


1-1-2017

## You Buy It, You Break It: A Comment on *Dispersing the Cloud*

Aaron Perzanowski

Case Western University School of Law

Follow this and additional works at: <https://scholarlycommons.law.wlu.edu/wlulr>

 Part of the [Property Law and Real Estate Commons](#), and the [Science and Technology Law Commons](#)

---

### Recommended Citation

Aaron Perzanowski, *You Buy It, You Break It: A Comment on Dispersing the Cloud*, 74 Wash. & Lee L. Rev. 527 (2017), <https://scholarlycommons.law.wlu.edu/wlulr/vol74/iss1/9>

This Student Notes Colloquium is brought to you for free and open access by the Washington and Lee Law Review at Washington & Lee University School of Law Scholarly Commons. It has been accepted for inclusion in Washington and Lee Law Review by an authorized editor of Washington & Lee University School of Law Scholarly Commons. For more information, please contact [lawref@wlu.edu](mailto:lawref@wlu.edu).

# You Buy It, You Break It: A Comment on *Dispersing the Cloud*

Aaron Perzanowski\*

Personal property occupies a precarious position in the digital marketplace.<sup>1</sup> In the analog world, we have relied on stable, predictable property interests in our documents, media, and devices to guarantee us a reasonable degree of control over those objects and a reasonable degree of autonomy in our interactions with them. But in our increasingly digital environment, a cluster of interrelated developments have conspired against meaningful property interests in the digital stuff that makes up so much of our lives. As a result, rather than making our own choices about how we use and dispose of those digital objects, we often find ourselves dependent on the permission and good will of IP rights holders, technology platforms, and service providers.

So how did this change come about? First, as both mass media distribution and personal record keeping shift away from shipping and storing hardcopies to shuffling bits around the network, the things we've grown accustomed to owning—physical copies—are disappearing. As a practical matter, we stand in a very different relationship to a file in our desk drawer than we do to a file on a cloud server. Legal rights aside, one is in our immediate possession and control; the other is remotely stored and our interactions with it are mediated by third party technology. Second, restrictive end user licenses and terms of use intentionally undermine consumer ownership and control. Often, those terms insist that digital goods are not sold, but merely licensed—a declaration that is at odds with both established consumer expectations and retailers' own marketing claims.<sup>2</sup>

---

\* Professor of Law, Case Western Reserve University School of Law.

1. See generally AARON PERZANOWSKI & JASON SCHULTZ, *THE END OF OWNERSHIP: PERSONAL PROPERTY IN THE DIGITAL ECONOMY* (2016) [hereinafter *END OF OWNERSHIP*] (describing the erosion of consumer ownership).

2. See generally Aaron Perzanowski & Chris Jay Hoofnagle, *What We Buy*

Other times, those terms grant service providers and other online intermediaries generous rights to use, modify, monetize, and retain user-generated content.<sup>3</sup> In both cases, contractual language—often in the absence of meaningful consent—is leveraged to shift the balance of power between individuals and service providers who draft these typically unread and often unreadable terms.<sup>4</sup> Third, digital rights management and control over embedded software mean that, even for the physical devices that we buy and presumably own, manufacturers can assert ongoing control over how and even whether we can use them.<sup>5</sup> Even though we possess and own these physical devices, the software that defines their operation often serves another master.

These concerns are not merely abstract or theoretical. The past few years have shown us increasingly frequent glimpses into a future without ownership. We see it when companies like Autodesk use their license terms to prohibit the resale of authorized physical copies of software.<sup>6</sup> We see it when Amazon

---

*When We “Buy Now,”* 165 U. PENN. L. REV. \_\_\_ (forthcoming 2017) (reporting survey results establishing that the “Buy Now” button is deceptive for digital media goods) (on file with author).

3. See Daniel Martin, *Dispersing the Cloud: Reaffirming the Right to Destroy in a New Era of Digital Property*, 74 WASH. & LEE L. REV. 467, 510–11 (2017) (noting terms and conditions of various cloud providers). The public policy exception Martin outlines to avoid the implications of these sorts of terms is a clever one and would represent an improvement for digital consumers. *Id.* at 56–58. But I favor a more fundamental rethinking of digital contract formation and enforcement that would prevent the automatic transfer of rights from consumers to service providers. See END OF OWNERSHIP, *supra* note 1, at 66–70, 174–176 (describing this approach).

4. See Yannis Bakos, Florencia Marotta-Wurgler & David R. Trossen, *Does Anyone Read the Fine Print? Consumer Attention to Standard Form Contracts* (N.Y.U. L. & Econ. Research Paper No. 195, 2014, at 22), [http://lsr.nellco.org/cgi/viewcontent.cgi?article=1199&context=nyu\\_lewp](http://lsr.nellco.org/cgi/viewcontent.cgi?article=1199&context=nyu_lewp) (finding that “only one or two out of every thousand retail software shoppers chooses to access the license agreement, and those few that do spend too little time, on average, to have read more than a small portion of the license text”).

5. See, e.g., Aaron Perzanowski & Jason Schultz, *Do You Own the Software that Runs Your Tesla?*, L.A. TIMES (Nov. 4, 2016 4:00 AM), <http://www.latimes.com/opinion/op-ed/la-oe-perzanowski-schultz-tesla-software-ownership-20161104-story.html> (last visited Feb. 20, 2017) (discussing how we ended up in a “world where device makers can dictate how we use the products we buy and reasonably believe we own”) (on file with the Washington and Lee Law Review).

6. See *Vernor v. Autodesk, Inc.*, 621 F.3d 1102, 1113 (9th Cir. 2010) (enforcing a software license that characterized transfer of a physical copy as a

remotely deletes ebooks—copies of George Orwell’s *1984*, no less—from the devices of its customers.<sup>7</sup> We see it when Keurig coffeemakers, relying on optical sensors, refuse to brew off-brand coffee in open mutiny against their owners.<sup>8</sup> We see it when John Deere insists that farmers who pay tens of thousands of dollars for the company’s tractors don’t own the software embedded in them, code necessary to make even the simplest of repairs.<sup>9</sup> We see it when Google-owned Nest bricks thousands of Revolv home automation hubs simply because the company lost interest in supporting the product.<sup>10</sup>

And, as Daniel Martin powerfully argues, we see the erosion of ownership when users are prevented from destroying the files they store in the cloud.<sup>11</sup> Just like possession, alienation, and use, the right to destroy fits comfortably in the bundle of rights we

---

license).

7. See Brad Stone, *Amazon Erases Orwell Books from Kindle*, N.Y. TIMES (July 17, 2009), <http://www.nytimes.com/2009/07/18/technology/companies/18amazon.html> (last visited Feb. 20, 2017) (“Digital books bought for the Kindle are sent to it over a wireless network. Amazon can also use that network to synchronize electronic books between devices—and apparently to make them vanish.”) (on file with the Washington and Lee Law Review).

8. See Ted Cooper, *Bad News for Keurig Green Mountain Investors: TreeHouse Foods Says Keurig 2.0 Technology Can Be Cracked*, MOTLEY FOOL (June 23, 2014, 11:23 AM), <http://www.fool.com/investing/general/2014/06/23/bad-news-for-keurig-green-mountain-investors-treeh.aspx> (last visited Feb. 20, 2017) (noting that “one of Keurig 2.0’s biggest selling points for investors is its potential to keep unlicensed brands from using its platform”) (on file with the Washington and Lee Law Review).

9. See, e.g., Kyle Wiens, *New High-Tech Farm Equipment Is a Nightmare for Farmers*, WIRED (Feb. 5, 2015, 7:00 AM), <http://www.wired.com/2015/02/new-high-tech-farm-equipment-nightmare-farmers> (last visited Feb. 6, 2017) (noting challenges faced by farmers and independent repair shops) (on file with the Washington and Lee Law Review); Darin Bartholomew, *Long Comment Regarding a Proposed Exemption Under 17 U.S.C. 1201*, at 6 (2015), [http://copyright.gov/1201/2015/comments-032715/class%2021/John\\_Deere\\_Class21\\_1201\\_2014.pdf](http://copyright.gov/1201/2015/comments-032715/class%2021/John_Deere_Class21_1201_2014.pdf) (claiming that farmers merely had “an implied license for the life of the vehicle to operate the vehicle”).

10. See Arlo Gilbert, *The Time that Tony Fadell Sold Me a Container of Hummus*, MEDIUM (Apr. 3, 2016), <https://medium.com/@arlogilbert/the-time-that-tony-fadell-sold-me-a-container-of-hummus-cb0941c762c1#nhl96qogu> (last visited Mar. 2, 2017) (“Google is intentionally bricking hardware that I own. They don’t even dance around it . . . .”) (on file with the Washington and Lee Law Review).

11. See generally Martin, *supra* note 3.

typically extend to property owners.<sup>12</sup> Whether we conceptualize destruction as a freestanding right or a logical extension of the right to exclude, a person who owns a thing can—with some important exceptions—destroy it.<sup>13</sup> Businesses and individuals destroy sensitive paper records all the time. Independent legal obligations might caution against zealous shredding—impending civil litigation or a criminal investigation, for example—but otherwise, the law of property won't intervene. Even destroying personal property that embodies someone else's intellectual property is generally permitted. So if churchgoers in Alamogordo, New Mexico, want to burn their Harry Potter books in protest against the-boy-who-lived's "satanic darkness," they are free to do so, fire codes notwithstanding.<sup>14</sup> Or if Canadian football fans burn Bon Jovi albums to protest the idea of the singer relocating the Buffalo Bills to Toronto, thereby breaching the NFL's northern border, the band's record label can't stop them.<sup>15</sup> U.S. copyright law guards against destruction in only rare circumstances, when a work of visual art is deemed one of "recognized stature."<sup>16</sup> So the Rothkos may be safe, but lots of other valuable works are destroyed all the time. Some, like Tibetan sand mandalas, are destroyed by their creators as part of

---

12. See *id.* at 32 (discussing the "sticks" in the bundle of property rights).

13. See *id.* at 18 (noting that "the right to destroy is recognized, but limited; tolerated, but disfavored").

14. See Sarah Hall, *Harry Potter and the Sermon of Fire*, GUARDIAN (Jan. 1, 2002, 6:17 AM), <https://www.theguardian.com/world/2002/jan/01/books.harry.potter> (last visited Mar. 2, 2017) ("As hundreds of residents opposed to the book burning protested, several hundred worshippers listened to the church's founder, Pastor Jack Brock, denounce the fictional wizard as satanic, before filing outside to toss at least 30 Potter books into the flames.") (on file with the Washington and Lee Law Review).

15. See Jason MacNeil, *Toronto Argonauts Fans Burn Bon Jovi Albums to Protest a NFL Team in Canada*, HUFFINGTON POST (Aug. 18, 2014), [http://www.huffingtonpost.ca/2014/08/18/toronto-argonauts-burn-bon-jovi-albums\\_n\\_5688608.html](http://www.huffingtonpost.ca/2014/08/18/toronto-argonauts-burn-bon-jovi-albums_n_5688608.html) (last visited Mar. 2, 2017) (reporting that "approximately 15 fans of the Canadian Football League's Toronto Argonauts showed their venom towards the rock star by lighting a handful of CDs") (on file with the Washington and Lee Law Review).

16. See 17 U.S.C. §106A(a)(3)(B) (2016) (providing the author of a work of visual art with the right "to prevent any destruction of a work of recognized stature, and any intentional or grossly negligent destruction of that work is a violation of that right").

the creative process.<sup>17</sup> Others, like the collection of graffiti at 5Pointz in New York City, are destroyed by real property owners who prefer new development to preservation.<sup>18</sup>

As Martin notes, courts have expressed the greatest skepticism of the right to destroy when it comes to real property.<sup>19</sup> In those cases, the worry was couched in terms of waste and its broader impact on society. Despite Blackstone's most famous quote, property rights are not absolute.<sup>20</sup> And there's nothing inherently inappropriate about courts taking into account the impact of a property owner's exercise of her rights on her neighbors, many of whom have property interests of their own at stake. Crucially, though, those courts were asked to permit the destruction of property in accordance with a deceased property owner's will, as in *Eyerman v. Mercantile Trust Co.*<sup>21</sup> This form of dead hand destruction strikes many courts as particularly inappropriate and, unlike the wishes of a living, breathing property owner, particularly easy to disregard. But if Mrs. Johnston, the decedent in *Eyerman*, had decided to raze her home the day before she died, few courts would have stopped her on the basis of waste. Even if courts did routinely prevent living owners from tearing down their homes, the rationales that would support such restrictions on the right of destruction, Martin convincingly argues, do not apply to digital files.<sup>22</sup> Digital files are easily reproduced; they are rarely unique or uniquely valuable; and their destruction does not typically visit collateral harm on others.

---

17. See SUSAN I. BUCHALTER, *MANDALA SYMBOLISM AND TECHNIQUES: INNOVATIVE APPROACHES FOR PROFESSIONALS* 11 (2012) (discussing the Tibetan works of art).

18. See *Cohen v. G & M Realty L.P.*, 988 F. Supp. 2d 212, 215 (E.D.N.Y. 2013) (noting the destruction of works of arguably recognized stature at 5Pointz).

19. See Martin, *supra* note 3, at 13–15 (discussing cases in which courts refuse to enforce a property owner's desire to destroy her own real property).

20. *Id.* at 10 (quoting 2 WILLIAM BLACKSTONE, *COMMENTARIES* \*2).

21. 524 S.W.2d 210, 217 (Mo. Ct. App. 1975) (refusing to uphold the will of the decedent, Louise Woodruff Johnston, by instructing the testator to destroy her home).

22. See Martin, *supra* note 3, at 40–42 (arguing that digital property cannot be wasted in the same sense as real, or even physical, property).

Martin offers a timely and persuasive case for reinvigorating the right to destroy digital files in the cloud. As more of our digital lives are stored on “somebody else’s computer,”<sup>23</sup> users who want to retain and assert some control over the use of the documents and data they upload would benefit from a right to eliminate cloud copies. But the right to destroy is part of a larger set of questions about the role digital intangible property should play in our networked present and future. To tie Martin’s insights into that broader conversation, I want to elaborate further on one question addressed in *Dispersing the Cloud*—the nature and legal status of property rights in digital assets.

How should we conceptualize a property interest in a digital file stored in the cloud? Our natural instinct might be to analogize to other, more familiar scenarios. One could be forgiven for thinking of cloud storage as a mere extension of our local devices, not all that different from external hard drives. The user interfaces of popular cloud services like Dropbox, Box, and Google Drive encourage this misconception. If you install their desktop applications, they create a local folder that syncs with your cloud account. You can add, move, and edit files exactly as you would with purely local ones. And you delete them the same way as well, by dragging them to the trash icon on your desktop, for example. This interface choice may well lull users into a false sense of security, leading them to believe that they have as much control over cloud copies as they do local ones. But as Martin explains, that isn’t the case.<sup>24</sup> For local copies, you own and possess the physical medium in which those copies are stored. But you certainly don’t own Dropbox’s servers even though your files are stored on them.

An analogy to a different instance of remotely-stored property might be more useful. Maybe your cloud file is more like a family heirloom in a safe deposit box. You don’t own the box or

---

23. See Danny Palmer, *We Should Replace the Word ‘Cloud’ with ‘Somebody Else’s Computer’, Says Security Expert*, COMPUTING (Dec. 2, 2013), <http://www.computing.co.uk/ctg/news/2316368/we-should-replace-the-word-cloud-with-somebody-elses-computer-says-security-expert> (last visited Feb. 20, 2017) (noting that security expert Graham Cluley suggests “replacing all instances of the word ‘cloud’ with ‘somebody else’s computer’”) (on file with the Washington and Lee Law Review).

24. See Martin, *supra* note 3, at 53 (explaining that the servers that make up “the cloud” do not belong to users of cloud services).

the bank in which it is stored, but you do own the contents. Just like grandpa's stamp collection, perhaps you own the files even if you don't currently possess them. But this analogy, too, has its limits. There's no obligation for the bank to destroy the contents of your safe deposit box upon request; the bank does not make routine copies of the contents of safe deposit boxes in the course of normal operations; nor does the bank require you to grant it the right to retain copies of your heirlooms as a condition for renting the box in the first place. But perhaps the most significant distinction has to do with the nature of the thing owned. The stamp collection is tangible personal property, subject to well established common law doctrines; your files on the cloud are something potentially quite different.

As Martin acknowledges, the existence of digital intangible property rights in cloud-based assets is uncertain.<sup>25</sup> In large part, that uncertainty is a function of the intangible nature of the assets at issue. In Blackstone's era, the dominant view of property imagined a legal right to control a thing. The twentieth century saw a shift in our thinking about property that embraced the idea of property regulating relationships between people rather than an owner's relationship to a thing.<sup>26</sup> Under that more modern view, the thing—the res—became far less important to our conception of property; the existence of a property right does not depend on a particular tangible object.<sup>27</sup> Nonetheless, most familiar examples of property rights are still tied to tangible things.

There are exceptions of course. The quasi-property rights created by copyright and patent law are examples. But they are also something of a special case. Confronted with a public goods problem that could lead to the undersupply of creative works, Congress crafted statutory exclusive rights in intangible creations. IP protection is not a function of the common law; it is

---

25. See *id.* at 19–23 (addressing the question of how the law defines digital property).

26. See generally Wesley Newcomb Hohfeld, *Fundamental Legal Conceptions as Applied in Judicial Reasoning*, 26 YALE L. J. 710 (1917) (discussing legal conceptions of property throughout the late nineteenth and early twentieth centuries).

27. Of course, this is a necessarily cursory overview of a long-running debate in property law.



a statutory creature. But IP is not the only example. The law recognizes other forms of intangible property, ranging from securities to government franchises like liquor licences and taxi medallions. Some of those forms of intangible property have deep common law roots; others are the product of more recent legislative action.

The question is whether courts will embrace property rights in the sorts of intangible digital assets consumers store in the cloud. Today, there is little clear precedent for such digital intangible property. But efforts to carve out consumer property rights in digital assets are underway. At least in Europe, as Martin notes, there have been promising signs.<sup>28</sup> Courts there have recognized that consumers are entitled to resell digital goods they buy, even when those goods are delivered digitally. So, for example, when Oracle sued UsedSoft for allowing users to purchase secondhand digitally-downloaded software, the court held that since the software was originally purchased lawfully from Oracle, the consumers owned it and could dispose of it, even though they didn't own any particular tangible copy.<sup>29</sup> Instead, they owned and could alienate their intangible right to download and use the software.<sup>30</sup> Likewise, a Dutch court held that lawfully acquired ebooks could be resold despite the fact that rights to intangible assets rather than particular copies of the books were changing hands.<sup>31</sup>

In the United States, however, the picture has not been quite so promising.<sup>32</sup> When a company called ReDigi launched a similar

---

28. See Martin, *supra* note 3, at 22–23 (noting that, “according to the European Court of Justice, there is ‘no difference whether the copy of the computer program was made available by means of a download or on a DVD/CD-ROM’” (citing Michael S. Richardson, Comment, *The Monopoly on Digital Distribution*, 27 PAC. MCGEORGE GLOBAL BUS. & DEV. L.J. 153, 168 (2014))).

29. Case C-128/11, *UsedSoft GmbH v. Oracle Int’l Corp.*, 2012 E.C.R. I-0000, at ¶ 89.

30. *Id.*

31. See generally Rb. Den Haag, 3 september 2014, ECLI:NL:RBDHA:2014:10962, IEF 14164 (VOB/ Stichting Leenrecht e.a.) (Neth.), available at <http://uitspraken.rechtspraak.nl/inziendocument?id=ECLI:NL:RBDHA:2014:10962>; Hof Amsterdam, 20 januari 2015, ECLI:NL:GHAMS:2015:66, NUV/Tom Kabinet (Neth.), available at <http://uitspraken.rechtspraak.nl/inziendocument?id=ECLI:NL:GHAMS:2015:66>.

32. In one positive development, states have started to take the notion of

resale marketplace for lawfully purchased digital music, it was promptly sued by Capitol Records.<sup>33</sup> Copyright law's first sale doctrine, of course, recognizes consumer property rights in the tangible copies they own.<sup>34</sup> But because of the digital nature of the purchases and subsequent transfers, ReDigi users weren't selling physical copies; they were alienating an intangible asset—namely, the legal right to download and use the purchased music. As the *ReDigi* opinion makes clear, current copyright doctrine is not well positioned to take these sorts of rights in digital assets into account. While copyrights are themselves rights in intangibles, the framework for mediating the competing rights of consumers and creators is built around ownership of physical copies.<sup>35</sup> Working within that framework, the district court found that ReDigi's platform did not facilitate lawful transfers, but infringing acts of reproduction and distribution.<sup>36</sup> The case is currently on appeal to the Second Circuit, so there is still hope of bringing U.S. law into alignment with its more enlightened European counterpart on the question of meaningful property rights in intangible digital assets.

Regardless of the case's ultimate outcome, *ReDigi* illustrates some of the challenges for robust digital property rights. The first is the difficulty of identifying the thing, whether tangible or

---

digital assets seriously. See Fiduciary Access to Digital Assets and Digital Accounts Act, 79 Del. Laws, c. 416, § 1 (2014) (providing, among other things, that end-user license agreement provisions that limit a fiduciary's access to a digital asset or digital account of an account holder are generally void as against public policy); NAT'L CONF. OF COMM'RS ON UNIF. STATE LAWS, UNIFORM FIDUCIARY ACCESS TO DIGITAL ASSETS ACT 1 (2014), [http://www.uniformlaws.org/shared/docs/Fiduciary%20Access%20to%20Digital%20Assets/2014\\_UFADA\\_A\\_Final.pdf](http://www.uniformlaws.org/shared/docs/Fiduciary%20Access%20to%20Digital%20Assets/2014_UFADA_A_Final.pdf) (recommending a uniform statute that would “vest fiduciaries with the authority to access, control, or copy digital assets and accounts”).

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

34. See 17 U.S.C. § 109 (2016) (providing that “the owner of a particular copy or phonorecord 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 or phonorecord”).

35. See Aaron Perzanowski & Jason Schultz, *Reconciling Personal and Intellectual Property*, 90 NOTRE DAME L. REV. 1211, 1253–55 (2015) (arguing that exhaustion need not rely on the existence of a physical copy).

36. See *ReDigi*, 934 F. Supp. 2d at 660–61 (granting “Capitol's motion for summary judgment on its claims for ReDigi's direct, contributory, and vicarious infringement of its distribution and reproduction rights”).

intangible, that the user owns. If consumers have property rights in cloud-based assets, what exactly is it that they own? It's easy to conceptualize a consumer owning a physical copy. It is a thing we can see and hold. Even digital copies exist in physical form, whether on a local drive or a remote server. But a property interest in a digital asset—whether for purposes of alienation or destruction—is not just a right in a particular copy stored in a particular medium. The right to delete or transfer a particular physical copy is not a very valuable one in a networked environment, where copies are plentiful. Instead, digital intangible property must give the owner the right to control the disposition of files or data that may be embodied in multiple copies, stored in different places, and created at different times.

To the extent they transcend particular copies, property rights in intangible assets look a bit like IP rights. Those rights are not defined primarily by physical identity, but by informational content. For IP rights holders, the thing they own is the intangible creation—original expression in the case of copyright or a novel invention in the case of patent. Rights in those intangible things are implicated, if not necessarily infringed, whenever others make specified uses that reflect the underlying informational content of their expression or invention.<sup>37</sup>

Advocates for this new form of digital intangible property envision a set of rights that are broader than traditional personal property rights because they aren't entombed in a particular tangible object. At the same time, they are narrower than IP rights because they don't extend to every instantiation of the underlying informational content. To illustrate the difference, let's think about the analog world first. Let's say Alice buys a copy of Julien Baker's album *Sprained Ankle* on vinyl. Alice owns the copy, and her property right is tied to that object. By virtue of her ownership, Alice can sell her copy and the legal rights associated with it to Bob. But her ownership of that copy doesn't entitle her to pick up other copies wherever she finds them, claim them as her own, and sell them. In contrast, the copyright in

---

37. In copyright law, independent creation is not infringement regardless of similarity of expression. But in patent law, even an independent inventor is an infringer.

*Sprained Ankle* extends to every copy of the record, regardless of who owns it.<sup>38</sup>

Now let's say Alice, rather than buying a vinyl record, buys the album in a digital format. The copyright continues to apply to all copies of *Sprained Ankle*, but Alice's rights take on a somewhat different form. If Alice has digital intangible property rights, she could transfer her rights to the digital music she purchased. But, crucially, those rights are not tied to any particular copy of the record. In fact, Alice could sell her digital property to Bob without transferring a copy at all. Instead, Alice's access to copies stored on a cloud server would be terminated, and Bob's access would be enabled. It's the transfer of legal rights rather than the copy that is key. Just as in the analog world, Alice's ownership of *Sprained Ankle* as a digital asset does not mean she can claim and transfer Charlie's rights to *Sprained Ankle* simply because they both bought the same record. Alice's rights may not be tied to a particular tangible copy, but they are still limited in scope; in this case, they are defined by her initial purchase. The same would be true for the right to destroy. Alice would be entitled to delete a range of copies that are in some sense hers, but not necessarily every copy that reflects similar or even identical information.

This discussion points to a second challenge for digital intangible property—resolving the tension between competing property interests. As these examples show, there are often multiple, distinct owners and interests at stake when we talk about property. So the cloud server may be Amazon's personal property, the digital assets it contains may belong to a number of consumers, and the copyrights in the works those files represent are the IP of an even larger set of rights holders. Precisely how those rights interact—when each must yield to the other—is a crucial question in developing a workable set of property interests. When it comes to the interaction between IP and personal property, the exhaustion principle has successfully mediated that relationship for well over a century.<sup>39</sup> And while

---

38. Some of those rights, notably the exclusive right of distribution, are exhausted upon transfer of the copy to a new owner. See 17 U.S.C. § 109 (2016) (codifying the exhaustion doctrine).

39. See Perzanowski & Schultz, *supra* note 35, at 1212 (“[E]xhaustion is an inherent part of copyright law's balance between the rights of creators and the

exhaustion, as a general principle, offers a useful guide for defining the relationship between IP and digital intangible property, the details are crucial in order to strike an appropriate balance between consumer rights and creative incentives.<sup>40</sup>

Since the right to destroy focuses largely on control over user-created data, Martin is able to deftly sidestep the complications that arise from conflicts between IP and digital intangible property, though that won't be the case in every instance. By directing our focus to an area where digital assets matter but are not fraught with IP implications, Martin is advancing the debate in a potentially fruitful direction.<sup>41</sup> Nonetheless, he acknowledges that the rights of owners of personal property, like servers, may conflict with those of digital asset owners.<sup>42</sup> An absolute right to delete digital assets may well impose an unreasonable burden on service providers. There are lots of ways this balance between the interests of owners of servers and digital assets might be struck. The broader point is that the introduction of new property rights requires us to think through their implications for the web of existing property interests. When it comes to the right to destroy, *Dispersing the Cloud* provides a valuable foundation for just that conversation.

---

rights of the public. It is a fundamental component of almost every intellectual property system.”).

40. See END OF OWNERSHIP, *supra* note 1, at 180–85 (describing the considerations that courts should give to various consumer rights).

41. Delaware's Fiduciary Access to Digital Assets and Digital Accounts Act made a similar move when it limited transfers “to the extent permitted under . . . any end user license agreement.” Fiduciary Access to Digital Assets and Digital Accounts Act, 79 Del. Laws c. 416, § 5004.

42. See Martin, *supra* note 3, at 52 (addressing why digital property owners should be able “to wrest control over *their* data from the hands of cloud providers” (emphasis added)).