# THE COPYRIGHT MISUSE DOCTRINE'S ROLE IN OPEN AND CLOSED TECHNOLOGY PLATFORMS

Jonas P. Herrell<sup>†</sup>

As computers have evolved, the operating system has become a central component in the user experience. For many users, the operating system acts like a gateway that permits the users to interact with both the overarching applications and underlying hardware. Users choose their operating system for a multitude of reasons ranging from ease of use to market penetration to ability to interoperate with other platforms. In some cases, the operating system may come bundled (and locked) with the hardware. Consumers that opt for these types of closed platforms may have no choice in their operating systems because the underlying hardware ultimately drives their decision. Moreover, when the overarching operating system drives the decision, a closed platform will only provide a limited number of hardware configurations.

A platform owner who sells copyright-protected software bundled with hardware essentially locks up a user's choice of technology platforms. As a company becomes more entrenched in a market, the company has a greater ability (and incentive) to close off proprietary environments, usually through the use of boilerplate contracts. By restricting a consumer's purchase of a technology to its post-combination product, the company raises market entry thresholds and pushes smaller innovators out of the market.

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- 1. See ASHWIN VAN ROOIJEN, THE SOFTWARE INTERFACE BETWEEN COPYRIGHT AND COMPETITION LAW: A LEGAL ANALYSIS OF INTEROPERABILITY IN COMPUTER PROGRAMS 42 (2010) (discussing the incentives for a monopolist to foreclose competition in a secondary market by leveraging its current monopoly power).
- 2. See Joseph Farrell & Philip J. Weiser, Modularity, Vertical Integration, and Open Access Policies: Towards a Convergence of Antitrust and Regulation in the Internet Age, 17 HARV. J.L. & TECH. 85, 109–12 (2003) (discussing the various reasons why a platform monopolist would want to impose "two-level entry" on its potential competitors).

The recent *Apple, Inc. v. PsyStar Corp.* case highlights this trend in action.<sup>3</sup> Apple combines its operating system, Mac OS X, with various hardware configurations that are then sold directly to the end user. Even though Apple distributes full copies of its operating system by itself, under the banner of an "upgrade," it contractually precludes any user of the software from installing it—or any other copies of Mac OS X—on anything but Apple-branded hardware.<sup>4</sup> The court ultimately decided that Apple's use of a licensing agreement to ensure that its operating system was only installed on Apple-branded hardware was not a misuse of copyright.

This case illustrates the tension between property rights and public access rights—a finely-tuned equilibrium balanced at the intersection of copyright law and contract law. This Note will explain that courts should be mindful of this balance when dealing with copyright cases involving open or closed platforms. The copyright misuse doctrine renders a copyright unenforceable in situations where a copyright is used to "secure an exclusive right or limited monopoly not granted by the Copyright Office and which it is contrary to public policy to grant." Courts have been hesitant thus far in their adoption of copyright misuse.

This Note will explain why courts should consider re-aligning the copyright misuse defense in light of the intellectual property rights spectrum. It first defines the concept of a platform in today's high technology world and then weighs the differences between open and closed platforms. Part I argues that open platforms not only increase innovation, but are more intune with the doctrinal purposes of the respective intellectual property regimes. Next, Part II evaluates the creation and evolution of copyright misuse—a rarely-successful defense that should have greater bearing on future cases that require a balancing of the needs of public access against the property rights of platform owners. This includes a look at the origins of patent misuse and the entangled history of antitrust, patent misuse, and copyright misuse. Finally, Part III considers how a re-aligned copyright

<sup>3.</sup> See 673 F. Supp. 2d 931 (N.D. Cal. 2009).

<sup>4.</sup> See Complaint at Exh. 1, § 2.A, C, Apple, Inc. v. PsyStar Corp., No. 08-CV-3251, (N.D. Cal. July 3, 2008), ECF No. 1; see also infra notes 199–200.

<sup>5.</sup> Lasercomb Am., Inc. v. Reynolds, 911 F.2d 970, 977 (4th Cir. 1990) (citing Morton Salt Co. v. G. S. Suppiger Co., 314 U.S. 488, 492 (1942)).

<sup>6.</sup> See Brett Frischmann & Dan Moylan, The Evolving Common Law Doctrine of Copyright Misuse: A Unified Theory and Its Application to Software, 15 BERKELEY TECH. L.J. 865, 869 (2000).

<sup>7.</sup> See infra Part I.

<sup>8.</sup> See infra Part II.

misuse doctrine in today's technological world might restore both the balance between the intellectual property regimes and the balance between intellectual property creators and intellectual property consumers.<sup>9</sup>

#### I. TECHNOLOGY PLATFORMS

"Technology platform" roughly describes the combination of multiple technical components that make up the end-user computing environment. A technology platform essentially consists of three different tiers of technology, each dependent upon the lower tiers. The bottom tier is the hardware architecture, which includes all the different hardware components. The middle tier is the operating system, which controls the fundamental input and output operations necessary for an end user to utilize a computer, permitting applications to interface with the hardware. The top tier contains all of the platform's applications. Applications are software tailored to suit one or more specific needs of the end user.

Earlier computers incorporated much of their functionality at the hardware level. As computers evolved, functionality shifted to the upper software layers, providing increased flexibility as hardware could be directed to complete any number of varying tasks.<sup>12</sup> This resulted in the technology industry shifting its focus toward the creation of generalized computing components while expanding the role of software and allowing it to exert greater control over the underlying hardware. Today, generic hardware can be used in many different contexts without the need to be tailored to each individual use.<sup>13</sup>

<sup>9.</sup> See infra Part III.

<sup>10.</sup> United States v. Microsoft Corp., 253 F.3d 34, 53 (D.C. Cir. 2001) (finding that operating systems serve as a platform for software applications and have two distinct functions: allocate memory and control peripherals).

<sup>11.</sup> Dennis S. Karjala, Copyright Protection of Operating Software, Copyright Misuse, and Antitrust, 9 CORNELL J.L. & Pub. Pol'y 161, 169–70 (1999).

<sup>12.</sup> WILLIAM H. PAGE & JOHN E. LOPATKA, THE MICROSOFT CASE: ANTITRUST, HIGH TECHNOLOGY, AND CONSUMER WELFARE 88–89 (2007).

<sup>13.</sup> See Timothy F. Bresnahan, New Modes of Competition, in COMPETITION, INNOVATION AND THE MICROSOFT MONOPOLY: ANTITRUST IN THE DIGITAL MARKETPLACE 155, 159 (Jeffrey A. Eisenach & Thomas M. Lenard eds. 1999) (defining a platform as "a shared, stable set of hardware, software, and networking technologies on which users build and run computer applications"). This shift has continued in the software space as well. Now, large portions of computer programs are generically written in smaller compartmentalized pieces so they can easily be re-used and re-purposed as needed. This programming methodology is referred to as Object Oriented Programming. See Keith Stephens & John P. Sumner, Software Objects: A New Trend in Programming and Software Patents, 12 SANTA CLARA COMPUTER & HIGH TECH. L.J. 1, 4 (1996).

In generalized hardware environments, one of the operating system's primary purposes is to facilitate interactions between applications and the underlying hardware. To do this, applications are designed and written for a specific operating system as the applications will need to utilize operating-system-specific commands.<sup>14</sup> This allows applications to be written independently of the underlying hardware.<sup>15</sup> The operating system then serves as a buffer between the hardware and the application to perform the necessary computations, receive inputs, and produce outputs.

The combination of the bottom two tiers—the hardware and the operating system—represents a distinct computing platform on which additional applications (or even operating system functionality) can be built. These two tiers provide the application tier, users, and developers with the majority of the computing functionality in a technology environment. Although there can be instances where applications are indeed considered part of a platform, this Note will generally use the term "platform" to refer to the attributes of the bottom tiers (unless otherwise specified) that combine to provide the functional environment upon which applications are written and operate.

Each tier within a platform involves products created by one or more parties. Due to the complexity of hardware architectures, there usually are a large number of parties in the bottom tier. A central party, called an Original Equipment Manufacturer (OEM), combines hardware components to create the "bare bones" of a computer. The operating system tier usually only involves a single party—either Apple or Microsoft in the majority of cases. Almost every OEM either installs Microsoft Windows or provides a copy of it with every computer they sell. Apple is in a unique position in that it

<sup>14.</sup> See VAN ROOIJEN, supra note 1, at 14–15 (explaining how Application Programming Interfaces (APIs) work).

<sup>15.</sup> See id. at 9.

<sup>16.</sup> See Operating System Market Share, NETMARKETSHARE, http://marketshare.hitslink.com/operating-system-market-share.aspx?qprid=8 (last accessed Nov. 2010) (figuring market share of Windows and Mac OS at 90.81% and 5.03% respectively); Top 5 Operating Systems from Nov to Dec 10, STATCOUNTER: GLOBALSTATES (Dec. 2010), http://gs.statcounter.com/#os-ww-monthly-201011-201012 (figuring market shares as follows: WinXP—50.67%, Win7—25.71%, WinVista—15.53%, Mac OS X—6.29%, Linux—0.76%, and Other—1.04%).

<sup>17.</sup> See Randal C. Picker, Pursuing a Remedy in Microsoft: The Declining Need for Centralized Coordination in a Networked World, 158 J. INSTITUTIONAL & THEORETICAL ECON. 113, 119—20 (2002). See generally Jonathan M. Barnett, The Host's Dilemma: Strategic Forfeiture in Platform Markets for Informational Goods, 124 HARV. L. REV. (forthcoming) (manuscript at 28), available at http://law.bepress.com/usclwps/lewps/art121 (discussing the evolution of Windows and its role in the personal computing ecosystem).

makes the operating system and also stands in the role of the OEM, installing its operating system on the computers it assembles. Since Apple maintains control over both of the bottom tiers of its platform, it can be considered a "closed platform."<sup>18</sup>

A closed platform represents an environment where outside influence is only introduced with the operating system owner's consent. <sup>19</sup> This allows the platform owner to control the growth of the platform and the integration of the tiers in a manner consistent with an overarching objective. On the other hand, an open platform is an environment where the platform owner exerts minimal control beyond the technology it introduces. Instead, the platform owner and third parties both extend the platform's functionality and architecture, and integrate the tiers within it.

#### A. CLOSED PLATFORMS

Closed platforms are rooted in a platform owner's vision of the end product they want to market to the consumer. Rather than create only a piece of the architecture, the closed platform owner ("CPO") will make most, if not all, of the decisions regarding the integration of the components. This type of vertical integration can occur when the CPO either creates all of the components it assembles into its final product, or purchases a number of components from the market that are then assembled with the components it makes. The CPO—regardless as to how he acquires the various components—stands as the intermediary between the end consumer and all of the various manufacturers of high technology components.

Placing all of these decisions in the hands of a single entity creates many benefits. To begin, since a single entity is responsible for the integration of all of the technology tiers, the CPO can ensure that the tiers are optimally integrated, which can result in a smooth experience for the end user. The ability to control all of the technology tiers in the final product allows a CPO not only to actualize various synergies in the technology, but also to push the envelope in directions previously unforeseen in a market. This Section will discuss, *infra*, the benefits of closed platforms.

<sup>18.</sup> See Farrell & Weiser, supra note 2, at 92.

<sup>19.</sup> See David S. Evans, Antitrust Issues Raised by the Emerging Global Internet Economy, 102 NW. U. L. REV. COLLOQUY 285, 303–04 (2008) (discussing a number of "tightly integrated business software-hardware model[s]").

<sup>20.</sup> Nicholas Economides, *Competition, Compatibility, and Vertical Integration in the Computing Industry, in Competition, Innovation and the Microsoft Monopoly, supra note* 13, at 209, 210–11.

<sup>21.</sup> Id. at 211.

### 1. Paradigm-Changing Events

Closed platforms are generally praised for their ability to bring about paradigm-changing events.<sup>22</sup> A closed platform permits innovators to optimally commercialize their intellectual property since the innovator has the option to either protect and distribute the immediate intellectual property as a standalone good, or tie it to a much larger product.<sup>23</sup> By permitting extended levels of intellectual property commercialization, innovators can then make strategic decisions that optimize their return on investment in the initial intellectual property research and development. The additional freedom to commercialize innovation encourages entities to take on additional risks to try new things. If the new thing is successful, that entity can capture an entire new market, generating a large amount of revenue. This in turn encourages entities to expend greater amounts on research and development to maximize commercial returns. Thus, even when new paradigm-changing events do not occur, innovation still occurs rapidly through these expenditures.

### 2. Encourages Larger Investment

Closed platforms also encourage continued investment in a platform, even after it has been effectively commercialized.<sup>24</sup> If an innovator controls its environment, it has the ability to expand that environment and commercialize these expansions, without the threat of competition. Thus, firms are able to capture additional revenue from the incorporation of after-developed technologies into the closed platform. Where the after-developed technology is created by the CPO, he is able to capture not only the monies from that innovation's monopoly, but also the revenue from additional closed platform sales that are driven by the demand for the new innovation.

Closed platforms also encourage companies to invest in multiple tiers simultaneously in order to create a single dominant product instead of only investing in the technology components that have the highest profit-margins.<sup>25</sup> By tying the less profitable technology to the more profitable technology, the CPO is able to innovate in both spaces and recoup its sunk

<sup>22.</sup> See VAN ROOIJEN, supra note 1, at 32 (suggesting that closed platforms stimulate competition for the entire market, rather than part of it, leading to breakthrough innovation).

<sup>23.</sup> See Farrell & Weiser, supra note 2, at 99.

<sup>24.</sup> See VAN ROOIJEN, supra note 1, at 34–35 (finding that a firm must innovate significantly to maintain its monopoly position in a market to prevent other firms from entering that market).

<sup>25.</sup> See id. at 40.

costs. This results in a net gain of innovation as research and development occurs that would not otherwise have but for the closed platform model.

Finally, closed platforms encourage competition at the environment level, which users most closely identify with. A CPO has an incentive to continue investing in its entire platform in order to maintain or increase its market position by improving that platform, thereby retaining or attracting additional users. Otherwise, the same motivation that spurred the creation of a dominant closed platform will drive competitors to create competing closed platforms. If the dominant CPO does not continue innovating within its environment, the new market entrants will be able to capture market share by creating platforms incorporating after-developed innovations that are absent from the CPO's existing closed platform.<sup>26</sup>

### 3. Better Integration Within Platform

Another argument for closed platforms is they facilitate platform innovation focused on seamlessly integrating the platform's tiers. <sup>27</sup> Vertical integration between the platform's tiers allows a CPO to thoroughly test the interoperability of its components and to fine tune their interactions. Once optimized, the closed platform does not permit new entrants into the environment—or if it does, it will be on the CPO's terms—ensuring a greater degree of stability after dissemination to end users. <sup>28</sup>

Additionally, since only a single entity controls the integration of the platform, the coordination costs that are usually present in open platforms are diminished.<sup>29</sup> Likewise, the transaction costs are also reduced since a single entity influences or controls the manufacturing, marketing, distribution, and licensing, allowing that entity to realize various economies of scale.<sup>30</sup>

The cell phone industry is ripe with examples of successful closed platforms that highlight the benefits of integration. For years, innovation in cell phones was stagnant due to the power that the mobile

<sup>26.</sup> See id. at 32.

<sup>27.</sup> See id. at 30; Farrell & Weiser, supra note 2, at 99 (discussing how component integration promotes platform-sponsored quality control and interoperability).

<sup>28.</sup> See Michael L. Katz & Carl Shapiro, Antitrust in Software Markets, in COMPETITION, INNOVATION AND THE MICROSOFT MONOPOLY, supra note 13, at 29, 68 (discussing how vertically-integrated products promote quality assurance in that product).

<sup>29.</sup> See VAN ROOIJEN, supra note 1, at 41.

<sup>30.</sup> See id. at 41.

telecommunication industry asserted over device manufacturers.<sup>31</sup> This allowed companies like Motorola to produce a single dominant product, such as the Razr, and only incrementally update that product as time passed.<sup>32</sup> However, the entry of the proprietary iPhone forced the market to make significant and dramatic changes in a small amount of time in order to compete. One of the much-hailed benefits of the iPhone was its closed platform that prevented mobile carriers from interfering with and tailoring the phone's software prior to distribution.

Even in the aftermarket, the distribution of digital content to Apple's iPhone device is seamlessly integrated with the device itself—and the Apple environment at large—through the iTunes application, instead of through a one-off distribution method for digital media utilized by each individual wireless carrier. Aftermarket control over the iPhone device and the subsequent content distribution allowed Apple to create a streamlined product with minimal integration issues between each component involved in the product's use. Indeed, the iPhone's closed platform helped to facilitate a successful international roll-out since most of the phone's functions were not dependent on third parties. Apple's success with its closed environment has garnered the attention of other companies seeking to emulate that same success.<sup>33</sup>

### 4. Simplifies Consumer Choice

Another reason why closed platforms may enhance the user experience is that a consumer may be inundated with component choices in an open platform such that he is unable to adequately sort through his options and select components that satisfy his needs.<sup>34</sup> A closed platform, on the other

<sup>31.</sup> See Atanu Lahiri, Rajiv M. Dewan & Marshall L. Freimer, The Disruptive Effect of Open Platforms on Markets for Wireless Services, 43rd Hawaii International Conference on System Sciences, at 1 (2010), available at http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=& arnumber=5428571.

<sup>32.</sup> See Scott D. Anthony, Motorola's Bet on the Razr's Edge, WORKING KNOWLEDGE FOR BUS. LEADERS: HARV. BUS. SCH. (Sept. 12, 2005), http://hbswk.hbs.edu/archive/4992.html; Anders Bylund, Foolish Forecast: RAZR-Thin Earnings for Motorola, MOTLEY FOOL (July 17, 2007), http://www.fool.com/investing/general/2007/07/17/motorola-forecast.aspx.

<sup>33.</sup> See, e.g., John Letzing, Oracle CEO Likens New Approach to Apple's, MARKETWATCH (Sept. 22, 2010), http://www.marketwatch.com/story/oracle-ceo-links-new-approach-to-apples-2010-09-22.

<sup>34.</sup> See, e.g., Jack Wallen, Is Too Much Choice Getting in the Way of Linux' Acceptance?, TECHREPUBLIC (Aug. 10, 2009), http://www.techrepublic.com/blog/opensource/is-too-much-choice-getting-in-the-way-of-linux-acceptance/841. However, a superior open platform should be able to still capture greater market share when competing with an inferior closed platform, assuming similar expenditures by the platform owners, because

hand, allows that consumer to make choices at the macro level so that he only needs to concern himself with a limited number of options. The end result is that consumers make choices that more adequately align with their needs.<sup>35</sup>

Although innovation in the closed platform sphere certainly causes a short-term benefit to that market and to society, it is still unclear whether the long-term effects of such closed environments outweigh the immediate gains. Closed environments, as building blocks for future innovations, are only accessible to a limited subset of individuals who can leverage that momentum.<sup>36</sup> This can lead to decreased innovative results downstream—once a device reaches its tipping point, only minimal amounts of innovation are necessary to maintain that market position.<sup>37</sup> However, it is more certain that good products will generally win out in the long run. A CPO that relies on legal doctrines alone to maintain his position and prevent superior products from competing will lose eventually, not because open platforms are better, but rather because good platforms are better.<sup>38</sup>

#### B. OPEN PLATFORMS

Open platforms encourage third party entry within each of the platform's tiers. This flexibility permits market entry by a diverse set of parties with the scope of entry ranging from individual innovators within a technology within a single tier, to paradigm-changing innovations that not only shift the direction of technology within a tier, but also cause ripple-effect innovations

informed consumers should be able to tip the market in favor of the superior product. *See* STAN J. LIEBOWITZ & STEPHEN E. MARGOLIS, WINNERS, LOSERS & MICROSOFT: COMPETITION AND ANTITRUST IN HIGH TECHNOLOGY 58, 239 (1999).

- 35. Janusz A. Ordover & Robert D. Willig, Access and Bundling in High-Technology Markets, in COMPETITION, INNOVATION AND THE MICROSOFT MONOPOLY, supra note 13, at 103, 111 (finding that closed systems make sense in situations where consumers do not value choice and the closed system creates efficiencies).
- 36. A closed environment also necessitates continued efforts to maintain the closed environment's status as closed. This wasted effort, which could have been focused on increasing the environment's speed, reliability, and performance, is instead spent on issues relating to the further expansion of the closed platform and the issues inherent to it. JUNG WOOK CHO, INNOVATION AND COMPETITION IN THE DIGITAL NETWORK ECONOMY: A LEGAL AND ECONOMIC ASSESSMENT ON MULTI-TYING PRACTICE AND NETWORK EFFECTS 179–80 (2007).
- 37. *Id.* at 178 ("[A] dominant company can arbitrarily control the direction and pace for program development regardless of the consumer demand and welfare.").
- 38. See LIEBOWITZ & MARGOLIS, supra note 34, at 239–40; see generally David S. Evans & Michael Salinger, Why Do Firms Bundle and Tie? Evidence from Competitive Markets and Implications for Tying Law, 22 YALE J. ON REG. 37 (2005) (finding that tying products is generally pro-competitive, not anticompetitive).

across other tiers.<sup>39</sup> Additionally, open platforms allow users to adopt new technologies containing new innovations quickly as they only need to substitute or add the technology within a given tier, instead of replacing the platform. Open platforms also afford the consumer the opportunity to make informed decisions about the technologies included in the platform instead of the limited number of available options in a closed platform.<sup>40</sup>

With the diverse pool of innovators in the market, and the ability for users to self-select the types of technologies they wish to incorporate into their environments, open platforms facilitate a number of innovative objectives in a decentralized setting. The open platform not only stimulates expected innovation, but also unexpected innovative events.<sup>41</sup> Finally, open platforms proportionally compensate an innovator in exchange for the

<sup>39.</sup> For instance, Intel and AMD recently announced a major shift in the Central Processing Unit (CPU) / Graphics Processing Unit (GPU) architecture. After years of separation on different components, the GPU will be integrated into the CPU such that all of the calculations typically done be two discrete pieces of hardware will run on a single piece of silicon in an effort to eliminate the communication bottleneck that typically exists between the two. It is anticipated that this integration will increase performance for GPU-heavy operations, such as video rendering. See Don Clark, Intel, AMD to Unveil Combination Chips, WALL ST. J., Dec. 27, 2010, at B3.

<sup>40.</sup> See, e.g., infra note 41 and accompanying text.

<sup>41.</sup> For instance, the PhysX Physics Processing Unit (PPU) was a dedicated piece of hardware designed to perform the massive volume of calculations needed to create realistic environments that mimic real-world scenarios. See Alexey Stepin & Anton Shilov, AGEIA Accelerator Review, X-BIT LABS (June 23, http://www.xbitlabs.com/articles/video/display/ageia-physx.html. AGEIA initially released the PhysX PPU as a standalone component to compliment a computer's GPU and CPU. Id. The technology permitted virtual environments to take a major step forward in their ability to simulate real world environments. Id. The new technology was subsequently incorporated into software applications. Id. Although individual Windows users could adopt this technology, Apple users could not because Apple made the choice not to include it in their platform. See, e.g., Ageia PhysX PCI-Express, APPLE DISCUSSIONS (Sep. 18, 2007), http://discussions.info.apple.com/message.jspa?messageID=5382140 (discussing the PhysX PPU, Apple's decision not to include it as an option, and whether the users were going to purchase a dedicated Windows platform so they could leverage the new technology).

However, adoption of the PPU technology as a hardware option soon became unnecessary. NVIDIA subsequently purchased AGEIA and began to incorporate the PPU into its line of GPU cards. NVIDIA also wrote firmware so many of the PhysX calculations could run directly on NVIDIA's newly-released Computer Unified Device Architecture (CUDA) GPU architecture. With the release of the PhysX engine software, the technology became accessible to gaming consoles, which were previously released before the PhysX PPU was on the market. See Tom Krazit Nvidia to Acquire Ageia for the PhysX Chip, CNET NEWS (Feb. 4, 2008), http://news.cnet.com/8301-13579\_3-9864532-37.html; Michael McWhertor, PlayStation 3 Gets Free PhysX from Nvidia, KOTAKU (Mar. 17, 2009), http://kotaku.com/5172843/playstation-3-gets-free-physx-from-nvidia.

innovation. This Section will address, *infra*, the benefits of open platforms, including market adoption, market entry, increased flexibility, decentralized advancements, and correlative valuing of technology.

### 1. Market Adoption

A closed environment, in which the software and hardware are tied together, only permits market penetration based on sales of the device as a whole, rather than at the software or hardware tier. When the software is not tied to the hardware, and can be distributed for multiple hardware configurations, market penetration at the software level occurs more quickly. For example, Apple began to distribute its mobile operating system, iOS, before Google released its mobile operating system, Android. Yet Android's installed user base has grown much larger than iOS's.42 Part of Android's success can be attributed to its openness, which not only allows distribution on a variety of hardware configurations, but also permits developers without needing to obtain consent from Google—to extend Android's functionality through applications. 43 This permits a consumer to choose Android based on the merits of the software alone, and if chosen, match Android up with a hardware configuration that suits the consumer's needs. In a closed environment, if a consumer wants the functionality of either the closed platform's hardware or the closed platform's software, the consumer is locked into buying the platform as a whole, without regard to the other tiers which did not drive the consumer's decision.

An open platform—as compared with a closed platform—also has a decreased likelihood that users will manifest "socially excessive reluctance to switch to a superior new standard when important network externalities are present in the current one."<sup>44</sup> In an open platform, users can adopt new technologies incrementally as they are released, allowing users to incorporate newer technologies into an existing platform without having to forgo the existing platform's network effects. This will decrease the time needed to

<sup>42.</sup> See Seth Weintraub, Android Continues to Muscle Out U.S. Competitors, FORTUNE (Nov. 1, 2010), http://tech.fortune.cnn.com/2010/11/01/npd-android-continues-to-outpace-blackberry-and-ios-in-q3 (noting that Google's Android operating system controlled the same market share as Apple's iOS and RIM's BBOS combined).

<sup>43.</sup> Compare with Jonas Herrell, Digital Distribution in an Electronic Marketplace (May 15, 2010) (unpublished manuscript) (on file with author) (discussing the amount of control that Apple has over third-party developers in its environment, and contemplating whether this level of supervision may expose Apple to vicarious liability).

<sup>44.</sup> See Joseph Farrell & Garth Saloner, Installed Base and Compatibility: Innovation, Product Preannouncements, and Predation, 76 AM. ECON. REV. 940, 940 (1986) (describing the effects of excess inertia).

embrace the next technology, leading to quicker adoption periods at the market level.<sup>45</sup> To adopt subsequent innovations of a closed platform, however, would require the "locked-in" user to adopt an entire new platform containing the technology and to spend a larger amount of time learning about it.<sup>46</sup> This higher cost and higher time expenditure may lead to slower adoption rates for new technologies in closed platforms in a majority of situations.

## 2. Encourages Market Entry

Additionally, open platforms encourage more parties to enter and build onto the platform.<sup>47</sup> If businesses begin to shift to distribution of closed platforms, market entry will become more expensive. The commercialization and distribution of new innovation for a given tier will require the innovator to either create the requisite tiers to fully commoditize the product or license those tiers from an existing market entrant.<sup>48</sup>

Consider a scenario where closed platforms become the accepted optimal business strategy, and to compete, a new market entrant needs to market an entire platform. If a new entrant wants to commoditize its technological innovation, it would need to license technologies in other tiers in order to create a product that could be sold on the market.<sup>49</sup> However, there would be little rationale for an existing CPO to license his proprietary technology as that license would only enable competition for the CPO where it did not

<sup>45.</sup> See VAN ROOIJEN, supra note 1, at 27–28.

<sup>46.</sup> Thus, even to adopt a favorable innovation by replacing the closed environment with one of like kind, the user would still need to adopt the additional innovations that had been subsequently added since his last purchase. See id. at 27.

<sup>47.</sup> See Chris Johnson, Note, Leveraging Technology to Deliver Legal Services, 23 HARV. J. L. & TECH. 259, 278 (2009); Robert P. Merges, IP Rights and Technological Platforms 5 (Berkeley Ctr. for Law & Tech., Working Paper No. 64, 2008), available at http://repositories.cdlib.org/bclt/lts/64/ (noting that a freely disseminated open standard has a better chance of adoption).

<sup>48.</sup> See Katz & Shapiro, supra note 28, at 70–71 (describing the difficulties that new entrants face in "two-level entry" situations); see also Randal C. Picker, Unbundling Scope-of-Permission Goods: When Should We Invest in Reducing Entry Barriers?, 72 U. CHI. L. REV. 189, 192 (2005) ("[A] larger product scope may erect an entry barrier to competitors as the scope and scale of their entry is altered.").

<sup>49.</sup> If end users only had access to closed platforms, a new technology that becomes available to end users is of no use to them because it could not be used with any of the available closed platforms without the CPO's permission. Thus, the new entrant would be unable to commercialize its innovation directly (outside of licensing it to CPOs) and would be required to make a vertically-integrated product that could stand on its own.

previously exist.<sup>50</sup> Short of a license agreement that allows the CPO to obtain monopoly rents from the new entrant's sales, it would not make sense for the CPO to license a technology that would decrease his market share.<sup>51</sup> On the other hand, an open platform allows parties that have innovated in either a software or hardware tier to commercialize that innovation within that tier.

For example, assume Microsoft decides to change its business model to a closed platform similar to that of Apple's. <sup>52</sup> In what is essentially a duopoly, only a tiny minority of operating systems would serve as the means of entry into the hardware market outside of agreements with either Microsoft or Apple. <sup>53</sup> Entry into the hardware market would become severely constrained, shifting much of the bargaining power to Microsoft and Apple. This would also restrict innovation on much broader basis because if Apple or Microsoft vetoes a proposed hardware standard and does not incorporate the innovation into their respective platforms, society as a whole misses out on the innovation. <sup>54</sup>

<sup>50.</sup> See Katz & Shapiro, supra note 28, at 48 (discussing how "the integration of a firm with a monopoly in one product into a complementary product market can make entry into the latter market more difficult"). In fact, this would further disadvantage the licensor since the new market entrant would have the ability to incorporate the new technology into its platform.

<sup>51.</sup> See, e.g., Bresnahan, supra note 13, at 167 ("[A] firm in one layer has every incentive to attempt to grab the rents of a firm in another layer.").

<sup>52.</sup> And in many ways, it already has. Compare the Apple iPod and the Microsoft Zune. Also, Microsoft is now opening up brick-and-mortar stores, similar to those operated by Apple, due to the Apple stores' success. See Despite Recession, Microsoft Starts Plans to Open Stores, N.Y. TIMES, Nov. 3, 2009, available at http://www.nytimes.com/2009/02/13/business/worldbusiness/13iht-soft.1.20169583.html.

<sup>53.</sup> See supra note 16 and accompanying text.

<sup>54.</sup> VAN ROOIJEN, *supra* note 1, at 39 & n.187 (describing how the owner of an operating system could completely foreclose a secondary market—including a hardware market where the operating system is bundled or tied to the hardware). This threat looms larger when considering the now-dominant Blu-ray technology. When Blu-ray first emerged as a competitor to the HD-DVD standard, Microsoft backed HD-DVD, *not* Blu-ray. *See* Press Release, Microsoft Corp. & Intel Corp., Microsoft and Intel Back HD DVD as Next-Generation High-Definition DVD Format of Choice (Sept. 26, 2005), *available at* http://www.microsoft.com/presspass/press/2005/sep05/09-

<sup>26</sup>HDDVDPromotionGroupPR.mspx. Meanwhile, Apple backed neither Blu-ray or HD-DVD as it continued to focus on digital distribution. *See infra* notes 211–213 and accompanying text. Thus, if both the Mac and Windows platforms were closed, and neither supported Blu-ray, there is a strong likelihood that Blu-ray would not currently be the standard for high-definition physical media.

#### 3. Greater Flexibility

Along those same lines, an open platform facilitates greater downstream flexibility, as it permits consumers to piece together an end solution tailored to meet their needs.<sup>55</sup> It also permits ongoing flexibility regarding the platform's use. If an innovation in one tier encourages the consumer to purchase that product, the open platform would permit a user to substitute or add that component without regard to the platform's other components.<sup>56</sup>

The ongoing flexibility of an open platform permits consumers to capture innovation occurring in a given tier without having to give up any of the perceived benefits of a different tier. Thus, consumers will experience less "lock-in." Consumers will subsequently reward the instant innovators in the market because they have the flexibility to adopt technologies as needed.

### 4. Decentralized Knowledge Gathering/Sharing

One of the strongest advantages of open platforms stems from the power of decentralized research and knowledge gathering.<sup>57</sup> Closed platforms harness their power from having a smaller, but focused, think-tank that designs and implements end-to-end solutions.<sup>58</sup> However, the lessons from the internet age have highlighted the benefits of having a wide variety of tinkerers, each operating independently or in communities, in order to best achieve various functions and operations.<sup>59</sup> Thus, an open platform permits broader community engagement within the platform to try different things. With this type of decentralized research and knowledge gathering, innovation occurs at a greater pace.<sup>60</sup> While some may argue that the types of innovation

<sup>55.</sup> CHO, *supra* note 36, at 178 (noting how an untied operating system would enable consumers to design a system tailored to their preferences and needs).

<sup>56.</sup> PAGE & LOPATKA, *supra* note 12, at 89 ("One might even define the operating system as a snapshot of many of the most common consumer uses for computers at any given moment.").

<sup>57.</sup> See JONATHAN ZITTRAIN, THE FUTURE OF THE INTERNET AND HOW TO STOP IT 17–18 (2008). But see Alexander Wolfe, Too Many Linux Distros Make For Open Source Mess, INFORMATIONWEEK (July 18, 2007, 11:09 AM), http://www.informationweek.com/blog/main/archives/2007/07/too\_many\_linux.html (describing how the decentralized development of the linux platform has resulted in 359 different distributions, creating a "forking mess").

<sup>58.</sup> See Randal C. Picker, Regulating Network Industries: A Look at Intel, 23 HARV. J.L. & PUB. POL'Y 159, 181–82 (1999).

<sup>59.</sup> See Farrell & Weiser, supra note 2, at 91; Picker, supra note 58, at 181–82.

<sup>60.</sup> See Bresnahan, supra note 13, at 167 (finding that divided technical leadership in differing technical tiers results in more sources of invention and fewer bottlenecks to bringing inventions to the market); see also Farrell & Weiser, supra note 2, at 93 (discussing

that occur in a decentralized community are outweighed by the paradigm-changing effects of focused research in a proprietary firm, <sup>61</sup> that argument compares the one big step forward against the smaller, but important, steps achieved by individual tinkerers. Over time, the aggregate of the smaller innovations will surpass the ginormous innovative event by the proprietary firm. <sup>62</sup>

### 5. Accurate Valuation of Innovation

The limited copyright monopoly was never meant to extend to products outside the realm of copyright law.<sup>63</sup> By constraining copyright rights to the *copyrighted* work, the financial reward stems directly from that creativity and correlates proportionally with the tangible fixation of the creation. Thus, a company that creates a new application or operating system should be rewarded for that application or operating system, and not because it is tied to a different innovator's product.

When a company bundles its creation with other products outside of the copyrighted work, the company leverages the copyright for commercial gain in a manner not contemplated by the copyright balance.<sup>64</sup> The de-bundling of the tiers allows consumers to evaluate and value each tier independent from another.<sup>65</sup> Open platforms enable consumers to appropriately award financial

how innovation occurs at a more rapid pace in a modular environment compared with an integrated structure).

- 61. See supra Section I.A.
- 62. Bresnahan, *supra* note 13, at 172–73 (finding that a vertically-disintegrated structure is preferable because of the ability to attract different sources of innovation in a given tier, increasing the probability of "potential epochal competitive incidents").
- 63. See Aaron Xavier Fellmeth, Copyright Misuse and the Limits of the Intellectual Property Monopoly, 6 J. INTELL. PROP. L. 1, 37 (1998) (explaining that the Copyright Act only grants the monopoly rights over the specific work).
- 64. See Kathleen K. Olson, Preserving The Copyright Balance: Statutory and Constitutional Preemption of Contract-Based Claims, 11 COMM. L. & POLY 83 (2006) (discussing how copyright owners in the digital age are abandoning the copyright regime and the balance contained within it for a system governed by private contract). But see Picker, supra note 58, at 180 (explaining that the goal of copyright law is not to confer monopoly rights, but rather to create a set of meaningful property rights). The copyright balance strives to find an equilibrium between creating a set of property rights that incentivizes the creation of new creative works with the desire to disseminate the works, and information, such that society can learn from them. See Olson, supra, at 84; see also Sony Corp. of Am. v. Universal City Studios, Inc., 464 U.S. 417, 429 (1984) ("[Copyright] is intended to motivate the creative activity of authors and inventors by the provision of a special reward, and to allow the public access to the products of their genius after the limited period of exclusive control has expired.").
- 65. Economides, *supra* note 20, at 214 ("[P]rices may be higher under vertical integration if a dominant firm resorts to anti-competitive practices such as (i) raising rivals'

benefits for innovation occurring in one tier that is achieved independent from the other tiers.

Furthermore, an open platform allows consumers to balance the costs of the different technologies within a tier in order to come up with a solution tailored to their functional needs. Consumers only pay for the innovative technologies needed to achieve that solution. Thus, segregating the hardware from the software would permit consumers to value each independently in order to allocate funds based on their needs. Although this may be detrimental to a company that innovates heavily in one tier with plans to exact rents from other tiers through tying, this would allow each respective innovation to garner the rewards contemplated by copyright policies.

More importantly, this would ensure competition within each tier of a platform. Since success in a single tier would only garner monopoly revenues associated with that tier, competition within each tier would cause each of the participants to continue investing within that tier since they would be unable to rely on their market position in a different tier to dominate the immediate tier. Thus, an open platform would mean continued innovation in each of the tiers, all to the benefit of the other tiers and other open platforms, as well as consumers and society.

In cases where value is added by actualizing the synergy between two tiers, a company could innovate in the integration space and would be appropriately rewarded.<sup>68</sup> Thus, if consumers value the service that Apple provides in carefully matching and fine-tuning its software and hardware

costs; (ii) imposing contracts with certain exclusivity requirements; (iii) imposing some anticompetitive form of price discrimination." (emphasis added)).

<sup>66.</sup> See VAN ROOIJEN, supra note 1, at 37.

<sup>67.</sup> See id. at 38; Pamela Samuelson & Suzanne Scotchmer, The Law and Economics of Reverse Engineering, 111 YALE L.J. 1575, 1623–25 (2002).

<sup>68.</sup> A good example of this is would be OEMs that piece together hardware components and potentially install the operating system and additional applications. OEMs that do this job better than others would presumably attract more customers. Dell quickly became known as a top laptop and desktop brand because of its ability to integrate the various tiers into a top-notch product. Its subsequent fall could be explained by its change in focus from creating a best-in-kind product to maximizing its profit margins, which inevitably meant cutting corners. See LEE A. SAGE, WINNING THE INNOVATION RACE 8 (2000); Paul Carton, Forecasting the PC Market's Future: The Rise of HP, The Fall of Dell, SEEKING ALPHA (Mar. 28, 2007), http://seekingalpha.com/article/30913-forecasting-the-pc-market-s-future-the-rise-of-hp-the-fall-of-dell; Michael Palma, PC Market Share Viewpoint: Acer Rises and Dell Dives, VENTURE OUTSOURCE (Mar. 9, 2010), http://www.ventureoutsource.com/contract-manufacturing/trends-observations/pc-market-share-viewpoint-acer-rises-and-dell-dives.

pairings, Apple will still be able to collect the same revenues.<sup>69</sup> Besides, if there is an appropriate mechanism for this type of valuation, it is the protections offered by trademark law.<sup>70</sup> Where consumers do not value that synergy at the premium that a company charges, it would be inappropriate to permit that company to use copyright law to create a closed platform and obtain that same price.

Some argue that bundling copyrighted and uncopyrighted products allows the owner to effectively commercialize its intellectual property. However, this argument focuses heavily on the economics behind the optimal commercialization of copyrighted goods. Copyright law never intended to grant the right to optimally commercialize a creative work. Indeed, if that was the goal of copyright, provisions such as § 109 and § 117 would not exist as these rights would belong solely to the monopolist who could commercialize them as he deemed fit. Instead, copyright only grants certain property rights to the owner, while retaining certain access rights for the public. This balance seeks to achieve not only the continued creation of

<sup>69.</sup> See Peter S. Menell, *Tailoring Legal Protection for Computer Software*, 39 STAN. L. REV. 1329, 1361 (1987) (explaining how a company could use brand recognition to its benefit).

<sup>70.</sup> See Deborah R. Gerhardt, Consumer Investment in Trademark, 88 N.C. L. REV. 427, 449–50 (2010) (discussing how consumers use the informational attributes of the marks associated with a trademarked good); Mark A. Lemley & David McGowan, Could Java Change Everything? The Competitive Propriety of a Proprietary Standard, 43 ANTITRUST BULL. 715, 761–65 (1998) (discussing trademark's role in a platform intellectual property protection); Philip J. Weiser, The Internet, Innovation, and Intellectual Property Policy, 103 COLUM. L. REV. 534, 609 (2003) (discussing trademark issues that arise when a third party does not have authorization to use a standard, but does so anyway); Lauren Fisher Kellner, Comment, Trade Dress Protection for Computer User Interface "Look and Feel," 61 U. CHI. L. REV. 1011, 1035 (1994) (discussing how trademark law could protect user interfaces).

<sup>71.</sup> U.S. DEP'T OF JUSTICE & FED. TRADE COMM'N, ANTITRUST ENFORCEMENT AND INTELLECTUAL PROPERTY RIGHTS: PROMOTING INNOVATION AND COMPETITION, at ch. 5 (2007) [hereinafter DOJ IP REPORT], available at http://www.usdoj.gov/atr/public/hearings/ip/222655.pdf.

<sup>72.</sup> Glynn S. Lunney, Jr., Reexamining Copyright's Incentives-Access Paradigm, 49 VAND. L. REV. 483, 485–87 (1996) (discussing the conflicts of the copyright balance that inevitably lead to the sub-optimal commercialization level of an intellectual property work). Indeed, a recent Ninth Circuit decision recognized that permitting a company's extension of its copyright rights through contract "would allow software copyright owners far greater rights than Congress has generally conferred on copyright owners." MDY Indus., LLC v. Blizzard Entm't, Inc., 629 F.3d 928, 941 (9th Cir. 2010).

<sup>73.</sup> Sections 109 and 117 of the Copyright Act deal with the first sale doctrine and the limitations on exclusive rights in computer programs, respectively.

<sup>74.</sup> See Picker, supra note 58, at 180 (explaining that the goal of copyright law is not to confer monopoly rights, but rather to create a set of meaningful property rights).

new works, but also society's ability to utilize and learn from those created works.

As discussed, *supra*, there are a number of benefits to open platforms.<sup>75</sup> Open platforms encourage a diverse community to work within the platform whereas closed platforms further the interests and vision of the CPO. Copyright law was intended to have some exclusionary effects, but the end goal was to incentivize the creation of a vast array of original works. Closed platforms, if left unchecked, have the potential to hinder this goal.

#### II. THE COPYRIGHT MISUSE DOCTRINE

It was originally unclear as to whether copyright, patent, or a sui generis regime was necessary to protect innovators' rights in software. This was subsequently resolved by permitting software owners to protect their creations through a combination of patents and copyrights. Copyright was extended to software to protect the creativity and artistic nature involved with programming, preventing the unauthorized copying and running of software. Patent was extended to software to protect the functional elements that result from the running of the code, preventing the re-writing of software functionality in a different manner or programming language that ultimately achieves a similar result.

Under copyright law, an author's exclusive rights are laid out in 17 U.S.C. § 106.<sup>77</sup> Within the existing exclusive rights, there is no right permitting the copyright owner to control how a copyrighted work is enjoyed in the privacy of a consumer's own home.<sup>78</sup> Instead, if a copyright owner wishes to control

- (1) to reproduce the copyrighted work in copies . . .;
- (2) to prepare derivative works based upon the copyrighted work;
- (3) to distribute copies ... of the copyrighted work to the public by sale or other transfer of ownership, or by rental, lease, or lending;
- (4) . . . to perform the copyrighted work publicly;
- (5) . . . to display the copyrighted work publicly; and
- (6) ... to perform the copyrighted work publicly by means of a digital audio transmission.

<sup>75.</sup> See supra Section I.B.

<sup>76.</sup> FINAL REPORT OF THE NAT'L COMM'N ON NEW TECHNOLOGICAL USES OF COPYRIGHTED WORKS 12 (1980) [hereinafter CONTU]. Software is also covered by trade dress, trademark, and trade secret law.

<sup>77.</sup> The statutory exclusive rights include the right to:

<sup>17</sup> U.S.C. § 106 (2006).

<sup>78.</sup> But see MDY Indus., LLC v. Blizzard Entm't, Inc., 629 F.3d 928, 947 (9th Cir. 2010) ("[C]opyright owners [have] an independent right to enforce the prohibition against circumvention of effective technological access controls.").

the private use of the copyrighted work beyond the initial sale, the copyright owner must use alternative means of protection, such as a licensing agreement or terms of use. <sup>79</sup> This applies where the copyright author wishes to protect a work's functional features outside the scope of copyright protection. <sup>80</sup> However, where the contract extends its copyright rights beyond those contemplated by copyright law—by way of a contract—the copyright owner runs the risk that a court will find that the copyright owner misused his copyright.

Copyright misuse shares many ties to patent misuse, including its origins<sup>81</sup> as a judicially-created doctrine. <sup>82</sup> After patent misuse took hold in the courts and was later codified, <sup>83</sup> it was extended to copyright. <sup>84</sup> Copyright misuse occurs when a copyright holder extends the monopoly power conferred by their copyright to areas outside of the limited monopoly. <sup>85</sup> Upon a finding of copyright misuse, the copyright in question becomes unenforceable until such point that the copyright owner has ceased the conduct that lead to the finding of misuse. <sup>86</sup> While courts increasingly encounter the copyright misuse defense, the proper evaluation method remains unclear. <sup>87</sup>

<sup>79.</sup> However, "the intersection of copyright and contract law" is still "an area of law that is not yet well developed." Sun Microsys., Inc. v. Microsoft Corp., 188 F.3d 1115, 1122 (9th Cir. 1999).

<sup>80. 17</sup> U.S.C. § 102(b).

<sup>81.</sup> See Motion Picture Patents Co. v. Universal Film Mfg. Co., 243 U.S. 502, 514 (1917). Indeed, the policies behind the grants of patents and copyrights are similar so it would be natural that the misuse evaluations share similar bonds. See generally THE FEDERALIST No. 43 (James Madison) ("The copyright of authors has been solemnly adjudged, in Great Britain, to be a right of common law. The right to useful inventions seems with equal reason to belong to the inventors. The public good fully coincides in both cases with the claims of individuals.").

<sup>82.</sup> Morton Salt Co. v. G. S. Suppiger Co., 314 U.S. 488, 493–94 (1942) (establishing the patent misuse doctrine).

<sup>83.</sup> See The Intellectual Property Antitrust Protection Act of 1988, S. Rep. No. 100-492, at 13 (1988).

<sup>84.</sup> See Lasercomb Am., Inc. v. Reynolds, 911 F.2d 970 (4th Cir. 1990).

<sup>85.</sup> A&M Records, Inc. v. Napster, Inc., 239 F.3d 1004, 1026 (9th Cir. 2001).

<sup>86.</sup> See Lasercomb, 911 F.2d at 979. Once the conduct that was the reasoning behind the misuse has ceased, the copyright regains its validity and becomes enforceable once again. *Id.* at 979 n.22.

<sup>87.</sup> See, e.g., MDY Indus., LLC v. Blizzard Entm't, Inc., 629 F.3d 928, 941 (9th Cir. 2010) ("[T]he contours of [copyright misuse] are still being defined."); DOJ IP REPORT, supra note 71, at 111–12; Todd C. Adelmann, Note, Are Your Bits Worn Out? The DMCA, Replacement Parts, and Forced Repeat Software Purchases, 8 J. ON TELECOMM. & HIGH TECH. L. 185, 208 (2010) (finding that the copyright misuse doctrine has not been fully developed).

One manifestation of the copyright misuse defense involves allegations that the copyright owner tied a product protected by copyright to an unprotected product.<sup>88</sup> Tying and bundling are important in technology industries because they facilitate the commodification of intellectual property. Thus, for some technologies, the ability to tie the intellectual property to the tangible good becomes necessary.<sup>89</sup> In other cases, it would merely be in a company's best interest to do so.<sup>90</sup>

The common tying situation can involve issues of both antitrust and misuse.<sup>91</sup> While tying goods that are protected by intellectual property to goods that are not was once thought to be per se illegal,<sup>92</sup> the realization of the potential economic benefits of tying no longer trigger an automatic finding of illegality.<sup>93</sup> Instead, the proper approach is to apply the rule of reason, at least in the antitrust context.<sup>94</sup> However, some courts continue to rely on antitrust principles in the misuse context, noting that "apart from the conventional applications of the [patent misuse] doctrine [the court has]

88. Ilan Charnelle, The Justification and Scope of the Copyright Misuse Doctrine and its Independence of the Antitrust Laws, 9 UCLA ENT. L. REV. 167, 175 (2002); Ramsey Hanna, Note, Misusing Antitrust: The Search for Functional Copyright Misuse Standards, 46 STAN. L. REV. 401, 411 (1994). Tying occurs where:

Software program B is tied to program A if firm M refuses to sell program A (the "tying" good) unless the customer also purchases program B (the "tied" good) from firm M.... [T]here is [also] a requirement to purchase all of good B from firm M in order to be able to buy any of good A.

- Katz & Shapiro, *supra* note 28, at 66. Whereas bundling occurs where "the price of the two programs sold together as a package is less than the sum of their individual-purchase prices." *Id.* at 67. However, due to software's low marginal costs and the complementary attributes of many of the components, the two doctrines tend to overlap. *See id.* (discussing how courts tend to confuse the two).
- 89. The Intellectual Property Antitrust Protection Act of 1988, S. Rep. No. 100-492, at 7 (1988).
- 90. See, e.g., Menell, supra note 69, at 1361 (explaining how an owner of an operating system might want to tie it to hardware in order to increase consumer lock-in, to discourage competing firms from entering the market, and to sustain its dominant position).
- 91. See Robert H. Lande & Sturgis M. Sobin, Reverse Engineering of Computer Software and U.S. Antitrust Lan, 9 HARV. J.L. & TECH. 237, 250 (1996).
  - 92. Jefferson Parish Hosp. Dist. No. 2 v. Hyde, 466 U.S. 2, 16 (1984).
- 93. Ill. Tool Works Inc. v. Indep. Ink, Inc., 547 U.S. 28, 31 (2006), abrogating Morton Salt Co. v. G.S. Suppiger Co., 314 U.S. 488 (1917), Int'l Salt Co. v. United States, 332 U.S. 392 (1947), United States v. Loew's Inc., 371 U.S. 38 (1962), Jefferson Parish Hosp., 466 U.S. 2; DOJ IP REPORT, supra note 71, at 114.
- 94. 134 Cong. Rec. H10,648 (Oct. 20, 1988) (noting that the rule of reason analysis is appropriate unless the tie-in of a patented product involves a staple); DOJ IP REPORT, *supra* note 71, at 114.

found no cases where standards different from those of antitrust law were actually applied to yield different results."<sup>95</sup>

To provide background for copyright misuse, this Part will first review the doctrine of patent misuse. This will help establish the underlying policy considerations that are present in both the patent and copyright misuse doctrines. After reviewing the patent misuse's origins, this Part will discuss the evolution of the copyright misuse doctrine and its application in the courts. Finally, this Part will identify and highlight the differences between the two misuse doctrines.

#### A. PATENT MISUSE

Misuse was initially a spin-off from antitrust-related inquiries that involved property protected by patents. Initially, courts tried to funnel the issues into either intellectual property- or antitrust-based evaluations. However, even when using an intellectual property approach, courts still turned to antitrust-like principles to assist in the evaluation of how patent owners were utilizing not only the patent, but also the conditions that the patent's use was predicated on. When a patentee's power extended beyond the patent grant and accumulated revenue not contemplated by the invention, courts did not enforce the patents for public policy reasons. 97

Findings of non-infringement based on public policy gave way to the doctrine of patent misuse in the 1942 Supreme Court case, *Morton Salt Co. v. G.S. Suppiger Co.*, in which the Court found that it was illegal for a patent owner to tie a patented invention to a non-patented article.<sup>98</sup> The Court decided that:

[T]he public policy which includes inventions within the granted monopoly excludes from it all that is not embraced in the invention. It equally forbids the use of the patent to secure an exclusive right or limited monopoly not granted by the Patent Office and which it is contrary to public policy to grant.<sup>99</sup>

<sup>95.</sup> USM Corp. v. SPS Techs., Inc., 694 F.2d 505, 512 (7th Cir. 1982) (Posner, J.) (finding that evaluating misuse issues under antitrust principles is the proper approach). Antitrust's role in misuse situations is further addressed in Section III.B.2, *supra*.

<sup>96.</sup> Bobbs-Merrill Co. v. Straus, 210 U.S. 339 (1908) (copyright); Henry v. A.B. Dick Co., 224 U.S. 1 (1912), *overruled by* Motion Picture Patents Co. v. Universal Film Mfg Co., 243 U.S. 502 (1917) (patent).

<sup>97.</sup> Motion Picture Patents, 243 U.S. at 519.

<sup>98.</sup> Morton Salt, 314 U.S. at 493.

<sup>99.</sup> Id. at 492 (emphasis added).

In that regard, the Court created a per se misuse defense in situations where the patent owner tied the patented object to another product. Thus, *Morton Salt* established one of the three common situations in which patent misuse is found. These types of per se findings of misuse were typical in the earlier cases. However, as the doctrine further developed, the concept of per se misuse findings eventually gave way to more contextual evaluations as courts began to understand the complexities of intellectual property commodification and intellectual property-based markets. 102

The initial trend away from per se misuse findings in tying situations illustrates how courts understood it was more appropriate to apply antitrust-based evaluations in cases involving marketplace behavior. Over time, antitrust adapted to the unique circumstances that intellectual property created: owners have a government-issued monopoly and markets involving these monopolies operate slightly different than typical markets. However, in cases where the inquiries are unique to the operation of patent laws, courts continued to rely upon the doctrine of patent misuse to curb abuses of patent protections by patent owners. As courts began to differentiate between antitrust and patent inquiries, the misuse doctrine further developed whereby patent misuse could occur in situations that were not antitrust

<sup>100.</sup> See, e.g., Transparent-Wrap Mach. Corp. v. Stokes & Smith Co., 329 U.S. 637, 641 (1947) ("The requirement that a licensee under a patent use an unpatented material or device with the patent might violate the antitrust laws but for the attempted protection of the patent." (citing Mercoid Corp. v. Mid-Continent Co., 320 U.S. 661, 667 (1944)).

<sup>101.</sup> The traditional three types of patent misuse occur when the patent owner: "(1) requir[es] the purchase of unpatented goods for use with patented apparatus or processes, (2) prohibit[s] production or sale of competing goods, and (3) condition[s] the granting of a license under one patent upon the acceptance of another and different license." 6 DONALD S. CHISUM, CHISUM ON PATENTS, § 19.04[3] (Matthew Bender & Co. ed., 2011).

<sup>102.</sup> See, e.g., Zenith Radio Corp. v. Hazeltine Research, Inc., 395 U.S. 100, 140–41 (1969), on remand, 418 F.2d 21 (7th Cir. 1969), rev'd, 401 U.S. 321 (1971) (differentiating patent misuse and antitrust abuses).

<sup>103.</sup> Dawson Chem. Co. v. Rohm & Haas Co., 448 U.S. 176, 213–15 (1980) (finding that the pre-1988 version of the codified patent misuse statute did not categorize control over an unpatented non-staple item that is only useful in practicing a patented process as misuse).

<sup>104.</sup> See U.S. DEP'T OF JUSTICE & FED. TRADE COMM'N, ANTITRUST GUIDELINES FOR THE LICENSING OF INTELLECTUAL PROPERTY 3–4 (1995), available at http://www.usdoj.gov/atr/public/guidelines/0558.htm; DOJ IP REPORT, supra note 71, at 107–11. Compare U.S. Gypsum Co. v. Nat'l Gypsum Co., 352 U.S. 457 (1957) (patent misuse) with United States v. U.S. Gypsum Co. 333 U.S. 364 (1948) (antitrust).

<sup>105.</sup> Brulotte v. Thys Co., 379 U.S. 29, 33–34 (1964) (extending license payments beyond the life of the patent is misuse); *Zenith Radio*, 395 U.S. at 136–39 (finding misuse where licensing is based on a percentage of the licensee's total sales without regard to actual use of the patent).

violations, nor contained anticompetitive effects, but were still impermissible extensions of the patent owner's rights. <sup>106</sup> For instance, a licensing agreement that requires payments beyond the life of a patent violates neither antitrust or competition laws. <sup>107</sup> Yet, the license agreement continues to grant monopoly powers to the patent owner beyond the patent's—and the accompanying monopoly's—life. Leveraging a patent's monopoly powers to enlarge its rights (or in this case, its duration) is patent misuse. <sup>108</sup>

Congress eventually codified patent misuse under 35 U.S.C. § 271(d)(4)–(5), but limited § 271(d)(5) to situations involving tying where the patent owner has market power. The Patent Misuse Reform Act of 1988<sup>109</sup> was a compromise between the Senate and House bills.<sup>110</sup> The Senate's version of the bill paralleled Judge Posner's view of misuse in *USM Corp. v. SPS Technologies, Inc.*, <sup>111</sup> to the extent that patent misuse standards paralleled those of antitrust laws.<sup>112</sup> In fact, the Senate's version went so far as to articulate that a patent owner could not be guilty of patent misuse *unless* the conduct also constituted an antitrust violation.<sup>113</sup> The House's version, on the other hand, attempted to identify and categorize acts that would and would not constitute misuse.<sup>114</sup> The compromise between the two legislative bodies dropped the antitrust threshold from the legislation. In the end, the codified portions of the patent misuse doctrine only dealt with situations involving refusals to license<sup>115</sup> and tying arrangements.<sup>116</sup>

<sup>106.</sup> See Mercoid Corp. v. Mid-Continent Co., 320 U.S. 661, 666–67 (1944) (differentiating the operations of patent law from antitrust). Unlike abuses of antitrust, patent misuse can be cured, at which point the patent owner can reassert their rights. See, e.g., U.S. Gypsum, 352 U.S. at 465 (resolving whether the prior misuse had been cured).

<sup>107.</sup> See Brulotte, 379 U.S. at 38 n.3 (Harlan, J., dissenting).

<sup>108.</sup> See id. at 33 (majority opinion).

<sup>109.</sup> Pub. L. No. 100-703, 102 Stat. 4674 (1998).

<sup>110.</sup> H.R. 4972, 100th Cong. (1988) (enacted); Intellectual Property Antitrust Protection Act of 1988, S. 438, 100th Cong. (1988).

<sup>111.</sup> USM Corp. v. SPS Tech., Inc., 694 F.2d 505, 512 (7th Cir. 1982) (Posner, J.) ("Our law is not rich in alternative concepts of monopolistic abuse; and it is rather late in the day to try to develop one without in the process subjecting the rights of patent holders to debilitating uncertainty.").

<sup>112.</sup> S. 438; see also THE INTELLECTUAL PROPERTY ANTITRUST PROTECTION ACT OF 1988, S. REP. NO. 100-492, at 14, 16 (1988) (finding that Title II of the Act provides that "conduct shall only be found to be misuse when the conduct violates the antitrust laws"); 6 CHISUM, supra note 101, § 19.04[1][f] & n.29.

<sup>113. 134</sup> Cong. Rec. S32,471 (daily ed. Oct. 21, 1988).

<sup>114.</sup> H.R. 4972; 134 Cong Rec. H32,295 (daily ed. Oct. 20, 1988).

<sup>115. 35</sup> U.S.C. § 271(d)(4) (2006).

<sup>116.</sup> Id. § 271(d)(5).

Thus, the Supreme Court's initial conception of patent misuse was not only subsequently constrained by later decisions,<sup>117</sup> but also constrained the legislature's codification.<sup>118</sup> However, the codification illustrates an important point. Even though Congress recognized a broader variety of patent misuse existed, the legislative history indicates that the patent misuse codification addressed only instances of "alleged anticompetitive extensions of the owner's patent rights." This means that patent misuse's codification did not solidify the boundaries of the patent misuse doctrine.

So while codification identified some of patent misuse's attributes, patent misuse is still a fluid doctrine that permits courts to evaluate the circumstances of the misuse under a vague and flexible framework. Comparatively, as patent misuse's evolution had come full circle to codification, the doctrine of copyright misuse was just appearing in the limelight.

#### B. COPYRIGHT MISUSE

The doctrine of copyright misuse is similar to the pre-codification version of patent misuse. Copyright misuse was first successfully used in *Lasercomb America*, *Inc. v. Reynolds*. <sup>121</sup> In *Lasercomb*, the plaintiffs wrote a computer-assisted-design and computer-assisted-manufacture software application that allowed a user to create a digital template for a steel rule die

No patent owner otherwise entitled to relief for infringement or contributory infringement of a patent shall be denied relief or deemed guilty of misuse or illegal extension of the patent right by reason of his having... (5) conditioned the license of any rights to the patent or the sale of the patented product on the acquisition of a license to rights in another patent or purchase of a separate product, unless, in view of the circumstances, the patent owner has market power in the relevant market for the patent or patented product on which the license or sale is conditioned.

<sup>117.</sup> See, e.g., A.I. Root Co. v. Computer/Dynamics, Inc., 806 F.2d 673 (6th Cir. 1986); Digidyne Corp. v. Data General Corp., 734 F.2d 1336 (9th Cir. 1984). But see United States v. Lowe's Inc., 371 U.S. 38, 45–46 (1962) (finding that the seller's economic power is presumed in cases involving patents or copyrights, thus a valid patent in a tying arrangement would have anticompetitive consequences).

<sup>118.</sup> The current statutory text states that:

<sup>35</sup> U.S.C. § 271(d) (2006).

<sup>119.</sup> THE INTELLECTUAL PROPERTY ANTITRUST PROTECTION ACT OF 1988, S. REP. NO. 100-492, at 13 (1988). *But see id.* ("[Patent misuse] may also be found where the patent owner's conduct has not violated the antitrust laws, *has no demonstrated anticompetitive effect*, and has not even injured the infringing party who raises misuse as a defense." (emphasis added)).

<sup>120.</sup> See 6 CHISUM, supra note 101, § 19.04[3].

<sup>121. 911</sup> F.2d 970 (4th Cir. 1990).

and then direct its mechanical creation.<sup>122</sup> The defendants purchased four licenses to use the software and circumvented the software's technical protection measures in order to use the software on additional computers. The defendants then created and marketed a similar software application that was almost an exact copy of the plaintiff's.<sup>123</sup>

The defendants were unquestionably guilty of copyright infringement. However, the defendants asserted a copyright misuse defense premised on the anticompetitive effects of the software licensing agreement.<sup>124</sup> The agreement prohibited the defendant company and its employees from entering the plaintiff's market for a period of ninety-nine years.

After evaluating the historic origins of intellectual property policies and patent misuse, the Fourth Circuit decided that since copyright and patent law both further parallel public interests, the misuse defense should be equally available in the copyright regime.<sup>125</sup> The court also noted the similarities between copyright misuse and antitrust violations, but distinguished the two, focusing copyright misuse on activities that violate the public policy underlying the copyright grant.<sup>126</sup> The court eventually found that the plaintiff misused its copyright when it tried to control competition in an area<sup>127</sup> outside of the copyright.<sup>128</sup>

D. Licensee agrees during the term of this Agreement that it will not permit or suffer its directors, officers and employees, directly or indirectly, to write, develop, produce or sell computer assisted die making software. E. Licensee agrees during the term of this Agreement and for one (1) year after the termination of this Agreement, that it will not write, develop, produce or sell or assist others in the writing, developing, producing or selling computer assisted die making software, directly or indirectly without Lasercomb's prior written consent. Any such activity undertaken without Lasercomb's written consent shall nullify any warranties or agreements of Lasercomb set forth herein.

*Id.* at 973.

<sup>122.</sup> *Id.* at 971.

<sup>123.</sup> Id.

<sup>124.</sup> The pertinent contractual provisions were:

<sup>125.</sup> Id. at 976.

<sup>126.</sup> *Id.* at 978 (discussing Morton Salt Co. v. G. S. Suppiger Co., 314 U.S. 488 (1942), not 35 U.S.C. § 271(d)(4)–(5) (2006)).

<sup>127.</sup> The area the court was referring to was "the *idea* of computer-assisted die manufacture." *Id.* at 978 (emphasis added). *Compare with* 17 U.S.C. § 102(b) (2006) (categorically excluding "idea[s], procedure[s], process[es], system[s], method[s] of operation, concept[s], principle[s], [and] discover[ies]" from copyrightable subject matter).

<sup>128.</sup> Lasercomb, 911 F.2d at 979.

Today, the common approach is to evaluate whether the misuse thwarts the underlying policies of copyright law.<sup>129</sup> This flexible analysis is fact-intensive, and looks to whether the copyright owner used their copyright "to secure an exclusive right or limited monopoly not granted by the [Copyright] Office and which is contrary to public policy to grant."<sup>130</sup> Copyright seeks to balance a number of objectives while trying to achieve the maximal level of output. That said, "[t]he primary purpose of copyright is not to reward the author, but is rather to secure 'the general benefits derived by the public from the labors of authors.' "<sup>131</sup> Two presumptions underlie this policy.<sup>132</sup> First, society benefits from the creation of new works. Second, granting a limited monopoly is necessary in order to incentivize the creation of such works.

In keeping with this overarching purpose of copyright law, copyright misuse can occur in the absence of an antitrust violation. This permits instances of copyright misuse where the copyright owner does not have market power.<sup>133</sup>

Copyright misuse is relevant in cases involving: the tying of copyrighted material to another product, anticompetitive licensing agreements or contracts, mandatory blanket licenses, and refusals to license competitors in order to dominate a market different from that of the copyrighted material. The copyrighted material of the copyrighted material.

With regard to open platforms, copyright misuse is important in cases concerning tying arrangements. Unlike anticompetitive licensing agreements, these types of contractual tying arrangements do not prohibit the independent creation of compatible software solutions. <sup>136</sup> Instead, the contract and copyright are combined to extend uncopyrighted technologies

<sup>129.</sup> See, e.g., Alcatel USA, Inc. v. DGI Techs., Inc. (DGI II), 166 F.3d 772, 793 (5th Cir. 1999); Practice Mgmt. Info. Corp. v. Am. Med. Ass'n, 121 F.3d 516, 520–21 (9th Cir. 1997).

<sup>130.</sup> Altera Corp. v. Clear Logic, Inc., 424 F.3d 1079, 1090 (9th Cir. 2005).

<sup>131. 1</sup> MELVILLE B. NIMMER & DAVID NIMMER, NIMMER ON COPYRIGHT § 1.03 (Matthew Bender & Co. ed., rev. ed. 2010) (internal citation omitted).

<sup>132.</sup> *Id.* § 1.03.

<sup>133.</sup> Note, Clarifying the Copyright Misuse Defense: The Role of Antitrust Standards and First Amendment Values, 104 HARV. L. REV. 1289, 1308 (1991).

<sup>134.</sup> In software cases involving anticompetitive licensing agreements, copyright misuse has been found in instances where the license agreement prohibits the consumer from using a competing product. *See, e.g., Practice Mgmt. Info.*, 121 F.3d at 521 (finding misuse where an agreement that requires the customer to exclusively use the copyrighted system and prohibits the customer from using any other).

<sup>135.</sup> Fellmeth, supra note 63, at 24. Compare with text accompanying supra note 101.

<sup>136.</sup> DGI II, 166 F.3d at 793.

patent-like protections. For instance, in *Alcatel*, the copyright owner, DSC (later Alcatel USA, Inc.), produced an unpatented microprocessor card that ran its software.<sup>137</sup> When a competitor created a competing microprocessor card and connected it to a customer's environment running DSC's software, a copy of the software was loaded into the competing card's memory, which was not authorized by the licensing agreement.<sup>138</sup> The Fifth Circuit found this licensing agreement to be an impermissible extension of DSC's copyright as the licensing provisions effectively prevented competitors from developing similar cards that were outside the scope of copyright.<sup>139</sup>

A minority of courts still rely heavily on antitrust principles to evaluate whether the copyright holder's conduct is anticompetitive. This can be an intricate task because antitrust seeks to identify the competitive effects given a party's conduct and market position. However, this conflicts with the fundamental nature of copyright, which grants a monopoly for a limited duration and permits its owner to exclude others. Even the Seventh Circuit has begun to question its reliance on antitrust principles in copyright misuse evaluations. <sup>141</sup>

### C. DISTINGUISHING THE MISUSE DOCTRINES

Like patent misuse, copyright misuse is also a product of the courts, yet only the former is codified. But that is not to say that Congress did not foresee the copyright misuse defense's genesis. During the codification of the patent misuse doctrine, the concept of copyright misuse was actually

<sup>137.</sup> See DSC Commc'ns Corp. v. DGI Techs., Inc. (DGI I), 81 F.3d 597, 601 (5th Cir. 1996).

<sup>138.</sup> See DGI II, 166 F.3d at 794.

<sup>139.</sup> See id. at 794. The Fifth Circuit was not swayed by the fact that the competitor acted with unclean hands to acquire a copy of DSC's software, firmware, and manuals. Id. But see Atari Games Corp. v. Nintendo of Am. Inc., 975 F.2d 832, 846–47 (Fed. Cir. 1992) (finding that an infringer's unclean hands prevented the assertion of the copyright misuse defense).

<sup>140.</sup> See, e.g., Saturday Evening Post Co. v. Rumbleseat Press, Inc., 816 F.2d 1191 (7th Cir. 1987) (Posner, J.); see also THE INTELLECTUAL PROPERTY ANTITRUST PROTECTION ACT OF 1988, S. REP. No. 100-492, at 13 (1988) ("The second branch of the misuse doctrine, to which [the 35 U.S.C. § 271(d)] legislation is addressed, has its root in judicial interpretations that find misuse present because of alleged anticompetitive extensions of the owner's patent rights.").

<sup>141.</sup> See Assessment Techs. of Wis. v. WIREdata, Inc., 350 F.3d 640, 647 (7th Cir. 2003) (Posner, J.) (articulating some of the benefits of finding copyright misuse outside of the antitrust context, such as when a copyright owner tries to extend a software copyright's power over underlying and uncopyrightable data).

discussed.<sup>142</sup> In the twenty-one page Senate Report that accompanied the patent misuse reform legislation, the word "copyright" is mentioned sixty-seven times.<sup>143</sup> The Senate version of the bill included a provision addressing the presumption of market power and copyrights.<sup>144</sup> This provision, however, was never passed.<sup>145</sup> The doctrine of copyright misuse was thus never codified even though misuse in the copyright context was identified and considered by the legislature.

The fact that patent misuse is codified while copyright misuse is not codified is important when determining the boundaries of the copyright misuse doctrine. Congress had an opportunity to codify copyright misuse with language similar to that of patent misuse, but it did not. Although copyright misuse had not officially been recognized by the courts at this point in time, it had appeared in Supreme Court dicta. Copyright misuse is therefore better analogized to the pre-codification patent misuse doctrine rather than the post-codification patent misuse doctrine. Thus, a proper misuse evaluation would focus on whether a copyright's term or scope has been extended "rather than merely the nature of the economic transaction involved."

As for the codified patent misuse language, codification altered the evaluation of tying arrangements. The codification both articulated that tying arrangements involving patented products could not be per se misuse, and raised the threshold such that patent misuse could only be found in situations where the patent owner had market power that was used in a manner that

<sup>142.</sup> See, e.g., S. REP. NO. 100-492, at 5 ("The presumption of market power in antitrust cases involving patents or copyrights may inhibit the development and dissemination of technology." (emphasis added)); id. at 9 ("The Supreme Court formulated the presumption of market power in antitrust cases involving patented and copyrighted products." (emphasis added)).

<sup>143.</sup> See id.; see also id. at 8 (citing statement by Ronald T. Reiling) (referring to "[t]he current misuse doctrines" in the plural).

<sup>144.</sup> S. 438, 100th Cong. (1988).

<sup>145. 134</sup> Cong. Rec. H32,294 (daily ed. Oct. 20, 1988) (explaining that the bill only deals with patent misuse).

<sup>146.</sup> See Kenneth J. Burchfiel, Patent Misuse and Antitrust Reform: "Blessed be the Tie?," 4 HARV. J.L. & TECH. 1, 22 (1991).

<sup>147.</sup> See Morton Salt Co. v. G. S. Suppiger Co., 314 U.S. 488, 494 (1942); see also United States v. Paramount Pictures, 334 U.S. 131, 156–57 (1948); Frischmann & Moylan, supra note 6, at 884 (suggesting that Paramount Pictures' citation to Morton Salt indicated that the Supreme Court thought that copyright misuse had a role to play in maintaining the scope of intellectual property rights).

<sup>148. 134</sup> Cong. Rec. H32,295 n.3 (daily ed. Oct. 20, 1988).

had substantial anticompetitive impact on the tie-in product's market.<sup>149</sup> Strict adherence to this post-codification patent misuse threshold would be inappropriate in the copyright misuse context.

There are also fundamental differences between the two intellectual property regimes. <sup>150</sup> A strong patent exhaustion defense permits a consumer to exert control over both the tying and tied product after purchase, and bars attempts to control a patented good after the initial sale, including the disposal of it. <sup>151</sup> This is not the case with software. Most copies of software will be distributed with license agreements that only extend the consumer a license (and not ownership), rendering the first sale doctrine inapplicable. Thus, patent misuse is not essential to the public's strong access rights, whereas the copyright misuse doctrine would need re-alignment in order to protect public access rights in copyrighted works that have been otherwise diminished in the digital age.

Accordingly, it would seem that the threshold to find patent misuse would be higher. To even obtain a patent, an inventor must go through a rigorous patent prosecution process that subsequently entitles the patent holder to more rights than a copyright holder. It follows that the broader rights enable the patent owner to exert greater leeway over the commercialization of the product, whereas leveraging a copyright for expanded rights should be more suspect due to the uncertainty of the

<sup>149. 134</sup> Cong. Rec. S32,471 (daily ed. Oct. 21, 1988).

<sup>150.</sup> In the patent regime, a typical licensing situation may involve different stakeholders depending on the invention in question. For example, consider a DVD player company that licenses a patent that decodes H.264 video so it can incorporate the technology into its player. That DVD player is then sold to the consumer and the H.264 patent owner is prevented from controlling the downstream consumer through the use of its patent. Patents usually involve these types of intra-market licensing between manufacturers. This would seem to decrease the likelihood of misuse due to the presence of normal business negotiations dictating the terms of agreement. Patent licensing of this sort requires going to the source. Thus, the licensing of patents usually occurs between the owner and a corporation that will incorporate that patent into a product. This permits the even-handed negotiation of terms. Copyright licensing, on the other hand, does not due to the ubiquitous use of boilerplate contracts and the nature of copyrighted goods. In this case, the consumer will be bound to the terms without any sort of negotiation with the copyright owner. See RICHARD A. POSNER, ECONOMIC ANALYSIS OF LAW § 4.9 (7th ed. 2007) (noting that form contracts in consumer transactions tend to be one-sided and disfavor the consumer).

<sup>151.</sup> See Adams v. Burke, 84 U.S. 453, 456-57 (1873).

<sup>152.</sup> See Toshiko Takenaka, Extending the New Patent Misuse Limitation to Copyright: Lasercomb America, Inc. v. Reynolds, 5 SOFTWARE L.J. 739, 765 (1992).

<sup>153.</sup> Kathryn Judge, Note, Rethinking Copyright Misuse, 57 STAN. L. REV. 901, 909–10 (2004).

underlying copyright's validity.<sup>154</sup> So while there are a number of lessons that copyright misuse can learn from patent misuse, it would be unfitting to transpose patent misuse's higher thresholds onto copyright misuse. But where patent misuse does recognize certain practices as misuse—such as circumventing the exhaustion defense, then the copyright misuse doctrine should as well.

The doctrine of copyright misuse has evolved to the point that it is now well positioned to limit the extension of software copyrights through the use of contracts. As discussed in Part III, *infra*, copyright misuse may help courts balance the needs of copyright owners against the public's access to open platforms.

#### III. COPYRIGHT MISUSE AND THE OPEN PLATFORM

Copyright-backed contracts have the power to close platforms, which can promote paradigm-shifting innovation or interfere with market flexibility and diversity. Careful review by the judiciary is needed<sup>155</sup> to guarantee that copyright—which balances public access against private property rights—is not overly extended by contract into monopolies beyond those contemplated by copyright, <sup>156</sup> while still permitting companies to effectively commercialize their intellectual property.

This Part will discuss how copyright misuse has the power to open up platforms to outside innovation of all kinds without overburdening the ability of companies to vertically integrate their platforms. It begins by examining a recent case, *Apple v. PsyStar*, in which a third party attempted to open up a closed platform. This Part then evaluates why other legal doctrines have not succeeded in balancing copyright and contract. Finally, this Part argues that a re-alignment of the intellectual property regimes in the digital age may

<sup>154.</sup> Cf. Takenaka, *supra* note 152, at 765 (arguing that since the rights conferred by copyright are not as complete as those conferred by patent, it does not make sense that patent misuse would have more limitations). Furthermore, the rights under a copyright last substantially longer than the rights under a patent. Thus, if copyright misuse does occur, it could continue to occur for a much longer duration than any potential patent misuse.

<sup>155.</sup> Considering that Congress' only interaction with the misuse doctrines has been to drastically limit patent misuse, it is reasonable to assume that the courts, and not Congress, would need to be the branch of government that leverages copyright misuse to prohibit closing platforms through contract.

<sup>156.</sup> DOUGLAS E. PHILLIPS, THE SOFTWARE LICENSE UNVEILED: HOW LEGISLATION BY LICENSE CONTROLS SOFTWARE ACCESS 103 (2009) ("If software providers will not make changes on their own [to their End User License Agreements], consideration should be given to enacting legislation requiring that license terms be readable.").

provide a role for copyright misuse, so long as it does not adversely impact innovation in the platform market.

#### A. THE PSYSTAR CASE

Apple v. PsyStar<sup>157</sup> was a prominent test for the copyright misuse defense against closed platforms. Apple manufactures a line of personal computers, including such products as the Mac Pro, iMac, Mac mini, MacBook, MacBook Air, and MacBook Pro.<sup>158</sup> Apple combines both its hardware<sup>159</sup> and software into a final product before it is sold to the end consumer. Apple has generally kept its manufacturing process shrouded, but various teardowns of its released products reveal that its hardware consists of both Apple and third-party components. Generally, many of the important components are made by manufacturers other than Apple.<sup>160</sup>

For the purposes of this Note, Apple has two different operating systems: Mac OS X and iOS. Mac OS X is the operating system that is loaded onto Apple's general computing products, such as the MacBook and iMac. iOS is Apple's mobile operating system that is loaded onto small device products, such as the iPhone and iPad.

Before Apple products are sold, Apple installs its operating system onto the product. Unlike Apple products running iOS, where it is not currently feasible to purchase individual components of that platform, Apple's Mac OS X is different. When Apple releases the next iteration of Mac OS X, existing users have the option to purchase Mac OS X *upgrades* on physical media. However, the upgrade discs—which are widely available on the

<sup>157. 673</sup> F. Supp. 2d 931 (N.D. Cal. 2009).

<sup>158.</sup> See Apple Store, APPLE, INC., http://store.apple.com/us (last visited Dec. 28, 2010).

<sup>159.</sup> Most of the hardware components in a final Apple product are not, in fact, Apple's, but rather made by third parties. *See infra* note 160 and accompanying text.

<sup>160.</sup> Take for instance, a 2010 iteration of Apple's Macbook Pro, model #A1342. Its CPU is made by Intel. Its GPU is an integrated GeForce graphics chipset made by NVIDIA. See MacBook Unibody Model A1342 Mid 2010 Teardown, IFIXIT, http://www.ifixit.com/Teardown/MacBook-Unibody-Model-A1342-Mid-2010-Teardown/2931/1 (last visited Sept. 26, 2010). The hard drive is made by Hitachi. Id. The optical disc drive is made by Panasonic. Id. While teardowns usually do not reveal the manufacturer of the Random Access Memory (RAM), it was most likely from one of the major industry producers, including such companies as Hynix, Micron, Samsung, Elpida, IBM, and Nanya. While this specific teardown of this model may not be the same as others, it is representative of how third party components comprise the foundation for Apple's systems.

<sup>161.</sup> Mac OS X 10.6 Snow Leopard, APPLE STORE (U.S.), http://store.apple.com/us/product/MAC\_OS\_X\_SNGL (last visited Sept. 9, 2010) (charging \$29 for the "upgrade" disc). However, Apple may not be distributing its software through its physical stores much longer. See Arnold Kim, Apple to Eliminate Retail Box Software Inventory, MACRUMORS (Feb. 7,

open market—actually contain the full Mac OS X operating system and have the ability to perform a fresh installation on a computer with no prior versions of Mac OS X.<sup>162</sup>

Apple protects Mac OS X through the use of copyrights. Apple also binds the end user to its Mac OS X License Agreement ("OS X Agreement") before the end user may use the operating system. The OS X Agreement states that Mac OS X is "licensed, not sold" to the end consumer. Furthermore, the OS X Agreement restricts the installation of a copy of Mac OS X to a single "Apple-labeled" computer at a time. It also prohibits the inverse: Mac OS X cannot be installed on "any non-Apple-labeled computer." The *PsyStar* court eloquently summarized Apple's terms as "contractually preclud[ing users] from utilizing Mac OS X on any computer hardware system that [i]s not an Apple computer system."

The OS X Agreement permits the end-user to create a single backup copy provided that the copy is only used with Apple hardware and it is not copied, modified, or redistributed.<sup>168</sup> Beyond the backup copy, end-users may

<sup>2011),</sup> http://www.macrumors.com/2011/02/07/apple-to-eliminate-retail-box-software-inventory/.

<sup>162.</sup> See, e.g., Adam Pash, How to Build a Hackintosh with Snow Leopard, Start to Finish, LIFEHACKER (Sept. 3, 2009), http://lifehacker.com/5351485/how-to-build-a-hackintosh-with-snow-leopard-start-to-finish (explaining the steps needed to perform a fresh installation without the help of modified Apple files). This would allow someone to create an Apple computer for under \$1,000 that would be similar to most of Apple's models, except those costing more than \$3,000. Id.

<sup>163.</sup> The copyrights are TX4-669-971 (Mac OS); TX5-401-457 (Mac OS X); TX6-849-489 (Mac OS X Leopard); TX6-973-319 (Mac OS X Snow Leopard). See Complaint ¶ 24, Apple, Inc. v. PsyStar Corp., 673 F. Supp. 2d 931 (N.D. Cal. 2009) (No. 08-CV-3251), ECF No. 1 [hereinafter "Apple Complaint"].

<sup>164.</sup> See Apple Complaint, supra note 163, at Exh. 1, § 1, [hereinafter "Mac OS X License Agreement"]; see also Software License Agreement for Mac OS X – Single Use License, APPLE, INC., http://store.apple.com/Catalog/US/Images/MacOSX.htm (last visited Feb. 5, 2011).

<sup>165.</sup> See Mac OS X License Agreement, supra note 164, § 2.A, C. However, Apple operating systems are only permitted to run on the model of Apple computer that the software was provided with. See id. § 3. Thus, an end user would not be permitted to purchase an iPod and transfer the iOS to a MacBook.

<sup>166.</sup> See id. § 2.A.

<sup>167.</sup> Apple, Inc. v. PsyStar Corp., 673 F. Supp. 2d 931, 934 (N.D. Cal. 2009).

<sup>168.</sup> Compare Mac OS X License Agreement, supra note 164, § 2.C ("You may make one copy of the Apple Software (excluding the Boot ROM code and other Apple firmware that is embedded or otherwise contained in Apple-labeled hardware) in machine-readable form for backup purposes only; provided that the backup copy must include all copyright or other proprietary notices contained on the original.") with 17 U.S.C. § 117(a) (2006) ("[I]t is not an infringement for the owner of a copy of a computer program to make or authorize the

not "copy, decompile, reverse engineer, disassemble, modify or create derivative works" of Mac OS X.<sup>169</sup> The OS X Agreement also has a transfer provision that permits an end-user to make one permanent transfer of all of the license rights to another party so long as that third party agrees to be bound by the OS X Agreement.<sup>170</sup>

When Apple first launched, its initial market penetration brought the Macintosh into the spotlight, and attracted the attention of many parties that wanted to tap into its success. One method was to create a similar platform that ran all or part of the Macintosh platform. These configurations became known as "clones." Apple initially tried to protect its platform from the cloners through litigation. Over time, Apple opened up its platform in an effort to further increase its market share. From 1994 till 1998, Apple licensed its Mac OS 7 operating system to hardware manufacturers, who in turn paid Apple a royalty fee for each computer sold. However, once Apple moved to the next iteration of its operating system, Mac OS 8, it stopped licensing its operating system to cloners, drawing the era of legal cloning to a close. It is quite notable that Apple's low point in its dip into market irrelevance and its decision to close its platform occurred at roughly the same time. As evidenced in recent years, Apple's closed platform

making of another copy or adaptation of that computer program provided: . . . (2) that such new copy or adaptation is for archival purposes only . . . .").

169. See Mac OS X License Agreement, supra note 164, § 2.F.

170. Compare id. § 3 (permitting the transfer of Apple Software in limited circumstances), with 17 U.S.C. § 109 ("[T]he owner of a particular copy . . . lawfully made under this title, or any person authorized by such owner, is entitled, without the authority of the copyright owner, to sell or otherwise dispose of the possession of that copy . . . . ").

171. See generally The Macintosh Clones, LOW END MAC, http://lowendmac.com/clones/index.shtml (last visited Sept. 26, 2010) (listing a number of the pre-2000 clone manufacturers and models).

172. See, e.g., Apple Computer, Inc. v. Formula Int'l Inc., 725 F.2d 521 (9th Cir. 1984); Apple Computer, Inc. v. Franklin Computer Corp., 714 F.2d 1240 (3d Cir. 1983).

173. See Jim Davis, Apple, Cloners Still at Odds, CNET NEWS (July 22, 1997), http://news.cnet.com/Apple-cloners-still-at-odds/2100-1001\_3-201706.html ("Clone vendors are key to the success of the Mac, as evidenced by their ability to take an increasingly larger share of the market.").

174. See Dan Knight, Apple Squeezes Mac Clones Out of the Market, LOW END MAC (Aug. 30, 2007), http://lowendmac.com/musings/mm07/0830.html; Rik Myslewski, Reliving the Clone Wars, PCWORLD (May 23, 2008), http://www.pcworld.com/article/146273/reliving\_the\_clone\_wars.html.

175. See Davis, supra note 173; Myslewski, supra note 174.

176. Myslewski, *supra* note 174 (describing Apple's low-point where Steve Jobs, after assuming a key role as an advisor to Apple's board and becoming a member of the executive management team, purchased Power Computing and began to take steps to phase the cloners out with the release of Mac OS 8).

helped not only to turn the company around, but also to surpass Microsoft in overall market cap. <sup>177</sup>

During Apple's growth, it migrated its platform from the PowerPC architecture to the Intel x86 architecture<sup>178</sup> in an effort to increase performance and interoperability.<sup>179</sup> However, the move also re-opened the door for cloners to reverse engineer Mac OS X to run on non-Apple hardware because the Intel x86 architecture was widely available, unlike the PowerPC.

PsyStar hacked Apple's latest operating system, Mac OS X, to install it on alternate hardware configurations based on the Intel x86 architecture. PsyStar then sold computers with pre-installed copies of the hacked Mac OS X, which were bundled with legitimately-purchased Mac OS X upgrade discs, to consumers at lower prices than Apple's offerings. PsyStar called these products OpenMac and OpenPro, which are comparable to Apple's Mac and Mac Pro products. Mac Pro products.

To accomplish this task, PsyStar purchased a copy of Mac OS X and installed it on a legitimate Mac mini. Then PsyStar copied the Mac mini's data, including the installed version of Mac OS X, onto a non-Apple computer ("PC") that would later become PsyStar's "imaging station." Once the operating system information was on the PC, PsyStar (1) replaced the Mac OS X bootloader with a different bootloader to enable an unauthorized copy of Mac OS X to run on PsyStar's computers, (2) disabled

<sup>177.</sup> Sam Gustin, *Apple's Market Cap Takes Lead over Microsoft*, DAILYFINANCE (May 26, 2010), http://www.dailyfinance.com/story/apple-now-bigger-than-microsoft-in-sign-of-the-times/19492931.

<sup>178.</sup> Press Release, Apple, Inc., Apple to Use Intel Microprocessors Beginning in 2006 (June 6, 2005), available at http://www.apple.com/pr/library/2005/jun/06intel.html.

<sup>179.</sup> See Anand Lal Shimpi, Apple Makes the Switch: iMac G5 vs. iMac Core Duo, ANANDTECH, INC. (Jan. 30, 2006 11:26 PM), http://www.anandtech.com/show/1936.

<sup>180.</sup> See PSYSTAR CORP., http://web.archive.org/web/20080730163542/http://www.psystar.com/ (internet archive copy – July 30, 2008); see also text accompanying supra note 162.

<sup>181.</sup> See Apple, Inc. v. PsyStar Corp., 673 F. Supp. 2d 931, 934 (N.D. Cal. 2009).

<sup>182.</sup> See id.

<sup>183.</sup> See id. See generally Microsoft Corp. v. AT&T Corp., 550 U.S. 437, 445–46, 457 (2007) (discussing how equipment manufacturers use imaging systems and golden master versions of operating systems to mass produce computers).

<sup>184.</sup> A bootloader is a piece of software that runs when a computer first boots up. The bootloader's job is to locate various portions of the operating system and load them into the computer's memory so the operating system can function. See Apple, 673 F. Supp. 2d at 934.

and removed certain Apple kernel extension files,<sup>185</sup> and (3) added non-Apple kernel extensions and modified other Mac OS X kernel extension files.<sup>186</sup> This permitted the PsyStar's Mac OS X version to run on non-Apple hardware. At this point, the modified version became the "master copy" that permitted PsyStar to efficiently push the installation to a large volume of hardware configurations.<sup>187</sup>

### 1. The PsyStar Lawsuit

Apple sued PsyStar in the Northern District of California alleging (1) copyright infringement, (2) contributory infringement, (3) DMCA violations, (4) trademark infringement, (5) trademark dilution, (6) trade dress infringement, (7) breach of contract, (8) induced breach of contract, (9) state unfair competition under California law, and (10) common law unfair competition. In response to the copyright claims, PsyStar argued that it was protected under fair use (§ 107), first sale (§ 109), and the essential step doctrine (§ 117). PsyStar also asserted a copyright misuse counterclaim, which was analyzed as a defense. This Note focuses solely on that copyright misuse analysis.

<sup>185.</sup> Kernel extensions are a technical protection measure, which Apple uses with Mac OS X to validate that it is indeed running on Apple hardware. The Anatomy of a Kernel Extension, APPLE—MAC OS X REFERENCE LIBRARY, http://developer.apple.com/library/mac/#documentation/Darwin/Conceptual/KEXTConcept/KEXTConceptAnatomy/kex\_anatomy.html#//apple\_ref/doc/uid/20002364-CIHJBCID (last visited Dec. 28, 2010). When a kernel extension detects that the operating system is not running on Apple hardware, the system will enter a state called "kernel panic" which causes the system to crash. See Technical Note TN2063: Understanding and Debugging Kernel Panics, APPLE—MAC OS X REFERENCE LIBRARY, http://developer.apple.com/library/mac/#technotes/tn2002/tn2063.html (last visited Dec. 28, 2010); see also Mac OS X Kernel Panic FAQ (Jan. 29, 2010), http://www.index-site.com/kernelpanic.html.

<sup>186.</sup> See Apple, 673 F. Supp. 2d at 938.

<sup>187.</sup> See supra note 183.

<sup>188.</sup> See Apple, 673 F. Supp. 2d at 934-35, 939, 942.

<sup>189.</sup> See id. at 935-37.

<sup>190.</sup> See Apple, Inc. v. PsyStar Corp., No. 08-CV-3251, 2009 WL 303046, at \*2 (N.D. Cal. Feb. 6, 2009). The court noted that while other courts in the Ninth Circuit did not permit copyright misuse counterclaims, it respectfully disagreed. Id. at \*3 (distinguishing Altera Corp. v. Clear Logic, Inc., 424 F.3d 1079 (9th Cir. 2005)). However, the court's copyright misuse analysis in its summary judgment order referred to copyright misuse as a defense. See Apple, 673 F. Supp. 2d at 939. When pled as a defense, copyright misuse only bars enforcement of a copyright against the immediate defendant, whereas a copyright misuse counterclaim would bar enforcement of a copyright against other potential defendants. See Apple, 2009 WL 303046, at \*2.

After finding that PsyStar was guilty of copyright infringement, the court turned to the validity of PsyStar's copyright misuse defense. PsyStar's pertinent copyright misuse argument alleged that Apple used its copyright in Mac OS X to tie it to Apple hardware. The court referred to PsyStar's earlier antitrust allegations and the analysis leading to their subsequent dismissal, even though it acknowledged that a defendant in a copyright infringement suit need not prove an antitrust violation to prevail on a copyright misuse defense. The court's analysis then turned to whether Apple's copyright was used in a manner violative of the public policy embodied in the grant of a copyright.

The court narrowly construed the Fourth Circuit's definition to apply to the copyright law regime in its entirety rather than the specific copyright in question. The court subsequently found: "Apple has not prohibited purchasers of Mac OS X from *using* competitor's products. Rather, Apple has simply prohibited purchasers from using Mac OS X *on* competitor's products." The court essentially focused on whether OS X Agreement's terms could be considered unduly restrictive, and thus, copyright misuse. Since the boundaries of copyright misuse have not been set, the court did not categorize the OS X Agreement as overreaching, causing PsyStar's copyright misuse defense to fail. 198

### 2. Apple v. PsyStar Analysis

The district court focused too heavily on the anticompetitive effects, but even in that regard its analysis fell short. The court looked specifically for

<sup>191.</sup> See Apple, 673 F. Supp. 2d at 939.

<sup>192.</sup> PsyStar also argued that "Apple misused its copyrights by continuing to prosecute allegedly 'invalid' copyright infringement and DMCA claims against PsyStar." Since the court had already found that PsyStar had infringed Apple's copyrights, this argument was easily dismissed. *Id.* 

<sup>193.</sup> *Id.* ("Apple cannot extend its exclusive rights to control the computers on which Apple's customers run Mac OS X.").

<sup>194.</sup> Id.

<sup>195.</sup> Id. (citing Lasercomb Am., Inc. v. Reynolds, 911 F.2d 970, 978 (4th Cir. 1990)).

<sup>196.</sup> See id. ("Apple has not prohibited others from independently developing and using their own operating systems. Thus, Apple did not violate the public policy underlying copyright law or engage in copyright misuse."). However, the evaluation should focus on the specific copyright in question and the policy inherent in the grant of that specific copyright. See Lasercomb, 911 F.2d at 978 (finding the proper evaluation looks to "whether the copyright is being used in a manner violative of the public policy embodied in the grant of a copyright").

<sup>197.</sup> Apple, 673 F. Supp. 2d at 940.

<sup>198.</sup> See id.

prohibitive terms in the OS X Agreement, namely those that enforced some sort of lock-in to the technology or precluded the use of alternative products.

When it came time to determine the scope of the market, the court overlooked the value of interoperability. Windows and Mac OS X are already barely substitutes for one another. They become even less so as users accumulate software for only one of the operating systems. If customers want to achieve optimal interoperability (while complying with the respective EULAs), they only have a single vendor choice for a dual-booting computer that runs either operating system. Customers can only procure such a dual-boot machine by purchasing an Apple computer and then subsequently installing Windows on it. 199

The inverse of this scenario is not true—users, due to the OS X Agreement, cannot purchase a Windows machine and subsequently install Mac OS X without being in violation of Apple's terms. Thus, Apple is the sole manufacturer of a platform that permits dual-installation of both operating systems. Apple's position in the market, then, allows it to indirectly prevent the distribution of dual-boot platforms unless they are purchased from Apple. The ability to execute this strategy stems directly from Apple's use of its software copyright.

Turning to the proper focus of copyright misuse, the *PsyStar* court used the *Lasercomb* standard that has become ubiquitous in copyright misuse cases: it is copyright misuse to use a copyright "to secure an exclusive right or limited monopoly not granted by the [Copyright] Office and which is contrary to public policy to grant." Considering that the standard turns on whether conduct is violative of copyright's public policy, the scope of "public policy" seems to be important. The *PsyStar* court cites to *Altera* for the standard's language, but stops there. Digging deeper, *Altera* cites the

<sup>199.</sup> Not only does Apple permit simultaneous installation of both Mac OS X and Windows on its machines, Apple also distributes a tool to facilitate it. *See* Press Release, Apple Inc., Apple Introduces Boot Camp: Public Beta Software Enables Intel-based Macs to Run Windows XP (Apr. 5, 2006), *available at* http://www.apple.com/pr/library/2006/apr/05bootcamp.html.

<sup>200.</sup> See Apple VP Says Mac OS X Won't Run on Other PCs, APPLE INSIDER (June 8, 2005), http://www.appleinsider.com/articles/05/06/08/apple\_vp\_says\_mac\_os\_x\_wont\_run\_on\_other\_pcs.html ("We will not allow running Mac OS X on anything other than an Apple Mac.") (quoting Phil Schiller, Apple Vice President, World Wide Developers Conference, June 2005).

<sup>201.</sup> See also infra note 208.

<sup>202.</sup> Apple, 673 F. Supp. 2d at 939 (citing Altera Corp. v Clear Logic, Inc. 424 F.3d 1079, 1090 (9th Cir. 2005)).

<sup>203.</sup> *Id.* 

language from *Alcatel*, which in turn cites the language from *Lasercomb*, the first copyright misuse case, which in turn cites the language from *Morton Salt*. The following sentence in *Morton Salt*—appearing in *Lasercomb* but not *Alcatel* and its progeny—helps to frame the public policy scope inquiry: "the public policy which includes inventions within the granted monopoly *excludes* from it *all that is not embraced in the invention*."<sup>205</sup>

Although *Morton Salt* concerned patents, the underlying reasoning reflected that an extension of the patent right over subject matter excluded from the patent regime (and instant invention) would constitute misuse. Thus, it would follow, that where enforcement of a copyright is extended to subject matter squarely within the scope of § 102(b), the conduct should constitute misuse. In Apple's case, it uses a contract whose enforcement is based upon the copyright in the software, requiring its consumers to run Apple's software on Apple's hardware. This operational control involves subject matter that is firmly outside the scope of copyright because it concerns a "method of operation," namely the use of a copyrighted work on a "system." Accordingly, this could be construed as misuse under the *Morton Salt's* reasoning.

The court, on the other hand, summed up its analysis by finding that "Apple's agreement simply attempts to *control the use* of Apple's own software—an area that is the *focus* of the copyright." However, § 106 does not contemplate an exclusive right to *control the use* of a copyright owner's software. Since copyright does not grant a right to control software's usage, the only way to procure that type of control would be through a contract that expands an owner's § 106 rights.

<sup>204.</sup> See Altera, 424 F.3d at 1090; DGI II, 166 F.3d at 792 (Alcatel); Lasercomb Am., Inc. v. Reynolds, 911 F.2d 970, 976 (4th Cir. 1990); Morton Salt Co. v. G. S. Suppiger Co., 314 U.S. 488, 492 (1942)). For more information concerning these cases, see also supra Section II.B.

<sup>205.</sup> See Morton Salt, 314 U.S. at 492 (emphasis added).

<sup>206. 17</sup> U.S.C. § 102(b) (2006).

<sup>207.</sup> Apple, 673 F. Supp. 2d at 940 (first emphasis added).

<sup>208.</sup> See Sony Computer Entm't v. Connectix Corp., 203 F.3d 596, 607 (9th Cir. 2000) ("Sony understandably seeks control over the market for devices that play games Sony produces or licenses. The copyright law, however, does not confer such a monopoly."); see also supra notes 77–80 and accompanying text. Likewise, Apple seeks to control the market for computers and devices that run Apple's operating system.

<sup>209.</sup> See Chamberlain Grp., Inc. v. Skylink Techs., Inc., 381 F.3d 1178, 1201 (Fed Cir. 2004) (noting that where a company leverages its copyright and the DMCA into after-market monopolies, it violates both antitrust laws and the doctrine of copyright misuse). A structured alternative to copyright-backed contracts to obtain the desired rights would be

The court also seemed to overlook an important fact that might have supported a finding of misuse: Apple was volitionally distributing full versions of its operating system into the marketplace.210 To compound the issue, Apple only sells a limited number of configurations while PsyStar quickly incorporated new technologies into its platform. For instance, PsyStar released a platform containing a Blu-ray drive and the NVIDIA 9800GT GPU before Apple offered either of the technologies in its platform.<sup>211</sup> More than two years later, Apple still has not incorporated the Blu-ray format and has no plans to do so in the future.<sup>212</sup> However, Apple's stance on the issue is that Blu-ray is nothing more than a temporary medium. Instead, Apple believes the future lies with downloadable formats, support for which is thoroughly implemented in its platform. <sup>213</sup> Thus, Apple's control over its platform deprives its current users of one of today's standard formats.<sup>214</sup> Ironically, had Apple electronically distributed its Mac OS X upgrade to existing Apple owners instead of selling physical upgrade discs, the upgrade could have been limited to customers with verified Applehardware configurations, circumventing PsyStar's business model.<sup>215</sup>

copyright reform through Congress. See Jessica Litman, Real Copyright Reform, 96 IOWA L. REV. 1, 26 (2010).

- 210. Thus, Apple made the choice to distribute its operating system apart from its tied product. Granted, its operating system was protected by technical protection measures (and thus, the DMCA) as well as a contract limiting the operating system's use—both of which PsyStar breached—but that analysis is outside the scope of a copyright misuse analysis. See also supra note 188 and accompanying text.
- 211. See Jonny Evans, PsyStar Beats Apple to Blu-ray on OS X Computer, IT WORLD (Oct. 29, 2008), http://www.itworld.com/hardware/56947/psystar-beats-apple-blu-ray-os-x-computer. At that time, Blu-ray had recently won its format war with HD-DVD, and the 9800GT GPU was one of the highest-end graphics cards on the market.
- 212. See Arnold Kim, Stere Jobs Suggests Blu-ray Not Coming to Mac Anytime Soon, MACRUMORS (June 30, 2010), http://www.macrumors.com/2010/06/30/steve-jobs-suggests-blu-ray-not-coming-to-mac-anytime-soon/.
  - 213. See id.
- 214. At the same time, Apple also stimulates innovation in the diskless computing environment as well as the streaming media industry.
- 215. There are also legal implications to the two sales models. Digital distribution is directly contemplated by copyright law that extends the exclusive right to distribution to a copyright owner. On the other hand, sales of physical copies that are locked through code and contract (rather than distributed to eligible consumers) extends Apple's control of its software past the point of purchase, into consumers' homes and the private use of the software, which is not a right embodied in current copyright law. However, the recent MDY decision indicates that the DMCA may grant copyright owners this type of control through the right to enforce circumvention prohibitions. See MDY Indus. v. Blizzard Entm't, Inc., 629 F.3d 928, 944, 952 (9th Cir. 2010). But a number of commentators have speculated that this decision will not stand the test of time. See, e.g., Comments by Eric Goldman, Ninth

After evaluating the policies of both copyright law and copyright misuse, the PsyStar court arrived at the wrong conclusion in this case. The misuse defense should not be viewed inside a vacuum, but rather in light of the circumstances. In this case, Apple distributed its copyrighted work to PsyStar on the open marketplace, at which point in time, PsyStar compensated Apple for the copyrighted work. If PsyStar resold the copies of Mac OS X that it bought, this conduct would have been acceptable. 216 The challenged conduct is rooted in PsyStar's installation of the copyrighted work on hardware (that is uncopyrightable—by definition) and distribution of the line of OpenMacs. The difference between the scenarios is the introduction of uncopyrightable hardware in the end product. It is questionable whether the underlying principles of copyright are furthered where the re-distribution of a copyrighted work by itself is not copyright infringement, but the redistribution of that same copyrighted work bundled with a product—that is not even within the scope of copyright law—is copyright infringement. Put another way, the sales transaction without hardware was legal, but the sales transaction with hardware was copyright infringement. On its face, this would seem to extend a copyright beyond the creative work to subject matter expressly outside of copyright law. This extension is what copyright misuse seeks to prevent.

### B. DISRUPTIONS TO THE INTELLECTUAL PROPERTY BALANCE

Apple v. PsyStar illustrates how the other intellectual property regimes have come up short in the digital age to protect consumer access rights. This Section will discuss their shortcomings and why copyright misuse may play an important role in restoring balance. It argues that existing legal protections may not be equipped to handle current software practices in tandem with contractual agreements. Specifically, with recent software contract jurisprudence, many doctrines like the essential step defense (§ 117) and first sale (§ 109) are no longer applicable, necessitating a re-aligned role for copyright misuse to facilitate open platforms and the access rights contemplated by copyright law.

Circuit's Mixed Opinion in Gilder/WoW Bot Case—MDY Industries v. Blizzard, TECH. & MKTG. L. BLOG (Dec. 21, 2010), http://blog.ericgoldman.org/archives/2010/12/messy\_follow\_up.htm ("I'd be more upset about this opinion if I actually believed it.... I have no reason to think this opinion will stick any more than the dozens of other implicitly reversed Internet law opinions from the Ninth Circuit over the past 15 years.").

<sup>216.</sup> See supra note 170 and accompanying text.

## 1. Contracts

For most, if not all, software developers and distributors, copyright and patent protection is not enough, leading to the prevalence of contracts in the industry. These contracts are commonly known as End User License Agreements ("EULAs").<sup>217</sup> When a user loads software, EULAs are usually presented to the user, sometimes for the second time.<sup>218</sup> At this point, the user can either choose to agree to the EULA, or he is forced to discontinue use of the software.<sup>219</sup>

Although some courts have speculated that the use of such contracts is necessary to efficiently commercialize software, <sup>220</sup> EULAs can effectively operate as an extension of the software owner's copyright rights. When a copyright owner conditions the use of the copyrighted good on a EULA, the terms function like a sui generis version of copyright law. Most EULAs will contain a provision that declares that any breach of the terms, regardless of the materiality, will terminate the agreement. <sup>221</sup> If a user breaches any of the terms, the EULA is effectively revoked, <sup>222</sup> and the continued use of the software becomes unauthorized, entitling the software owner to statutory

<sup>217.</sup> When consumers purchase software in a brick-and-mortar store, these terms are usually included in the inside of the packaging. Sometimes the outside packaging includes the terms, or simply refers to the terms on the inside.

<sup>218.</sup> For users that engage in digital distribution mediums, this might be the first time they are presented with the terms if they were not included as a clickthrough agreement before the user initially downloaded the software. Indeed, many updates to software that occur after purchase will be unilaterally sent (or "pushed") to current users of the software, installing only after the user re-confirms assent to the terms, or assents to any new or modified terms.

<sup>219.</sup> Additionally, many terms of agreement also contain a provision that operates to automatically terminate any granted license in the event that a user breaches any of the terms of the agreement. PHILLIPS, *supra* note 156, at 36.

<sup>220.</sup> See, e.g., ProCD, Inc. v. Zeidenberg, 86 F.3d 1447, 1454-55 (7th Cir. 1996).

<sup>221.</sup> See, e.g., John R. Ackermann, Toward Open Source Hardware, 34 U. DAYTON L. REV. 183, app. § 1.5 (2009); Mac OS X License Agreement, supra note 164, § 5 ("Your rights under this License will terminate automatically without notice from Apple if you fail to comply with any term(s) of this License." (emphasis added)).

<sup>222.</sup> See Lothar Determann, Dangerous Liaisons—Software Combinations as Derivative Works? Distribution, Installation, and Execution of Linked Programs Under Copyright Law, Commercial Licenses, and the GPL, 21 BERKELEY TECH. L.J. 1421, 1478–79 & n.218 (2006). However, a recent Ninth Circuit decision takes a step back from the proposition that any breach would terminate a license, causing copyright infringement. See MDY Indus. v. Blizzard Entm't, Inc., 629 F.3d 928, 941 (9th Cir. 2010) ("Were we to hold otherwise, Blizzard—or any software copyright holder—could designate any disfavored conduct during software use as copyright infringement, by purporting to condition the license on the player's abstention from the disfavored conduct.").

damages for the infringement. Thus, a breach of a trivial EULA term could elevate the conduct to copyright infringement.<sup>223</sup>

EULAs not only permit a platform owner the ability to modify their statutory rights over the platform, they also drastically reduce a copy owner's or a licensee's access rights under copyright law. The access protections afforded under copyright turn on whether the consumer is the owner of a software copy, or merely a licensee of the copy. An owner of a copy may have the full statutory arsenal of copyright law to protect how he uses a platform. A licensee of a copy, on the other hand, will only have those rights that the owner carved out of the owner's copyright and authorized the licensee to use. Anything beyond the limited license may also violate it, causing the consumer to infringe the copyright, even if that use is outside of copyright's express boundaries. Thus, whether a consumer is an owner or a licensee of the software may determine whether the purchaser has rights under § 109 and § 117. 225

Courts are still trying to determine the proper method to evaluate whether the terms of agreement make a purchaser an owner or a licensee. Recently, a Ninth Circuit panel in *Vernor v. Autodesk, Inc.* found that a purchaser of software is a licensee "where the copyright owner (1) specifies that the user is granted a license; (2) significantly restricts the user's ability to

<sup>223.</sup> MDY, 629 F.3d at 939 ("[I]f the licensee acts outside the scope of the license, the licensor may sue for copyright infringement."). But see Sun Microsys., Inc. v. Microsoft Corp., 188 F.3d 1115, 1121 (9th Cir. 1999) ("[A] 'copyright owner who grants a nonexclusive license to use his copyrighted material waives his right to sue the licensee for copyright infringement' and can sue only for breach of contract." (citing Graham v. James, 144 F.3d 229, 236 (2d Cir. 1998)). The Ninth Circuit reconciled the differences by explaining that a breach of a condition (that limits the license's scope) constitutes copyright infringement where a breach of a covenant (that consists of the rest of the license terms) would be actionable under state contract law. See MDY, 629 F.3d at 939.

<sup>224.</sup> This determination occurs at two different levels. First, ownership may concern the actual medium in which the software currently resides, e.g. the DVD or USB flash drive. A purchaser of software will usually become the owner of this medium, assuming the terms of agreement don't dictate otherwise. Second, ownership may concern the software that resides on the medium, and the authorization for that software that was purchased. For efficiency purposes, a company may distribute multiple "versions" of software that are all the same version, but pieces of the software may be subsequently locked through technical protection measures that only permit access to the pieces the user has purchased.

<sup>225.</sup> PHILLIPS, *supra* note 156, at 25 ("By providing that a software copy is licensed, not sold, [a] EULA invokes Section 109(d) and defeats the first sale doctrine of Section 109(a), which otherwise would permit [a] buyer of a copy to resell it."); CONTU, *supra* note 76, at 12 (suggesting that § 117's "owner of a copy" language be replaced with "rightful possessor of a copy").

transfer the software; and (3) imposes notable use restrictions."<sup>226</sup> A purchaser can be classified as a licensee even though the purchaser "never agree[s] to the [software owner's] terms, open[s] a sealed software packet, or install[s] the . . . software."<sup>227</sup>

Where a purchaser is merely a licensee under the new *Vernor* test, § 109 does not apply because the explicit language of § 109 only applies to "the owner of a particular copy." Thus, where copyrighted material is disseminated to consumers only on a license basis, § 109 of copyright law becomes inoperable. <sup>229</sup>

The same result occurs with § 117. The "essential step" in § 117 permits users to load a legitimately purchased copy of software into their computer's memory in order to use it. 230 However, where the users are merely licensees of the software, some courts have decided that § 117 does not apply and the loading of the software into a computer's memory is infringement *unless* the license explicitly grants the user the right to do so. 231

Even beyond the owner/licensee issue, EULAs still constrain otherwise lawful uses under copyright law. If a purchaser is the rightful owner to a copy of software, it follows that § 109 permits the owner to re-sell that copy.<sup>232</sup> Some courts find that the EULA adds "an additional element" negating a pre-emption issue that would preclude EULAs from prohibiting this

<sup>226.</sup> Vernor v. Autodesk, Inc., 621 F.3d 1102, 1111 (9th Cir. 2010). But see Brian Carver, Why License Agreements Do Not Control Copy Ownership: First Sales and Essential Copies, 25 BERKELEY TECH. L. J. 1887, 1930–39 (2010) (suggesting that the proper evaluation of whether a purchaser of software is a licensee should focus on whether the purchaser is entitled to perpetual possession of the software).

<sup>227.</sup> Vernor, 621 F.3d at 1005. The purchaser in Vernor was a licensee (without agreeing to the terms) because the initial possessor of the software agreed to the terms—i.e. the prior possessor could not convey ownership. Id. at 1116.

<sup>228. 17</sup> U.S.C. § 109(a) (2006).

<sup>229.</sup> See Adobe Sys., Inc. v. Kornrumpf, No. C 10-02769 CW, 2011 WL 181375, at \*4–5 (N.D. Cal. Jan. 19, 2011).

<sup>230. 17</sup> U.S.C. § 117 (2006) ("[I]t is not an infringement for the *owner of a copy* of a computer program to make or authorize the making of another copy . . . of that computer program provided: (1) that such a new copy or adaptation is created as an essential step in the utilization of the computer program . . . ." (emphasis added)). See *generally* Aaron Perzanowski, *Fixing RAM Copies*, 104 Nw. L. REV. 1067 (2010) (discussing the copyright infringement analysis as it pertains to copyrighted material that is loaded into the random access memory of computers).

<sup>231.</sup> MDY Indus. v. Blizzard Entm't, Inc., 629 F.3d 928, 938 (9th Cir. 2010).

<sup>232.</sup> To simplify the argument, assume the software was opened and retained, thereby agreeing to the enclosed terms, but never installed on a computer, negating the possibility that additional copies of the software reside on a computer.

behavior.<sup>233</sup> However, this ignores the realities of EULAs, which apply to every consumer, effectively preventing the operation of § 109 and offsetting the balance between an owner's rights and the public's access rights.<sup>234</sup>

Regardless, given the Ninth Circuit's low threshold to grant licenses instead of ownership in distributed software, it is foreseeable that most software companies will only license its software instead of selling copies.<sup>235</sup> Combined with the power of EULAs, CPOs have the ability to continue to disrupt the copyright balance in favor of extended property rights for themselves.

In order to curb these practices and ensure platforms are not closed off through the use of copyright-backed contracts, courts should carefully examine contracts that offset the access rights in copyright to determine whether there has been a misuse of copyright, or merely an extension of protections to an otherwise efficient, vertically-integrated product. This will ensure that future use of EULAs comport with the policies of copyright. Furthermore, the threat of misuse will help to ensure that EULAs are written to specifically apply to the application or operating system tier (i.e. tiers that would otherwise be protected by copyright) within a platform. Where a EULA is used in a manner that extends copyright-like protections and remedies to hardware, copyright misuse would prevent the extension of copyright law to protect the hardware. Thus, a CPO would then need to rely on contractual remedies to resolve breaches stemming from that CPO's extended property rights, and not those contemplated by copyright law.

#### 2. Antitrust

Antitrust, as it is currently situated, has the capacity to regulate the standard market behavior and abuses of parties in the technology industry. Expanding antitrust to cover the particularities at the intersection of intellectual property and technology neglects some of the fundamental policies behind copyright law since antitrust currently does not attempt to balance the rights of both property owners and the public.<sup>236</sup> Therefore, a re-

<sup>233.</sup> See Mark Lemley, Beyond Preemption: The Law and Policy of Intellectual Property Licensing, 87 CALIF. L. REV. 111, 147 (1999).

<sup>234.</sup> See id. at 148-49.

<sup>235.</sup> See PHILLIPS, supra note 156, at 7 ("Most if not all proprietary end user software licenses contain terms that define the transaction as a license rather than a sale.").

<sup>236.</sup> See Lemley & McGowan, supra note 70, at 773 ("[W]here antitrust could create an open standard only by altering the fundamental rules of intellectual property law, there may be good reasons outside of competition policy to leave intellectual property rights in place.").

aligned copyright misuse doctrine is better situated to address the initiatives of CPOs and preserve the balance between public and private rights.

Antitrust law seeks to limit anticompetitive and monopolistic behavior that restrains trade.<sup>237</sup> This policy decision favors free and open trade.<sup>238</sup> While antitrust and the misuse doctrines may overlap, they are not dependent upon each other. Instead, they share more of a symbiotic relationship. Where an antitrust violation occurs involving a product covered by a patent or copyright, that conduct will also constitute misuse. The inverse, however, is not true: even if an antitrust violation is not found, misuse can still occur.<sup>239</sup>

Although both the regimes of antitrust and intellectual property seek to enhance public welfare, the regimes utilize different strategies. Antitrust looks to the markets and uses negative reinforcement to ensure fair competition between the entities that disseminate products. On the other hand, copyright uses positive reinforcement—through the grant of a monopoly—to incentivize the creation of creative works. Yet antitrust relies on copyright to define appropriate market segmentations and market power, and some misuse analyses, in turn, look to antitrust. The circular references prevent either regime from defining the boundaries of what constitutes legal and illegal behavior based on the underlying policies of the regime. <sup>241</sup>

In cases of tying, antitrust and misuse focus on different things. Where misuse identifies a product protected by copyright and determines how its owner uses copyright to include the tied product, antitrust evaluates market realities of both products and their combined effect.<sup>242</sup> Antitrust law is best-suited to the task of determining the fairness, in an economically optimal environment, of commercializing copyrighted works and evaluating the

<sup>237. 1</sup> JULIAN O. VON KALINOWSKI ET AL., ANTITRUST LAWS AND TRADE REGULATION § 1.02 (Matthew Bender & Co. ed., 2d ed. 2010).

<sup>238.</sup> Id.

<sup>239.</sup> See, e.g., Hensley Equip. Co. v. Esco Corp., 383 F.2d 252, 261–62 n.19 (5th Cir. 1967) ("[A] case of misuse not sufficient to constitute a violation of the antitrust laws requires careful synthesis of the policies represented by the patent and the antitrust laws.").

<sup>240.</sup> Charnelle, *supra* note 88, at 195; Economides, *supra* note 20, at 214 ("In general, antitrust law is not useful or effective (i) in promoting a faster pace of innovation; (ii) in securing higher quality of services; (iii) in securing more variety of service; and (iv) in designing product features and product compatibility.").

<sup>241.</sup> Hanna, supra note 88, at 418.

<sup>242.</sup> See Senza-Gel Corp. v. Seiffhart, 803 F.2d 661, 670–71 n.14 (Fed. Cir. 1986) ("The law of patent misuse in licensing . . . need look only to the nature of the claimed invention as the basis for determining whether a product is a necessary concomitant of the invention or an entirely separate product. The law of antitrust violation, tailored for situations that may or may not involve a patent, looks to a consumer demand test for determining product separability.").

various market externalities at issue. This is probably the reason why so many courts have confused the principles and applications of the two bodies of law.<sup>243</sup>

Part of the confusion stems from copyright's use of monopolies, since antitrust jurisprudence exists to evaluate a monopoly owner's behavior within a market.<sup>244</sup> Although the origins of the copyright misuse defense dates back to an antitrust case,<sup>245</sup> continued reliance on antitrust law is unnecessary for the copyright misuse doctrine at this point.<sup>246</sup> Instead, courts should limit their antitrust analyses to issues involving antitrust allegations and should focus on the distinct policies of copyright law in cases involving misuse allegations.

Where an owner leverages his copyright monopoly to gain additional exclusive rights, anticompetitive effects should not be required. Antitrust already measures and regulates anticompetitive behavior. A misuse doctrine that evaluates and penalizes the same behavior would be redundant.<sup>247</sup> Rather, misuse should look to the copyright grants and their boundaries.

However, antitrust's ability to identify pertinent markets for a given copyrighted product may assist in evaluating instances in which a copyright owner uses his grant of rights in one market to gain an advantage in another.<sup>248</sup> As illustrated by the Microsoft and Internet Explorer litigation,

<sup>243.</sup> See, e.g., LUCIE M.C.R. GUIBAULT, COPYRIGHT LIMITATIONS AND CONTRACTS: AN ANALYSIS OF THE CONTRACTUAL OVERRIDABILITY OF LIMITATIONS ON COPYRIGHT 190 (2002) ("The doctrine of misuse has its origin not in property, tort, or contract law, but rather in antitrust law and in the equitable doctrine of 'unclean hands.'").

<sup>244.</sup> Karjala, *supra* note 11, at 186; *see also* EDWARD F. O'CONNOR, INTELLECTUAL PROPERTY LAW AND LITIGATION: PRACTICAL AND IRREVERENT INSIGHTS 36 (2009) ("[T]he mere fact that one has a patent or copyright in a particular product does not mean that that person or entity has monopoly power vis-à-vis competitive products.").

<sup>245.</sup> Morton Salt Co. v. G.S. Suppiger, 314 U.S. 488, 492 (1942).

<sup>246.</sup> See, e.g., THE INTELLECTUAL PROPERTY ANTITRUST PROTECTION ACT OF 1988, S. REP. NO. 100-492, at 12 (1988) ("[Eliminating the presumption of a patented good's market power] will require only that courts evaluate practices involving intellectual property rights under the same antitrust principles that are applied to practices involving other forms of property.").

<sup>247.</sup> See also Karjala, supra note 11, at 187–91 (describing how antitrust could serve to help fashion remedies where copyright misuse is found); Hanna, supra note 88, at 418 ("Antitrust doctrine does not provide the tools necessary to judge whether a particular mode of exploitation exceeds the permissible bound of the statutory copyright monopoly conferred.").

<sup>248.</sup> See, e.g., PAGE & LOPATKA, supra note 12, at 85 ("[A] market for Intel-compatible PC operating systems existed apart from other platforms . . . ."). But see id., at 100 (doubting the court's distinction because whether an operating system is Intel-compatible is irrelevant

antitrust can help determine that a web browser operates independently from an operating system.<sup>249</sup> By delineating the markets and products, courts will be able to determine both the products which are eligible for copyright-protection and the products that seemingly have had copyright-like protections extended to them. With this knowledge, a court will be better equipped to perform a copyright misuse analysis.

# C. RE-ALIGNING COPYRIGHT MISUSE WOULD FACILITATE OPEN PLATFORMS

With the failure of other legal doctrines to prevent the outgrowth of private contract rights in lieu of copyright rights, a re-aligned copyright misuse doctrine may be the necessary trigger to facilitate open platforms. If used to limit the encroachment on public-access provisions, such as § 107, § 109, and § 117, copyright's proper balance can be maintained. This would prevent software companies from bootstraping their copyright rights to contracts in order to gain copyright-like protection over products outside of copyright's scope, such as hardware. Thus, a user who legitimately purchases a platform—or even a component within a platform's tier—would be able to use it as he deems fit.<sup>250</sup>

Preventing the over-extension of copyright through a re-aligned copyright misuse doctrine will harmonize the role of the intellectual property doctrines in the digital world. Instead of a system that permits private entities to determine the boundaries of intellectual property law through privatized agreements, it would be more appropriate to coordinate the goals of a technology with the respective intellectual property regimes.<sup>251</sup> The role of intellectual property in platform control (and the relationship between copyright and patents) is still unclear due to rapid technological developments governed by aging legal doctrines. In these cases, the principles underlying patent exhaustion and the pre-codification patent

to support the distinction that the Mac OS should be excluded due to the learning curve issue).

<sup>249.</sup> See, e.g., United States v. Microsoft Corp., 253 F.3d 34, 84–89 (D.C. Cir. 2001).

<sup>250.</sup> Cf. Chamberlain Grp., Inc. v. Skylink Techs., Inc., 381 F.3d 1178, 1202 (Fed Cir. 2004) ("Consumers who purchase a product containing a copy of embedded software have the inherent legal right to use that copy of the software.").

<sup>251.</sup> See 134 Cong. Rec. H32,294 & n.3 (daily ed. Oct. 20, 1988) (discussing the importance of balance in any intellectual property legislation); see also Dan Burk, Anticircumvention Misuse, 50 UCLA L. REV. 1095, 1126–27 (2003); Frischmann & Moylan, supra note 6, at 875–76 (describing the need to coordinate the functions of antitrust, copyright, and patent in the software context).

misuse doctrine<sup>252</sup> should come to the forefront when evaluating copyright misuse due to the breadth of available jurisprudence. Courts should look to similarities between the doctrines regarding the expansion of rights, but also the fundamental differences between the two different intellectual property regimes.<sup>253</sup>

Compartmentalizing platform components (and their respective attributes) into the proper intellectual property regimes will allow them to operate as intended. Trademark, trade dress, DMCA, patent, and industry-specific copyright laws all provide specialized protections to CPOs, and are designed to elicit certain behavior.<sup>254</sup> For instance, Apple strives to achieve an optimal user experience.<sup>255</sup> Exhibiting brand loyalty, users return to Apple because of its highly integrated products with the "best support available."<sup>256</sup> This goal would seem to directly correlate with those of trademark and trade dress, *not* copyright law. If trademark and trade dress function as intended in this space, customers will return to Apple if they value the premium markup that Apple places on its service and platform. Using a copyright-backed contract to achieve these same goals would seem to circumvent the purposes of trademark in this instance.

A re-aligned copyright misuse doctrine would facilitate a re-evaluation of how entities currently utilize the existing intellectual property regimes. Entities using either copyright or patent exclusively in conjunction with a contract to expand their rights would need to re-align their goals and map them to the available legal protections. If the owner opts to use a contract to protect its products, then the remedy for such contractual breaches should lie within the contract, not copyright law that the copyright owner elected to

<sup>252.</sup> See supra Section II.A.

<sup>253.</sup> For instance, copyright protection emanates from the tangible thing in copyright whereas patent protection emanates from a concept that the tangible thing needs to fit into. Audio tape: Robert Merges & Randall Rader, Remarks During Patent Law Class at University of California – Berkeley School of Law, at 38:35 (Oct. 18, 2010) (on file with author). See also supra Section II.C.

<sup>254.</sup> See, e.g., Arielle Singh, Note, Agency Regulation in Copyright Law: Rulemaking Under the DMCA and Its Broader Implications, 26 BERKELEY TECH. L.J. 527, 531–33 (2011) (describing the shift from a property-based regime to a tailored regulatory-based model in order to adequately protect, among other things, technological innovation).

<sup>255.</sup> See Answering Brief of Plaintiff-Appellee Apple, Inc. at 9–10, Apple, Inc. v. PsyStar Corp., No. 10-15113 (9th Cir. July 8, 2010), ECF No. 16.

<sup>256.</sup> Apple, Inc.'s Reply Brief in Support of its Motion for Summary Judgment at 11, Apple, Inc. v. PsyStar Corp., No. 08-CV-3251 (N.D. Cal. Oct. 29, 2009), ECF No. 200; see also Menell, supra note 69, at 1361 (discussing the benefits of brand recognition).

contract around.<sup>257</sup> This would re-align copyright to function as intended and to protect the creative work, not whatever products the copyright owner can tie to it. Thus, infringement would only be found when one of the § 106 exclusive rights is implicated.

# IV. CONCLUSION

Closed and open platforms each offer a myriad of pros and cons to users and rightsholders. When weighing a case involving a platform, courts should keep in mind that their judgment must carefully balance copyright policy: public access rights necessarily conflict with private property rights.

For this reason, the misuse doctrine may require invigoration in order to provide some balance to copyright in the face of increasingly prevalent closed platform systems. Some uses of a copyright may extend too far beyond copyright principles; in those cases, misuse should apply. The *PsyStar* court had the opportunity to finely balance these copyright and contract issues, but it failed to consider all of the rights involved.

<sup>257.</sup> However, courts are not eager to find copyright misuse whenever a company uses a contract to expand its copyright rights. *See, e.g.*, Triad Sys. Corp. v. Se. Express Co. 64 F.3d 1330, 1337 (9th Cir. 1995).