had to pay royalties to the composers.⁵ More recently challenged technologies include Sony's Betamax device in the landmark case *Sony Corp. of Am. v. Universal City Studios, Inc.*⁶ and a variation of the digital video recorder (DVR) in *Cartoon Network LP, LLLP v. CSC Holdings, Inc.* (famously known as *Cablevision*).⁷ The tension between technology and the entertainment industry reached an all-time high during the peer-to-peer (P2P) file-sharing era of the 1990s.⁸

Despite the entertainment industry having largely adopted digital as a medium for distribution and the successful development of legal marketplaces for digital media⁹ (e.g., iTunes, Amazon), there is still institutional resistance to new technologies that challenge the current marketplace and business models.¹⁰ Recently, in *Capitol Records, LLC v. ReDigi, Inc.*, the district court for the Southern District of New York held that the first sale doctrine—the copyright doctrine that allows consumers of copyrighted works, such as books or a paintings, to later sell their copy without seeking the permission of the original copyright owner—does not apply to digital media.¹¹ In other words, consumers do not “own” a digital copy of a book, music album, or movie in the same way they would understand “ownership” of a physical copy; in fact, their rights over the digital copy of the same work can be significantly diminished (regardless of whether they paid the same price). Instead, they are granted a limited license to the work that is governed by an End User License Agreement (EULA) that is often buried in the terms of service that a user

4. See, e.g., *Sony Corp. of Am. v. Universal City Studios, Inc.*, 464 U.S. 417 (1984) (Betamax); *Cartoon Network LP v. CSC Holdings, Inc.*, 536 F.3d 121, 123 (2d Cir. 2008) (remote DVR); *WNET, Thirteen v. Aereo, Inc.*, 712 F.3d 676, 680 (2d Cir. 2013), *rev'd sub nom* *Am. Broad. Cos., Inc. v. Aereo, Inc.*, 134 S. Ct. 2498 (2014) (digital streaming of over-the-air broadcasts).

5. See *White-Smith Music Pub. Co. v. Apollo Co.*, 209 U.S. 1 (1908).

6. See *Sony v. Universal*, 464 U.S. 417.

7. *Cartoon Network*, 536 F.3d at 123.

8. See, e.g., *Metro-Goldwyn-Mayer Studios Inc. v. Grokster, Ltd.*, 545 U.S. 913 (2005); *A&M Records, Inc. v. Napster, Inc.*, 284 F.3d 1091 (9th Cir. 2002); *Capitol Records, Inc. v. Thomas*, 579 F. Supp. 2d 1210 (D. Minn. 2008).

9. This Note uses the term “digital media” to refer to media transmitted over the internet direct to consumer devices—media that is not “fixed” in a unique, tangible medium such as books, CDs, or DVDs.

10. For an excellent discussion regarding the transition of copyright from analog to digital media, see Peter S. Menell, *Envisioning Copyright Law's Digital Future*, 46 N.Y.L. SCH. L. REV. 63, 98 (2003).

11. See *Capitol Records, LLC v. ReDigi Inc.*, 934 F. Supp. 2d 640 (S.D.N.Y. 2013).

agrees to when creating their account, or they may be referenced in a link to another page at the checkout screen.¹² Another example of this restriction on digital media is the use of digital rights management software (DRM) to technologically restrict the transferability or use of a digital media file.¹³ The implications of all of this are important to note. Consumers of digital media, such as e-books, are limited in their ability to share their copy of that book with a family member, which means parents and grandparents cannot pass down their collection of cultural works—whether literature, music, or film—to their children and grandchildren. In other words, our nation’s ability to share knowledge and works valuable enough for society to warrant copyright protection in the first place is severely restricted. In addition to the possible cultural detriments of these restrictions on digital media, there could also be significant implications on continued innovation and competition in the economy. Consumers may not be able to transfer content from one device to a newer, higher quality device made by a different manufacturer, creating consumer lock-in, reducing incentives to innovate, reducing platform competition, and raising barriers to entry for new companies that wish to introduce new and innovative ways to consume and interact with content. This strikes at the core of what is referred to as the “delicate balance” of copyright, which is to provide protection to authors while also ensuring access and other public benefits to society.¹⁴

The *ReDigi* court’s decision highlights the challenges that arise in applying the 1976 Copyright Act to new and rapidly evolving technologies and channels of distribution that challenge traditional business models and mediums for content delivery.¹⁵ The *ReDigi* decision also strikes a blow to consumers who have invested in these new technologies and have libraries of digital media, only to find that their rights to that content might be significantly limited by the fact that they are in digital form rather than physical hard copies.

The drafters of the 1976 Copyright Act could hardly have contemplated the technologies used to distribute copyrighted content today. Not long ago, families huddled around large radios to hear the news broadcast or catch the latest episode of their favorite radio show.¹⁶ Soon after,

12. For a more detailed discussion on EULA, see *infra* Part III.B.

13. For a more detailed discussion on DRM, see *infra* Part III.A.

14. For a more detailed discussion of this “delicate balance,” see *infra* text accompanying notes 71–73.

15. See *infra* Part II.

16. For a fascinating history of broadcast media, see Marcy Carsey & Tom Werner, *Father of Broadcasting David Sarnoff*, TIME (Dec. 7, 1998), <http://content.time.com/time/magazine/article/0,9171,989773-2,00.html>.

the first television sets were shipped, and a whole new world of programming became available.¹⁷ In the past ten to fifteen years, we have seen a rapid evolution in technology around media content delivery. Today, digital content can be purchased and delivered to a TV, phone, tablet, or computer within seconds. Technology companies continually look for new ways to create richer experiences for users to consume and engage with their content. Entrepreneurs and tech-savvy thinkers refer to this approach of re-envisioning the world we live in and forcing new business models as “disruptive” innovation. As technology and society change the way content is consumed, the entertainment industry is reluctant to let go of its stronghold on content distribution and adapt to new business models.¹⁸ It has sought to enforce its exclusive rights under the Copyright Act as a way to maintain control, introducing mechanisms such as Digital Rights Management (DRM) software and End User License Agreements (EULAs) to further extend its grip as content transitions to digital mediums.¹⁹

“If what you own cannot be protected, you own nothing.”²⁰ Jack Valenti’s own words in defense of protecting the entertainment industry from consumers can be equally applied to protecting consumers from the entertainment industry. Both Congressman Bob Goodlatte, Chairman of the House Judiciary Committee, and Maria Pallante, current Director of the U.S. Copyright Office, have called for a comprehensive review of the Copyright Act to bring it up to date with today’s technologies and digital marketplace.²¹ As policymakers work to develop a copyright law that better incorporates today’s digital economy and rapid pace of technological innovation, they should aspire to develop a policy that balances the interests of copyright owners, provides adequate protection for consumers, and allows for continued technological innovation.

This Note seeks to provide the necessary context and considerations for policymakers and courts to consider as they grapple with digital copyright and, specifically, the development of a digital first sale doctrine. Part II of this Note outlines the *ReDigi* court’s analysis and explains

17. *Id.*

18. See, e.g., *Broadcast and Audio Flag: Hearing Before the S. Comm. on Commerce, Sci., & Transp.*, 109th Cong. (2006), available at <http://www.gpo.gov/fdsys/pkg/CHRG-109shrg29917/pdf/CHRG-109shrg29917.pdf>.

19. See *infra* Part III.

20. Statement of Jack Valenti, *supra* note 2.

21. See *Chairman Goodlatte Announces Comprehensive Review of Copyright Law*, U.S. HOUSE OF REPRESENTATIVES COMMITTEE ON THE JUDICIARY (Apr. 24, 2013), <http://judiciary.house.gov/index.cfm/2013/4/chairmangoodlatteannouncescomprehensivereviewofcopyrightlaw>; see also Maria A. Pallante, *The Next Great Copyright Act*, 36 COLUM. J.L. & ARTS 315 (2013).

some of the problems faced in applying the present copyright laws to the current and rapidly evolving digital marketplace. Part III briefly explores what I call the “privatization of copyright”—the use of digital rights management (DRM) software and end user license agreements (EULA) to turn what have traditionally been deemed “sales” of content (exhausting the distribution rights of the copyright owner, and bestowing certain property rights such as the right of alienability to consumers) into nonexclusive licenses with highly restrictive terms. I argue that this privatization of copyright has unwittingly shifted the “delicate balance” of copyright designed to provide protection to authors while ensuring access and other public benefits to society. Part IV examines the feasibility of a digital first sale doctrine and its importance for protecting the interests of consumers and society at-large. In Part V of this Note, I propose a framework for a digital first sale doctrine that uses standards-essential technology and digital watermarking. Part VI concludes.

II. REDIGI: APPLYING COPYRIGHT TO A DIGITAL MARKETPLACE

ReDigi is an important case for two reasons: (1) it illustrates the awkwardness of applying old copyright laws to today’s digital landscape and new technologies, and (2) it extends to copyright owners greater control over digital copies of their works than they would have over physical copies of the same work.

John Ossenmacher founded ReDigi with the vision of creating an online secondhand marketplace for digital media—similar to the secondhand bookstores and album stores that played a significant role in the marketplace of physical copies of those works.²² Users could upload their legally purchased music files to the ReDigi “Cloud Locker” and offer them for sale to other users at a discounted price.²³ The software was designed to upload the file in such a way that no part of it coexisted in two places at once, and the original was subsequently deleted from the user’s hard drive.²⁴ Capitol Records sued ReDigi for copyright infringement (direct, contributory, and vicarious), seeking injunctive relief and damages.²⁵ The court ultimately sided with Capitol Records and rejected ReDigi’s arguments that (1) the copyright owner’s exclusive right of dis-

22. See Jennifer Alsever, *ReDigi: Sell Your Unwanted MP3s*, INC. MAG. (May 29, 2012), <http://www.inc.com/magazine/201206/jennifer-alsever/redigi-john-ossenmacher.html>.

23. See *Capitol Records, LLC v. ReDigi Inc.*, 934 F. Supp. 2d 640, 645 (S.D.N.Y. 2013). ReDigi, at the time of the case, priced files between 59 and 79 cents. Upon the purchase of one of these files, ReDigi allocated 20% of the sale price to the seller, 20% to an “escrow” fund for the artist, and 60% was retained by ReDigi. *Id.* at 646.

24. See *id.*

25. See *id.* at 647.

tribution is exhausted upon the first sale of a given copy of the work, and (2) the transfer of a file from one location to another should not constitute an illegal copy or reproduction under the Copyright Act because the file never exists in two locations at once.²⁶

The so-called “first sale doctrine” is codified in Section 109 of the Copyright Act and establishes that “the owner of a particular copy or phonorecord lawfully made under [the Copyright Act] . . . is entitled, without the authority of the copyright owner, to sell or otherwise dispose of the possession of that copy or phonorecord.”²⁷ The doctrine was derived from the common law principle against restraints on alienation of tangible property.²⁸ The *ReDigi* court, however, held that this doctrine did not apply to digital media because (1) any transfer of a digital media file from one location to another constitutes an “unlawful reproduction” regardless of whether the original file still exists or not;²⁹ and (2) the lack of friction (or wear and tear) on digital media, as well as the nearly ubiquitous access to content through online storefronts, diminishes the policy rationale for extending the doctrine to digital media.³⁰

The court’s legal analysis illustrates just how complicated applying the 1976 Copyright Act to today’s digital realities can be. First, the court looks to the 1976 legislative history to highlight the distinction between the copyrighted work (“the aggregation of sounds and not the tangible medium of fixation”) and the phonorecord (“the physical object in which sounds are fixed”).³¹ Next, the court looks to a 2008 peer-to-peer piracy case, which held that downloading a music file to a user’s hard disk constituted the file being “reproduce[d] on a new phonorecord within the meaning of the Copyright Act.”³² Finally, the court confirms this logic by citing the “laws of physics” and holding that “[i]t is simply impossible

26. *Id.* at 648.

27. 17 U.S.C. § 109 (2012).

28. See U.S. COPYRIGHT OFFICE, DMCA SECTION 104 REPORT vii (2001) [hereinafter DMCA REPORT], available at <http://www.copyright.gov/reports/studies/dmca/sec-104-report-vol-1.pdf>.

29. *ReDigi Inc.*, 934 F. Supp. 2d at 648. The court implies that transferring a file for purposes of backup or personal storage may be covered by other exceptions such as fair use. See *id.* at 651.

30. *Id.* at 656.

31. *Id.* at 649 (citing H.R. Rep. No. 94–1476, at 56 (1976), 1976 U.S.C.C.A.N. 5659, 5669).

32. *Id.* (citing *London-Sire Records, Inc. v. John Doe 1*, 542 F. Supp. 2d 153, 166, 166 n.16 (D. Mass. 2008) (“When a user on a [P2P] network downloads a song from another user, he receives into his computer a digital sequence representing the sound recording. That sequence is magnetically encoded on a segment of his hard disk (or likewise written on other media). With the right hardware and software, the downloader can use the magnetic sequence to reproduce the sound recording. The electronic file (or, perhaps more accurately, the appropriate segment of the hard disk) is therefore a ‘phonorecord’ within the meaning of the statute.” (quoting *London-Sire Records*, 542 F. Supp. 2d at 171) (emphasis added by *ReDigi* court)).

that the same ‘material object’ can be transferred over the Internet.”³³

Thus,

[b]ecause the reproduction right is necessarily implicated when a copyrighted work is embodied in a new material object, and because digital music files must be embodied in a new material object following their transfer over the Internet . . . the embodiment of a digital music file on a new hard disk is a reproduction within the meaning of the Copyright Act. . . . regardless of whether one or multiple copies of the file exist.³⁴

The court uses this logic as the basis for its rejection of the first sale doctrine for digital media files; namely, that the files sold on ReDigi’s site are unlawful copies and are not eligible for “first sale” protection.³⁵ The court’s chain of logic requires a basic assumption that a copy (or phonorecord) must exist in a single, tangible medium; it does not allow for the idea that the file, in and of itself, can constitute a “copy” as defined by the Copyright Act.³⁶

The second major justification for the court’s decision in *ReDigi* is the lack of “friction” (or wear and tear) on digital media, as well as the ubiquitous access to content through online marketplaces.³⁷ The court references a report by the U.S. Copyright Office compiled during the drafting of the Digital Millennium Copyright Act in 2001 (DMCA Report).³⁸ The DMCA Report both lends support to the court’s unlawful reproduction theory³⁹ and also supports the court’s analysis of the policy

33. *Id.*

34. *Id.* at 649–50. The court rejects ReDigi’s counterarguments that this chain of logic would make any movement of the copyrighted files on a hard drive (i.e., relocating between directories and defragmenting) an illegal reproduction of the copy by simply noting that such a use would almost certainly be covered under other doctrines and defenses (like fair use). *Id.* at 651.

35. *See id.* at 655. It is important to note that the *ReDigi* court narrows its decision somewhat by highlighting the commercial nature that makes the reproduction illegal and outside of any fair use or other exceptions. *Id.* at 653–54. The court leaves the door open that similar reproductions for the purposes of personal use, backup, and cloud storage would possibly be covered by fair use or another exception. *See id.* at 653 (“ReDigi obliquely argues that uploading to and downloading from the Cloud Locker for storage and personal use are protected fair use. Significantly, Capitol does not contest that claim. Instead, Capitol asserts only that uploading to and downloading from the Cloud Locker *incident to sale* fall outside the ambit of fair use.” (emphasis in original) (citations omitted)).

36. *Id.* at 656.

37. *Id.*

38. *See id.* at 655–56.

39. *See* DMCA REPORT, *supra* note 28, at 79 (“The ultimate product of one of these digital transmissions is a new copy in the possession of a new person. Unlike the traditional circumstances of a first sale transfer, the recipient obtains a new copy, not the same one with which the sender began.”).

rationale for excluding digital media from the first sale doctrine.⁴⁰ Specifically, the report notes that “used” digital copies are virtually indistinguishable from new copies, and that traditional barriers to the movement of copies such as time, space, effort, and cost do not exist in the digital marketplace.⁴¹ Given these factors, the resale of “used” digital media copies would significantly undercut the primary market for new copies.⁴²

It is important to note that the DMCA Report was written in 2001, in large part in response to rampant peer-to-peer piracy that was occurring at the time.⁴³ While the DMCA Report does discuss forward-and-delete technology (similar to ReDigi’s technology to ensure an uploaded file never exists in two places at once), its explicit observation at the time was that there was little to no demand for such technology, and that Napster—the widely popular peer-to-peer software that helped facilitate the rampant music piracy of the early 2000s—was evidence that consumers want to retain, not destroy, the original copy of the transmitted work.⁴⁴ It is critically important to point out that this report the court relied on was written in a fairly different context than today. Apple did not release its iTunes store for another two years (in 2003), so the breadth of the legal digital marketplace had barely begun to take root at the DMCA Report was written.⁴⁵

In 2012, digital music sales accounted for approximately 34% of total global music industry revenues (around \$5.6 billion).⁴⁶ Of those total digital revenues, 70% came from download stores such as those offered by Apple, Amazon, and Google.⁴⁷ Thus, the *ReDigi* decision and the logic that it follows have the potential to implicate a significant percentage of the U.S. population and a growing percentage of the multimedia industries (including music, movies, TV, and books). Limiting the first sale doctrine’s application to digital media today is contrary to basic notions

40. *See id.* at 82.

41. *Id.*

42. *Id.* at 82–83.

43. *See id.* at vi.

44. *Id.* at 81–85. Napster was a P2P application introduced in 1999 that took the world and the music industry by storm. *See* Tom Lamont, *Napster: The Day the Music Was Set Free*, THE GUARDIAN (Feb. 23, 2013, 7:05 PM), <http://www.theguardian.com/music/2013/feb/24/napster-music-free-file-sharing>. It is important to note that Napster anticipated the transition to digital media, and predated the many new legal marketplaces including iTunes and Amazon that have since developed. *See id.*

45. *See* Brian X. Chen, *April 28, 2003: Apple Opens iTunes Store*, WIRED (Apr. 28, 2010, 12:00 AM), <http://www.wired.com/2010/04/0428itunes-music-store-opens/>.

46. *See* INT’L FED’N OF THE PHONOGRAPHIC INDUS., *An Industry on the Road to Recovery: Facts and Figures*, in IFPI DIGITAL MUSIC REPORT 2013 6 (2013) [hereinafter IFPI DIGITAL MUSIC REPORT 2013], available at <http://www.ifpi.org/content/library/dmr2013.pdf>.

47. *See id.*

of property ownership and alienability that underlie the doctrine, and it negatively impacts the rights of consumers who chose to purchase a work in digital format rather than an analog, physical copy. Copyright law is just as much about ensuring access to creative copyrighted works as it is to conferring certain exclusive rights to authors and producers.⁴⁸ Courts and lawmakers, therefore, must consider the implications that limiting the first sale doctrine's application to digital media will have on both consumers and technological innovation.

III. THE PRIVATIZATION OF COPYRIGHT LAW: DRM AND EULA

The court's decision in *ReDigi* bestows greater exclusive rights of distribution under the Copyright Act by excluding the application of the first sale doctrine to digital media.⁴⁹ Additionally, businesses and copyright owners often use tools, such as Digital Rights Management (DRM) software and End User License Agreements (EULAs), to further extend their exclusive control over digital content. Congress must develop guidelines to prevent copyright owners from using these tools to the detriment of consumers; otherwise, even uses that would be legal under the Copyright Act could be unfairly constrained.⁵⁰

This privatization of copyright law runs counter to the law's desire to strike "a balance between the artist's right to control [her] work . . . and the public's need for access . . ." ⁵¹ The purpose of copyright law is not to maximize the profits of copyright holders, but rather to provide just enough incentive to promote the creation of new work and ensure the public has access to that work.⁵² Thus, as courts and policymakers consider how to apply copyright law to digital media, they should take into consideration the rights of consumers and the larger societal goals that underlie copyright protection.

48. See, e.g., *Stewart v. Abend*, 495 U.S. 207, 228 (1990) ("[T]he [Copyright] Act creates a balance between the artist's right to control the work during the term of the copyright protection and the public's need for access to creative works.").

49. See *Capitol Records, LLC v. ReDigi Inc.*, 934 F. Supp. 2d 640, 655–56 (S.D.N.Y. 2013).

50. For example, a copyright owner could remove a legally purchased e-book from a user's device without notice. See, e.g., Brad Stone, *Amazon Erases Orwell Books From Kindle*, N.Y. TIMES (July 17, 2009), <http://www.nytimes.com/2009/07/18/technology/companies/18amazon.html>. Granted, in the Amazon incident cited, the third-party seller did not have the right to distribute the copy, which triggered Amazon's removal. *Id.*

51. *Stewart*, 495 U.S. at 228.

52. See Aaron Perzanowski & Jason Schultz, *Digital Exhaustion*, 58 UCLA L. REV. 889, 905 (2011); see also William W. Fisher III, *Property and Contract on the Internet*, 73 CHI.-KENT L. REV. 1203, 1249 (1998) (arguing copyright should "give creators enough entitlements to induce them to produce the works from which we all benefit but no more").

A. Digital Rights Management (DRM) Software

Digital Rights Management (DRM) software was created as a “necessary evil” to mitigate the unlawful reproduction and distribution of digital media, particularly at a time when online piracy was rampant.⁵³ Congress and the Copyright Office, through Section 1201 of the Copyright Act, gave increased power to the use of DRM by criminalizing attempts to circumvent these protections (commonly referred to as the anticircumvention provisions of the DMCA).⁵⁴ Critics of DRM argue that (1) it provides copyright owners with the ability to impose greater restrictions that go beyond the scope of existing copyright law, and (2) it has a broader anticompetitive effect on the marketplace.⁵⁵

While DRM is primarily used to restrict the unlawful distribution of copyrighted content, it is also used to restrict playback of content to a particular device or application. For example, songs purchased on Apple’s iTunes store prior to 2009 are encoded with Apple’s FairPlay DRM, which restricts the customer from playing that song on any device other than an iPod, iPad, iPhone, or through the iTunes application.⁵⁶ In an open letter calling on major music studios to move toward DRM-free digital music, Steve Jobs explained that DRM was a condition imposed on Apple in order to negotiate the right to sell and distribute digital music.⁵⁷ He further explained that an important provision in those agreements was that if the DRM was ever compromised and the files could be played on other devices, Apple had a short period of time to fix the problem before the studios had the right to pull their entire library from the store—potentially costing Apple millions of dollars in sales.⁵⁸ This latter condition also reduces any incentive for Apple to license its FairPlay software so that other devices or software developers could play music purchased from iTunes because Apple would risk losing an entire music

53. Priti Trivedi, *Writing the Wrong: What the E-Book Industry Can Learn From Digital Music’s Mistakes with DRM*, 18 J.L. & POL’Y 925, 930 (2010).

54. See 17 U.S.C. § 1201 (2012).

55. See, e.g., Herbert J. Hammond et al., *The Anti-Circumvention Provision of the Digital Millennium Copyright Act*, 8 TEX. WESLEYAN L. REV. 593, 595 (2002); Yuko Noguchi, *Freedom Override by Digital Rights Management Technologies: Causes in Market Mechanisms and Possible Legal Options to Keep A Better Balance*, 11 INTELL. PROP. L. BULL. 1, 7 (2006); see also Pamela Samuelson, *Intellectual Property and the Digital Economy: Why the Anti-Circumvention Regulations Need to Be Revised*, 14 BERKELEY TECH. L.J. 519 (1999).

56. See Steve Jobs, *Thoughts on Music*, APPLE INC. (Feb. 6, 2007), <http://web.archive.org/web/20080517114107/http://www.apple.com/hotnews/thoughtsonmusic>.

57. See *id.*

58. See *id.* Jobs went on to argue that DRM was largely unsuccessful at mitigating piracy and has only imposed significant burdens on consumers and distributors of content. See *id.*

label's catalogue if those licensees failed to implement the fix in the allotted time.

DRM restrictions on playback have serious anticompetitive implications that hurt consumers and increase entry barriers for technology companies seeking to introduce new ways to distribute and consume content.⁵⁹ First, by restricting playback to devices produced by the same company as the distributor of the content, such as Apple through its iTunes marketplace and its suite of devices, there is a financial incentive to maintain that exclusivity. For instance, consumers with digital music libraries on iTunes would be required to continue to buy Apple devices to maintain access to that library. Furthermore, this lack of cross-compatibility leads to consumers having segmented libraries of content. For example, consumers may only be able to purchase a particular album on a different platform from the rest of their library. If those files are protected by DRM that limits playback to specific devices, consumers may be required to purchase multiple devices to access their content. This tying arrangement is highly inefficient, burdensome, and effectively places a tax on consumers who wish to transfer from one service or device to another. It also reduces competition among content distributors, makes entry by new companies particularly challenging, and reduces incentives for companies to innovate.⁶⁰

Apple ultimately removed DRM protection from its music catalogue in 2009;⁶¹ however, DRM is still commonplace in digital media—particularly with e-books and digital movie downloads.⁶² In 2007, Steve Jobs made the argument that DRM imposes unnecessary burdens on content distributors (in the form of liability) and on consumers (by restricting playback), with little empirical evidence to show that it is successful in curbing digital piracy.⁶³ While one solution—the solution that Jobs

59. For example, new device manufacturers or software developers will find it extremely difficult to enter the market without either (1) entering into license agreements with the major content distributors, many of whom they are seeking to compete with or disrupt; or (2) developing their own marketplaces, which would involve negotiating their own contracts with the copyright owners, developing sophisticated payment platforms, and convincing users to purchase from an entirely new, untested, proprietary platform. The former is unlikely due to competitive forces and incentives to maintain market share, as well as possible contractual limitations on the degree to which Apple, for example, can sublicense music to play on other devices or platforms. The latter is unlikely because of the high investment cost in building a new marketplace, and is undesirable because it only further segments the digital media marketplace, which is bad for consumers.

60. See generally Perzanowski & Schultz, *supra* note 52.

61. See Brad Stone, *Want to Copy iTunes Music? Go Ahead, Apple Says*, N.Y. TIMES (Jan. 6, 2009), <http://www.nytimes.com/2009/01/07/technology/companies/07apple.html>.

62. See Trivedi, *supra* note 53.

63. See Jobs, *supra* note 56.

argued for in his letter—is the complete abolition of DRM from digital media,⁶⁴ there are several ways in which copyright owners can maintain certain protections over their works without overburdening consumers, distributors, and the potential for new technological innovations. The current practice by Apple is the use of digital watermarking, or embedding certain transaction data into the file itself that can be used to trace a pirated file back to the original source.⁶⁵ This Note proposes in Part V, *infra*, the use of digital watermarking as a means to facilitate title transfer, thus opening the door for a digital first sale doctrine.

B. End User License Agreements (EULA)

Contract law is another way in which media companies have extended their control over digital copies of copyrighted works—specifically, the use of EULAs. Also known as click-wrap or shrink-wrap licensing, EULAs are terms and conditions that users must accept to use software like iTunes, or make a purchase on a digital media platform such as Amazon.com. Companies have used these types of agreements to contractually redefine a transaction from a traditional “sale”—in which terms of use would be governed by copyright law—to a “limited license”—in which the terms of use are governed by the EULA.⁶⁶

As such, companies are able to impose contractual terms and limitations on uses that would otherwise be legal under the Copyright Act. For example, Apple’s iTunes Terms & Conditions limit transferability, limit the number of authorized devices content can be consumed on, and subject the user to defined “Usage Rules.”⁶⁷ Amazon’s Kindle Terms of Service prohibit e-book customers from selling, renting, or otherwise distributing their purchases to third parties.⁶⁸ Additionally, similar to how DRM creates a degree of dependency on the seller or distributor to per-

64. *See id.*

65. *See* David Kravets, *DRM Is Dead, But Watermarks Rise From Its Ashes*, WIRE (Jan. 11, 2008), http://archive.wired.com/entertainment/music/news/2008/01/sony_music. *See also* P2P DIGITAL WATERMARK WORKING GRP., DIGITAL WATERMARK TECHNOLOGIES APPLICATIONS IN P2P NETWORKS [hereinafter DIGITAL WATERMARK WHITE PAPER], available at http://www.digitalwatermarkingalliance.org/docs/papers/dcia_whitepaper_p2p.pdf.

66. *See, e.g.*, AMAZON.COM, INC., KINDLE USER’S GUIDE, APP. B, at 13 (2010) [hereinafter KINDLE TERMS], available at http://kindle.s3.amazonaws.com/AppB_07072010_English.pdf (“Unless otherwise specified, Digital Content is licensed, not sold, to you by the Content Provider.”).

67. *Apple iTunes Terms & Conditions*, APPLE INC., <https://www.apple.com/legal/internet-services/itunes/us/terms.html> (last updated Sept. 18, 2013) [hereinafter *iTunes Terms*].

68. *See* KINDLE TERMS, *supra* note 66, at 13 (“Unless specifically indicated otherwise, you may not sell, rent, lease, distribute, broadcast, sublicense, or otherwise assign any rights to the Digital Content or any portion of it to any third party . . .”).

mit continued access to purchased content,⁶⁹ companies are using EULAs to reserve their right to suspend or terminate access to purchased content at any time without notice.⁷⁰

Scholars point to the delicate balance between the rights of copyright owners and consumers of copyrighted content that is consistently reiterated by the courts⁷¹ and use this to argue that the balance struck—and the rights afforded—by federal copyright law should preempt any contractual limitations imposed through click-wrap licenses.⁷² David Nimmer, Elliott Brown, and Gary Frischling—leading scholars in the field of copyright—summarize the argument as follows: “[T]he copyright laws are designed to achieve a “delicate balance” between the rights of copyright proprietors and copyright users. This balance is disrupted when state [contract] law is permitted to enlarge the rights of copyright proprietors at the expense of copyright users.”⁷³ Despite the scholarly criticism, Congress and the courts have largely taken a hands-off approach to the use of EULAs to create stricter limitations than are afforded by the Copyright Act.⁷⁴

69. For example, the customer depends on the seller or distributor to continue to produce play-back software and/or devices with the proper key to unlock the DRM. If Apple were to stop supporting iTunes, a lot of people would suddenly lose access to their libraries of content.

70. See, e.g., *iTunes Terms*, *supra* note 67 (“Notwithstanding any other provision of this Agreement, Apple and its licensors reserve the right to change, suspend, remove, or disable access to any iTunes Products, content, or other materials comprising a part of the iTunes Service at any time without notice.”).

71. See, e.g., *Stewart v. Abend*, 495 U.S. 207, 228 (1990) (“[T]he [Copyright] Act creates a balance between the artist’s right to control the work during the term of the copyright protection and the public’s need for access to creative works.”); *Sony Corp. of Am. v. Universal City Studios, Inc.*, 464 U.S. 417, 429 (1984) (explaining that Congress’ constitutionally prescribed task “involves a difficult balance between the interests of authors and inventors in the control and exploitation of their writings and discoveries on the one hand, and society’s competing interest in the free flow of ideas, information, and commerce on the other hand . . .”); *Twentieth Century Music Corp. v. Aiken*, 422 U.S. 151, 156 (1975) (“The limited scope of the copyright holder’s statutory monopoly, like the limited copyright duration required by the Constitution, reflects a balance of competing claims upon the public interest: Creative work is to be encouraged and rewarded, but private motivation must ultimately serve the cause of promoting broad public availability of literature, music, and the other arts.”).

72. See, e.g., Dennis S. Karjala, *Federal Preemption of Shrinkwrap and On-Line Licenses*, 22 U. DAYTON L. REV. 511, 541 (1997); Viva R. Moffat, *Super-Copyright: Contracts, Preemption, and the Structure of Copyright Policymaking*, 41 U.C. DAVIS L. REV. 45, 92–95 (2007); David Nimmer et al., *The Metamorphosis of Contract into Expand*, 87 CALIF. L. REV. 17, 19 (1999). For a great review of this topic, see Michael E. Kenneally, *Commandeering Copyright*, 87 NOTRE DAME L. REV. 1179 (2012).

73. Nimmer et al., *supra* note 72, at 22–23.

74. See, e.g., *Microsoft Corp. v. Harmony Computers & Electronics, Inc.*, 846 F. Supp. 208 (E.D.N.Y. 1994).

The courts remain divided on the use of click-wrap licensing as a tool to redefine a transaction as a license rather than a sale, which removes any resale right the purchaser may have had under the first sale doctrine.⁷⁵ The Seventh Circuit, in *ProCD, Inc. v. Zeidenberg*, held that the use of EULAs to limit certain rights, like transferability, were valid under contract law and were not preempted by copyright law.⁷⁶ An earlier case in the Third Circuit, *Step-Saver Data Systems, Inc. v. Wyse Technology*, came out the other way, rejecting the use of an end user license agreement to impose restrictive terms not explicitly negotiated for.⁷⁷ In the Ninth Circuit, the court in *Vernor v. Autodesk, Inc.* held that “a software user is a licensee rather than an owner of a copy where the copyright owner (1) specifies that the user is granted a license; (2) significantly restricts the user’s ability to transfer the software; and (3) imposes notable use restrictions.”⁷⁸

The case law in this area has largely developed around software licenses, however, and there does not appear to be any case law that explicitly discusses whether a click-wrap license can limit a transaction involving a digital media file from a sale to a mere license. There is a strong argument to be made that software and digital media files should require different treatment. Software and the distribution of software were relatively new when the rules around click-wrap licensing were developed. By contrast, media such as books and music have a rich transactional history in which consumers have become accustomed to understand that purchasing music or a book should confer certain rights and property interests, rather than a limited license that may be revoked at any time. Therefore, it is almost unconscionable to limit the rights historically conferred in a transaction through the use of a click-wrap license that an ordinary consumer might never see, cannot negotiate, and may require an attorney to decipher.

Another distinction between software and digital media click-wrap licenses is that the terms for a license for software are generally set by the maker of the software, whereas the terms for a license of a digital media file are set by the distributor or seller who has contractual privity

75. See, e.g., *ProCD, Inc. v. Zeidenberg*, 86 F.3d 1447, 1449 (7th Cir. 1996) (holding that a EULA was valid under contract law and restrictions were not preempted by copyright law); *Step-Saver Data Sys., Inc. v. Wyse Tech.*, 939 F.2d 91, 98 (3d Cir. 1991) (rejecting the use of EULA to impose restrictive terms not explicitly negotiated for).

76. See *ProCD, Inc.*, 86 F.3d at 1449.

77. See *Step-Saver Data*, 939 F.2d at 98.

78. *Vernor v. Autodesk, Inc.*, 621 F.3d 1102, 1111 (9th Cir. 2010).

with the consumer (i.e., Apple or Amazon).⁷⁹ When consumers are deciding between different software applications, they can take into consideration the terms of the license as compared to similar applications. However, consumers of digital media may face different terms and conditions not based on *what* they are purchasing, but rather *where* they are purchasing it. An e-book purchased on Apple may be more heavily restricted than the same e-book purchased on Amazon. Consumers are put in the position wherein they must assess the legal contractual terms associated when making purchasing decisions as small as a single song for ninety-nine cents. Because of these contractual terms limiting transferability, and any DRM protections that may be in place, a consumer who wishes to switch to another service may have to purchase the song again. For consumers with giant libraries of content built over time, this can be costly. From a policy standpoint, courts and policymakers should encourage content distributors to foster competition among themselves on the basis of quality of service, selection, and price—not which provider can impose the strictest terms and conditions that lock users into their service.

IV. FUTURE FOR DIGITAL FIRST SALE DOCTRINE?

Given the broad expansion of copyright protection as applied to digital media through mechanisms like DRM, EULAs, and the possible revocation of the first sale doctrine for digital media, it is reasonable to ask: How can technology and the law come together to create a copyright regime for digital media that preserves the rights of copyright owners, while also protecting the rights of consumers and promoting competition and technological innovation?

Some argue that the principles that underlie the first sale doctrine, such as the lack of degradation and ubiquitous access to works, do not apply to digital copies.⁸⁰ However, the first sale doctrine is also rooted in

79. Granted, there is likely heavy influence by the content owners over the terms of the license extended. Looking at the EULA for digital music purchased on Amazon, you can see language specific to individual music studios. *See, e.g., Amazon Music Terms of Service*, AMAZON.COM, INC., http://www.amazon.com/gp/help/customer/display.html/ref=hp_left_v4_sib?ie=UTF8&nodeId=200154280 (last updated June 11, 2014). For example, the Amazon Music Terms of Service incorporate additional terms and limitations for music sold by Sony Music Entertainment:

3.5 Music Content Sold by Sony Music Entertainment[:] Sony Music Entertainment sells directly certain of the Music Content available through the Store. Music Content sold by Sony Music Entertainment is subject to the Sony Music Entertainment Usage Terms set forth at the end of this Agreement, in lieu of Section 3.1 [on Rights Granted].

Id.

80. *See, e.g., DMCA REPORT*, *supra* note 28, at 82 (“Physical copies of works degrade with time and use, making used copies less desirable than new ones. Digital information does not de-

the common law tradition of alienability of property, as well as the balance that the Copyright Act stands for between promoting the creation of copyrighted works and protecting society's ability to access those works.⁸¹ The latter theories apply to digital copies of a work just as much as they do to physical copies.

A. The Social & Economic Benefits of the First Sale Doctrine

Scholars Aaron Perzanowski and Jason Schultz break the key societal benefits of the first sale doctrine (also known as exhaustion) into four categories: access, preservation, privacy, and transaction clarity.⁸² They also point out that the first sale doctrine promotes increased innovation and platform competition.⁸³ These are all important considerations for thinking through how the copyright law should treat first sale and digital media. While the DMCA Report and the *ReDigi* court note the ubiquity of access to digital copies of copyrighted works through online marketplaces,⁸⁴ Perzanowski and Schultz note the role of the first sale doctrine in increasing affordability and access to different segments of society through secondary markets, libraries, or rental-based businesses.⁸⁵ These secondary markets also compete with copyright owners and distributors, which helps keep downward pressure on price and encourages copyright owners to continue to add value, enhancing consumer welfare.⁸⁶ Empirical evidence does not show that secondhand marketplaces cannibalize the primary market,⁸⁷ as the *ReDigi* court suggested.⁸⁸ Perzanowski and Schultz cite a study that found that 84% of used book purchasers on Amazon would not have purchased the book at "new" book prices.⁸⁹ The study concluded that despite a 0.3% reduction of publishers' gross profits

grade, and can be reproduced perfectly on a recipient's computer. The "used" copy is just as desirable as (in fact, is indistinguishable from) a new copy of the same work.").

81. See, e.g., Nimmer et al., *supra* note 72, at 19.

82. See Perzanowski & Schultz, *supra* note 52, at 894–97.

83. See *id.* at 897–901.

84. See DMCA REPORT, *supra* note 28, at 82 ("Time, space, effort and cost no longer act as barriers to the movement of copies, since digital copies can be transmitted nearly instantaneously anywhere in the world with minimal effort and negligible cost."); see also Capitol Records, LLC v. ReDigi Inc., 934 F. Supp. 2d 640, 656 (S.D.N.Y. 2013).

85. See Perzanowski & Schultz, *supra* note 52, at 894.

86. See *id.* at 894–95.

87. See, e.g., *id.* at 895; Anindya Ghose et al., *Internet Exchanges for Used Books: An Empirical Analysis of Product Cannibalization and Welfare Impact*, 17 INFO. SYS. RES. 3 (2006).

88. See *ReDigi Inc.*, 934 F. Supp. 2d at 654.

89. Ghose et al., *supra* note 87, at 3.

due to Amazon's secondary book market, the net welfare gain was nearly \$88 million annually.⁹⁰

The preservation arguments that favor the first sale doctrine's application to digital media have been mentioned above in the context of passing cultural works from generation to generation, such as a grandfather providing his collection of jazz albums to his grandson who is just learning to play the piano. Society runs the risk of losing important cultural works if rights to access those works must be renewed every generation. Society also risks losing important works if copyright owners or distributors choose to revoke access to copies of those works. As mentioned above, copyright owners and content distributors have retained the right through a EULA to terminate a license to a work at any point in time.⁹¹ This could theoretically lead to works being entirely wiped from existence. As Perzanowski and Schultz eloquently note, "[s]ince copyrighted works constitute a substantial portion of our cultural history, . . . preservation benefits society broadly."⁹²

The privacy arguments that favor the first sale doctrine focus largely on the ability of consumers to acquire a work privately and anonymously.⁹³ This may be particularly important with respect to controversial or otherwise sensitive works, in which the ability to track the movement of the work from person to person may have a negative societal impact.⁹⁴

The market efficiency and transactional clarity arguments in favor of the first sale doctrine have also been noted, particularly in the context of EULAs and the complex legal terms and restrictions that create "high information and transaction costs and deceptively complex limitations on the use of low-cost copyrighted goods."⁹⁵ In contrast to the varied legal terms that may be tied to a copyrighted work, "[t]he first sale rule . . . gives consumers a reliable baseline that simplifies these transactions."⁹⁶

Perzanowski and Schultz further argue that the first sale doctrine encourages innovation through competition between copyright owners

90. *See id.*

91. *See, e.g., iTunes Terms, supra* note 67 ("Notwithstanding any other provision of this Agreement, Apple and its licensors reserve the right to change, suspend, remove, or disable access to any iTunes Products, content, or other materials comprising a part of the iTunes Service at any time without notice.").

92. Perzanowski & Schultz, *supra* note 52, at 895.

93. *See id.* at 896.

94. *See id.*

95. *Id.*

96. *Id.* at 897.

and secondary markets, innovation by secondary market providers, and innovation by users.⁹⁷ As examples, they cite the practice of copyright owners releasing new or remastered copies of a work with extra content, as well as technological innovations designed to enhance playback or engagement.⁹⁸ The first sale doctrine has enabled the development of new businesses and business models, including Amazon.com, eBay, Netflix, and Redbox.⁹⁹ Furthermore, as described above in the context of DRM and EULAs, the first sale doctrine “promotes platform competition by reducing consumer lock-in.”¹⁰⁰ In situations where playback of specific content is tied to a particular device or platform, first sale provides consumers with the opportunity to sell their existing content and recoup a portion of their investment, thus lowering the cost of switching to another platform.¹⁰¹

B. Working Toward a Digital First Sale Doctrine

Some scholars and policymakers propose amending Section 109 of the Copyright Act to permit certain forms of digital transfer of copyrighted works.¹⁰² For example, the Benefit Authors Without Limiting Advancement or Net Consumer Expectations (BALANCE) Act would have permitted owners of a digital copy to transfer that single file provided they did not retain a copy.¹⁰³ The BALANCE Act, however, never made it out of committee.¹⁰⁴ As mentioned in Part II, *supra*, the *ReDigi* court heavily relied on the 2001 DMCA Report, which at the time, professed that no technology existed that could ensure additional copies had not been retained by the user.¹⁰⁵ However, *ReDigi*’s software was specifically designed to scan the user’s hard drive to ensure no other copy of the file was retained.¹⁰⁶ In fact, the U.S. Patent and Trademark Office recently issued a patent for *ReDigi*’s instantaneous “copy-less” digital

97. *See id.*

98. *See id.*

99. *See id.* at 898. With respect to Netflix and Redbox, the first sale doctrine allowed for these companies to develop their respective mail order and point-of-sale methods of distribution. *See id.* Streaming services are actually distinct from the first sale doctrine, as they implicate the performance right rather than the distribution right of the copyright owner. *See* 17 U.S.C. §§ 101, 106(4) (2002); *see also* *Am. Broad. Cos., Inc. v. Aereo, Inc.*, 134 S. Ct. 2498, 2502 (2014).

100. *See* Perzanowski & Schultz, *supra* note 52, at 900–01; *see also supra* Part III.

101. *See* Perzanowski & Schultz, *supra* note 52, 900–01.

102. *See, e.g.*, Fred H. Cate, *The Technological Transformation of Copyright Law*, 81 IOWA L. REV. 1395, 1447–51 (1996).

103. *See* BALANCE Act, H.R. 1066, 108th Cong. (2003).

104. *See id.*

105. *See* DMCA REPORT, *supra* note 28, at 82.

106. *See* *Capitol Records, LLC v. ReDigi Inc.*, 934 F. Supp. 2d 640, 645 (S.D.N.Y. 2013).

file transfers that includes a “Removal and Monitoring Mechanism” to ensure “personal-use copies of the sold media are removed.”¹⁰⁷

Even if Section 109 were amended to allow for digital transfer of copyrighted works and the technology were in place to facilitate this, nothing prevents content producers from using DRM technology or a EULA to prevent such practices.¹⁰⁸ Nor would it address the *ReDigi* court’s potentially troubling construction that any transfer of a digital media file from one physical location to another necessarily constitutes an illegal reproduction.¹⁰⁹ Thus, it is important for policymakers to create a coherent, uniform standard for copyright protection as applied to digital media. Such a standard should consider the important balance between copyright owners and consumers of copyrighted content.¹¹⁰ This standard must establish a clear set of rights for consumers of copyrighted content that cannot be preempted by a EULA or the use of DRM. Lastly, mechanisms should be implemented to ensure the balanced rights of consumers and copyright holders are applied throughout the digital media marketplace—particularly as new technologies and business models develop.

V. OPENING THE DOOR FOR DIGITAL FIRST SALE THROUGH INTERNATIONAL DIGITAL COPYRIGHT STANDARDS WITH STANDARDS-ESSENTIAL TECHNOLOGY

The U.S. Copyright Office, Congress, and World Intellectual Property Organization (WIPO) should consider the development of an international standard and standards-essential technology for digital watermarking. The use of digital watermarking is already widely used by media companies as a lightweight alternative to DRM.¹¹¹ Developing a standard and specific standards-essential technology around digital watermarking has the potential to balance the protection interests of copyright owners along with the consumer and societal interests that underlie the first sale doctrine. Digital watermarking and the technology built around it could lay the foundation for title and title transfer over digital copies of a copyrighted work.

A natural temptation exists with the development of a universal technology for rights management to create an extremely powerful, cen-

107. *ReDigi, Inc. Awarded Significant U.S. Patent*, REDIGI, INC. (Jan. 29, 2014), <http://newsroom.redigi.com/redigi-inc-awarded-significant-u-s-patent/>; see also U.S. Patent No. 8,627,500 B2 (filed Dec. 31, 2010).

108. See *supra* Part III.

109. See *ReDigi Inc.*, 934 F. Supp. 2d at 649–50.

110. See *supra* note 71 and text accompanying notes 71–73 for discussion about this balancing.

111. See Kravets, *supra* note 65; see also DIGITAL WATERMARK WHITE PAPER, *supra* note 65.

tralized, and control-driven system. However, it is important to keep in mind that the intent of taking rights management technology out of the hands of companies and placing it in the hands of a neutral third party, such as the WIPO or the U.S. Copyright Office, is to ensure a consumer-friendly and commercially competitive framework. The Clinton Administration, when it was first looking at how to adapt the copyright laws to the emerging digital economy, stated that the rules should be “predictable, minimalist, consistent, and simple.”¹¹²

A. Precedent

The idea of Congress requiring technology companies to integrate a standards-based mechanism for copyright management is not new. In fact, Section 1002 of the Copyright Act (entitled “Incorporation of Copying Controls”) requires all manufacturers of digital audio interface devices to incorporate a “Serial Copy Management System.”¹¹³ This system was a technology designed to prevent users from making copies of copies. Similarly, Section 1201(k) requires various analog playback and recording devices (e.g., VHS, Beta, or 8mm) to comply with “automatic gain control copy control technology.”¹¹⁴ Sections 1201(a) and (b), the anticircumvention rules of the DMCA, shifted away from a policy of mandated rights management technologies, allowed companies to impose their own DRM technologies, and then criminalized circumvention of those technologies.¹¹⁵

B. A Basic Framework

One of the challenges with developing a standard technology, such as the Serial Copy Management System and automatic gain control copy control technology from Sections 1002¹¹⁶ and 1201(k)¹¹⁷ respectively, is that new technologies evolve and quickly render old protection mechanisms useless. To solve for this problem and ensure a mechanism that endures new advances in technology, policymakers should embody the duties of developing and maintaining this framework within a single institution.

112. See William J. Clinton & Albert Gore, Jr., *A Framework for Global Electronic Commerce*, WHITE HOUSE (1997), <http://clinton4.nara.gov/WH/New/Commerce/read.html>.

113. 17 U.S.C. § 1002 (2012).

114. 17 U.S.C. § 1201(k) (2012).

115. 17 U.S.C. §§ 1201(a)–(b) (2012).

116. 17 U.S.C. § 1002 (2012).

117. 17 U.S.C. § 1201(k) (2012).

The institution selected, whether it is public, private, or nonprofit, should be tasked with the development and maintenance of standard copyright protection technology that will ultimately be integrated into operating systems, digital media files, and software required for playback of those digital media files. Similar to the standards and standards-essential technologies that support technologies like WiFi, 4G, and LTE,¹¹⁸ creating standards-essential technology for copyright protection of digital media files can help ensure a proper balance is achieved in protecting the rights of copyright owners, consumers of copyrighted content, and our interest in promoting technological innovation.

Digital watermarking is a process by which data is encoded into a digital file in such a way that it is “not perceptible to the human ear or eye, but can be read by computers. . . . [and] cannot be stripped out without noticeably degrading the host content.”¹¹⁹ These digital watermarks can include copy control information, or triggers that limit functionality in some capacity, in addition to unique identification information that might identify the vendor of the file (i.e., iTunes) and society’s specific account that made the purchase.¹²⁰

Creating a uniform standard for encoding and reading digital watermarks can help ensure that copyright owners can continue to protect their exclusive rights, while also protecting the rights and interests of consumers and supporting technological innovation. A universal standard for digital watermarking would allow for cross-compatibility of media across devices. It would also allow for increased competition among digital marketplaces, distribution services, and playback options. Moreover, it would lower the barriers to entry for new technologies and innovations because consumers’ content libraries would not be tied to a single service or device; rather, new entrants would only be required to license the standards-essential technology on fair, reasonable, and nondiscriminatory (FRAND) terms.¹²¹

Such a system would also open the door for facilitating title and title transfer over digital media files. Businesses or lawyers could be equipped with technological tools or software to access the digital watermark of a file and legally transfer ownership rights from one party to

118. See Mark A. Lemley, *Intellectual Property Rights and Standard-Setting Organizations*, 90 CAL. L. REV. 1889 (2002).

119. DIGITAL WATERMARK WHITE PAPER, *supra* note 65, at 4.

120. See *id.*

121. FRAND terms are a standard condition for standards-essential technologies. See Lemley, *supra* note 118; Anne Layne-Farrar, A. Jorge Padilla & Richard Schmalensee, *Pricing Patents for Licensing in Standard-Setting Organizations: Making Sense of Frand Commitments*, 74 ANTITRUST L.J. 671 (2007).

another. This could allow individuals to bequeath their digital video, music, and book collections in their wills. It could also allow a company like ReDigi to legally transfer rights in a digital media file from one user to another.

VI. CONCLUSION

The historic battle between copyright owners and technology will only continue to become more hard-fought and complex as companies engage in what has been dubbed the “battle for the living room.”¹²² Consumers are increasingly shifting toward digital and streaming services.¹²³ Copies of a copyrighted work increasingly exist as a file on a hard drive or on a remote server “in the cloud,” rather than existing as physical hardcopies.¹²⁴ These consumer shifts coupled with advances in technology are leading to new and innovative mechanisms for content distribution.¹²⁵ These changes challenge the business models of years past and challenge the way in which the language of the Copyright Act is applied today.¹²⁶

The court’s decision in *ReDigi* demonstrates just how difficult it is to apply the language of the 1976 Act to today’s digital marketplace. In addition to the challenge of contorting the language of the Act to today’s marketplace is the underlying bias in the case law and legislative record, which is heavily influenced by digital music piracy in the 1990s and early 2000s.¹²⁷ However, since the introduction of Apple’s iTunes music store in 2003, the marketplace for legal digital media consumption has changed quite dramatically.¹²⁸ As the U.S. Supreme Court stated in *Sony Corporation of America v. Universal City Studios, Inc.*, “[S]ound policy, as well as history, supports [the Court’s] consistent deference to Con-

122. Erin Griffith, *Amazon Throws a Firebomb in the Battle For Your Living Room*, FORTUNE (Apr. 2, 2014), <http://tech.fortune.cnn.com/2014/04/02/amazon-throws-a-firebomb-in-the-battle-for-your-living-room/>.

123. *See id.*

124. IFPI DIGITAL MUSIC REPORT 2013, *supra* note 46, at 14.

125. *See* Griffith, *supra* note 122.

126. It is worth noting the trend of technology companies beginning to produce their own original content to compete with one another and fill in the gaps left by failures to license content from the traditional media companies. If successful, this trend will likely lead to increased segmentation and lock-in (discussed in Section III, *supra*), and a further marginalization of consumer protections and ability to access content. *See also* Griffith, *supra* note 122.

127. *See, e.g.*, DMCA REPORT, *supra* note 28; Metro-Goldwyn-Mayer Studios Inc. v. Grokster, Ltd., 545 U.S. 913 (2005); A&M Records, Inc. v. Napster, Inc., 284 F.3d 1091 (9th Cir. 2002); Capitol Records, Inc. v. Thomas, 579 F. Supp. 2d 1210 (D. Minn. 2008).

128. *See* IFPI DIGITAL MUSIC REPORT 2013, *supra* note 46, at 15.

gress when major technological innovations alter the market for copyrighted materials.”¹²⁹

Congress has a duty to reexamine the Copyright Act in light of today’s digital marketplace and recraft the Act’s language to protect the interests of copyright owners as well as the interests of consumers, competition, and technological innovation. A significant part of that reform should include placing limits on DRM and EULAs and the ability of copyright owners to impose burdens on consumers of digital media that would otherwise be protected by copyright law. This also entails clearly defining a digital first sale doctrine. As previously discussed, the Copyright Act was designed to protect a “delicate balance” between the interests of copyright owners and the ability of society to access that content.¹³⁰ These reforms are necessary to balance society’s access to content through copyright exhaustion, competition, and innovation.

One way to facilitate a digital first sale doctrine is to develop a global standard for digital watermarking of copyrighted media files. Digital watermarking is a lightweight, nonintrusive technology that can not only mitigate against piracy, but can lay the foundation for facilitating title and title transfer of digital media files.¹³¹ This technology has already been adopted by copyright owners and digital retailers in various forms.¹³² Encouraging a uniform technological standard for digital watermarking, however, would help ensure interoperability across platforms and services. It would lower entry barriers for new companies and innovators. And most importantly, it would help ensure that the interests of consumers and society at-large are protected under the copyright laws of the United States.

129. *Sony Corp. of Am. v. Universal City Studios, Inc.*, 464 U.S. 417, 431 (1984).

130. *See supra* Part III.

131. *See supra* Part V.

132. *See, e.g., Digital Watermarking Plays Exciting Role in Enhancing Entertainment Experiences for Consumers Through Television, Magazines and Mobile Devices*, DIGITAL WATERMARKING ALLIANCE (July 10, 2012), http://www.digitalwatermarkingalliance.org/pr_10JUL2012.asp; IFPI DIGITAL MUSIC REPORT 2013, *supra* note 46, at 31.