

# HOW IP ENDS

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*Real and personal property may last forever, but intellectual property (IP) ends. Despite the doctrinal complexity and practical significance of the mechanisms that terminate IP rights, scholarship has scarcely focused on them, and none has analyzed these doctrines as a unified field. As a result, the discourse about the ways IP ends remains impoverished, with courts, legislatures, and commentators offering imprecise and inconsistent formulations that obscure the rationales for these doctrines. This Article offers the first comprehensive taxonomy of IP's terminal mechanisms, providing much-needed conceptual and definitional coherence. It then reveals the underappreciated policy leverage these mechanisms can deliver and offers a set of concrete proposals for reforming IP through expanding and adapting its terminal rules. Finally, the Article considers what lessons, if any, traditional property law might learn from how IP ends.*

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INTRODUCTION

Beginnings are more fun than endings. This is why there are nearly ten times as many pediatricians as gerontologists.<sup>1</sup> It’s why people celebrate joyously at birthday parties but weep at funerals.<sup>2</sup> It’s why there is a wedding-industrial complex supporting massive nuptial ceremonies, but divorces are accompanied only by lawyers and bitterness.<sup>3</sup> It’s why law review articles begin with big, sexy hooks<sup>4</sup> but treat conclusions as cursory and formulaic.<sup>5</sup>

Intellectual property (IP) scholarship is no exception. Writers in the field devote most of their attention to the creation and enforcement of exclusive rights.<sup>6</sup> This focus on the birth and life of IP rights is warranted. The requirements for establishing exclusive rights and the scope of that exclusivity shape the practical impact of the IP system. But in sharp contrast to property interests in land and chattels, which

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<sup>1</sup> Carly Stern, *Finding a Doctor who Specializes in Senior Care is Hard. Here’s Why*, WASH. POST (Mar. 17, 2024), <https://www.washingtonpost.com/health/2024/03/17/seniors-health-doctor-geriatrics-shortage> [<https://perma.cc/GHP4-F4NP>] (reporting 60,000 pediatricians practicing in the U.S. in 2021 versus 7,300 gerontologists).

<sup>2</sup> If there is a clown at the birthday party, reactions may be mixed. See David Fagundes & Aaron Perzanowski, *Clown Eggs*, 94 NOTRE DAME L. REV. 1313, 1324–25 (2019) (discussing ongoing contemporary use of clowns at children’s parties). The same is true for funerals. See MARY TYLER MOORE SHOW, *Chuckles Bites the Dust*, at 19:44, (YouTube, Oct. 25, 1975), <https://www.youtube.com/watch?v=1a7DO0cF-aM> (on file with the New York University Law Review) (Moore laughing at clown’s funeral).

<sup>3</sup> This may be changing. See Aditi Shrikant, *Divorce Parties Reached an All-time High Last Year*, CNBC MAKE IT: PSYCHOLOGY AND RELATIONSHIPS (Sep. 7, 2024, at 11:00 ET), <https://www.cnbc.com/2024/09/07/divorce-parties-reached-an-all-time-high-last-year-heres-why.html> [<https://perma.cc/VKJ3-3YMK>] (“Divorce party invites reached an all time high last year, according to data from Evite.”).

<sup>4</sup> Like ours, of course. Cf. THE LONELY ISLAND, *Jack Sparrow (feat. Michael Bolton)*, at 00:16 (YouTube, May 8, 2011), <https://www.youtube.com/watch?v=GI6CfKcMhjY> (on file with the New York University Law Review) (“I wrote you this big, sexy hook I think you’re gonna really dig.”).

<sup>5</sup> Not like ours, of course. See *infra* Conclusion.

<sup>6</sup> To take just one example, a leading copyright casebook spans 1,073 pages, of which 1,021 are devoted to how copyrights vest, the scope of those rights, and how they are enforced and licensed. See CRAIG JOYCE, TYLER T. OCHOA & MICHAEL CARROLL, *COPYRIGHT LAW*, at ix–xviii (11th ed. 2020).

are characterized by permanence and often regarded as eternal,<sup>7</sup> IP dies.<sup>8</sup> Copyrights, patents, trademarks, and trade secrets are all subject to statutory provisions and doctrines—what we call terminal mechanisms—that strip intangible assets of exclusive rights, rendering them free for others to use.<sup>9</sup> IP ends in ways as varied and intriguing as it vests, and these terminal mechanisms, too, have a tremendous practical impact. Yet, despite the centrality of terminal mechanisms to the IP system, scholars have paid them relatively little attention. And while some recent work has begun to remedy this shortfall by attending to particular doctrines,<sup>10</sup> none has yet considered terminal mechanisms systematically and holistically.

This failure to attend to IP's terminal mechanisms has impoverished our vocabulary, leading courts and commentators to collapse the fundamental distinctions between these doctrines, using labels haphazardly and inconsistently. Ignoring the diversity of terminal mechanisms has stunted our appreciation for their power to shape and serve IP policy. And it has cabined our imagination in crafting terminal mechanisms in ways that promote the various aims of IP law, whether incentivizing creativity, enriching the public domain, or encouraging investments in intangible assets.

Without some reasonably precise and consistent ontology, discussions of IP's terminal mechanisms risk unintelligibility.<sup>11</sup> When courts refer to the intentional relinquishment of rights,<sup>12</sup> the inadvertent

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<sup>7</sup> See, e.g., Lee Ann Fennell, *Fee Simple Obsolete*, 91 N.Y.U. L. REV. 1457, 1458 (2016) (characterizing the fee simple absolute, property's dominant form of ownership, as “endless in duration”).

<sup>8</sup> To minimize repetition, we use a number of synonyms for “end” throughout this article. Unless noted, we do not intend to imply any subtle shades of meaning distinguishing these terms.

<sup>9</sup> For the sake of brevity, we limit our analysis to the four primary bodies of IP law. But much of what we say can be extended to rights of publicity, plant varieties, semiconductor designs, vessel hulls, and other lesser-appreciated IP rights. See, e.g., 7 U.S.C. § 2321 (establishing the plant variety protection office); 17 U.S.C. § 902 (describing the protections afforded to semiconductor chips); 17 U.S.C. § 1301(a)(2) (describing the protection of vessel hull designs).

<sup>10</sup> See, e.g., Dave Fagundes & Aaron Perzanowski, *Abandoning Copyright*, 62 WM. & MARY L. REV. 487, 487 (2020); Camilla A. Hrdy & Mark A. Lemley, *Abandoning Trade Secrets*, 73 STAN. L. REV. 1, 42 (2021); Deepa Varadarajan, *Forfeiting IP*, 59 AM. BUS. L.J. 175, 192 (2022); SEAN B. SEYMORE, *Patent Forfeiture*, 72 DUKE L.J. 1019, 1046 (2023).

<sup>11</sup> Christopher Welty & Nicola Guarino, *Supporting Ontological Analysis of Taxonomic Relationships*, 39 DATA & KNOWLEDGE ENG'G 51, 63 (Oct. 2001) (“One of the principal roles of taxonomies is to impart structure on an ontology, to facilitate human understanding, and to enable integration.”).

<sup>12</sup> See *Nat'l Comics Publ'ns, Inc. v. Fawcett Publ'ns, Inc.*, 191 F.2d 594, 598 (2d Cir. 1951) (holding that copyright abandonment requires “some overt act which manifests his purpose to surrender his rights in the ‘work’”); *Hiland Potato Chip Co. v. Culbro Snack Foods, Inc.*,

loss of rights through the owner's behavior,<sup>13</sup> and the end of rights as the result of changed circumstances outside of the owner's control<sup>14</sup> as "abandonment," that term ceases to identify a useful legal category.<sup>15</sup> The same is true of "forfeiture." Often, that term is deployed as a catchall for any loss of rights.<sup>16</sup> In other circumstances, it refers more narrowly to losses of rights flowing from the failure to comply with some formal requirement.<sup>17</sup> Even "invalidation" fails to capture the distinction between IP rights that were improperly granted and thus never valid, on the one hand, and those that were once valid but lost protection due to changed circumstances, on the other.<sup>18</sup> This jumble

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585 F. Supp. 17, 22 (S.D. Iowa 1982), *aff'd*, 720 F.2d 981 (8th Cir. 1983) (finding trademark abandonment in light of objective evidence of intent to abandon a trademark).

<sup>13</sup> See *Filmvideo Releasing Corp. v. Hastings*, 426 F. Supp. 690, 695 (S.D.N.Y. 1976) (equating failure to renew a copyright with abandonment); *Pfaff v. Wells Elecs., Inc.*, 525 U.S. 55, 64 (1998) (treating failure to timely file a patent application after public use or sale as "abandonment"); *Rockwell Graphic Sys., Inc. v. DEV Indus., Inc.*, 925 F.2d 174, 179 (7th Cir. 1991) (equating trade secret "abandonment" arising from failure of reasonable efforts to maintain secrecy with trademark "abandonment" arising from failure to police infringement); *Moore Bus. Forms, Inc. v. Ryu*, 960 F.2d 486, 489 (5th Cir. 1992) (treating a "naked license" of a mark as both abandonment and estoppel).

<sup>14</sup> See *Pilates, Inc. v. Current Concepts, Inc.*, 120 F. Supp. 2d 286, 300 (S.D.N.Y. 2000) (finding "Pilates" generic on the basis of, *inter alia*, third-party and media use despite the fact that plaintiff "police[d] its marks vigorously"); *King-Seeley Thermos Co. v. Aladdin Indus., Inc.*, 321 F.2d 577, 579 (2d Cir. 1963) ("[T]here was little [the trademark owner] could do to prevent the public from using 'thermos' in a generic rather than a trademark sense."). Some pre-Lanham Act cases drew a distinction between abandonment and genericide. See *DuPont Cellophane Co. v. Waxed Prods. Co.*, 85 F.2d 75, 77, 81 (2d Cir. 1936) (finding "cellophane" mark was not abandoned because there was no "voluntary surrender of the trade-mark to the public" but that the mark had become generic despite the "efforts or money" expended to associate the term with DuPont).

<sup>15</sup> In copyright law, courts commonly confuse abandonment with forfeiture, waiver, estoppel, and implied license. See *Bentley v. Tibbals*, 223 F. 247, 250–51, 257 (2d Cir. 1915) (describing abandonment as forfeiture); *Koppel v. Downing*, 11 App. D.C. 93, 106 (D.C. Cir. 1897) (describing abandonment as waiver); *Atl. Monthly Co. v. Post Pub. Co.*, 27 F.2d 556, 559 (D. Mass. 1928) (discussing abandonment versus invalidation); *Fagundes & Perzanowski*, *supra* note 10, at 538–40 (describing various abandonment terms).

<sup>16</sup> See *Joyce*, *supra* note 6, at 942 (charitably observing that "[t]he nomenclature employed in the cases sometimes is less than precise"); *Varadarajan*, *supra* note 10, at 193 (using the term "forfeiture" to describe a range of ways IP rights end); *Seymore*, *supra* note 10, at 1019 (using "forfeiture" to describe an "unclean-hands-based theory of unenforceability"); *Jake Linford*, *Valuing Residual Goodwill After Trademark Forfeiture*, 93 NOTRE DAME L. REV. 811, 811 (2018) (using the term "forfeiture" to capture, among other things, trademark abandonment).

<sup>17</sup> See *Nat'l Comics*, 191 F.2d at 598 (distinguishing between abandonment, which requires "an intentional surrender" and forfeiture, which turns on the "failure to comply with the prescribed formalities" regardless of intent); *Marya v. Warner/Chappell Music, Inc.*, 131 F. Supp. 3d 975, 990 (C.D. Cal. 2015) (noting that general publication without proper notice leads to forfeiture); see also *WILLIAM F. PATRY*, 2 PATRY ON COPYRIGHT § 5:156 (2018) ("Forfeiture is a narrow concept, applying only to loss of rights for failure to comply with formalities.").

<sup>18</sup> See *infra* Section I.D.

of terminology obscures the underlying logic of the various common law doctrines, statutory provisions, and administrative rules that end IP rights.

Our goal is to identify the common characteristics and salient distinctions that shape the topography of IP's terminal mechanisms. By disentangling those mechanisms, we can sort the various doctrines into coherent and distinct groups. And by minimizing the overlap between these categories, our taxonomy allows us to speak more precisely not only about the content of the IP's terminal mechanisms but also about their core logic and the policy goals they serve. That refined taxonomy should help courts cluster like cases together and ultimately lead to greater clarity and predictability. We don't contend that the joints we identify are the only plausible places to carve.<sup>19</sup> Nor does our approach resolve every ambiguity. It does, however, construct a coherent typology of IP's terminal mechanisms that promises greater coherence in terms of their content and policy implications.

Part I maps the doctrines that end IP. We organize them into five distinct terminal mechanisms that operate in various combinations across copyright, patent, trademark, and trade secret law: expiration, abandonment, forfeiture, ab initio invalidation, and ex post invalidation. By reducing terminal mechanisms to a parsimonious taxonomy, we hope to bring uniformity and precision to the way courts, legislators, and commentators understand and invoke them.

Part II outlines the range of policy objectives terminal mechanisms serve. Although they are typically thought of solely as means for conveying IP assets from private control into the public domain, this Article shows that terminal mechanisms can serve less appreciated functions: facilitating owner autonomy, correcting administrative errors, forcing the disclosure of valuable information, screening out low-value works, and discouraging a broad range of socially harmful behaviors.

Part III then outlines four sets of legal interventions that leverage terminal mechanisms in novel ways to achieve discrete IP policy goals. First, we argue that copyrights and patents should be vulnerable to invalidation based on after-arising facts, much like trademarks and trade secrets. Relatedly, we suggest that the failure to "use" a copyrighted work or patented invention should likewise lead to invalidation under some circumstances. Next, we explain how fraud on the Copyright or Trademark Offices should lead to loss of rights, an approach that borrows from patent law's inequitable conduct rule. Finally, we offer reforms to both copyright and trademark law that would clarify and

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<sup>19</sup> See PLATO, PHAEDRUS 264–66 (referring to extended metaphor about carving nature at its joints).

strengthen their respective abandonment doctrines. Our Conclusion offers a final provocation: What if physical property were subject to the kind of terminal mechanisms that define IP interests?

Focusing on the death of IP rather than its birth and life may not be a popular endeavor, but this Article illustrates that it is a fruitful and important one. By embracing the entire IP life cycle, we can come to a fuller understanding of this body of law and its potential. As Ecclesiastes (and, later, Pete Seeger) suggested, maybe endings aren't so bad after all.<sup>20</sup>

## I

### MAPPING INTELLECTUAL PROPERTY'S TERMINAL MECHANISMS

What does it mean for IP to end? Property rights—individual rights of exclusion—end all the time. When a grantor conveys land to a grantee, the grantor's rights in that land end when title is transferred to the grantee. By contrast, though, property may also end in the sense that it is subject to no rights of exclusion by the state or an individual. For the purposes of this Article, what we mean for property to end is that a thing that was once subject to rights of exclusion no longer is.<sup>21</sup>

Property rights in tangible assets can end in a couple of ways. They can end if the object of the right ceases to exist. If you own a rare Picasso that gets destroyed in a fire, your legal ownership goes up in smoke with it. Nothing remains for anyone to own.<sup>22</sup> Property rights may also end, at least for a time, through abandonment.<sup>23</sup> If you leave a newspaper on a park bench intending to give up any claim to it, your right of exclusion evaporates, but no one else has one either. This status is not permanent though. Abandoned chattels are not permanently unowned but are up for grabs until someone else secures ownership by taking possession, converting them once more into private property.<sup>24</sup>

Assets governed by intellectual property law differ from physical property in important respects that make them more susceptible to

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<sup>20</sup> Ecclesiastes 7, 8 (“Better is the end of a thing than the beginning thereof.”); PETE SEEGER, *Turn! Turn! Turn!* (1962) (“A time to be born, a time to die.”).

<sup>21</sup> Scholars have characterized the right to exclude as the “sine qua non” of property. See, e.g., Thomas W. Merrill, *Property and the Right to Exclude*, 77 NEB. L. REV. 730, 730 (1998).

<sup>22</sup> Rights in physical property can end, for example, when the res that is the object of the property relation ceases to exist. See Lior Jacob Strahilevitz, *The Right to Destroy*, 114 YALE L.J. 781, 792–94 (2005) (discussing what it means to destroy physical property). Any copyright interest in the intangible work is distinct from ownership of the physical painting. 17 U.S.C. § 202.

<sup>23</sup> See generally Lior Jacob Strahilevitz, *The Right to Abandon*, 158 U. PA. L. REV. 355 (2010) (explaining how abandonment operates as a means of extinguishing ownership without transferring it to another).

<sup>24</sup> *Id.* at 360–61.

ending. While the cessation of all exclusive rights in physical property is rare, IP systems encourage and even require rights in intangibles to end. Patents and copyrights inevitably enter the public domain, where anyone can use them, and no one has the right to exclude others.<sup>25</sup> And while their entry into the public domain is not guaranteed, trademarks and trade secrets often become common property, subject to no right of exclusion.<sup>26</sup>

Why does law favor ending IP rights while it disfavors ending rights in physical property? The answer lies in the differential social costs of unowned tangible and intangible things.<sup>27</sup> If, for example, an office building has no owner to steward it, it will not be put to productive use and may also become a site of vandalism and other crime. Abandoned chattels may be reacquired but more often just create clutter, rusting or moldering in an alley or on a street corner and eventually imposing removal costs and populating increasingly scarce space in some landfill. By contrast, when literary works, inventions, or marks become part of the public domain, they generate social value rather than costs.<sup>28</sup> Freed for anyone to use, intangibles can become part of the building blocks of future invention and creation, while producing none of the socially costly decay or clutter generated by unowned physical property.

We sort IP's terminal mechanisms into five distinct varieties, each with its own triggers and rationales: expiration, abandonment, forfeiture, ex post invalidation, and ab initio invalidation.<sup>29</sup> One reason

<sup>25</sup> See 17 U.S.C. § 304(a) (describing duration of copyrights); 35 U.S.C. § 154 (describing duration of patents).

<sup>26</sup> In some circumstances, assets can be reclaimed by new owners. An abandoned trademark, for example, can typically be adopted by a new owner. See *infra* Section I.B.

<sup>27</sup> See Fagundes & Perzanowski, *supra* note 10, at 503–23 (explaining why abandoning physical property is socially costly while abandoning intellectual property tends to be socially beneficial).

<sup>28</sup> Exclusive rights may incentivize creation, but they can be socially costly due to supra-competitive prices and restrictions on access. Thomas Jefferson recognized “the difficulty of drawing a line between the things which are worth to the public the embarrassment of an exclusive patent, and those which are not.” Letter from Thomas Jefferson to Isaac McPherson, 13 August 1813.

<sup>29</sup> We exclude from this list doctrines that limit the enforceability of IP rights without bringing about their end. Misuse can render a plaintiff's rights unenforceable, but only until “it has purged itself of the misuse.” *Lasercomb Am., Inc. v. Reynolds*, 911 F.2d 970, 979 n.22 (4th Cir. 1990); see also *Morton Salt Co. v. G.S. Suppiger Co.*, 314 U.S. 488, 493 (1942). Similarly, unclean hands applies when “the plaintiff's conduct is inequitable and . . . relates to the subject matter of its claims,” but leaves plaintiff free to bring infringement claims against future defendants. *Fuddrucker, Inc. v. Doc's B.R. Others, Inc.*, 826 F.2d 837, 847 (9th Cir. 1987). We also exclude circumstances in which rights transfer from one party to another, as with copyright's termination of transfer rules. See 17 U.S.C. §§ 203 & 304(c) (describing termination of transfer). Finally, we exclude the doctrine of election, which required IP owners to choose a single form of protection rather than claiming overlapping rights, because courts rarely apply it. Compare *In re Blood*, 23 F.2d 772, 772 (D.C. Cir. 1927)

IP rights end is that the clock runs out on their statutory term. We call that *expiration*. In other instances, rights end because the rights holder disclaims them through words or actions that indicate an intent to relinquish them. We call that *abandonment*. IP rights can also terminate when a rights holder fails to comply with some formal requirement, like paying a fee or registering a work. Here, we use the label *forfeiture*. Finally, rights can end if they fall short of the substantive requirements for protection—a purported invention that isn’t novel, a work that isn’t original, a mark that isn’t distinctive, or a secret that is generally known. We call this *invalidation*. Within that category, we distinguish between *ab initio* invalidity—where a valid right never existed—and *ex post* invalidity—where a once-valid right is lost because of changed circumstances after the initial grant.

These labels are informed by existing usage and track it reasonably well. But as we will detail, our classifications differ from the language adopted by courts, Congress, and commentators in some important respects. Although we prefer our nomenclature, the particular terms we use are largely beside the point. Instead, the advantage of our taxonomy over the prevailing conceptual jumble is that it lays bare the core rationales for ending IP rights. In doing so, it enables us to more precisely and reliably invoke those rationales and their corresponding legal tests. It also makes it easier for us to spot the distinctions, variations, and inconsistencies in terminal mechanisms across IP domains. Those comparisons then allow us to reconfigure terminal mechanisms in novel ways to address concrete problems.

### A. *Expiration*

Unlike rights in tangible property, some IP rights expire. Copyrights and patents come with built-in time limits at the end of which the work or invention enters the public domain.<sup>30</sup> The Constitution empowers Congress to grant copyrights and patents but requires that they persist only for “limited times.”<sup>31</sup> The rationale for durational limits is to balance incentives for authors and inventors with the public’s interest in access to their creations.<sup>32</sup>

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(holding a label could not be both patented and trademarked), *and* *Korzybski v. Underwood & Underwood*, 36 F.2d 727, 729 (2d Cir. 1929) (holding patent protection cannot be extended using copyright), *with* App. of Yardley, 493 F.2d 1389, 1394 (C.C.P.A. 1974) (holding patentability and copyrightability are not mutually exclusive).

<sup>30</sup> 17 U.S.C. § 304; 35 U.S.C. § 154(2).

<sup>31</sup> U.S. CONST. art. I, § 8, cl. 8.

<sup>32</sup> Christopher Buccafusco & David Fagundes, *The Moral Psychology of Copyright Infringement*, 100 MINN. L. REV. 2433, 2463–65 (2016) (discussing in detail this “utilitarian bargain”).

The current term for utility patents is twenty years from filing,<sup>33</sup> while design patents last for fifteen years from issuance.<sup>34</sup> Both terms remain close to the original term of fourteen years from issuance established by the Patent Act of 1790.<sup>35</sup> Copyrights, however, are much longer today than when Congress first created them. Newly vested copyrights last for the life of their author plus another seventy years.<sup>36</sup> By contrast, the Copyright Act of 1790 granted a fourteen-year initial term plus an optional fourteen-year renewal.<sup>37</sup>

The expiration of these rights has real and familiar effects. When drug patents expire, prices drop substantially as generic equivalents enter the market.<sup>38</sup> And on the first of every year, copyright observers celebrate Public Domain Day, highlighting the many classic works—notably, Mickey Mouse cartoons in 2024—now available for all to use freely.<sup>39</sup>

Trademarks and trade secrets, by contrast, do not expire. Since they are rooted in Commerce Clause authority, Congress is not bound by the “limited times” provision of the Progress Clause.<sup>40</sup> Like rights in physical property, trademarks and trade secrets enjoy potentially infinite duration. The William Underwood Company’s “Trade-Mark for Deviled Entremets” was registered in 1870, and its red devil logo remains in use today.<sup>41</sup> By their nature, trade secrets are harder to date.

<sup>33</sup> 35 U.S.C. § 154(a)(2).

<sup>34</sup> *Id.* § 173.

<sup>35</sup> Ch. 7, 1 Stat. 110 (1790).

<sup>36</sup> 17 U.S.C. § 302(a). For anonymous, pseudonymous, and made-for-hire works, the term is the shorter of 95 years from the year of first publication or 120 years from creation. *Id.* § 302(c).

<sup>37</sup> Ch. 15, 1 Stat. 124 (1790).

<sup>38</sup> Rena M. Conti & Ernst R. Berndt, *Specialty Drug Prices and Utilization After Loss of U.S. Patent Exclusivity, 2001-2007*, at 9 (Nat’l Bureau of Econ. Rsch., Working Paper No. 20016, 2014) (discussing price drops of over 80% after patent expiration); Robin Feldman, *May Your Drug Price Be Evergreen*, 5 J.L. & BIOSCIENCES 590, 601 (2018) (“Prices can drop as much as 20% when the first generic enters the market; with multiple generics, the prices may eventually drop by 80–85%.”).

<sup>39</sup> Associated Press, *Public Domain 2024: Early Mickey Mouse and Other Disney Favorites Brace for Impact*, FAST COMPANY (Dec. 14, 2023), <https://www.fastcompany.com/90998251/public-domain-2024-disney-mickey-mouse-minnie-tigger-update> [<https://perma.cc/Z8KB-P8E3>].

<sup>40</sup> U.S. CONST. art. I, § 8, cl. 3. See Trade-Mark Cases, 100 U.S. 82, 94–95 (1879) (holding that the Progress Clause does not give Congress authority to pass trademark laws).

<sup>41</sup> Peter Smith, *Underwood’s Deviled Ham: The Oldest Trademark Still in Use*, SMITHSONIAN MAG., (Mar. 9, 2012), <https://www.smithsonianmag.com/arts-culture/underwoods-deviled-ham-the-oldest-trademark-still-in-use-119136583> [<https://perma.cc/5PXE-QCT8>]. Some sources claim the mark for the German beer Weltenberger Kloster Barock Dunkel was first used in 1050. See Martin Schwimmer, *Some of the Oldest Trademarks in the World*, TRADEMARK BLOG (Oct. 11, 2002), <https://www.schwimmerlegal.com/2002/10/some-of-the-oldest-trademarks-in-the-world.html> [<https://perma.cc/77VP-R5UR>].

But at least one company relies on a centuries-old secret. Zildjian, the world's oldest and most successful cymbal maker, claims its manufacturing process and proprietary alloys date back thirteen generations to the firm's founding in what was then Constantinople.<sup>42</sup>

Unlike expiration, other terminal mechanisms apply to all forms of intellectual property.

### B. *Abandonment*

At common law, abandonment is the intentional relinquishment of property rights.<sup>43</sup> Just as the law permits owners to abandon chattel property, so can owners abandon copyrights, patents, trademarks, and trade secrets. The common law test for abandonment of personal property requires a subjective intent to abandon on the part of the owner and some overt act demonstrating that intent.<sup>44</sup> That intent can be inferred from statements or behavior—like a used couch left unattended on a sidewalk—but the ultimate question is whether the owner intends to give up their claim to the asset.<sup>45</sup> Once personal property is abandoned, it is up for grabs unless and until someone secures ownership.<sup>46</sup>

We adopt this definition of abandonment in the IP context for several reasons. First, it is consistent with the well-established common law property rule. Second, all four major bodies of IP law recognize abandonment by virtue of the intentional relinquishment of ownership—even if they differ with respect to what sort of intent, what acts and circumstances are sufficient to establish it, and the consequences of abandonment. Third, this definition limits abandonment to a single, distinct rationale, one not shared by any other terminal mechanism.

That's not to say our definition of abandonment is universally recognized. Beyond the core of what we consider abandonment, courts, Congress, and commentators sometimes use the term to capture losses of rights that we argue are better understood as examples of invalidation. As discussed below, we have no objection to those doctrines or their application. But when the aperture of abandonment expands to capture

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<sup>42</sup> Andrea Shea, *Zildjian Brand Cymbals Are Everywhere. But How They're Made is a 400-year Secret*, NPR (Dec. 14, 2024), <https://www.npr.org/2024/12/14/nx-s1-5220127/zildjian-brand-cymbals-are-everywhere-but-how-theyre-made-is-a-400-year-secret> (on file with the New York University Law Review).

<sup>43</sup> See generally Eduardo M. Peñalver, *The Illusory Right to Abandon*, 109 MICH. L. REV. 191 (2010); Strahilevitz, *supra* note 23.

<sup>44</sup> Strahilevitz, *supra* note 23, at 376.

<sup>45</sup> *Id.* at 391.

<sup>46</sup> *Id.* at 361.

losses regardless of intentional relinquishment, we sacrifice definitional and conceptual precision.

The Copyright Act contains no statutory provision addressing abandonment.<sup>47</sup> So there is no obvious procedure by which a copyright owner can easily and reliably abandon their rights in a work of authorship. Prior to the Copyright Act of 1976, owners had straightforward routes to abandonment. Publishing a work without proper copyright notice, for example, placed it in the public domain.<sup>48</sup> Under the pre-1976 bifurcated copyright terms, an owner could refuse to file a renewal application, intentionally relinquishing ownership rights after the initial term expired.<sup>49</sup> But since U.S. copyright law weakened its formal requirements, these avenues are no longer available.<sup>50</sup> Although the Copyright Office permits rights holders to “record an affidavit, declaration, statement, or any other document purporting to abandon a claim to copyright,” the Office takes no position on whether a duly recorded document that purports to abandon a work is effective.<sup>51</sup>

Without statutory or regulatory guidance, courts have turned to the common law test for abandonment. The case law, which stretches back to 1834, requires a copyright holder to demonstrate a specific intent to abandon their copyright interest or to dedicate the work to the public.<sup>52</sup> But the cases are neither clear nor consistent when determining what acts establish that intent. Nonetheless, a plainly articulated written desire to divest oneself of ownership of a work or dedicate it to the public domain should be sufficient to achieve abandonment.<sup>53</sup>

Patent law has recognized abandonment since at least the mid-19th century.<sup>54</sup> Early courts applied the common law test, looking to

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<sup>47</sup> Fagundes & Perzanowski, *supra* note 10, at 490.

<sup>48</sup> When done with the intent to give up statutory rights, this constitutes abandonment. When done unintentionally, we argue it is best considered forfeiture. *See infra* Section I.C.

<sup>49</sup> Without evidence of intent, failing to renew a copyright would result in expiration of the original term and forfeiture of the second, since rights were lost because of a failure to comply with a formal requirement. *See infra* Section I.C.

<sup>50</sup> Christopher Sprigman, *Reform(aliz)ing Copyright*, 57 STAN. L. REV. 485, 502, 519 (2004) (noting the effects of these formalities on the public domain).

<sup>51</sup> U.S. Copyright Off., *Compendium of U.S. Copyright Office Practices* § 2311 (3d ed. 2021).

<sup>52</sup> Fagundes & Perzanowski, *supra* note 10, at 535; *see also* RESTATEMENT OF COPYRIGHT § 54 (AM. L. INST. 2025).

<sup>53</sup> RESTATEMENT OF COPYRIGHT, *supra* note 52.

<sup>54</sup> *Bell v. Daniels*, 3 F. Cas. 96, 99 (C.C.S.D. Ohio 1858) (No. 1,247) (“[A]bandonment, or dedication to the public, may be made as well after patent granted as before; but, where the patent has actually been granted, it would undoubtedly require a strong case to prove abandonment.”).

the owner's "intention to abandon the invention to the public."<sup>55</sup> An intent to abandon an unpatented invention could be inferred from unreasonable delays or "gross laches" in securing a patent.<sup>56</sup> But courts typically insist on more explicit manifestations of intent once a patent issues.<sup>57</sup> Much like copyright law, patent abandonment renders the invention free for everyone to practice.<sup>58</sup>

Today, the Patent Act offers three straightforward avenues to abandon rights, each of which mirrors the common law rule. First, it provides that "any patentee or applicant may disclaim or dedicate to the public the entire term . . . of the patent."<sup>59</sup> The relevant Patent and Trademark Office (PTO) regulations provide that a "terminal disclaimer is binding upon the grantee and its successors or assigns" so long as it is "signed by the applicant or an attorney or agent of record," specifies which portion of the patent term is being abandoned, states the "extent of applicant's ownership interest in the patent," and includes the appropriate filing fee.<sup>60</sup>

Second, inventors can leverage the Patent Act's statutory bars.<sup>61</sup> An inventor who fails to timely file a patent application after publishing their invention or engaging in public use or sale places their work in the public domain.<sup>62</sup> Jonas Salk famously declined to pursue a patent on his polio vaccine.<sup>63</sup> Or consider the IBM Technical Disclosure Bulletin, a listing the firm published for forty years that identified inventions it chose to abandon.<sup>64</sup> Third, a patentee can

<sup>55</sup> *Johnsen v. Fassman*, 13 F. Cas. 716, 717 (C.C.D. La. 1871) (No. 7,365); *see also Hovey v. Henry*, 12 Fed. Cas. 603, 604 (C.C.D. Mass. 1846) (No. 6,742) (finding abandonment requires intention); *U.S. Rifle Co. v. Whitney Arms Co.*, 28 F. Cas. 819, 821 (C.C.D. Conn. 1877) (No. 16,793) (holding a lapse of time does not, on its own, constitute abandonment).

<sup>56</sup> *Johnsen*, 13 F. Cas. at 717.

<sup>57</sup> *See, e.g., Bell*, 3 F. Cas. at 99 ("[W]here the patent has actually been granted, it would undoubtedly require a strong case to prove abandonment."); *Johnsen*, 13 F. Cas. at 717 ("[T]he abandonment must be shown to be positive, actual and intentional by some act or declaration by the inventor, or by such gross laches as indicate unmistakably an intention to abandon the invention to the public.").

<sup>58</sup> *See* 37 C.F.R. § 1.321 (2024) (permitting patentee to disclaim the entire term of the patent to the public).

<sup>59</sup> 35 U.S.C. § 253(b). Sometimes, claims are abandoned to avoid double-patenting objections. *See, e.g., In re Van Ornum*, 686 F.2d 937, 946 (C.C.P.A. 1982).

<sup>60</sup> 37 C.F.R. § 1.321 (2024).

<sup>61</sup> 35 U.S.C. § 102(a).

<sup>62</sup> If that failure were unintentional, rights would still be lost under an invalidity rationale since the would-be invention lacks novelty. *See infra* Section I.D.

<sup>63</sup> When Edward R. Murrow asked who owned his vaccine, Salk replied, "Well, the people, I would say. There is no patent." The National Foundation for Infantile Paralysis reportedly considered applying for a patent before its lawyers concluded that the vaccine was likely not novel. *See* JANE S. SMITH, *PATENTING THE SUN: POLIO AND THE SALK VACCINE* 338 (1990).

<sup>64</sup> *See* Hrdy & Lemley, *supra* note 10, at 48.

intentionally decline to pay maintenance fees to the PTO.<sup>65</sup> If so, the “patent shall expire.”<sup>66</sup> In addition, a patent can be abandoned under the common law rule.<sup>67</sup>

Trademark law introduces its own set of considerations. Whereas abandoned copyrights and patents become part of the public domain irrevocably,<sup>68</sup> abandoned marks can be claimed by a new owner to designate the source of their goods or services.<sup>69</sup> In that sense, trademarks are more akin to abandoned personal property.<sup>70</sup>

Trademark law also complicates the question of intent. Early trademark cases embraced the common law abandonment test. In 1896, the Supreme Court recognized that “a right of property in a name . . . may become public property by dedication or abandonment.”<sup>71</sup> The law required “not only acts indicating a practical abandonment, but an actual intent to abandon.”<sup>72</sup> If a trademark holder could “show[] that there never was an intention to give up and relinquish the right claimed,”

<sup>65</sup> As discussed below, unintentional failure to pay such fees can result in forfeiture. See *infra* Section I.C. But where intent can be established, abandonment offers an independent rationale for the loss of rights.

<sup>66</sup> 35 U.S.C. § 41(b)(2).

<sup>67</sup> See, e.g., *Bell v. Daniels*, 3 F. Cas. 96, 99 (C.C.S.D. Ohio 1858) (No. 1,247) (“[I]f the jury are satisfied . . . that this patentee has permitted his invention to go into public use, . . . he will be viewed as having given his improvement to the public . . . .”); *Johnsen v. Fassman*, 13 F. Cas. 716, 717 (C.C.D. La. 1871) (No. 7,365) (“[T]he abandonment must be shown to be positive, actual and intentional by some act or declaration by the inventor, or by such gross laches as indicate unmistakably an intention to abandon the invention to the public.”). The common law test can also be invoked in cases addressing invention abandonment prior to patent issuance. See, e.g., *Davis Harvester Co. v. Long Mfg. Co.*, 252 F. Supp. 989, 1009–10 (E.D.N.C. 1966) (holding that conduct inconsistent with the intent to gain a patent can be deemed abandonment); *Marvin Glass & Assocs. v. Sears, Roebuck & Co.*, 318 F. Supp. 1089, 1102–03 (S.D. Tex. 1970) (describing how a patent owner’s actions can contradict an alleged intent to abandon).

<sup>68</sup> But see 17 U.S.C. § 104A (restoring copyright in certain public domain works).

<sup>69</sup> Given consumer reliance on trademarks as indicators of source and quality, we might be skeptical of allowing trademark owners to sever the connection between the mark and the source. See *Linford*, *supra* note 16, at 844 (arguing appropriation of an abandoned mark increases consumer search costs, creates market distortion, and generally undermines the purpose of the trademark system); see also Aaron Perzanowski, *Unbranding, Confusion, and Deception*, 24 HARV. J.L. & TECH. 1, 22 (2010) (arguing abandonment by brands with negative consumer impressions undermines quality control incentives of trademarks and shakes consumer confidence).

<sup>70</sup> See *Cal. Cedar Prods. Co. v. Pine Mountain Corp.*, 724 F.2d 827, 830 (9th Cir. 1984) (affirming the first to use the trademark after abandonment is the owner); *George & Co. v. Imagination Ent. Ltd.*, 575 F.3d 383, 400 (4th Cir. 2009) (affirming abandoned marks may be “appropriated for use by others in the marketplace . . . in accordance with the basic rules of trademark priority”).

<sup>71</sup> *Singer Mfg. Co. v. June Mfg. Co.*, 163 U.S. 169, 186 (1896).

<sup>72</sup> *Saxlehner v. Eisner & Mendelson Co.*, 179 U.S. 19, 31 (1900); *Baglin v. Cusenier Co.*, 221 U.S. 580, 598 (1911).

they could avoid abandonment.<sup>73</sup> Of course, “[i]n every contested abandonment case, the respondent denies an intention to abandon its mark.”<sup>74</sup> Understanding that “actions frequently speak louder than words,” courts were willing to accept evidence of a trademark owner’s behavior—including periods of non-use of the mark—as evidence of their intent to abandon.<sup>75</sup>

But the 1946 Lanham Act departed from common law abandonment. An early draft retained the “[i]ntent to abandon” language alongside “intent not to resume [use].”<sup>76</sup> The law as enacted, however, replaced the phrase “intent to abandon” with “[i]ntent not to resume [use].”<sup>77</sup> Congress and the courts may have seen those two standards as interchangeable.<sup>78</sup> And since common law courts already considered non-use as evidence of an intent to abandon, the practical difference between them may appear minimal.

Nonetheless, the distinction is meaningful.<sup>79</sup> Instead of evaluating the trademark owner’s intent to relinquish ownership of the mark, the Lanham Act instructs courts to determine whether the owner intended

<sup>73</sup> *Saxlehner*, 179 U.S. at 31. *See also* *Wallace & Co. v. Repetti, Inc.*, 266 F. 307, 309 (2d Cir. 1920) (finding no intent to abandon even with small but continuous sales and licensing of mark); *Stratton & Terstegge Co. v. Stiglitz Furnace Co.*, 81 S.W.2d 1, 4 (Ky. 1935) (noting that granting an exclusive license does not indicate an intent to abandon).

<sup>74</sup> *Imperial Tobacco Ltd. v. Philip Morris, Inc.*, 899 F.2d 1575, 1581 (Fed. Cir. 1990).

<sup>75</sup> *Am. Photographic Publ’g Co. v. Ziff-Davis Publ’g Co.*, 135 F.2d 569, 573 (7th Cir. 1943) (considering twenty years of non-use, along with written statements of the trademark holder, in finding abandonment); *see also* *Acme Valve & Fittings Co. v. Wayne*, 386 F. Supp. 1162, 1167 (S.D. Tex. 1974) (discontinuing manufacture, sale of inventory, and failure to renew registration supported abandonment).

<sup>76</sup> H.R. 4744, 76th Cong. § 46 (1939). Earlier versions of the bill made no mention of abandonment or other common law defenses, leaving the courts to develop and apply them. *See* H.R. 9041, 75th Cong. § 43 (1938) (omitting any definition of abandonment in the construction and definitions section). *See also* Jessica Litman, *Edward S. Rogers, the Lanham Act, and the Common Law*, in *Research Handbook on the History of Trademark Law* 427, 456 (Lionel Bently & Robert G. Bone eds.) (2024) (tracking the history of the bill and noting that the drafts did not attempt to restate many established common law doctrines).

<sup>77</sup> 15 U.S.C. § 1127; H.R. 6618, 76th Cong. § 45 (1939).

<sup>78</sup> A witness described the “intent not to resume” standard as “present law.” *Trade-Marks: Hearings on H.R. 82 Before a Subcomm. of the Senate Comm. on Pats.*, 78th Cong. 24 (1944) (statement of Daphne Robert, Member of Trademark Legislation Committee, American Bar Association). Before the Act’s passing, some courts failed to distinguish between the intent to abandon and the intent not to resume use. *See, e.g.*, *Gold Seal Assocs. v. Gold Seal Assocs.*, 56 F.2d 452, 453 (S.D.N.Y. 1932) (finding no intent to abandon by examining business efforts to revive use of the mark). The initial draft of the Lanham Act used the two phrases seemingly interchangeably: “A trade-mark shall be deemed to be ‘abandoned’—(a) When its use has been discontinued with intent not to resume. Intent to abandon may be inferred from circumstances.” H.R. 4744, 76th Cong. § 46 (1939).

<sup>79</sup> *See* *Exxon Corp. v. Humble Expl. Co.*, 695 F.2d 96, 102 (5th Cir. 1983) (distinguishing “intent not to abandon” and “intent to resume use”).

to refrain from using its mark.<sup>80</sup> Those two standards, while intertwined, are not identical. A trademark owner may cease use of an established mark with no plans to resume use while subjectively intending to maintain rights in the mark indefinitely.<sup>81</sup> This is often the case with personal property: you may leave books on your shelves untouched for years, but you still regard yourself as their owner, even if you have no intention of reading them. Although Congress offered no explanation, this shift appears to emphasize objective evidence of intent rather than the subjective plans and desires of the trademark holder.<sup>82</sup> That goal is consistent with the Lanham Act's adoption of a presumption of abandonment after two years of non-use, later extended to three years.<sup>83</sup>

In our view, evidence of non-use—and even a presumption premised on non-use—is appropriate to consider. But ultimately, abandonment should turn on the intent to relinquish rights. If instead, Congress prefers a rule that eliminates trademark protection after an extended period of non-use, it is empowered to adopt one. After all, use in commerce is necessary to establish and maintain trademark protection. But when IP rights end as a result of non-use rather than intent, we categorize that as *ex post* invalidation.<sup>84</sup> The result may be the same, but the rationales are not.

Trademark's genericide doctrine offers a clearer example of a doctrine that Congress mislabeled as abandonment. When a once-distinctive mark—like aspirin, escalator, or yo-yo—becomes widely used as the label for a category of products rather than a source indicator, that term is generic.<sup>85</sup> The Lanham Act categorizes genericide as a form of abandonment.<sup>86</sup> Specifically, the statute provides that “[w]hen any course of conduct of the owner . . . causes the mark to become the generic name for the goods or services on or in connection with which

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<sup>80</sup> See 15 U.S.C. § 1127.

<sup>81</sup> *Id.*; see also *Silverman v. CBS Inc.*, 870 F.2d 40, 46 (2d Cir. 1989) (concluding that Congress intended this change “to avoid the implication that intent never to resume use must be shown”).

<sup>82</sup> See *Silverman*, 870 F.2d at 46 (noting that the Lanham Act “avoids a subjective inquiry . . . by setting forth the circumstances under which a mark shall be ‘deemed’ to be abandoned”).

<sup>83</sup> To overcome this presumption, an owner must produce evidence of their intent to resume use of the mark in the reasonably foreseeable future. See *Cumulus Media, Inc. v. Clear Channel Commc’n., Inc.*, 304 F.3d 1167, 1177 (11th Cir. 2002).

<sup>84</sup> *Cf.* *Renner v. Nemitz*, 33 P.3d 255 (Mont. 2001) (observing that in real property, “[m]ere non-use is insufficient . . . ; abandonment must be proven with words or acts that indicate clear intent to abandon”).

<sup>85</sup> See *Elliott v. Google, Inc.*, 860 F.3d 1151, 1156 (9th Cir. 2017) (“Genericide occurs when the public appropriates a trademark and uses it as a generic name for particular types of goods or services irrespective of its source.”).

<sup>86</sup> See 15 U.S.C. § 1127.

it is used or otherwise to lose its significance as a mark,” that mark is deemed abandoned.<sup>87</sup> But genericide has no intent requirement.<sup>88</sup> Even if a trademark owner launches an aggressive ad campaign to discourage generic use, it may still lose its trademark rights. Again, we have no objection to genericide as a trigger for the loss of rights, but it should not be confused with abandonment.<sup>89</sup>

Despite the Lanham Act’s overly broad definition, courts still recognize clear expressions of intent to relinquish rights to the mark as a form of abandonment.<sup>90</sup> For example, when a trademark owner announced that a mark “will be eliminated” and replaced by a new brand, that “public declaration of discontinuance” satisfied the common law standard.<sup>91</sup> In another instance, Kingsford-Clorox announced its abandonment of the Duraflame mark in the *Wall Street Journal*.<sup>92</sup>

Compared to other forms of IP, the trade secret abandonment case law is underdeveloped. Although courts recognize the doctrine, few cases explicitly reference abandonment, and even fewer analyze the question meaningfully.<sup>93</sup> When courts do invoke abandonment, they typically use the term as a general descriptor of the loss of trade secret rights.<sup>94</sup> Some cases refer to trade secret “abandonment” when a patent reveals once-secret information.<sup>95</sup> In others, courts find abandonment after public disclosures or sales. One court stated that the public sale of a product with a simple design—the Salad Shooter—was sufficient to “abandon” trade secret protection.<sup>96</sup>

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<sup>87</sup> *Id.*

<sup>88</sup> *See id.*; *see also* King-Seeley Thermos Co. v. Aladdin Indus., Inc., 321 F.2d 577, 579 (2d Cir. 1963) (finding the term “thermos” to be generic despite efforts to police such uses).

<sup>89</sup> In our taxonomy, genericide is an example of *ex post* invalidity since a once-valid mark no longer meets the trademark law’s distinctiveness requirement.

<sup>90</sup> A leading treatise refers to these scenarios as “voluntary abandonment.” J. THOMAS MCCARTHY, 3 MCCARTHY ON TRADEMARKS AND UNEFAIR COMPETITION § 17:1 (5th ed. 2021).

<sup>91</sup> *Hiland Potato Chip Co. v. Culbro Snack Foods, Inc.*, 585 F. Supp. 17, 22 (S.D. Iowa 1982), *aff’d*, 720 F.2d 981 (8th Cir. 1983).

<sup>92</sup> *See* *Cal. Cedar Prods. Co. v. Pine Mountain Corp.*, 724 F.2d 827, 829 (9th Cir. 1984).

<sup>93</sup> *See* *Drill Parts & Serv. Co. v. Joy Mfg. Co.*, 439 So. 2d 43, 49–50 (Ala. 1983) (stating abandonment was a question of fact for the jury where secret information was found in the trash).

<sup>94</sup> Judge Posner made this connection explicit, concluding that a trade secret is “abandoned” if the owner fails to make reasonable efforts to maintain secrecy in much the same way a trademark owner “abandons” a mark if they fail to police infringement. *See* *Rockwell Graphic Sys., Inc. v. DEV Indus., Inc.*, 925 F.2d 174, 179 (7th Cir. 1991). Regardless of the merits of this analogy, neither are examples of abandonment in our estimation.

<sup>95</sup> *See, e.g.*, *Plastic & Metal Fabricators, Inc. v. Roy*, 303 A.2d 725, 266 n.4 (Conn. 1972) (“[P]ublication of [the] patent . . . is considered the abandonment of the secrecy.”).

<sup>96</sup> *See* *Nat’l Presto Indus., Inc. v. Hamilton Beach, Inc.*, No. 88 C 10567, 1990 WL 208594, at \*9 (N.D. Ill. 1990).

There is no question that trade secrets can be lost through public disclosures or failures to maintain secrecy. But without the intent to relinquish rights, these are not instances of abandonment.<sup>97</sup> The fact that the information no longer qualifies as a secret is enough to lose trade secret rights, regardless of intent.<sup>98</sup> As the Supreme Court of Minnesota explained, evidence of “an intention to keep . . . data and processes secret . . . does not bear upon” whether a party meets the statutory requirements for trade secret protection.<sup>99</sup> But without intent, there is no abandonment.<sup>100</sup>

Camilla Hrdy and Mark Lemley have proposed expanding the bases for finding that a trade secret owner has lost its rights.<sup>101</sup> In addition to public disclosures and failures to maintain secrecy, they argue that trade secrets rights should end when secrecy no longer provides the owner independent economic value.<sup>102</sup> Whether through the passage of time, the owner’s exit from the market, or the introduction of superior technologies, secrets lose their economic value. When they do, Hrdy and Lemley argue, the law should no longer protect them.<sup>103</sup>

We find Hrdy and Lemley’s substantive recommendations persuasive, but the doctrine they outline is not abandonment as we understand it.<sup>104</sup> Their standard, inspired by the Lanham Act, turns on

<sup>97</sup> To be clear, publication of a trade secret with knowledge that the disclosure would eliminate protection would be very strong evidence of an intent to abandon. But once the disclosure occurs, the trade secret is, in our terminology, *ex post* invalid. At that point, abandonment is superfluous.

<sup>98</sup> See *Evans v. Gen. Motors Corp.*, 976 A.2d 84, 93 (Conn. Super. Ct. 2007) (“[P]ublic disclosure of a trade secret through a patent . . . precludes the recovery of [trade secret] damages.”). See also *Timely Prods. Corp. v. Arron*, 523 F.2d 288, 304 (2d Cir. 1975) (noting that patent issuance “cut[s] off . . . [any] right to prevent [trade secret] use or disclosure by others”); *Forest Lab’y, Inc. v. Pillsbury Co.*, 452 F.2d 621, 624 (7th Cir. 1971) (finding no liability after patent issuance because “the element of secrecy evaporated with the issuance of the patent”); *Conmar Prods. Corp. v. Universal Slide Fastener Co.*, 172 F.2d 150, 156 (2d Cir. 1949) (“[A]ny possible liability for exploiting whatever the patents in suit disclosed, ended with their issue.”).

<sup>99</sup> *Electro-Craft Corp. v. Controlled Motion, Inc.*, 332 N.W.2d 890, 901 (Minn. 1983).

<sup>100</sup> In a rare case in which the court approached the question of intent, it held that the failure to commercially exploit an invention did not amount to abandonment. See *Gen. Aniline & Film Corp. v. Frantz*, 272 N.Y.S.2d 600, 608–09 (Sup. Ct. 1966).

<sup>101</sup> See Hrdy & Lemley, *supra* note 10, at 4.

<sup>102</sup> *Id.*

<sup>103</sup> *Id.*

<sup>104</sup> The primary cases Hrdy and Lemley discuss illustrate the problem. In *Fox Sports Net N., LLC v. Minn. Twins P’ship*, the court rejected a cable network’s claim that its trade secrets were misappropriated on the grounds that “obsolete information cannot form the basis for a trade secret claim because the information has no economic value.” 319 F.3d 329, 336 (8th Cir. 2003). The court did not invoke abandonment or consider the network’s intent. In *Taylor v. Babbit*, the court held that Fairchild lost its trade secrets related to the F45 aircraft when it stopped manufacturing or otherwise commercially exploiting the design. 760 F. Supp. 2d 80, 89–90 (D.D.C. 2011). That fact may well be relevant to a determination

the failure of a substantive requirement for protection. Rather than use, they focus on economic value.<sup>105</sup> But that approach, like the Lanham Act, does not acknowledge the key element that defines abandonment: the owner's intention to relinquish rights. We agree that trade secret owners should lose their rights if they no longer derive independent economic value from the information. But we think that loss of rights is better understood as invalidation than abandonment.<sup>106</sup>

That said, Hrdy and Lemley's imprecise use of "abandonment" is hardly unique. We've already seen how Congress departed from the common law of abandonment in the Lanham Act with little explanation or justification.<sup>107</sup> Although the common law definition is well-established, courts and commentators regrettably use the term to refer to distinct terminal mechanisms.<sup>108</sup> This objection is more than terminological scolding. By defining abandonment broadly and imprecisely, courts, legislators, and commentators blur the lines between abandonment and other terminal mechanisms, frustrating our ability to talk coherently about them, and frustrating the sound development of the law.<sup>109</sup>

### C. Forfeiture

Of all the terms associated with terminating IP rights, "forfeiture" is used with the least consistency, especially with respect to confusing forfeiture and abandonment. Courts use the terms interchangeably.<sup>110</sup> IP scholarship also often uses the term "forfeiture" broadly to refer to any cession of rights, including those resulting from intentional acts or substantive invalidation.<sup>111</sup> This confusion is compounded by

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of Fairchild's intent, but the court did not undertake that analysis. Instead, it reasoned that since the information no longer had independent economic value for the firm, Fairchild had no trade secret. *Id.*

<sup>105</sup> See Hrdy & Lemley, *supra* note 10, at 5.

<sup>106</sup> See *infra* Section I.D.

<sup>107</sup> See 15 U.S.C. § 1127; H.R. 6618, 76th Cong. § 45 (1939).

<sup>108</sup> See, e.g., *Neva-Wet Corp. of Am. v. Never Wet Processing Corp.*, 13 N.E.2d 755, 761 (N.Y. 1938) (equating trademark forfeiture and abandonment).

<sup>109</sup> See Fagundes & Perzanowski, *supra* note 10, at 535–52 (discussing the doctrinal impact on copyright of poorly defined abandonment doctrine).

<sup>110</sup> See, e.g., *Transgo, Inc. v. Ajac Transmission Parts Corp.*, 768 F.2d 1001, 1019 (9th Cir. 1985) ("A copyright can be forfeited through some overt act which indicates the copyright proprietor's desire to surrender its rights."); see also JOYCE, OCHOA & CARROLL, *supra* note 6, at 942 (charitably observing that "[t]he nomenclature employed in the cases sometimes is less than precise").

<sup>111</sup> See, e.g., Varadarajan, *supra* note 10, at 179 (using the term "forfeiture" to describe a range of ways IP rights end); Seymore, *supra* note 10, at 1046 (proposing a new unenforceability defense known as "patent forfeiture" for egregious patent misconduct); Linford, *supra* note 16, at 821–33 (detailing various trademark "forfeiture" mechanisms).

the fact that “forfeiture” has a different, and also diffuse, meaning in physical property, where it most commonly refers to state takings of real or chattel property, usually as a sanction in criminal cases but also increasingly in the civil forfeiture context as an *in rem* action against property connected to some unlawful activity.<sup>112</sup>

But abandonment and forfeiture should be distinct.<sup>113</sup> Abandonment, as long defined by the common law, is the intentional relinquishment of IP rights, whereas forfeiture, according to our definition, is the unintentional loss of IP rights through failing to comply with some formal requirement. The first criterion reflects that the core distinction between IP abandonment and forfeiture turns on intent. The second element distinguishes forfeiture from losses of IP rights due to some substantive invalidity.<sup>114</sup> For example, an owner who loses their patent rights by failing to pay required maintenance fees suffers a forfeiture.<sup>115</sup> By contrast, a patentee whose rights end when a court determines their invention is obvious is on the receiving end of invalidation.<sup>116</sup>

Forfeiture is currently a non-issue in copyright, but that was not always so. Before the 1976 Act, copyright owners had to navigate a series of statutory formalities from vesting until expiration, risking forfeiture for noncompliance.<sup>117</sup> Federal copyright protection typically required publication with proper notice.<sup>118</sup> Initial publication without notice would cede the author’s state common law copyright while leaving the work unprotected under federal law.<sup>119</sup> As a result, the work would enter the public domain at the moment of publication.<sup>120</sup>

Even federally copyrighted works were not safe from forfeiture. Subsequent publication of a copyright-vested work without proper

<sup>112</sup> See GEORGE N. AYLESWORTH, *FORFEITURE OF REAL PROPERTY: AN OVERVIEW* 7 (1991) (describing and contrasting criminal and civil forfeiture of real and personal property).

<sup>113</sup> See JOYCE, OCHOA & CARROLL, *supra* note 6, at 942 (“[A]bandonment must not be confused with forfeiture.”).

<sup>114</sup> Admittedly, the line between formal and substantive requirements is sometimes contestable. See, e.g., 35 U.S.C. § 112(a) (outlining patent law’s written description requirement).

<sup>115</sup> An owner who intentionally chooses to let their patent enter the public domain by not paying maintenance fees has also abandoned it.

<sup>116</sup> See *infra* Section I.D.2.

<sup>117</sup> See Sprigman, *supra* note 50, at 487.

<sup>118</sup> See Copyright Act of 1909, ch. 320, § 9, 35 Stat. 1075, 1077 (1909) (repealed 1976).

<sup>119</sup> STAFF OF S. COMM. ON THE JUDICIARY, 86TH CONG., *COPYRIGHT LAW REVISION: STUDY NO. 7 NOTICE OF COPYRIGHT 5* (Comm. Print 1960) (primarily authored by Vincent A. Doyle, George D. Cary, Marjorie McCannon, and Barbara A. Ringer).

<sup>120</sup> The 1976 Act allowed authors an opportunity to cure notice failures within five years. 17 U.S.C. § 405(a).

notice could also forfeit statutory rights.<sup>121</sup> Moreover, under the 1976 Act's predecessors, copyrights had bifurcated terms.<sup>122</sup> To secure the second term, the copyright holder needed to apply for renewal with the Copyright Office.<sup>123</sup> Failure to file, filing a defective application, or filing outside the required period would all forfeit the copyright.<sup>124</sup>

The Copyright Act of 1976 began a gradual phasing out of formalities.<sup>125</sup> It replaced bifurcated copyright terms with unitary terms, removing any need for renewal.<sup>126</sup> It also vested copyrights at the moment of fixation rather than publication, largely eliminating the risk of forfeiture for lack of notice.<sup>127</sup> Any remaining risk of forfeiture was addressed by the Berne Convention Implementation Act of 1988, which scrapped divestiture as a penalty for publication without proper notice.<sup>128</sup> Finally, the Copyright Renewal Act of 1992 made renewal automatic for older works, so that even an owner who failed to file for renewal would not lose their copyright.<sup>129</sup> These statutory revisions transformed copyright from a minefield of formal hurdles to a system with minimal formal requirements, none of which threaten loss of ownership.<sup>130</sup>

Patent law presents owners with only one formal hurdle threatening forfeiture: maintenance fees. Patentees must pay the PTO fees at three different intervals: 3.5 years, 7.5 years, and 11.5 years after issuance.<sup>131</sup> Nonpayment results in invalidation of the patent and cession of the invention to the public domain.<sup>132</sup> These fees range from \$2,000 at the 3.5-year interval to \$7,700 at the 11.5-year interval.<sup>133</sup> Patentees fail to pay these fees for several reasons. They may estimate that the fees exceed the remaining value of the patent. Others may

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<sup>121</sup> Copyright Act of 1909 § 9 (providing that “such notice shall be affixed to each copy thereof published or offered for sale in the United States by authority of the copyright proprietor”); *see* Nat’l Comics Publ’ns, Inc. v. Fawcett Publ’ns, Inc., 191 F.2d 594 (2d Cir. 1951).

<sup>122</sup> Copyright Act of 1909 § 23.

<sup>123</sup> *Id.* § 24.

<sup>124</sup> *Id.*

<sup>125</sup> Sprigman, *supra* note 50.

<sup>126</sup> 17 U.S.C. § 304.

<sup>127</sup> *Id.* § 102(a).

<sup>128</sup> Berne Convention Implementation Act of 1988, H.R. 4262, 100th Cong. § 7(e) (1988), 17 U.S.C. § 405.

<sup>129</sup> Copyright Amendments Act of 1992, S. 756, 102nd Cong. § 102 (1992), 17 U.S.C. § 304(a).

<sup>130</sup> Sprigman, *supra* note 50, at 494–95 (describing the shift from registration, notice, and renewal requirements to automatic vesting upon fixation).

<sup>131</sup> 35 U.S.C. § 41(b).

<sup>132</sup> *Id.*

<sup>133</sup> 37 C.F.R. § 1.20 (2024). Small businesses benefit from a sixty percent discount on applicable fees. 35 U.S.C. § 41(h).

find the fees unaffordable despite a desire to maintain ownership. Or they may simply overlook the fee requirement. To the extent that the failure to pay is inadvertent, the resulting loss of rights would be a forfeiture.<sup>134</sup>

Trademarks present owners with few forfeiture risks. Common law trademark rights accrue when a provider of goods or services uses a distinctive mark in commerce.<sup>135</sup> Since those rights are not conditioned on any formal requirements, they are not subject to forfeiture. On the other hand, federal trademark registration introduces formalities and the attendant risk of forfeiture. Like patent law, the Lanham Act requires owners to pay regular fees to maintain federal registration of a mark.<sup>136</sup> Unlike patents, owners also must periodically file a maintenance document attesting that they are still using the mark in commerce.<sup>137</sup> Failure to pay the fee or file the form results in cancellation or expiration of an owner's federal trademark registration.<sup>138</sup> Registration is unnecessary to enforce a trademark under state or federal law, but it does confer several advantages, including nationwide priority.<sup>139</sup> Forfeiture of registration is thus best understood as a partial rather than a wholesale loss of trademark rights and, therefore, not a terminal mechanism.<sup>140</sup>

Finally, trade secret rights do not turn on any formal requirements.<sup>141</sup> As a result, there are no formal means by which they can be forfeited. A court may conclude that a plaintiff's asserted trade secret is invalid because the information at issue was not secret, the owner did not make sufficient efforts to maintain secrecy, or the asserted secret did not confer independent economic value or competitive advantage on its owner. But these are all substantive, not formal, defects.

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<sup>134</sup> Inequitable conduct in patent law might look like forfeiture, but since it turns on material misrepresentations or omissions, it is better considered a substantive invalidity rule. See *infra* Section I.D.

<sup>135</sup> See *United Drug Co. v. Theodore Rectanus Co.*, 248 U.S. 90, 97–98 (1918) (“[A] trademark confers no monopoly whatever in a proper sense, but is merely a convenient means for facilitating the protection of one’s good-will in trade by placing a distinguishing mark or symbol—a commercial signature—upon the merchandise or the package in which it is sold.”).

<sup>136</sup> 37 C.F.R. § 2.6 (2024).

<sup>137</sup> 15 U.S.C. § 1058.

<sup>138</sup> *Id.*

<sup>139</sup> 15 U.S.C. § 1057.

<sup>140</sup> There are other ways that an owner may lose their rights in a mark, such as lack of distinctiveness or naked licensing. Because these doctrines invalidate trademarks for substantive rather than formal reasons, we consider them forms of invalidity.

<sup>141</sup> *Hrdy & Lemley, supra* note 10, at 12.

### D. Invalidation

Unlike other terminal mechanisms, invalidation occurs when a vested IP interest is found to lack some substantive requirement for protection. IP rights turn on a litany of such elements: originality and fixation; novelty, non-obviousness, and utility; distinctiveness and use in commerce; secrecy and independent economic value, among others.<sup>142</sup> If any of these conditions are not met prior to vesting, no valid IP right arises. But if such failures are found after vesting, that is still fatal to that right.

Invalidity can be evaluated from two distinct perspectives. In some cases, courts ask whether a once-valid IP right still satisfies the necessary substantive requirements today.<sup>143</sup> Consider a mark—like “laundromat”—that becomes generic after widespread use. It was once distinctive, reliably referring to Westinghouse’s services.<sup>144</sup> But today, it refers generically to any coin-operated laundry and, as a result, no longer qualifies for trademark protection. We term this *ex post invalidation*.<sup>145</sup>

In other cases, the inquiry focuses on whether an IP right was valid when initially granted. Some purported trademarks—“Pretzel Crisps” for thin crispy pretzel snacks, for example—are generic from the outset.<sup>146</sup> Similarly, courts commonly invalidate issued patents if they failed to satisfy a substantive element of patentability at the time of issuance.<sup>147</sup> We call this *ab initio invalidation*.

In part, the distinction between *ex post* and *ab initio* invalidation is baked into the substantive requirements of each IP regime. A valid patent can’t be obvious at the moment of invention, but the law does not ask whether it is obvious years later out of a reasonable worry about

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<sup>142</sup> See, e.g., 17 U.S.C. § 102 (requiring originality and fixation in copyright); 35 U.S.C. §§ 101–103 (requiring novelty, non-obviousness, and utility in patents); *United Drug Co. v. Theodore Rectanus Co.*, 248 U.S. 90, 97–98 (1918) (explaining that distinguishing use in commerce is emblematic of a trademark); UNIF. TRADE SECRETS ACT § 1, 14 U.L.A. 5 (1985) (requiring secrecy and independent economic value in trade secrets).

<sup>143</sup> See, e.g., *King-Seeley Thermos Co. v. Aladdin Indus., Inc.*, 321 F.2d 577, 579 (2d Cir. 1963) (holding that the term “thermos” lost trademark protection after becoming generic).

<sup>144</sup> *A Coin Washing Machine by Any Other Name*, L.A. TIMES, Jan. 30, 1989, at C5.

<sup>145</sup> Admittedly, that term is sometimes used in the patent literature to refer to any invalidation after the initial grant. See Greg Reilly, *The Complicated Relationship of Patent Examination and Invalidation*, 69 AM. U.L. REV. 1095, 1098–99 (2020) (describing any post-issuance invalidation as *ex post*).

<sup>146</sup> *Frito-Lay N. Am., Inc. v. Princeton Vanguard, LLC*, 124 U.S.P.Q.2d 1184, 1206 (T.T.A.B. 2017) (canceling registration for being generic).

<sup>147</sup> See John R. Allison & Mark A. Lemley, *Empirical Evidence on the Validity of Litigated Patents*, 26 AIPLA Q.J. 185, 208 (1998).

hindsight bias.<sup>148</sup> But other substantive requirements—like secrecy and distinctiveness—are evaluated on a rolling basis.<sup>149</sup>

### 1. *Ex Post Invalidation*

Since *ex post* invalidation evaluates IP interests as of the present day, it can only terminate those interests to the extent they impose ongoing substantive obligations on rights holders. Trademark and trade secret law feature such obligations, but copyright and patent law generally do not. As a result, post-grant changes in circumstance can lead to the loss of trademarks and trade secrets, while copyrights and patents are largely immune to *ex post* invalidation.

A valid trademark requires the use in commerce of a sufficiently distinctive mark.<sup>150</sup> Genericide is the most obvious change in circumstances that leads to a loss of distinctiveness and, by extension, trademark rights.<sup>151</sup> Likewise, naked licensing occurs when a trademark owner permits other firms to use its mark without appropriately monitoring or assuring the quality of those third-party offerings.<sup>152</sup> As a result, the mark no longer serves as a reliable indicator of source, and thereby becomes invalid.

Trade secrecy also imposes several ongoing substantive obligations. Information must be: not generally known or readily ascertainable, subject to reasonable efforts to maintain secrecy,

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<sup>148</sup> *Uniroyal, Inc. v. Rudkin-Wiley Corp.*, 837 F.2d 1044, 1051 (Fed. Cir. 1988).

<sup>149</sup> The line separating *ex post* and *ab initio* invalidation is occasionally a blurry one. Consider copyright invalidations under § 103(a), which provides that “protection for a work employing preexisting material in which copyright subsists does not extend to any part of the work in which such material has been used unlawfully.” 17 U.S.C. § 103(a). The creator of an unlicensed derivative work may find their copyright invalidated, but if an unlicensed derivative is a fair use, its copyright remains valid. See Pamela Samuelson & Jessica Silbey, *Preventing Unjust Enrichment and Copyright Opportunism: An Equitable Interpretation of Section 103(a)*, 66 B.C. L. REV. 2585, 2606–08 (2025). Since fair use determinations take into account post-creation use and market effects, such cases fall at the intersection of *ex post* and *ab initio* invalidity.

<sup>150</sup> See *B & B Hardware, Inc. v. Hargis Indus., Inc.*, 575 U.S. 138, 142 (2015).

<sup>151</sup> See *Bayer Co. v. United Drug Co.*, 272 F. 505, 509–10 (S.D.N.Y. 1921) (discussing whether “Aspirin” had become genericized); *Elliott v. Google, Inc.*, 860 F.3d 1151, 1156 (9th Cir. 2017) (defining genericide).

<sup>152</sup> *Barcamerica Int’l USA Tr. v. Tyfield Imps., Inc.*, 289 F.3d 589, 596 (9th Cir. 2002) (“[U]ncontrolled or ‘naked’ licensing may result in the trademark ceasing to function as a symbol of quality and controlled source.”). Courts often mislabel naked licensing as a form of abandonment. See *id.* (“[W]here the licensor fails to exercise adequate quality control over the licensee, a court may find that the trademark owner has abandoned the trademark, in which case the owner would be estopped from asserting rights to the trademark.”); *Exxon Corp. v. Oxxford Clothes, Inc.*, 109 F.3d 1070, 1075 (5th Cir. 1997) (“A trademark owner’s failure to exercise appropriate control and supervision over its licensees may result in an abandonment of trademark protection for the licensed mark.”).

and independently economically valuable by virtue of its secrecy.<sup>153</sup> Unlike other areas of IP, there is no administrative determination of validity for trade secrets. Rather, courts evaluate their validity for the first time during litigation. A court may well decide that one or more of those elements were never satisfied, an example of ab initio invalidity.<sup>154</sup> But a court might instead find that a once-valid trade secret subsequently failed—perhaps because the information became generally known<sup>155</sup> or readily ascertainable,<sup>156</sup> the plaintiff failed to maintain adequate measures to protect the secret,<sup>157</sup> or it lost its economic value.<sup>158</sup> In any case, those changed circumstances lead to the loss of rights.

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<sup>153</sup> UNIF. TRADE SECRETS ACT § 1, 14 U.L.A. 5 (1985).

<sup>154</sup> See, e.g., *Agency Solutions.com, LLC v. TriZetto Grp., Inc.*, 819 F. Supp. 2d 1001, 1022 (E.D. Cal. 2011) (finding information “very likely to be . . . generally known to other persons skilled in the same field and therefore not trade secrets”); *EarthCam, Inc. v. OxBlue Corp.*, 49 F. Supp. 3d 1210, 1227 (N.D. Ga. 2014), *aff’d*, 703 F. App’x 803 (11th Cir. 2017) (finding no valid trade secret where plaintiff failed to “explain why it ‘derives economic value’” from secrecy); *VFD Consulting, Inc. v. 21st Servs.*, 425 F. Supp. 2d 1037, 1049 (N.D. Cal. 2006) (finding no trade secret where information was publicly available).

<sup>155</sup> In *Religious Tech. Ctr. v. Lerma*, the plaintiff Church of Scientology claimed certain internal documents were trade secrets. 897 F. Supp. 260, 266 (E.D. Va. 1995). The court agreed that the documents originally constituted valid trade secrets but held that because third parties had already posted them on the internet, they had become “generally known” and were no longer protected. When trade secrets are publicly disclosed “in connection with . . . information that is relevant to public health or safety, or to the commission of a crime or tort, or other matters of substantial concern,” such disclosure may be protected under the First Amendment. See Pamela Samuelson, *Principles for Resolving Conflicts between Trade Secrets and the First Amendment*, 58 HASTINGS L.J. 777, 787–88 (2007) (citing RESTATEMENT (THIRD) OF UNFAIR COMPETITION § 40 cmt. c (1993)). However, government disclosures that eliminate trade secret protection may constitute takings under the Fifth Amendment. See *Ruckelshaus v. Monsanto Co.*, 467 U.S. 986, 1003–04 (1984) (holding that EPA disclosure of otherwise secret data may constitute a taking); see also *U.S. Marine, Inc. v. United States*, 722 F.3d 1360, 1373–74 (Fed. Cir. 2013) (“The Supreme Court has held that a government use or disclosure of a trade secret can constitute a taking for which, under the Fifth Amendment, the United States must pay just compensation.”); *Philip Morris Inc. v. Reilly*, 312 F.3d 24, 32 (1st Cir. 2002) (en banc) (“Specific laws simply cannot destroy property interests. In fact, this is precisely what the Takings Clause is designed to prevent . . .”).

<sup>156</sup> See Jacob S. Sherkow, *The Myth of DNA Trade Secrecy*, 75 U.C. L.J. 1047, 1047, 1088–90 (2024) (describing the loss of trade secrets when technology renders once-secret information “readily ascertainable to the public,” as in the case of widespread, low-cost DNA sequencing, which eliminated trade secrets on DNA sequences).

<sup>157</sup> See *Zemco Mfg., Inc. v. Navistar Int’l Transp. Corp.* 759 N.E.2d 239, 250 (Ind. Ct. App. 2001) (explaining that while plaintiff’s manufacturing method originally constituted a trade secret, the trade secret became invalid when plaintiff allowed people into their plant); *Allied Supply Co. v. Brown*, 585 So. 2d 33, 36 (Ala. 1991) (explaining that while plaintiff’s client list originally amounted to a trade secret, trade secrecy was lost when plaintiff gave employees access to the list without adequate safeguards).

<sup>158</sup> See *Hrdy & Lemley*, *supra* note 10, at 1.

## 2. *Ab Initio Invalidation*

Ab initio invalidity asks whether the owner's claim satisfied the substantive elements at the time of the initial grant. All IP rights are subject to ab initio invalidation.

If a claimed invention is obvious or lacks novelty, for example, it is invalid.<sup>159</sup> Those flaws might be flagged during the PTO's initial examination. If so, the patent will not issue.<sup>160</sup> If not, a court or administrative body may later determine that one or more substantive requirements were never met, invalidating the patent.<sup>161</sup>

Likewise, a work that lacks originality or isn't fixed in a tangible medium does not qualify for copyright protection.<sup>162</sup> If a court finds, for example, that a work is unoriginal, it never satisfied the threshold requirements for copyrightability regardless of the Copyright Office's decision to register it.

Courts can invalidate common law trademark claims for a variety of reasons, among them failure to make use in commerce,<sup>163</sup> insufficient distinctiveness,<sup>164</sup> lack of priority,<sup>165</sup> functionality,<sup>166</sup> and

<sup>159</sup> 35 U.S.C. §§ 102, 103.

<sup>160</sup> We do not consider pre-grant invalidation a terminal mechanism. In patent law, there is no legal right if no patent issues. For copyrights and trademarks, initial validity determinations by the relevant administrative bodies carry little practical weight. Under the Copyright Act, a refused registration application establishes standing. 17 U.S.C. § 411(a). The Copyright Office's registration decisions are presumptively valid but can be overcome "[w]here other evidence in the record casts doubt on the question." *Fonar Corp. v. Domenick*, 105 F.3d 99, 104 (2d Cir. 1997) (quoting *Durham Indus., Inc. v. Tomy Corp.*, 630 F.2d 905, 908 (2d Cir. 1980)). For trademarks, registration is not necessary to bring infringement claims under state or federal law. *See Matal v. Tam*, 582 U.S. 218, 225 (2017) (noting that "even if a trademark is not federally registered, it may still be enforceable under § 43(a) of the Lanham Act"). Where the PTO refuses or cancels a registration, the plaintiff bears the burden "to prove that it was entitled to common law trademark protection." *Keebler Co. v. Rovira Biscuit Corp.*, 624 F.2d 366, 376 (1st Cir. 1980).

<sup>161</sup> *See* 35 U.S.C. §§ 311, 321.

<sup>162</sup> 17 U.S.C. § 102(a).

<sup>163</sup> *See Blue Bell, Inc. v. Farah Mfg. Co.*, 508 F.2d 1260, 1265 (5th Cir. 1975) ("[N]either conception of the mark nor advertising alone establishes trademark rights at common law." (citation omitted)); *Lyons v. Am. Coll. of Veterinary Sports Med. & Rehab.*, 859 F.3d 1023, 1030 (Fed. Cir. 2017) ("[M]ere preparation and publication of future plans do not constitute use in commerce.").

<sup>164</sup> *See Two Pesos, Inc. v. Taco Cabana, Inc.*, 505 U.S. 763, 769 (1992) ("The general rule regarding distinctiveness is clear: An identifying mark is distinctive and capable of being protected if it either (1) is inherently distinctive or (2) has acquired distinctiveness through secondary meaning.").

<sup>165</sup> *See In re Trade-Mark Cases*, 100 U.S. 82, 94 (1879) ("At common law the exclusive right to [a trademark] grows out of its use."); *United Drug Co. v. Theodore Rectanus Co.*, 248 U.S. 90, 100 (1918) ("Undoubtedly, the general rule is that, as between conflicting claimants to the right to use the same mark, priority of appropriation determines the question.").

<sup>166</sup> *See Tie Tech, Inc. v. Kinedyne Corp.*, 296 F.3d 778, 782 (9th Cir. 2002) ("The physical details and design of a product may be protected under the trademark laws only if they

deceptiveness.<sup>167</sup> Registration applications can be rejected for similar reasons.<sup>168</sup> Even successful registration offers trademark owners only a presumption of validity subject to cancellation proceedings at the PTO and invalidation by a court.<sup>169</sup>

Finally, trade secrets can be invalidated if a court determines that the information never satisfied the substantive elements for protection. In *Bimbo Bakeries, USA, Inc. v. Sycamore*, for example, the Tenth Circuit vacated a jury determination that the defendant had wrongfully appropriated the plaintiff's secret recipe for "granny-style" bread on the grounds that the information was "generally known or readily ascertainable" and was never a valid trade secret in the first instance.<sup>170</sup>

If ab initio invalidity applies when a court or administrative body determines that there was never a valid IP interest in the first place, why should we consider it a terminal mechanism? It is tempting to give a purely formal answer to this question. If there is no valid IP interest, there is nothing to terminate. However, the practical consequences of ab initio invalidation suggest it functionally ends owners' IP rights. If the PTO rejects a patent application, the applicant never enjoys the benefits of a patent. However, the holder of a mistakenly granted patent generally reaps its benefits until a court formally invalidates it. The patentee can threaten and bring infringement claims. They can extract settlements and licensing agreements. They are insulated from direct competition and can demand higher prices. They can use their IP rights to secure funding, establish partnerships, and bolster their reputation. We might imagine that after a finding of invalidity, a court would allow parties to claw back these unjust gains, but that is generally not the case.<sup>171</sup>

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are nonfunctional." (quoting *Clamp Mfg. Co. v. Enco Mfg. Co.*, 870 F.2d 512, 515 (9th Cir. 1989)); *Traffix Devices, Inc. v. Mktg. Displays, Inc.*, 532 U.S. 23, 32 (2001) ("[A] product feature is functional,[] and cannot serve as a trademark, if it is essential to the use or purpose of the article or if it affects the cost or quality of the article.").

<sup>167</sup> See *In re Spirits Int'l, N.V.*, 563 F.3d 1347, 1354 (Fed. Cir. 2009) ("Before the Lanham Act, deceptive common law trademarks were unenforceable." (citing *Worden & Co. v. Cal. Fig Syrup Co.*, 187 U.S. 516, 528, (1903))). But see David A. Simon, *Trademark Law & Consumer Safety*, 72 FLA. L. REV. 673, 731 (2020) (noting that "there is still a question about whether this common law rule applies" today).

<sup>168</sup> 15 U.S.C. § 1052.

<sup>169</sup> *Id.* § 1115.

<sup>170</sup> 29 F.4th 630, 640–42 (10th Cir. 2022). See also *Flotec, Inc. v. S. Rsch., Inc.*, 16 F. Supp. 2d 992, 999–1005 (S.D. Ind. 1998) (holding an oxygen regulator device was not a trade secret because it was not secret, it was publicly available); *Caesar's World v. Milanian*, 247 F. Supp. 2d 1171, 1203–04 (D. Nev. 2003) (holding a building with Ancient Roman-style architecture is not, on its own, a trade secret).

<sup>171</sup> Despite the Supreme Court suggesting in *Lear, Inc. v. Adkins* that invalid patents saddled patentees with the obligation to return all paid royalties, subsequent courts have declined to enforce that rule. 395 U.S. 653, 674 (1969). See also *Troxel Mfg. Co. v.*

Holders of later-invalidated IP rights benefit from them during this period of mistaken exclusivity. If courts do not require them to repay, unwind, or otherwise give up those accrued benefits, invalid rights are functionally equivalent to valid ones until a court or agency formally invalidates them. In that sense, *ab initio* invalidation brings those pseudo-rights to their end.

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This Part comprehensively mapped IP's terminal mechanisms with the aim of finding the common threads among them, and then created a taxonomy that reduced the varied doctrines that end IP into five categories: expiration, abandonment, forfeiture, *ex post* invalidation, and *ab initio* invalidation. In so doing, we hope to supply a coherent common vocabulary that has long been lacking in discourse and case law about the end of IP interests. Moreover, outlining this territory enables us to better understand the practical implications of IP's terminal mechanisms, which we take up in the ensuing Part.

## II

### TERMINAL MECHANISMS AS POLICY LEVERS

Like IP doctrines that focus on the scope of rights and infringement, terminal mechanisms are powerful policy levers that can influence the conduct of creators, determine which works are protected and for how

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Schwinn Bicycle Co., 465 F.2d 1253, 1259 (6th Cir. 1972) (construing *Lear* not “to require that a licensor should be compelled to repay all royalties received . . . where the patent subsequently is held to be invalid”); *Geffner v. Linear Rotary Bearings, Inc.*, 124 F.3d 229 (Fed. Cir. 1997) (unpublished table decision) (holding that “in the absence of fraud a licensee may not recover royalties previously paid even if the patent is subsequently declared invalid”). Instead, courts developed the challenge rule, a compromise position that allows licensees to stop paying royalties only once they challenge the patent's validity. *See generally* Andrew C. Michaels, *Tones that Echo from a Past Era of Rigid Jurisprudence: Pre-Challenge Royalties and the Federal Circuit's Shell Test*, 31 SANTA CLARA HIGH TECH. L.J. 543 (2015). Royalties paid before the challenge are not recoverable. *Id.* at 553–54. Licensees are typically prohibited from challenging invalid trademarks. *See Idaho Potato Comm'n v. M & M Produce Farm & Sales*, 335 F.3d 130, 135 (2d Cir. 2003) (noting that “when a licensee enters into an agreement to use the intellectual property of a licensor, the licensee . . . is estopped from contesting its validity”); *Fair Isaac Corp. v. Experian Info. Sols., Inc.*, 650 F.3d 1139, 1150 (8th Cir. 2011) (noting a licensor-licensee relationship effectively bars a licensee from recovering under trademark claims). Copyright law is less clear on this point. When it comes to expired, forfeited, or improperly licensed copyrights, some courts have ordered owners of invalidated copyrights to repay licensees on a contract theory. *See M&A Assocs., Inc. v. VCX, Inc.*, 657 F. Supp. 454, 461–62 (E.D. Mich. 1987) (holding it was inequitable for M&A Associates to retain royalty payments after copyright was invalidated due to inaction by M&A). But royalties are just one of the many ways a firm might exploit an invalid claim of copyright ownership.

long, and shape the markets consumers navigate.<sup>172</sup> Most obviously, terminal mechanisms cause IP rights to end. Formerly protected assets either enter the public domain, where they are free for all to use without restriction, or they become up for grabs for new owners to claim. Terminal mechanisms can operate as a threat. Owners who value their IP do not want to lose it. The threat of terminal mechanisms can convince owners to do socially valuable things, like disclosing information they would otherwise prefer to withhold. Beyond that, terminal mechanisms can be a helpful sorting tool. The possible loss of IP rights often presents owners with a choice: bear the costs of compliance and maintain ownership or choose to avoid those costs and lose it. Either way, an owner's decision in the face of a threat tells us something important about how much they value (or don't value) their work.

### A. *Enriching the Public Domain*

Terminal mechanisms move IP assets into the public domain. But the notion of a singular public domain is somewhat misleading, as that label is deployed in several related but distinct senses.<sup>173</sup> In the most familiar iteration, copyrighted works and patented inventions are unencumbered by exclusive rights, rendering them permanently free for anyone to use.<sup>174</sup> When trademarks enter the public domain, in contrast, they are up for grabs. Much like abandoned chattel property, such marks are generally available for others to claim as *res privatum*.<sup>175</sup> The loss of trade secret protection leaves the information free from

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<sup>172</sup> See Pamela Samuelson & Suzanne Scotchmer, *The Law and Economics of Reverse Engineering*, 111 *YALE L.J.* 1575, 1660 (2002) (understanding policy levers as “devices that both grant market power and limit its boundaries”). This use is somewhat broader than Burk and Lemley's conception of policy levers. See Dan L. Burk & Mark A. Lemley, *Policy Levers in Patent Law*, 89 *VA. L. REV.* 1575, 1579 (2003) (describing policy levers as “permit[ing] the courts to take account of different types of innovation in different industries”).

<sup>173</sup> See generally Pamela Samuelson, *Enriching Discourse on Public Domains*, 55 *DUKE L.J.* 783 (2006).

<sup>174</sup> When authors invoke the term “public domain,” this is the version to which they usually refer. *E.g.*, Jessica Litman, *The Public Domain*, 39 *EMORY L.J.* 965, 975 (1990) (defining the public domain as content that is “ineligible for private ownership”); Anupam Chander & Madhavi Sunder, *The Romance of the Public Domain*, 92 *CALIF. L. REV.* 1331, 1338 (2004) (defining the public domain as “[r]esources for which legal rights to access and use for free (or for nominal sums) are held broadly”).

<sup>175</sup> There are exceptions. Generic terms are incapable of distinctiveness and are ineligible for trademark status. *USPTO v. Booking.com B.V.*, 140 *S. Ct.* 2298, 2303 (2020). Functional features may be distinctive but are categorically excluded to avoid overlapping patent and trademark protection. See *TrafFix Devices, Inc. v. Mktg. Displays, Inc.*, 532 *U.S.* 23, 29 (2001) (explaining that “trade dress protection may not be claimed for product features that are functional”).

legal exclusivity, but unlike patented inventions and copyrighted works, once-secret information does not necessarily disclose itself to the public.

Maintaining a robust public domain is critical to the information ecosystem. The Supreme Court has acknowledged that the point of copyrights and patents is not to benefit private owners but to enrich the public by encouraging creative and inventive production.<sup>176</sup> Creation and invention do not happen *ex nihilo*. They are inspired by and dependent on preexisting material. So intellectual production not only benefits from but requires access to earlier works and inventions.<sup>177</sup> Just as physical property systems rely on roads and parks to service and complement privately owned land,<sup>178</sup> authors and inventors require access to existing ideas, themes, and even expression to move the project of human creation forward.<sup>179</sup> Similarly, trademarks are part of our shared cultural and linguistic landscape.<sup>180</sup> When marks lose legal protection, we have greater leeway to repurpose and recontextualize them. And when secrets become public, other innovators can learn from and build on them.

Beyond its role in facilitating follow-on creativity, the public domain increases access to creative and inventive content. The “Progress of Science and useful Arts”<sup>181</sup> requires both the creation and public distribution of new, innovative ideas.<sup>182</sup> Copyright and patent law try to achieve these dual aims by first making works available at monopoly rates, then broadening access once those creations enter the public domain. Terminal mechanisms play a central role in mediating between public and private interests in information, reducing prices,

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<sup>176</sup> See *United States v. Paramount Pictures*, 334 U.S. 131, 158 (1948) (“The copyright law, like the patent statute, makes reward to the owner a secondary consideration.”).

<sup>177</sup> David Lange, *Recognizing the Public Domain*, 44 L. & CONTEMP. PROBS. 147, 171–73 (1981).

<sup>178</sup> See Carol Rose, *The Comedy of the Commons: Custom, Commerce, and Inherently Public Property*, 53 U. CHI. L. REV. 711, 770 (1986) (observing that public spaces like roads and watercourses enable travel and commerce on which the value of private property depends). Public spaces also generate non-market benefits like fellowship and shared public meaning. See *id.* at 775–77.

<sup>179</sup> JAMES BOYLE, *THE PUBLIC DOMAIN: ENCLOSING THE COMMONS OF THE MIND* 39 (2008) (arguing that public domain material is “the basis for our art, our science, and our self-understanding. It is the raw material from which we make new inventions and create new cultural works”).

<sup>180</sup> See Jessica Litman, *Breakfast with Batman: The Public Interest in the Advertising Age*, 108 YALE L.J. 1717, 1732–33 (1999) (observing that trade symbols have become part of everyday language and cultural expression, imbued with meanings beyond their function as designators of product source).

<sup>181</sup> U.S. CONST. art. I, § 8, cl. 8.

<sup>182</sup> See *Graham v. John Deere Co.*, 383 U.S. 1, 6 (1966) (“Congress may not authorize the issuance of patents whose effects are to remove existent knowledge from the public domain, or to restrict free access to materials already available.”).

and increasing access. Although not constitutionally mandated, a similar dynamic plays out in trade secrets. The loss of legal exclusivity over once-secret information increases competition and lowers prices. Much the same is true for trademarks, particularly when it comes to product design trade dress.

The most familiar terminal mechanism, and the one most strongly associated with populating the public domain, is expiration. Copyrights and patents, unlike other forms of property, come with built-in expiration dates. Expiration mediates public and private rights in works and inventions, seeking to balance incentives to create and invent against preserving public access.<sup>183</sup> Earlier expiration theoretically dampens the incentive to create but increases public access; later expiration reduces access but provides greater incentives. Whether expiration strikes this balance well is debatable. It is hard to measure the incentives created by different term lengths against their dynamic costs.<sup>184</sup> But even so, recent extension of copyright or patent terms were motivated by industry lobbying rather than any evidence that creators needed greater incentives.<sup>185</sup>

Abandonment and forfeiture complement expiration by allowing owners to usher works and inventions into the public domain prior to the end of their statutory term. This pathway toward enriching the public domain is quite common with patents. One study found that over fifty percent of owners let their patents lapse prior to the end of the twenty-year term, typically by failing to pay maintenance fees.<sup>186</sup> Abandonment of copyrights is less common, likely because copyright owners need not

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<sup>183</sup> This has been termed the “incentives-access balance.” See Glynn S. Lunney, Jr., *Reexamining Copyright’s Incentives-Access Paradigm*, 49 VAND. L. REV. 483, 485 (1996).

<sup>184</sup> Lots of scholars have tried. What evidence exists suggests that copyright terms are far longer than necessary to motivate creation. See, e.g., Kristelia A. Garcia & Justin McCrary, *A Reconsideration of Copyright’s Term*, 71 ALA. L. REV. 351, 382 (2019) (reporting results of a study showing that most sound recordings earn the majority of their revenue in the months following their initial release, in turn “suggest[ing] that the current copyright term is excessive by a wide margin”); Raymond Shih Ray Ku, Jiayang Sun & Yiyang Fan, *Does Copyright Law Promote Creativity? An Empirical Analysis of Copyright’s Bounty*, 62 VAND. L. REV. 1667, 1671–72 (2009) (reporting results of study showing that copyright registration does not increase with term extensions). William Nordhaus concluded that patent terms provided no meaningful incentives beyond ten years. See William D. Nordhaus, *The Optimum Life of a Patent: Reply*, 62 AM. ECON. REV. 428, 428 (1972).

<sup>185</sup> See HERBERT HOVENKAMP, *THE ANTITRUST ENTERPRISE: PRINCIPLE AND EXECUTION* 250 (2005) (“The Copyright Term Extension Act shows us Congress at its worst, passing legislation at the behest of powerful interest groups at society’s expense”); Kristelia Garcia, *Copyright Arbitrage*, 107 CALIF. L. REV. 199, 253 (2019) (“One powerful example of legislative capture in copyright is the CTEA”); *Eldred v. Ashcroft*, 537 U.S. 186, 254–57 (2003) (Breyer, J., dissenting) (noting the minimal effect of copyright extension on incentives).

<sup>186</sup> See Richard Gruner, *Does Anybody See What I See?: Abandoned Patents and Their Impacts on Technology Development*, 11 N.Y.U. J. INTELL. PROP. & ENT. L. 77, 111 (2021)

bear any costs to maintain ownership of their works.<sup>187</sup> Nevertheless, some copyright owners do abandon their works, sometimes for strategic reasons<sup>188</sup> and sometimes from a sense of altruism.<sup>189</sup>

Forfeiture achieves the same result but is harder to measure with patents because it requires identifying owners whose failure to comply with maintenance formalities is inadvertent. And after the Copyright Act of 1976 eliminated the possibility that non-compliance with formalities could divest owners of their works, forfeiture has ceased to be a means of migrating works into the public domain.<sup>190</sup>

Invalidation, too, can place inventions and works in the public domain ahead of their term's end. Because invalidation of copyrights and patents operates only *ab initio*, it reflects a decision that some content should never have been reserved to private ownership in the first instance. This substantive wrinkle notwithstanding, the practical effect of invalidation of patents and copyrights is similar to expiration and abandonment: material that was subject to claims of IP exclusivity migrates into the public domain prior to its expiration date.

Trademark and trade secret law also contribute to the public domain in distinct ways. Trademark law regulates the use of source indicators—words, images, sounds, and product configurations—that are associated with a good or service. And while the supply of available marks may seem limitless, recent work has shown that it is not, and that trademark depletion and congestion is an increasing problem.<sup>191</sup> Terminal mechanisms help to alleviate this problem by making marks available for reacquisition. One route is abandonment, where mark owners intentionally relinquish their marks or fail to use them in commerce.<sup>192</sup> Another route lies in some kinds of invalidation, such as naked licensing, which identify circumstances in which marks no longer

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(finding in one sample of patents that fifty-five percent were abandoned within twelve years after issue).

<sup>187</sup> See generally Fagundes & Perzanowski, *supra* note 10.

<sup>188</sup> See *id.* at 533–34 (discussing abandonment as means of avoiding constraints imposed by the Copyright Act's manufacturing clause).

<sup>189</sup> Musician Tom Lehrer, for example, sought to “irrevocably relinquish[.]” all of his musical works and place them in the public domain. Tom Lehrer, *Disclaimer Statement* (Nov. 26, 2022), <https://tomlehrersongs.com/disclaimer> [<https://perma.cc/D9P4-3Y5Q>].

<sup>190</sup> When it was a real possibility under the 1909 Act, though, copyright forfeiture was quite common. In fact, the prevalence of owners losing works due to failure to comply with technical renewal or notice requirements was one of the reasons the framers of the 1976 Act moved away from that regime.

<sup>191</sup> See Barton Beebe & Jeanne C. Fromer, *Are We Running Out of Trademarks? An Empirical Study of Trademark Depletion and Congestion*, 131 HARV. L. REV. 945, 951 (2018) (reporting results of study that shows “compelling evidence of substantial word-mark depletion”).

<sup>192</sup> 15 U.S.C. § 1127.

serve as a reliable source indicator.<sup>193</sup> Regardless of the means, the legal effect is the same: the mark becomes up for grabs, free for anyone else to use in connection with their goods or services.

Terminal mechanisms can also ameliorate the restrictions trademarks impose on free expression. Trademarks are part of our common cultural language.<sup>194</sup> When law gives owners control over words or symbols, it risks deterring speech. Terminal mechanisms reduce the stressors trademarks create for speech. As we explained in Part I, marks that become stand-ins for generic product categories—like elevators and linoleum—are invalid. Genericide reduces the substantial burden that trademark law would otherwise impose on both competition and popular discourse if trademark owners could control such general terms.<sup>195</sup> Notably, marks that lose protection for being generic cannot be claimed by new owners for the same categories of goods or services.

Finally, the termination of trade secrets—whether by abandonment, forfeiture, or invalidation—eliminates legal restrictions on the use of that information, enabling follow-on innovation and increasing competition. Unlike copyrights, patents, and trademarks, there is no guaranteed public record of a trade secret. But since trade secret claims are resolved through litigation, the public may gain access to that information through filings and judicial decisions. And once valuable information is disclosed, we should expect it to be disseminated quickly.

### B. *Autonomy*

One terminal mechanism—abandonment—promotes IP owners’ autonomy. Many scholars have argued that private property facilitates autonomy because it gives owners authority to determine who accesses and uses assets. Hanoch Dagan, for example, argues that “[p]roperty . . . empowers self-determining individuals to pursue their conception of the good.”<sup>196</sup> Because “property is first and foremost about having some *authority* over resources,” the “private authority that property

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<sup>193</sup> *Id.*

<sup>194</sup> See Rochelle Cooper Dreyfuss, *Expressive Genericity: Trademarks as Language in the Pepsi Generation*, 65 NOTRE DAME L. REV. 397, 397–98 (1990) (“[T]rademarks are the emerging lingua franca: with a sufficient command of these terms, one can make oneself understood the world over . . .”).

<sup>195</sup> One case establishing invalidation of trademarks by genericide referred to the process of a mark’s becoming generic as “expropriation by [the] public.” *Murphy Door Bed Co. v. Interior Sleep Sys. Inc.*, 874 F.2d 95, 101 (2d Cir. 1989). See also Xiyin Tang, *Against Fair Use: The Case for a Genericness Defense in Expressive Trademark Uses*, 101 IOWA L. REV. 2021, 2030–31 (2016) (observing that the doctrine of trademark genericide is rooted partially in “First Amendment principles of participatory citizenship”).

<sup>196</sup> Hanoch Dagan, *Autonomy and Property*, in RESEARCH HANDBOOK ON PRIVATE LAW THEORY 1 (Hanoch Dagan & Benjamin Zipursky, eds., 2020).

instantiates is key to its function as an empowering device in the service of people's self-determination."<sup>197</sup> By the same token, the prerogative to relinquish property freely is central to property's autonomy-enhancing function. J. E. Penner argued that there is a necessary symmetry between allowing people the liberty to acquire property and to dispossess themselves of it.<sup>198</sup> After all, "[i]t would indeed be a funny turn of events if . . . property in essence gave the things a person owned a power over him."<sup>199</sup>

Although these arguments addressed physical property, the case for enhancing autonomy is stronger in the IP context. As Lior Strahilevitz has observed, Penner's account of abandonment and autonomy elides a key point: Getting rid of one's physical property creates social costs.<sup>200</sup> If no one wants your abandoned fax machine, it will likely end up in a landfill. But with intellectual property, abandonment creates no such costs. Relinquishing a disembodied copyright or trademark does not require any cleanup.<sup>201</sup> In fact, abandoning IP creates social benefits because it leaves others free to use and enjoy from the discarded res.

Creating a clear pathway to abandonment thus advances the autonomy interests of owners and provides upsides for nonowners. For owners, abandonment can serve a variety of self-regarding functions. An author of a novel who decides she no longer believes in its message may want to abandon the copyright as a way of distancing herself from the book's content. Disclaiming ownership in one's creation or invention also allows the creator to decide how long their work should be privately owned, rather than deferring to statutory defaults. Abandonment enables altruism, giving owners opportunities to act for the benefit of others by making their contributions—whether software code or life-saving vaccines—available to all.<sup>202</sup> Abandonment can also be profitable. Allowing free access could attract a larger audience and burnish the creator's reputation<sup>203</sup> or encourage the creation

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<sup>197</sup> *Id.* at 3–4.

<sup>198</sup> J. E. PENNER, *THE IDEA OF PROPERTY IN LAW* 79 (1997).

<sup>199</sup> *Id.*

<sup>200</sup> See Strahilevitz, *supra* note 23, at 371–72.

<sup>201</sup> See Fagundes & Perzanowski, *supra* note 10, at 503–15 (explaining social cost contrast between abandonment of physical and intellectual property).

<sup>202</sup> Carol Highsmith, a celebrated photographer of American landscapes, has dedicated tens of thousands of photos to the public, predominantly for altruistic reasons. See Jennie Rose Halperin, “*This Is My Time and I’m Recording It*”: Carol Highsmith and the Nature of Giving, CREATIVE COMMONS (Aug. 18, 2016), <https://creativecommons.org/2016/08/18/carol-highsmith> [<https://perma.cc/J33U-A2K3>] (discussing the expanse of her career, and inspiration to donate works to the Library of Congress).

<sup>203</sup> Tom Lehrer's attempt to place his musical works in the public domain was met with unanimous praise. See, e.g., Mike Masnick, *Tom Lehrer, Still Awesome, Releases Lyrics Into the Public Domain*, TECHDIRT (Oct. 23, 2020, at 19:39 ET), <https://www.techdirt.com>.

of interoperable devices and innovations that benefit the creator.<sup>204</sup> Regardless of the motivation, abandonment leaves the choice to maintain exclusive rights in the hands of the IP rights holder.

### C. Screening Low-Value Rights

Like other business ventures, creating IP is a high risk, high reward proposition. Some creators succeed famously and enjoy outsized riches. For every Ozempic, Star Wars, Golden Arches, and Coca-Cola formula, though, there are vastly more IP assets that fail to earn their creators any money or attention and are soon forgotten.<sup>205</sup> But just because a creative venture fails does not mean the rights acquired by its creators disappear. An owner of a failed store has every reason to sell off her lease and remaining inventory to cut her losses. But because IP rights inherently entail no holding costs, their owners have no incentive to terminate even worthless rights.

Here is where terminal mechanisms can be deployed to filter out lower-value IP.<sup>206</sup> While maintaining IP rights does not *inherently* entail holding costs, law can impose costs to force owners to reflect on the value of those rights. Those costs, backed by the threat of forfeiture, filter out low-value IP assets.<sup>207</sup> Some of these rules are simple costly screens—that is, financial and procedural hurdles that owners must navigate as a condition of ownership.<sup>208</sup> Patent law imposes maintenance fees that owners must pay if they want to

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com/2020/10/23/tom-lehrer-still-awesome-releases-lyrics-into-public-domain [https://perma.cc/UZA5-9GNN] (characterizing this act as “something worth celebrating”).

<sup>204</sup> Although it did not actually “give away” its patents, Tesla’s decision to freely license many of its patented technologies offers one example of the potential upsides of this approach. See Clint Finley, *With Patent Giveaway, Tesla Shows Silicon Valley What Ingenuity Means*, WIRED (June 13, 2014, at 06:30 ET), <https://www.wired.com/2014/06/tesla-patents> [https://perma.cc/8E9J-M94Q] (analyzing the motivations, implications, and potential benefits behind Tesla’s decision to open their patent portfolio to the public).

<sup>205</sup> See, e.g., Stephen Key, *In Today’s Market, Do Patents Even Matter?*, FORBES (Dec. 10, 2021, at 09:42 ET), <https://www.forbes.com/sites/stephenkey/2017/11/13/in-todays-market-do-patents-even-matter> [https://perma.cc/9AX7-L3S7] (“It’s a well-known fact that a vast majority of patents are worthless. Around 97% of all patents never recoup the cost of filing them.”); Timothy B. Lee, *Mickey Mouse Will Be Public Domain Soon—Here’s What That Means*, ARS TECHNICA (Jan. 1, 2019, at 12:10 ET), <https://arstechnica.com/tech-policy/2019/01/a-whole-years-worth-of-works-just-fell-into-the-public-domain> [https://perma.cc/P8YQ-S92J] (“Most copyrighted works become commercially worthless within a decade or two.”).

<sup>206</sup> See Varadarajan, *supra* note 10, at 176 (describing the cost-benefit analysis imposed by forfeiture mechanisms upon IP owners).

<sup>207</sup> See generally Dave Fagundes & Jonathan S. Masur, *Costly Intellectual Property*, 65 VAND. L. REV. 677 (2012) (discussing costly screens in copyright and patent law).

<sup>208</sup> *Id.* at 681–82.

continue owning the invention.<sup>209</sup> Copyrights that vested prior to 1978 were subject to a renewal regime that required owners to pay an opt-in fee during a work's twenty-eighth year if they wanted to enjoy the remainder of the copyright term.<sup>210</sup> Costly screens force owners to consider whether the value of their IP warrants the attendant costs. Where a patent no longer generates significant revenue or a mark owner is no longer pursuing the business associated with their trademark, these maintenance costs alone may well exceed the value of the IP to the owner. When a copyright was largely valueless at the end of its initial term, its owner would have no reason to file and pay for a renewal application. In such cases, owners will allow their rights to lapse, ceding the content to the public domain.<sup>211</sup>

Screening out low-value rights promises to ameliorate the increasing problem of IP congestion.<sup>212</sup> IP rights have proliferated in the past several decades, yet most of them earn little value for their owners.<sup>213</sup> Low-value screens filter out IP assets that produce little value and thus fail to merit a private monopoly. This can help prevent patent thickets—overlapping private rights that tend to deter innovation by creating unduly high licensing costs.<sup>214</sup> Copyrights now proliferate wildly, vesting in any minimally original work fixed in a tangible medium, so that even a sassy tweet or a reasonably detailed interoffice email are federally protected.<sup>215</sup> Introducing more costly screens in copyright, a possibility we explore in Part III, would promise to cull many such low-value works.

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<sup>209</sup> 37 C.F.R. § 1.20(e)–(h) (2023) (delineating the schedule of patent maintenance fees); *id.* § 2.6 (2025) (delineating the schedule of trademark maintenance fees).

<sup>210</sup> See generally *Renewal of Copyright*, U.S. COPYRIGHT OFF. (2021), <https://www.copyright.gov/circs/circ06a.pdf> [<https://perma.cc/H7L9-WQZ6>] (providing guidance on renewing the copyright registration for works that were first registered between January 1, 1964, and December 31, 1977).

<sup>211</sup> One study found that 50% of patents enter the public domain before the end of their term because owners choose not to pay maintenance fees. See Dennis Crouch, *Patent Maintenance Fees*, PATENTLY-O (Sep. 26, 2012), <https://patentlyo.com/patent/2012/09/patent-maintenance-fees.html> [<https://perma.cc/WB6Q-S3B5>].

<sup>212</sup> See, e.g., Christopher Buccafusco, Jonathan S. Masur & Mark P. McKenna, *Competition and Congestion in Trademark Law*, 102 TEX. L. REV. 437, 466–68 (2024) (highlighting costs of congestion in trademark law); Molly Shaffer Van Houweling, *Author Autonomy and Atomism in Copyright Law*, 96 VA. L. REV. 549, 553–55, 621–30 (2010) (discussing fragmentation and resultant clutter in copyright law).

<sup>213</sup> See, e.g., Glynn S. Lunney, Jr., *Copyright & the 1%*, 23 STAN. TECH. L. REV. 1, 39–40 (2020) (providing evidence from the video game sector to illustrate that the vast majority of works are unpopular and earn little revenue).

<sup>214</sup> See Ian Ayres & Gideon Parchomovsky, *Tradable Patent Rights*, 60 STAN. L. REV. 863, 867–76 (2007) (discussing the social costs of patent thickets).

<sup>215</sup> See 17 U.S.C. § 102(a) (copyrights vest automatically upon fixation in a tangible medium of expression).

### D. Information Forcing

Information about ownership is crucial to the smooth functioning of IP systems. But facts about ownership are often difficult to discern by simply observing an object that embodies an IP interest. With physical property, fences, possession, or other indicators typically demarcate the owner's claim. But you often can't discern who owns an invention, work, or mark by looking for similar visible indicators. For these reasons, law leans heavily on owners revealing these facts to the public through registration systems. And terminal mechanisms are one of the most important ways these requirements are enforced.

Patents are subject to distinctive and demanding disclosure requirements backed up by terminal rules. One relates to enablement. Applicants must submit information detailing their invention with enough specificity to allow a person having ordinary skill in the art to practice it.<sup>216</sup> Failure to do so may lead to denial of the patent application or subsequent *ab initio* invalidation. In *Amgen, Inc. v. Sanofi*, for example, the Supreme Court unanimously held part of a patent invalid on an enablement theory, finding that the application described with insufficient specificity a class of claimed antibodies because it did not identify their amino acid sequences.<sup>217</sup>

Applicants also must disclose any prior art or other "information known . . . to be material to patentability."<sup>218</sup> Terminal rules help to hold patent applicants to this obligation. Intentionally withholding material information amounts to inequitable conduct, rendering a patent invalid.<sup>219</sup> A finding of inequitable conduct for a single claim renders the entire patent unenforceable, cannot be cured by reexamination or re-issue, and can extend to other related patents<sup>220</sup>—a remedy some courts have termed the "'atomic bomb' of patent law."<sup>221</sup> Some argue this penalty is excessive,<sup>222</sup> but it remains a powerful illustration of a

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<sup>216</sup> See 35 U.S.C. § 112(a) (outlining the enablement and disclosure requirements).

<sup>217</sup> 598 U.S. 594, 612–16 (2023).

<sup>218</sup> See 35 U.S.C. § 112(a); 37 C.F.R. § 1.56(a).

<sup>219</sup> See *Therasense, Inc. v. Becton, Dickinson & Co.*, 649 F.3d 1276, 1288–91 (Fed. Cir. 2011) (en banc) (holding that evidence of withheld information requires "a finding of deceitful intent" to give rise to inequitable conduct, which invalidates a patent).

<sup>220</sup> See *id.* at 1288–89 (describing the drastic consequences a finding of inequitable conduct can have on an entire patent family). However, the Federal Circuit heightened the pleading and evidentiary standards for inequitable conduct, significantly curtailing the doctrine. See Robert D. Swanson, *The Exergen and Therasense Effects*, 66 STAN. L. REV. 695, 696–97 (2014).

<sup>221</sup> *Therasense*, 649 F.3d at 1288 (quoting *Aventis Pharma S.A. v. Amphastar Pharm., Inc.*, 525 F.3d 1334, 1349 (Fed. Cir. 2008) (Rader, J., dissenting)).

<sup>222</sup> Because inequitable conduct can invalidate whole patents, and even related patents, at one time, roughly eighty percent of defendants in patent infringement cases raise this issue. Ad Hoc Comm. on Rule 56 and Inequitable Conduct, Am. Intellectual Prop. Law Ass'n, *The*

terminal mechanism being deployed to assure that owners comply with one of IP law's information-forcing rules.

Copyright doctrine historically used the threat of forfeiture to incentivize owners to comply with its information-forcing doctrines. Until 1978, federal copyright vested when an author published a work with proper notice, and until 1989, a work published without proper notice would be lost to the public domain.<sup>223</sup> Each element of this notice communicated key information about the work.<sup>224</sup> Knowing the author's identity gave at least some information about who to contact to license the work, and after 1978 was essential in calculating the copyright term.<sup>225</sup> The year of publication was the typical moment of vesting for pre-1978 works, which in turn suggested the length of its term.<sup>226</sup> And the © symbol indicated an assertion of ownership, distinguishing the notice from a mere indication of authorship.<sup>227</sup>

### E. Error Correction

Agencies that grant and register IP interests make mistakes. They issue patents on innovations that are obvious or otherwise fail to meet the standards for patentability.<sup>228</sup> They register copyrights for works that are unoriginal or unfixed.<sup>229</sup> And they grant trademark registrations for marks that were not used in commerce, lack

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*Doctrine of Inequitable Conduct and the Duty of Candor in Patent Procurement: Its Current Adverse Impact on the Operation of the United States Patent System*, 16 AIPLA Q.J. 74, 75 (1988). In response, patent prosecutors tend to flood the PTO with prior art references, slowing the examination process. *Therasense*, 649 F.3d at 1289. For these reasons, the Federal Circuit has referred to the proliferation of inequitable conduct allegations in patent law as an "absolute plague" and has taken measures to limit the doctrine's use. *Burlington Indus., Inc. v. Dayco Corp.*, 849 F.2d 1418, 1422 (Fed. Cir. 1988); *Therasense*, 649 F.3d at 1289 (quoting *Burlington*).

<sup>223</sup> Losing one's copyright to the public domain in this manner could be an act of abandonment, if the author wanted to part ways with the work and intentionally published it without proper notice. But far more commonly, the failure to include improper notice was inadvertent and thus amounted to forfeiture.

<sup>224</sup> See Jessica Litman, *What Notice Did*, 96 B.U. L. REV. 717, 718–19 (2016) (explaining that copyright notice functioned to inform the public that a work was protected by copyright and to identify who controlled it).

<sup>225</sup> See 17 U.S.C. § 304 (tying the duration of subsisting copyrights to the author's life and providing for renewal and termination rights based on the author's death).

<sup>226</sup> Act of Mar. 4, 1909, ch. 320, §§ 19, 23 (1909) (establishing publication with notice as both the act of securing copyright and the starting point for the statutory term).

<sup>227</sup> *Id.* § 18.

<sup>228</sup> See, e.g., *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 417–27 (2007) (invalidating patent on adjustable vehicle pedal system because it was obvious).

<sup>229</sup> See, e.g., *L. Batlin & Son, Inc. v. Snyder*, 536 F.2d 486, 488–92 (2d Cir. 1976) (finding that registered Uncle Sam bank was uncopyrightable because it lacked sufficient originality).

distinctiveness, or fall short of the standards of the Lanham Act in other respects.<sup>230</sup>

When such errors inevitably occur, ab initio invalidation offers a straightforward doctrinal tool to address them. For patents, invalidation can occur through either internal agency processes or litigation. After a patent issues, third parties can challenge its validity through inter partes and post-grant reviews conducted by the Patent Trial and Appeal Board.<sup>231</sup> And courts routinely invalidate patents in infringement cases, both at the district and appellate levels.<sup>232</sup> Regardless of the decision maker, the relevant patents come to an end if they fail to meet the substantive standards for protection.

The situation is more complex for trademarks because common law rights are distinct from federal registration. The Trademark Trial and Appeal Board decides adversarial cancellation proceedings challenging trademark registrations.<sup>233</sup> Cancellation denies the trademark holder the benefits of registration, including the presumption of validity.<sup>234</sup> But standing alone, cancellation does not invalidate any underlying common law trademarks.<sup>235</sup> That power rests with the courts.<sup>236</sup>

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<sup>230</sup> See, e.g., *Couture v. Playdom, Inc.*, 778 F.3d 1379, 1382 (Fed. Cir. 2015) (holding that registered mark was appropriately canceled because it had not been used in commerce); *Amazing Spaces, Inc. v. Metro Mini Storage*, 608 F.3d 225, 240–50 (5th Cir. 2010) (determining that star symbol lacked inherent or acquired distinctiveness); *Amazing Spaces, Inc. v. Metro Mini Storage*, No. CIV.A H-08-0629, 2010 WL 3257962, at \*2 (S.D. Tex. Aug. 17, 2010) (cancelling star symbol trademark registration).

<sup>231</sup> See 35 U.S.C. § 321 (permitting post-grant review of patent validity); *id.* § 311 (permitting post-grant review on some validity grounds).

<sup>232</sup> See John R. Allison, Mark A. Lemley & David L. Schwartz, *Our Divided Patent System*, 82 U. CHI. L. REV. 1073, 1079–84, 1096–99 (2015) (reporting that patentees prevailed in just under twenty-six percent of cases that reached a merits ruling, based on district and appellate court data).

<sup>233</sup> 15 U.S.C. § 1064 (providing that any person who believes they are damaged may petition to cancel a mark's registration); *id.* § 1067(a) (granting authority to the Trademark Trial and Appeal Board to determine cancellation applications).

<sup>234</sup> See *id.* § 1115 (making registration prima facie evidence of a mark's validity, ownership, and exclusive right to use).

<sup>235</sup> *Crash Dummy Movie, LLC v. Mattel, Inc.*, 601 F.3d 1387, 1391 (Fed. Cir. 2010) (determining that cancellation does not entail loss of common law trademark rights); see also J. THOMAS MCCARTHY, 3 MCCARTHY ON TRADEMARKS AND UNFAIR COMPETITION § 20:68 (5th ed. 2025) (“The cancellation of a registration does not invalidate underlying common law rights in the trademark because those rights do not flow from federal registration.”).

<sup>236</sup> See, e.g., *Wilhelm Pudenz, GmbH v. Littlefuse, Inc.*, 177 F.3d 1204, 1211–12 (11th Cir. 1999) (affirming invalidation of registered trademarks on functionality grounds); *Georgia-Pac. Consumer Prod. LP v. Kimberly-Clark Corp.*, 647 F.3d 723, 732 (7th Cir. 2011) (holding registered marks were “functional and therefore cannot be trademarked”). Courts are also empowered to cancel trademark registrations. 15 U.S.C. § 1119. If a court determines that the underlying trademark is invalid, it should order cancellation of the corresponding registration. See *Gracie v. Gracie*, 217 F.3d 1060, 1065 (9th Cir. 2000) (determining that it was

The Copyright Office takes a different approach to administrative error. It has a well-defined internal review procedure for works that are denied registration.<sup>237</sup> But unlike patent and trademark law, copyright does not offer any formalized process for third-party registration challenges. Although the Copyright Office occasionally exercises its power to cancel registrations if a work falls short of the substantive requirements for protection,<sup>238</sup> it “does not invite, and generally will not entertain, requests to cancel a registration by any party other than the claimant named in the certificate of registration.”<sup>239</sup>

Even if the Office refuses to register a work or cancels an existing registration, the would-be rights holder can nevertheless file a federal infringement claim.<sup>240</sup> But they cannot rely on the prima facie evidence of validity that registration offers. Much like trademark law, copyright leaves the ultimate question of validity in the hands of the courts. Courts can even enforce a copyright despite a canceled registration.<sup>241</sup> But they will invalidate copyrights for works that fail to satisfy the substantive requirements of the Copyright Act.<sup>242</sup>

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erroneous for the district court to “refus[e] to cancel the registration for ‘Gracie Jiu-Jitsu’ after the jury declared it to be incapable of serving as a mark”).

<sup>237</sup> See 37 C.F.R. § 202.5 (outlining the reconsideration procedure for works that are denied registration); U.S. COPYRIGHT OFF., COMPENDIUM OF U.S. COPYRIGHT OFFICE PRACTICES § 1700 (3d ed. 2021) (reviewing the appeal process for a refusal to register a copyright).

<sup>238</sup> See, e.g., *Kiddie Rides U.S.A., Inc. v. Curran*, No. CIV.A. 85-1368, 1986 WL 13452, at \*2 (D.D.C. June 23, 1986) (describing the Copyright Office’s cancellation of registrations it deemed unprotectable); *Gucci Timepieces Am., Inc. v. Yidah Watch Co.*, No. CV-97-6985-KMW MANx, 1998 WL 650078, at \*1–2 (C.D. Cal. Aug. 4, 1998) (noting that the Copyright Office canceled a registration after finding the work lacked copyrightable authorship).

<sup>239</sup> U.S. COPYRIGHT OFF., COMPENDIUM OF U.S. COPYRIGHT OFFICE PRACTICES § 1807.4(E) (3rd ed. 2021). See also *Syntek Semiconductor Co. v. Microchip Tech. Inc.*, 307 F.3d 775, 782 (9th Cir. 2002) (noting that the Copyright Office “does not invite, and will generally not respond favorably to, requests to cancel a completed registration by a party other than the owner of copyright” (quoting 50 Fed. Reg. 33067 (Aug. 16, 1985))); 37 C.F.R. § 201.7 (2024) (“Where the Copyright Office becomes aware after registration that a work is not copyrightable, either because the authorship is de minimis or the work does not contain authorship subject to copyright, the registration will be cancelled.”).

<sup>240</sup> 17 U.S.C. § 411.

<sup>241</sup> See, e.g., *Gucci Timepieces Am., Inc. v. Yidah Watch Co.*, No. CV-97-6985, 1998 WL 650078, at \*1–2 (C.D. Cal. Aug. 4, 1998) (where the court denied reconsideration of its preliminary injunction on the basis of copyright infringement, even though the Copyright Office cancelled plaintiff’s registration).

<sup>242</sup> See, e.g., *Meshwerks, Inc. v. Toyota Motor Sales U.S.A., Inc.*, 528 F.3d 1258 (10th Cir. 2008) (invalidating copyright in digital model of car for lack of originality). Unlike trademark law, courts deciding copyright cases cannot cancel a registration or order the Copyright Office to do so, but courts can order the copyright holder to request that the Office cancel the registration. *Brownstein v. Lindsay*, 742 F.3d 55, 76–77 (3d Cir. 2014). See also *Vaad L’Hafotzas Sichos, Inc. v. Krinsky*, 133 F. Supp. 3d 527, 537 (E.D.N.Y. 2015) (where the court declined to recognize a claim for fraud as an affirmative cause of action under the Copyright Act).

Patent law's inequitable conduct rule offers another example of invalidation as a mechanism for error correction. When patents are granted based on false, misleading, or incomplete information, applicants intentionally introduce errors into the Patent Office record. The inequitable conduct rule corrects those errors by both identifying the false or omitted facts and undoing the benefits the applicant sought by invalidating the patent.<sup>243</sup> Trademark and copyright law have superficially similar fraud doctrines meant to discourage, identify, and correct intentionally false material misstatements in registration applications.<sup>244</sup> But since those doctrines result in the loss of registration but not the underlying exclusive rights, they are not terminal mechanisms as we have defined them.<sup>245</sup>

Invalidation addresses another distinct but related set of errors. Apart from administrative determinations, IP disputes are often marked by overbroad assertions of rights.<sup>246</sup> Free from patent law's comparatively rigorous examination process, litigants claim infringement of dubious trade secrets, common law trademarks, and unregistered copyrights.<sup>247</sup> Even more frequently, firms rely on overly aggressive assertions of IP rights to shape negotiations, scare off competitors, and bully noncommercial actors.<sup>248</sup> Although much of this behavior occurs far from the prying eyes of the judiciary, litigation sometimes offers courts opportunities to correct these misguided claims of IP protection.<sup>249</sup>

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<sup>243</sup> See Swanson, *supra* note 220, at 703–06.

<sup>244</sup> Compare 15 U.S.C. § 1064 (“A petition to cancel a registration of a mark . . . may . . . be filed . . . [a]t any time if . . . its registration was obtained fraudulently . . .”), with 17 U.S.C. § 411(b) (providing that a certificate of registration is valid “regardless of whether [it] . . . contains any inaccurate information, unless[:] (A) the inaccurate information was included . . . with knowledge that it was inaccurate; and (B) the inaccuracy of the information, if known, would have caused the Register of Copyrights to refuse registration.”).

<sup>245</sup> See 6 J. THOMAS MCCARTHY, MCCARTHY ON TRADEMARKS AND UNFAIR COMPETITION § 31:60 (5th ed. 2021) (“All a finding of fraud does is knock out the mark’s ‘incontestable’ status, and its registration, under [35 U.S.C.] § 1115(b)(1). It does not affect the mark’s validity, because a trademark need not be registered to be enforceable.” (emphasis omitted) (quoting *Specialized Seating, Inc. v. Greenwich Indus., LP*, 616 F.3d 722, 728 (7th Cir. 2010))); 5 WILLIAM F. PATRY, PATRY ON COPYRIGHT § 17:126 (2018) (“Although fraud is sometimes pled as an affirmative defense, . . . [it] is more correctly regarded as an attack on plaintiff’s *prima facie* case (bolstered by the presumptive validity accorded the certificate of registration).”).

<sup>246</sup> See generally Jason Mazzone, *Copyfraud*, 81 N.Y.U. L. REV. 1026, 1038–58 (2006) (cataloguing overbroad assertions of copyrights).

<sup>247</sup> See *id.*; see also William T. Gallagher, *Trademark and Copyright Enforcement in the Shadow of IP Law*, 28 SANTA CLARA HIGH TECH. L.J. 453, 481–96 (2012) (reporting results of a qualitative study reflecting widespread overenforcement of IP rights).

<sup>248</sup> See generally Mazzone, *supra* note 246 (discussing the prevalence of false and excessive assertions of copyright ownership).

<sup>249</sup> See, e.g., *Marya v. Warner/Chappell Music, Inc.*, 131 F. Supp. 3d 975, 1003 (C.D. Cal. 2015) (finding that alleged copyright holder in the song *Happy Birthday to You* did not own the rights it purported to license).

In contrast to patents, the existence and scope of trade secrets are not determined by an expert agency. Instead, litigants assert misappropriation claims guided by their own optimistic assessment of their rights.<sup>250</sup> When firms mistakenly believe they own trade secrets, judicial invalidation is the only surefire way to correct that error. Courts invalidate trade secret claims when information is readily ascertainable,<sup>251</sup> not subject to reasonable steps to maintain secrecy,<sup>252</sup> or lacks independent economic value.<sup>253</sup> Courts do similar work when parties assert common law trademarks<sup>254</sup> or copyrights for works that were refused registration.<sup>255</sup> In these cases, invalidation not only resolves the dispute between the named litigants, it puts potential competitors, licensees, and the public on notice that the alleged IP rights are invalid.

### F. Discouraging Harmful Behavior

Finally, terminal mechanisms can be enlisted to discourage behavior deemed immoral or socially harmful. Given the directive “[t]o promote the Progress of Science and useful Arts,” copyrights and patents might appear especially sensitive to concerns about the social value of works.<sup>256</sup> Those judgments are often subjective, and courts have struggled to articulate and apply clear, consistent standards. Over time, IP law has deemphasized this approach, leaving judgments about social value to the market. Nonetheless, these doctrines demonstrate the potential of IP’s terminal mechanisms to sanction conduct deemed immoral, offensive, or otherwise harmful.

Justice Story’s 1817 decision in *Lowell v. Lewis* interpreted the Patent Act’s requirement that an invention be “useful” to exclude innovations that are “frivolous or injurious to the well-being, good policy, or sound morals of society.”<sup>257</sup> Under that logic, patents covering

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<sup>250</sup> Andrew A. Schwartz, *The Corporate Preference for Trade Secret*, 74 OHIO ST. L.J. 623 (2013).

<sup>251</sup> See, e.g., *Williamson v. Prime Sports Mktg., LLC*, 101 F.4th 302, 315–16 (4th Cir. 2024) (compilation of basketball players’ endorsement offers was readily ascertainable and thus not a trade secret).

<sup>252</sup> See *Pauwels v. Deloitte LLP*, 83 F.4th 171, 182 (2d Cir. 2023) (plaintiff failed to take reasonable steps to maintain secrecy of investment valuation tool).

<sup>253</sup> See, e.g., *Synopsys, Inc. v. Risk Based Sec., Inc.*, 70 F.4th 759, 775 (4th Cir. 2023) (software security vulnerability data was not a trade secret because it lacked independent economic value).

<sup>254</sup> See, e.g., *Traffix Devices, Inc. v. Mktg. Displays, Inc.*, 532 U.S. 23, 35, 36 (2001) (product design trade dress was functional and thus not protected).

<sup>255</sup> See, e.g., *Design Ideas, Ltd. v. Yankee Candle Co.*, 889 F. Supp. 2d 1119, 1128 (C.D. Ill. 2012) (holding sailboat sculptures were insufficiently original).

<sup>256</sup> U.S. CONST. art. I, § 8, cl. 8.

<sup>257</sup> 15 F. Cas. 1018, 1019 (C.C.D. Mass. 1817) (No. 8,568).

“mischievous or immoral” technologies are invalid.<sup>258</sup> Throughout the late nineteenth and early twentieth centuries, courts invalidated patents directed to gambling<sup>259</sup> and deceiving the consuming public.<sup>260</sup> But a 1999 Federal Circuit decision effectively ended this moral utility requirement. In *Juicy Whip, Inc. v. Orange Bang, Inc.*, the defendant argued that a patented soft drink dispenser misled consumers by falsely implying that the liquid displayed in a clear tank was the drink on offer to consumers when, in reality, the drink was a mix of water and concentrated syrup stored out of view.<sup>261</sup> Despite this misleading illusion, the Federal Circuit concluded that patent law’s utility requirement “is not a directive to the Patent and Trademark Office or the courts to serve as arbiters of deceptive trade practices.”<sup>262</sup>

Copyright law followed a similar path, with a number of early courts invalidating copyrights in works deemed morally objectionable.<sup>263</sup> An 1867 decision rejected the copyright in a “dramatic composition” described as an “exhibition of women in novel dress or no dress, and in attractive attitudes or action . . . consist[ing] mainly ‘of women lying about loose.’”<sup>264</sup> Another court held that the lyrics to the song “Dora Dean” were “not entitled to a

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<sup>258</sup> *Id.* (citing “a new invention to poison people, or to promote debauchery, or to facilitate private assassination” as examples); *see also* *Bedford v. Hunt*, 3 F. Cas. 37, 37 (C.C.D. Mass. 1817) (No. 1,217) (interpreting a “useful invention” as “one as may be applied to some beneficial use in society, in contradistinction to an invention, which is injurious to morals, the health, or the good order of society.”).

<sup>259</sup> *See, e.g.*, *Reliance Novelty Co. v. Dworzek*, 80 F. 902, 903 (C.C.N.D. Cal. 1897) (invalidating a patent for a card-playing machine that could only be used for gambling purposes); *Schultze v. Holtz*, 82 F. 448, 449 (C.C.N.D. Cal. 1897) (invalidating a patent for a coin-operated gambling device); *Nat’l Automatic Device Co. v. Lloyd*, 40 F. 89, 90 (C.C.N.D. Ill. 1889) (invalidating a patent for a race-course gambling device); *Brewer v. Lichtenstein*, 278 F. 512, 514 (7th Cir. 1922) (invalidating a patent for a type of lottery machine).

<sup>260</sup> *See, e.g.*, *Klein v. Russell*, 86 U.S. 433 (1873) (invalidating a patent on a process for treating lamb and sheep skin in order to pass it off as more valuable “dogskin” leather); *Rickard v. Du Bon*, 103 F. 868 (2d Cir. 1900) (invalidating a patent on a process for creating artificial spots on tobacco leaves to mimic higher quality cigars).

<sup>261</sup> 185 F.3d 1364, 1366 (Fed. Cir. 1999).

<sup>262</sup> *Id.* at 1368.

<sup>263</sup> Other cases accepted the premise that immoral works could be denied protection. *See, e.g.*, *Richardson v. Miller*, 20 F. Cas. 722, 723, (C.C.D. Mass. 1877) (No. 11,791) (explaining that works could be denied copyright if “there is something immoral, pernicious, or indecent in the things per se[.] or that they are incapable of any use except in connection with some illegal and immoral act”); *Hoffman v. Le Traunik*, 209 F. 375, 379 (N.D.N.Y. 1913) (“To be entitled to be copyrighted, the composition must be . . . ‘free from illegality and immorality.’”). *See also* JOSEPH STORY, COMMENTARIES ON EQUITY JURISPRUDENCE 240 (1857) (“[N]o copyright can exist consistently with principles of public policy in any work of a clearly irreligious, immoral, libelous, or obscene description.”).

<sup>264</sup> *Martinetti v. Maguire*, 16 F. Cas. 920, 922 (C.C.D. Cal. 1867) (No. 9,173); *see also* *Barnes v. Miner*, 122 F. 480, 489 (C.C.S.D.N.Y. 1903) (denying protection to a work deemed “lascivious and immoral”).

copyright” since they described the titular character as “The Hottest Thing You Ever Seen,” a phrase the court insisted had an “indelicate and vulgar meaning.”<sup>265</sup> Although most of these decisions focused on works with some perceived sexual content,<sup>266</sup> others addressed works that were deceptive or misleading.<sup>267</sup>

This moralistic approach stands in tension with the commitment to aesthetic neutrality embraced by the Supreme Court in its 1903 *Bleistein* decision.<sup>268</sup> But courts invalidated copyrights on moral grounds even after *Bleistein*.<sup>269</sup> The Fifth Circuit’s 1979 rejection of moral considerations in *Mitchell Brothers Film Group v. Cinema Adult Theater* proved a more decisive blow.<sup>270</sup> When a producer of pornographic films sued a theater for infringement, the district court refused to enforce the copyright because the work was obscene.<sup>271</sup> But the Fifth Circuit concluded that there was “not even a hint in the language of [the Copyright Act] . . . that the obscene nature of a work renders it any less a copyrightable ‘writing.’”<sup>272</sup> According to the court, Congress left moral

<sup>265</sup> *Broder v. Zeno Mauvais Music Co.*, 88 F. 74, 79 (C.C.N.D. Cal. 1898).

<sup>266</sup> See generally Jennifer E. Rothman, *Sex Exceptionalism in Intellectual Property*, 23 STAN. L. & POL’Y REV. 119, 120 (2012) (“[T]he law can stigmatize works and marks with sexual content or certain forms of sexual content, thereby contributing to the channeling of sex into limited acceptable forms.”).

<sup>267</sup> See, e.g., *Stone & McCarrick, Inc. v. Dugan Piano Co.*, 220 F. 837, 841 (5th Cir. 1915) (“[T]he law should extend its protection to [advertisements] that speak the truth, and certainly not to that class of advertising matter the effect of which is to mislead and deceive the public.”).

<sup>268</sup> *Bleistein v. Donaldson Lithographing Co.*, 188 U.S. 239, 251 (1903) (“It would be a dangerous undertaking for persons trained only to the law to constitute themselves final judges of the worth of pictorial illustrations, outside of the narrowest and most obvious limits.”). Notably, the copyrights in *Bleistein* were invalidated by the district court because they depicted “a dozen or more figures of women in tights, with bare arms, and with much of the shoulders displayed” in a “frivolous, and to some extent, immoral” effort “to lure men to a circus.” *Bleistein v. Donaldson Lithographing Co.*, 98 F. 608, 611 (C.C.D. Ky. 1899).

<sup>269</sup> See, e.g., *Bullard v. Esper*, 72 F. Supp. 548, 548 (N.D. Tex. 1947) (denying copyright in a film that showed “a naked woman, and, a lecture by another woman, who is so sparsely clad as to have very little concealed” on the grounds that copyright law was “never intended to protect illegality, or, immorality”); *Dane v. M. & H. Co.*, 136 U.S.P.Q. 426, 429 (N.Y. Sup. Ct. 1963), *aff’d mem.*, 21 A.D.2d 751 (1st Dep’t 1964) (holding that a striptease “does not fall within the purview of the statute as a production tending to promote the progress of science and useful arts”). During this era, the Copyright Office also considered morality in registration decisions. See generally 2 WILLIAM F. PATRY; PATRY ON COPYRIGHT § 3:44 (2018) (documenting the history of the Copyright Office’s decisions regarding obscene works). Today, the Copyright Office Compendium provides that “[p]ornographic works may be registered with the U.S. Copyright Office, provided that they contain a sufficient amount of original authorship.” U.S. COPYRIGHT OFF., COMPENDIUM OF U.S. COPYRIGHT OFFICE PRACTICES § 315 (3d ed. 2021).

<sup>270</sup> See *Mitchell Bros. Film Grp. v. Cinema Adult Theater*, 604 F.2d 852 (5th Cir. 1979).

<sup>271</sup> *Id.*

<sup>272</sup> *Id.* at 854.

judgments to the marketplace.<sup>273</sup> Although the weight of authority now rejects moral considerations as a standard for copyrightability, even for obscene works, courts still occasionally entertain these arguments at early procedural stages.<sup>274</sup>

For over a century, federal trademark law has discouraged morally suspect marks by barring their registration.<sup>275</sup> Marks deemed disparaging, scandalous, immoral, and deceptive—among others—were ineligible for federal registration.<sup>276</sup> But in 2017, the Supreme Court held that the Lanham Act’s disparagement provision violated the First Amendment by discriminating against marks that express a critical message.<sup>277</sup> Two years later, the Court struck down the bans on immoral and scandalous marks as well.<sup>278</sup> Nonetheless, other provisions that discourage problematic trademarks remain in force.<sup>279</sup> If a mark deceives the public by communicating false information about a product, it cannot be registered even if the mark is a distinctive source indicator.<sup>280</sup> Likewise, marks that include a living person’s “name, portrait, or signature” or falsely imply a connection to a person are barred.<sup>281</sup>

These bars on problematic marks implicate terminal mechanisms, not just federal registration.<sup>282</sup> As the Supreme Court acknowledged in

<sup>273</sup> *Id.* Three years later, the Ninth Circuit followed that logic. *See Jartech, Inc. v. Clancy*, 666 F.2d 403, 408 (1982) (holding that the Court does not have the authority to order the destruction of obscene materials and that it is in fact up to Congress to determine copyright policy). The *Jartech* decision followed a prior Ninth Circuit case dealing with “handicapping systems for betting on horse races.” *Belcher v. Tarbox*, 486 F.2d 1087, 1088 (9th Cir. 1973).

<sup>274</sup> *See Devils Films, Inc. v. Nectar Video*, 29 F. Supp. 2d 174, 176–77 (S.D.N.Y. 1998) (refusing to grant a preliminary injunction in light of “the strong public policy against the distribution of obscene material”); *Liberty Media Holdings, LLC v. Swarm Sharing Hash File*, 821 F. Supp. 2d 444, 447 (D. Mass. 2011) (noting that whether pornography is entitled to copyright protection was a matter of first impression but declining to express any opinion).

<sup>275</sup> *See In re Riverbank Canning Co.*, 95 F.2d 327, 328 (C.C.P.A. 1938) (holding that the mark MADONNA for use on wine was “scandalous” under the Trade-Mark Act of 1905).

<sup>276</sup> 15 U.S.C. § 1052.

<sup>277</sup> *Matal v. Tam*, 582 U.S. 218 (2017).

<sup>278</sup> *Iancu v. Brunetti*, 139 S. Ct. 2294 (2019).

<sup>279</sup> *Vidal v. Elster*, 144 S. Ct. 1507, 1512 (2024) (“This decision is narrow. It does not set forth a comprehensive framework for judging whether all content-based but viewpoint-neutral trademark restrictions are constitutional. Nor does it suggest that an equivalent history and tradition is required to uphold every content-based trademark restriction.”).

<sup>280</sup> *See, e.g., In re White Jasmine LLC*, 106 U.S.P.Q.2d (BL) 1385, 1394 (T.T.A.B. 2013) (using the term “White Jasmine” for black tea was deceptive where consumers believed white tea had health benefits); *In re Organik Techs., Inc.*, 41 U.S.P.Q.2d (BL) 1690, 1694 (T.T.A.B. 1997) (using the term “ORGANIK was deceptive as applied to non-organic cotton products).

<sup>281</sup> Lanham Act § 2(a), (c), 15 U.S.C. § 1052; *see, e.g., NPG Recs. LLC v. JHO Intell. Prop. Holdings LLC*, 2022 BL 297519, at \*6 (T.T.A.B. 2022) (PURPLE RAIN for nutritional supplements “points uniquely and unmistakably to Prince”).

<sup>282</sup> *See Tam*, 582 U.S. at 225 (“[E]ven if a trademark is not federally registered, it may still be enforceable under § 43(a) of the Lanham Act, which creates a federal cause of action for

*Tam*, the relationship between registration and enforcement “is not at all clear.”<sup>283</sup> When it comes to infringement actions for unregistered marks under section 43(a) of the Lanham Act, the Court previously explained that “the general principles qualifying a mark for registration under § 2 of the Lanham Act are for the most part applicable in determining whether an unregistered mark is entitled to protection under § 43(a).”<sup>284</sup> As for infringement actions brought under state law, most states have adopted some version of the 1964 Model State Trademark Bill, which limits infringement actions to “any trademark or service mark entitled to registration under this Act whether registered or not.”<sup>285</sup> To the extent registration bars are incorporated into section 43(a) and state common law infringement claims, they function as terminal mechanisms since the trademark owner would have no state or federal remedy against infringement.

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The scant dialogue about terminal mechanisms has obscured the variety and significance of the policy functions they play in IP systems. Typically dismissed merely as means to migrate content from private to public ownership, terminal mechanisms do much more. They advance owner autonomy, provide a backstop for erroneous grants of rights, reduce low-value rights by serving as costly screens, regulate socially harmful behavior, and more. Excavating the range of policy goals terminal mechanisms serve suggests new possibilities for how they can be deployed.

### III

#### HOW TO DO THINGS WITH TERMINAL MECHANISMS

We’ve shown that terminal mechanisms hold considerable and under-leveraged power to reshape our IP systems. Typically, policymakers rely on vesting doctrines—the rules that define when initial IP grants are warranted—to do much of the heavy lifting when it comes to defining the basic contours of an IP system. But terminal mechanisms offer a promising and, in some cases, preferable alternative.

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trademark infringement.”); *Brunetti*, 139 S. Ct. at 2297 (“The owner of an unregistered mark may still use it in commerce and enforce it against infringers.”).

<sup>283</sup> *Tam*, 582 U.S. at 226 n.1 (quoting *In re Tam*, 808 F.3d 1321, 1344–45, n.11 (Fed. Cir. 2015) (en banc) (as corrected Feb. 11, 2016)). The Court did not weigh in on that question. *Id.* (“We need not decide today whether respondent could bring suit under § 43(a) if his application for federal registration had been lawfully denied under the disparagement clause.”).

<sup>284</sup> *Two Pesos, Inc. v. Taco Cabana, Inc.*, 505 U.S. 763, 769 (1992).

<sup>285</sup> *In re Tam*, 808 F.3d at 1344 (Feb. 11, 2016) (emphasis omitted) (quoting MODEL STATE TRADEMARK BILL 1.C (1964) (INT’L TRADEMARK ASS’N, amended 2021)).

Because terminal mechanisms operate after the initial IP grant, they enable particularized assessments of an asset's value, rather than the speculative, aggregate guesswork that often characterizes initial IP allocation. A patent owner, for example, can only know whether their invention warrants the cost of maintenance fees after they bring it to market. In contrast, when Congress sets the bar for patentability, it is necessarily making a broad, generalized prediction about where to draw the "line between the things which are worth to the public the embarrassment of an exclusive patent, and those which are not."<sup>286</sup>

Relatedly, terminal mechanisms provide rights holders, courts, and IP agencies opportunities to reconsider the initial grant, informed by those particularized assessments of value. For example, the law sets the default copyright term at the life of the author plus seventy years, but abandonment, renewal, and other terminal mechanisms offer owners post-grant decision points to maintain or relinquish those rights. Invalidation doctrines offer similar exit opportunities for courts and IP agencies. Vesting doctrines, on the other hand, tell us little about the wisdom of maintaining IP rights after their initial grant.

As a result, terminal mechanisms promise a more flexible design. They can link the lifespan of IP to a range of forward-looking requirements: use, ongoing investment, fees, renewal, and notice, among others. Each of these requirements can target and encourage specific policy outcomes. Vesting doctrines, by contrast, tend to be binary decisions that flatten a complex constellation of policy objectives and compromises into uniform rules.

We are not the first to appreciate the potential of these doctrines. For example, reintroducing copyright formalities like notice and renewal into copyright would lead owners to abandon low-value works, reducing copyright congestion and enriching the public domain. But these ideas have been ably explored by other scholars.<sup>287</sup> Nor do we claim that more robust terminal mechanisms are always consistent with good policy. We could graft durational limits onto trademarks, for instance. But doing so would likely sow tremendous confusion for consumers who have come

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<sup>286</sup> Letter from Thomas Jefferson to Isaac McPherson (Aug. 13, 1813), in 13 THE WRITINGS OF THOMAS JEFFERSON 335 (1905).

<sup>287</sup> See Sprigman, *supra* note 50; LAWRENCE LESSIG, FREE CULTURE: HOW BIG MEDIA USES TECHNOLOGY AND THE LAW TO LOCK DOWN CULTURE AND CONTROL CREATIVITY (2004) (exploring the impact of copyright law on cultural norms); James Gibson, *Once and Future Copyright*, 81 NOTRE DAME L. REV. 167 (2005) (exploring the impact of copyright law on society). They have also been proposed in legislation. The Public Domain Enhancement Act would have conditioned ongoing ownership of U.S. copyrights on paying a \$1 renewal fee starting in a work's fiftieth year. H.R. 2601, 108th Cong. (2003); H.R. 2408, 109th Cong. (2005). The bills never made it out of the Judiciary Committee.

to reliably associate those marks with sources of goods and services. Likewise, barring IP rights in content deemed immoral, as was once prevalent across IP regimes, must overcome both social dissensus about morality and deep tension with constitutional speech protections.<sup>288</sup>

That said, rethinking how IP ends can generate new and promising interventions. Below, we outline four proposals we think policymakers should consider: invalidating rights in light of after-arising facts; invalidating rights in light of non-use; sharpening abandonment; and revoking rights in response to fraud.

### A. *Acknowledging Changed Conditions*

Changes in exogenous conditions can lead to ex post invalidation of trademarks and trade secrets. If a term becomes generic despite a trademark owner's best efforts, it loses protection.<sup>289</sup> The same is true of once-secret information that becomes generally known. Despite reasonable efforts to maintain secrecy, such information is no longer protected.<sup>290</sup> These are not mere formal deficiencies. Instead, ex post invalidity turns on some substantive failure.

Unlike trademark and trade secret law, copyright doctrine does not typically eliminate protection due to changed conditions after the initial grant. We argue that it should. When works take on significance beyond their expressive value, copyright can stand as an obstacle to more fundamental values. Under those circumstances, ending copyright exclusivity may be justified. Existing law suggests two paths by which courts could reach this conclusion—the edicts of government and merger doctrines.

Government edicts are ineligible for copyright protection because judges and legislators acting in their official capacities are not “authors”<sup>291</sup> and, more fundamentally, “no one can own the law.”<sup>292</sup> But not all laws are created by lawmakers. Firms create building codes, taxonomies of medical procedures, and other documents that legislatures and agencies adopt as controlling legal standards.<sup>293</sup> But rather than include those

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<sup>288</sup> See *supra* Section II.F.

<sup>289</sup> See, e.g., *King-Seeley Thermos Co. v. Aladdin Indus., Inc.*, 321 F.2d 577, 579 (2d Cir. 1963) (holding “thermos” had become colloquial and was no longer protected by trademark).

<sup>290</sup> See UNIF. TRADE SECRETS ACT § 1(4), 14 U.L.A. 5 (1985) (broadly adopted by states, the UTSA language attempts to regulate and maintain trade secrets).

<sup>291</sup> *Georgia v. Public.Resource.Org, Inc.*, 140 S. Ct. 1498, 1507 (2020).

<sup>292</sup> *Id.*; see also *Banks v. Manchester*, 128 U.S. 244, 253 (1888) (holding that judicial opinions “constitute[] the authentic exposition and interpretation of the law, which, binding every citizen, is free for publication to all”).

<sup>293</sup> *Am. Soc’y for Testing & Materials v. Public.Resource.Org, Inc. (Am. Soc’y for Testing & Materials II)*, 82 F.4th 1262, 1265 (D.C. Cir. 2023) (“The Code of Federal Regulations contains more than 27,000 incorporations of privately developed standards by reference.”).

mandates in the appropriate legislative or regulatory texts, many laws merely “reference the standard being incorporated and direct interested parties to consult that standard.”<sup>294</sup>

Courts have struggled to consistently resolve copyright claims brought against those who reproduce and distribute these privately drafted but legally binding standards.<sup>295</sup> The Second and Ninth Circuits have both rejected arguments that incorporation by reference results in loss of copyright protection.<sup>296</sup> More recently, the D.C. Circuit rebuffed an infringement suit against Public.Resource.Org (PRO) for posting various private codes, including the National Electric Code,<sup>297</sup> but it did so on fair use grounds.<sup>298</sup>

Much like a mark that becomes generic, copyright might be lost when a work is incorporated into law.<sup>299</sup> Genericide recognizes that the public need for unfettered access to our common language can outweigh the interests in preserving exclusive rights in a mark. By the same token, where expressive content—including privately authored standards—is incorporated into law, it becomes part of our shared structure of democratic governance. The value of preserving free access to the law eclipses any interest in protecting exclusive rights. Rather than forcing those who share and access the law to rely on expensive and uncertain defenses like fair use, copyright should end when a work becomes part of the law.

Ex post invalidation could also be effected under the merger doctrine, which holds that when an idea can be expressed only in one

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<sup>294</sup> *Am. Soc’y for Testing & Materials v. Public.Resource.Org, Inc.* (*Am. Soc’y for Testing & Materials I*), 896 F.3d 437, 442 (D.C. Cir. 2018).

<sup>295</sup> The Supreme Court sidestepped this in *Georgia* by treating Lexis, the firm that prepared Georgia’s Annotated Code, as acting on behalf of the Code Revision Commission, which was itself acting as an arm of the state legislature. *See* 140 S. Ct. 1498, 1508 (2020) (“[A]s a matter of state law, the Commission wields the legislature’s authority when it works with Lexis to produce the annotations. All of this shows that the Commission serves as an extension of the Georgia Legislature in preparing and publishing the annotations.”).

<sup>296</sup> *See CCC Info. Servs., Inc. v. Maclean Hunter Mkt. Repts., Inc.*, 44 F.3d 61, 74 (2d Cir. 1994) (“We are not prepared to hold that a state’s reference to a copyrighted work as a legal standard for valuation results in loss of the copyright.”); *Prac. Mgmt. Info. Corp. v. Am. Med. Ass’n*, 121 F.3d 516, 519 (9th Cir. 1997), *amended by* 133 F.3d 1140 (9th Cir. 1998).

<sup>297</sup> *Am. Soc’y for Testing & Materials I*, 896 F.3d at 441 (noting that the NEC has been “incorporated into the statutes or regulations of at least forty-seven states and . . . the federal government.”).

<sup>298</sup> *Am. Soc’y for Testing & Materials II*, 82 F.4th at 1272 (concluding that “Public Resource’s non-commercial posting of incorporated standards is fair use”).

<sup>299</sup> *See* 1 PAUL GOLDSTEIN, GOLDSTEIN ON COPYRIGHT 2:39–41 (3rd ed. 2011) (discussing how private sets of rules like building codes can get incorporated into law and lose copyright protection); *see also* H.R. 4072, 119th Cong. (1st Sess. 2025) (proposing eliminating copyright protection for works incorporated into law unless they are made freely available to the public).

or a handful of ways, the underlying idea and its particular expression merge, and neither can be protected.<sup>300</sup> Although many courts apply the merger doctrine at the infringement stage, others consider it a question of copyrightability.<sup>301</sup> Courts also diverge on the appropriate timeframe for evaluating merger. Although some limit the inquiry to the options available to an author at the time of their initial creation, others have held that intervening events can trigger merger when they limit the options available to second comers.<sup>302</sup> As the Fifth Circuit held in *Veeck v. Southern Building Code Congress International*, otherwise copyrightable works lose protection when they are incorporated into the law.<sup>303</sup> Once a building code is incorporated, it becomes “the unique, unalterable expression of the ‘idea’ that constitutes local law.”<sup>304</sup> And since paraphrasing is inadequate to capture the precise demands of the law, “the merger doctrine is especially appropriate because other methods of expressing the idea are foreclosed.”<sup>305</sup>

There are other scenarios in which copyrighted works should become invalid due to changed circumstances. Courts in software cases often turn to merger to exclude unprotectable elements from the scope

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<sup>300</sup> Pamela Samuelson, *Questioning Copyright in Standards*, 48 B.C. L. REV. 193, 219–20 (2007).

<sup>301</sup> See, e.g., *Lexmark Int’l, Inc. v. Static Control Components, Inc.*, 387 F.3d 522, 535 (6th Cir. 2004) (holding when merger applies “copyright protection does not exist”); *BellSouth Advert. & Publ’g Corp. v. Donnelley Info. Publ’g, Inc.*, 999 F.2d 1436, 1442 (11th Cir. 1993) (holding when merger applies, “expression is not protected” (quoting *Kregos v. Associated Press*, 937 F.2d 700, 705 (2d Cir. 1991))); *Kern River Gas Transmission Co. v. Coastal Corp.*, 899 F.2d 1458, 1463–64 (5th Cir. 1990) (holding maps showing location of pipeline were “not copyrightable”); see also *Oracle Am., Inc. v. Google Inc.*, 750 F.3d 1339, 1358 (Fed. Cir. 2014) (acknowledging the split in authority on this question).

<sup>302</sup> See *ATC Distrib. Group, Inc. v. Whatever It Takes Transmissions & Parts, Inc.*, 402 F.3d 700, 707–08 (6th Cir. 2005) (holding a classification system for parts which leaves some numbers unallocated for future use is not copyrightable under the merger doctrine); *Lexmark*, 387 F.3d at 535, 540 (noting the limited number of forms a toner loading program can take limit copyrightability); *Mitek Holdings, Inc. v. Arce Eng’g Co.*, 89 F.3d 1548, 1556–58 (11th Cir. 1996) (holding menu and submenu command processes are uncopyrightable since they mimic design processes used manually by draftsmen and would limit the use of understandable menu structures by later users in similar programs); *Bateman v. Mnemonics, Inc.*, 79 F.3d 1532, 1546–47 (11th Cir. 1996) (holding intervening events such as the need for compatibility can affect merger analysis); Pamela Samuelson, *Reconceptualizing Copyright’s Merger Doctrine*, 63 J. COPYRIGHT SOC’Y U.S. 417, 441–42 (2016) (describing the effects compatibility requirements have on merger doctrine analysis).

<sup>303</sup> 293 F.3d 791, 793 (5th Cir. 2002) (en banc). The court also thought it was notable that SBCCI created codes with the express intent that they be adopted into law. *Id.* at 805. We might also deem private codes systems excluded from copyright protection under § 102(b). See Samuelson, *supra* note 302, at 457–59 (arguing that the American Dental Association’s Code on Dental Procedures and Nomenclature should not have been found copyrightable).

<sup>304</sup> 293 F.3d at 801.

<sup>305</sup> *Id.* (quoting *Veeck v. S. Bldg. Code Cong. Int’l*, 241 F.3d 398, 416 (5th Cir. 2001) (Little, J., dissenting)).

of copyright.<sup>306</sup> If the otherwise protectable elements of a software program merge with the idea of their underlying function, merger should deny protection. That's true even if the original author enjoyed ample options in how that code was written. For example, in *Lexmark International, Inc. v. Static Control Components*, a printer manufacturer included code designed to lock out competing ink cartridges.<sup>307</sup> Lexmark's programmers could have chosen to write this lockout code however they chose. At the outset, they faced few constraints on how they executed this lockout functionality.<sup>308</sup> But once Lexmark devices were designed to respond only to that specific code sequence, makers of interoperable devices had no choice but to copy that code exactly.<sup>309</sup> As a result of that downstream constraint on the second comers, the Sixth Circuit determined that merger "preclude[d] the code sequence from obtaining copyright protection."<sup>310</sup>

More complex works are also susceptible to this reasoning. In *Oracle America, Inc. v. Google Inc.*, the district court held that the Java API's declaring code was unprotected under the merger doctrine.<sup>311</sup> Just like Lexmark's lockout code, "the declaration must be identical under the Java rules."<sup>312</sup> Because "the declaration requires precision" to trigger the desired function, "there is only one way to write [it]."<sup>313</sup> As a result, Judge Alsup concluded "the merger doctrine bars anyone from claiming exclusive copyright ownership of that expression."<sup>314</sup> Admittedly, a reading of the merger doctrine that looks to post-fixation constraints on second comers to deny copyright protection is contested.<sup>315</sup> Nonetheless, copyright law already has tools that could enable ex post invalidation under some circumstances.

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<sup>306</sup> See Samuelson, *supra* note 302, at 443–44 (describing an application of the merger doctrine in a software case).

<sup>307</sup> 387 F.3d at 522, 529.

<sup>308</sup> Lockout codes are largely arbitrary. See, e.g., *Sega Enters. Ltd. v. Accolade, Inc.*, 977 F.2d 1510, 1515 (9th Cir. 1992), as amended (Jan. 6, 1993) (noting that Sega's lockout code for its Genesis console "consist[ed] of the letters 'S-E-G-A'").

<sup>309</sup> 387 F.3d at 542.

<sup>310</sup> *Id.* at 536. Notably, *Baker v. Selden* similarly considered the constraints the creator of a bookkeeping system imposed on subsequent users of that system. 101 U.S. 99, 100–01 (1879); Pamela Samuelson & Catherine Crump, *Why 72 Intellectual Property Scholars Supported Google's Copyrightability Analysis in the Oracle Case*, 36 BERKELEY TECH. L.J. 413, 431–32 (2021).

<sup>311</sup> *Oracle Am., Inc. v. Google Inc.*, 872 F. Supp. 2d 974, 998 (N.D. Cal. 2012), *rev'd*, 750 F.3d 1339 (Fed. Cir. 2014) (applying the merger doctrine where "the method specification as set forth in the declaration must be identical under the Java rules").

<sup>312</sup> 872 F. Supp. 2d at 998 (emphasis omitted).

<sup>313</sup> *Id.*

<sup>314</sup> *Id.*

<sup>315</sup> The Federal Circuit reversed the district court, and the Supreme Court sidestepped the copyrightability question, opting to resolve the case on more familiar fair use grounds.

Even more than copyright, patent law has a deeply ingrained aversion to invalidation rooted in changed conditions. In part, that reluctance is statutory. The Patent Act of 1952 evaluated patentability “at the time the invention was made.”<sup>316</sup> Although the America Invents Act shifted focus to the filing date, it maintained patent law’s interest in the pre-issuance state of the art.<sup>317</sup> This aversion also reflects longstanding worries about the risks of hindsight bias.<sup>318</sup>

That said, patent law routinely considers after-arising facts in evaluating non-obviousness.<sup>319</sup> Secondary considerations like commercial success, copying by competitors, or widespread licensing turn on facts that post-date the invention.<sup>320</sup> Nonetheless, these after-arising facts are still directed to the question of whether the invention was obvious at the time. If they indicate that it was, the patent is invalid *ab initio*. Emergent facts may shed new light on the initial patent grant, but they cannot render invalid a patent that was properly issued.

Although patent law has no established mechanisms for *ex post* invalidation, existing law points to some circumstances where ending otherwise valid patents may be a reasonable policy. The march-in rights created by the Bayh-Dole Act supply one example. For inventions based on federally funded research, agencies can, under limited circumstances, demand a “nonexclusive, partially exclusive, or exclusive license” for “responsible applicant[s].”<sup>321</sup> If the patentee refuses, the government

See Mark A. Lemley & Pamela Samuelson, *Interfaces and Interoperability After Google v. Oracle*, 100 TEX. L. REV. 1, 29, 34 (2021).

<sup>316</sup> Pub. L. No. 593, § 103, 66 Stat. 792, 798 (1952) (codified as amended at 35 U.S.C. § 103); see also *id.* § 102, 66 Stat. at 797 (codified as amended at 35 U.S.C. § 102) (novelty evaluated immediately “before the invention”).

<sup>317</sup> U.S. Patent & Trademark Off., Manual of Patent Examining Procedure § 2151 (Nov. 2024) [hereinafter MPEP].

<sup>318</sup> See *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 421 (2007) (“A factfinder should be aware, of course, of the distortion caused by hindsight bias and must be cautious of arguments reliant upon *ex post* reasoning.”); *Graham v. John Deere Co.*, 383 U.S. 1, 36 (1966) (noting the importance of “‘guard[ing] against slipping into use of hindsight’ and [] resist[ing] the temptation to read into the prior art the teachings of the invention in issue.” (quoting *Monroe Auto Equip. Co. v. Heckethorn Mfg. & Supply Co.*, 332 F.2d 406, 412 (6th Cir. 1964)) (internal citation and quotations omitted)); *Lakeshire Cheese Co. v. Shefford Cheese Co.*, 72 F.2d 497, 499 (7th Cir. 1934) (“Whether a patent involves invention is to be determined in the light of historical facts rather than what might appear to be simple in the light of hindsight.”).

<sup>319</sup> See Glynn S. Lunney, Jr. & Christian T. Johnson, *Not So Obvious After All: Patent Law’s Nonobviousness Requirement, KSR, and the Fear of Hindsight Bias*, 47 GA. L. REV. 41, 89 (2012).

<sup>320</sup> *Id.* Moreover, those considerations are often “the most probative and cogent evidence” available and “must always when present be considered.” *Stratoflex, Inc. v. Aeroquip Corp.*, 713 F.2d 1530, 1538 (Fed. Cir. 1983).

<sup>321</sup> 35 U.S.C. § 203(a).

can grant its own licenses. March-in rights do not, however, terminate an owner's patent,<sup>322</sup> and have never actually been granted.<sup>323</sup> Still, the government can use patented inventions without the patentee's permission, subject only to a cause of action for "reasonable and entire compensation" after the fact.<sup>324</sup>

We could imagine pressing needs—public health, national security, climate crises—that might justify limiting or even eliminating certain patents to enable production and distribution of some desperately needed technology. In the early days of the Covid Pandemic, some patentees appeared to be hindering innovation for the sake of profit.<sup>325</sup> Should future crises arise, it may be wise to allow the federal government to circumscribe select patents to meet public needs.

In other instances, the government might want to exert control over sensitive technologies. In the post-World War II era, for example, Congress "revoked" all existing patents "useful solely in the utilization of special nuclear material or atomic energy in an atomic weapon."<sup>326</sup> Some dystopian visions of general artificial intelligence might prompt this sort of reaction. Short of looming Armageddon, the federal government could, for example, intervene to combat skyrocketing pharmaceutical prices by directly manufacturing drugs and lowering prices.<sup>327</sup> Ultimately, we see fewer opportunities and less need to invalidate patents based on changed circumstances, particularly when the threat of compulsory licensing is an effective tool.

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<sup>322</sup> *Id.* § 203. The Department of Defense can use or even acquire patents outright, outside of march-in rights, even over the objection of the patentee. Such forced transfers require compensation and should not be considered terminal mechanisms since the patents at issue do not enter the public domain as a result. See 10 U.S.C. § 3793 (permitting the use of military appropriations for licensing or acquiring patents needed by the Department of Defense).

<sup>323</sup> Laura E. Dolbow, *Public Patent Powers*, 123 MICH. L. REV. 599, 632 (2025). In August of 2025, Secretary of Commerce Howard Lutnick threatened to exercise march-in rights against Harvard University as part of the Trump administration's continued assault on higher education institutions. Letter from Howard W. Lutnick, Sec'y, Dep't of Com., to Alan M. Garber, President, Harv. Univ. (Aug. 8, 2025).

<sup>324</sup> See 28 U.S.C. § 1498.

<sup>325</sup> In response, some governments turned to compulsory licensing, and many researchers pledged to forego COVID-related patents. Jorge L. Contreras, *The Open Covid Pledge: Design, Implementation, and Preliminary Assessment of an Intellectual Property Commons*, 4 UTAH L. REV. 833, 841 (2021).

<sup>326</sup> 42 U.S.C. § 2181(a). Such revocations were subject to just compensation. *Id.* For new atomic technologies, weapons are not patentable, but energy-related inventions are. MPEP § 2104.01.

<sup>327</sup> Senators Sanders and Warren have made similar proposals. Christopher J. Morten & Charles Duan, *Who's Afraid of Section 1498? A Case for Government Patent Use in Pandemics and Other National Crises*, 23 YALE J.L. & TECH. 1, 86 (2020).

## B. Requiring Use

Non-use is another promising trigger for ending IP rights. Trademarks must be used to establish and maintain protection. But just as a landowner may let their land lie fallow, patent, copyright, and trade secret holders can decline to make, distribute, or license their inventions, works, and secrets under current law. There may be good explanations for a rights holder's failure to commercialize these assets, but a system that uncritically tolerates non-use as a matter of course opens itself to strategic exploitation that offers little public benefit.

Patent and copyright trolls inflict significant costs on defendants, the judicial system, and society more broadly.<sup>328</sup> These rights holders acquire IP interests with no intention to use them productively. They do not make products, distribute their works, or license them for productive use. Rather, trolls lie in wait for colorable infringements, then sue with the hope of extracting a quick settlement.<sup>329</sup> In patent law, these non-practicing entities (NPEs) file a majority of infringement suits,<sup>330</sup> and their prevalence reshapes firms' innovation policies.<sup>331</sup> In copyright cases, plaintiffs have asserted a barrage of dubious infringement claims in a similar attempt to shake down accused infringers, resulting in an explosion of litigation.<sup>332</sup>

To address these worries, patent and copyright law should require rights holders to commercially exploit their IP assets in order to maintain their exclusive rights, much like trademark law has long done.<sup>333</sup> For trademarks, use is essential. A mark has no significance if consumers don't associate it with a source of goods or services. Creating and maintaining that connection requires use in commerce.

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<sup>328</sup> See James Bessen, Jennifer Ford & Michael J. Meurer, *The Private and Social Costs of Patent Trolls*, 34 REGULATION 26, 31 (2012) (estimating total economic losses from patent trolls at "over \$83 billion per year").

<sup>329</sup> Design Basics, LLC v. Lexington Homes, Inc., 858 F.3d 1093, 1097 (7th Cir. 2017).

<sup>330</sup> John R. Allison, Mark A. Lemley & David L. Schwartz, *How Often Do Non-Practicing Entities Win Patent Suits?*, 32 BERKELEY TECH. L.J. 237, 239 (2017) ("NPE suits . . . account for a majority of all defendants sued for patent infringement.").

<sup>331</sup> See Kenneth G. Huang, Mei-Xuan Li, Carl Hsin-Han Shen & Yanzhi Wang, *Escaping the Patent Trolls: The Impact of Non-Practicing Entity Litigation on Firm Litigation Strategies*, 45 STRATEGIC MGMT. J. 1954, 1954 (2024) (finding that businesses sued by NPEs increase their reliance on in-house technology afterwards).

<sup>332</sup> Matthew Sag, *Copyright Trolling, An Empirical Study*, 100 IOWA L. REV. 1105, 1108 (2015).

<sup>333</sup> *United Drug Co. v. Theodore Rectanus Co.*, 248 U.S. 90, 97 (1918) ("[T]he right to a particular mark grows out of its use . . . and it is not the subject of property except in connection with an existing business."). See generally Maayan Perel, *From Non-Practicing Entities (NPEs) to Non-Practiced Patents (NPPs): A Proposal for a Patent Working Requirement*, 83 U. CIN. L. REV. 747 (2015) (describing a similar proposal).

Use has traditionally not been a necessary condition for establishing or maintaining patents and copyrights. Nonetheless, we argue that a use requirement would not be a mere formality, but a substantive element of IP exclusivity. The Constitution empowers Congress to create exclusive rights in “Writings and Discoveries” in order “to promote the Progress of Science and useful Arts.”<sup>334</sup> Inventions that are never commercialized and works that are never distributed offer limited value to the public and do little to promote progress.<sup>335</sup> The failure to use these IP assets runs contrary to the ultimate aim of the patent and copyright systems. Use requirements are not constitutionally mandated, but they would be legislatively permissible.<sup>336</sup> The Supreme Court has repeatedly deferred to Congress on the question of how best to promote progress.<sup>337</sup>

Insisting on some productive use is not entirely unfamiliar in patent law. Many jurisdictions adopted “working requirements” to ensure that inventions were actually practiced within their territorial borders.<sup>338</sup> Failure to work a patent—that is, to manufacture products embodying the invention within a particular country—often led to the loss of patent protection. Over time, working requirements softened and instead imposed a compulsory license that entitled the patent owner to a reasonable royalty.<sup>339</sup>

In 1832, the United States flirted with a working requirement, declaring that patents granted to non-citizens “shall cease and . . . become absolutely void” if the patentee failed to make public use of the

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<sup>334</sup> U.S. CONST. art. I, § 8, cl. 8.

<sup>335</sup> See *Twentieth Century Music Corp. v. Aiken*, 422 U.S. 151, 156 (1975) (noting that copyright “must ultimately serve the cause of promoting broad public availability of literature, music, and the other arts”); *Fox Film Corp. v. Doyal*, 286 U.S. 123, 127 (1932) (“[T]he primary object” of copyright is “the general benefit[] derived by the public from the labors of authors.”); *Brenner v. Manson*, 383 U.S. 519, 534 (1966) (noting that “[t]he basic quid pro quo contemplated by the Constitution and the Congress for granting a patent monopoly is the benefit derived by the public from an invention with substantial utility”). *But see* *J.E.M. Ag Supply, Inc. v. Pioneer Hi-Bred Int’l, Inc.*, 534 U.S. 124, 142 (2001) (“The disclosure required by the Patent Act is ‘the quid pro quo of the right to exclude.’” (quoting *Kewanee Oil Co. v. Bicron Corp.*, 416 U.S. 470, 484 (1974))).

<sup>336</sup> U.S. CONST. art. I, § 8, cl. 8; see Oskar Liivak & Eduardo M. Peñalver, *The Right Not to Use in Property and Patent Law*, 98 CORN. L. REV. 1437, 1482 (2013) (“Such congressional modification of the right not to use would be very unlikely to run afoul of constitutional property protections.”).

<sup>337</sup> See *Eldred v. Ashcroft*, 537 U.S. 186, 218 (2003) (recognizing that the Court often defers to Congress on copyright matters).

<sup>338</sup> See generally Marketa Trimble, *Patent Working Requirements: Historical and Comparative Perspectives*, 6 U.C. IRVINE L. REV. 483 (2016) (describing the history of patent working requirements).

<sup>339</sup> *Id.* at 493; Timothy T. Lau, *Patent Nationalism and the Case for a New U.S. Patent Working Requirement*, 2018 BYU L. REV. 95, 115 (2018).

invention in the United States within one year of issuance.<sup>340</sup> Ceasing public use for six months led to a total loss of patent protection.<sup>341</sup> Those requirements were later repealed, leading the Supreme Court to conclude in 1908 that “long and unreasonable non-use” of an invention presented no statutory bar to patent protection.<sup>342</sup> Nonetheless, U.S. patent law continued to disfavor non-use in more subtle ways.<sup>343</sup>

Our proposal differs from traditional working requirements in two central respects. First, “use” as we define it is a more forgiving standard than traditional working requirements. To develop domestic industrial capacity, working requirements typically insist that products are manufactured in the jurisdiction that granted the patent.<sup>344</sup> Importing and selling those products is not enough. Our conception of use is considerably broader. So long as a patent holder sells products embodying the patented invention, offers services that incorporate that invention, uses the invention in the course of its internal operations,<sup>345</sup> or licenses its invention to another firm that engages in one of these activities,<sup>346</sup> the use requirement would be satisfied regardless of the place of manufacture. Second, we stake out a more aggressive position, arguing that failure to use should result in invalidation of the patent for violating patent law’s fundamental *quid pro quo*.<sup>347</sup> Others have

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<sup>340</sup> Act of July 13, 1832, ch. 203, 4 Stat. 577, 577 (1832) (repealed 1836).

<sup>341</sup> *Id.*

<sup>342</sup> *Cont’l Paper Bag Co. v. E. Paper Bag Co.*, 210 U.S. 405, 427 (1908). The Court also cited the “privilege of any owner of property to use or not use it, without question of motive.” *Id.* at 429. But that simplistic mantra is belied by both patent and property law. *See* Liivak & Peñalver, *supra* note 336, at 1437–38 (noting that property law sometimes takes non-use into account and remarking on dissimilarities between non-use in the tangible property and patent contexts).

<sup>343</sup> *See* John F. Duffy, *Reviving the Paper Patent Doctrine*, 98 CORN. L. REV. 1359, 1360 (2013) (describing the significance of non-use to claim construction and validity determinations); Herbert Hovenkamp, *The Emergence of Classical American Patent Law*, 58 ARIZ. L. REV. 263, 269 (2016) (noting limitations on damages for unused patents under the first U.S. patent statute).

<sup>344</sup> *See* Trimble, *supra* note 338, at 487 (noting that working requirements required local practicing); Lau, *supra* note 339, at 188 n.69 (finding that local working requirements were nearly ubiquitous in 1968).

<sup>345</sup> *See* Perel, *supra* note 333, at 795 (discussing how internal use would satisfy the author’s proposed working requirement).

<sup>346</sup> Licenses that merely avoid or settle litigation would not be sufficient.

<sup>347</sup> The question of whether working requirements are consistent with the TRIPS agreement is unsettled. *See* Paul Champ & Amir Attaran, *Patent Rights and Local Working Under the WTO Trips Agreement: An Analysis of the U.S.-Brazil Patent Dispute*, 27 YALE J. INT’L L. 365, 367–68 (2002) (describing arguments on either side). Because our proposal does not turn on “the place of invention” or “whether products are imported or locally produced,” we believe it is consistent with Article 27. Agreement on Trade-Related Aspects of Intellectual Property Rights art. 27, Apr. 15, 1994, Marrakesh Agreement Establishing the World Trade Organization, Annex 1C, 1869 U.N.T.S. 299. Article 5A of the Paris Convention permits compulsory licenses when a patentee fails to “work” an invention, but it explicitly

argued non-use should influence validity and claim construction,<sup>348</sup> limit available remedies,<sup>349</sup> increase maintenance fees,<sup>350</sup> or trigger a compulsory license.<sup>351</sup>

In light of the admittedly harsh consequences of our proposal, timing presents an important and challenging question. How far into the 20-year patent term should we expect a patentee to make use? Given the broad range of industries that rely on the patent system, there is no uniform answer to this question. Simple devices and software innovations can be made and marketed fairly quickly, whereas other products, like pharmaceuticals, take much longer.<sup>352</sup> At the same time, clear and predictable rules have benefits for both industry and the legal system. To account for these tradeoffs, we suggest a presumption of invalidity after a set time period—five years for making first use of the invention and three years from a cessation of use—tempered by a reasonable delay standard. Such delays could include regulatory hurdles, blocking patents, or the unavailability of technologies necessary for the invention’s use.

Courts and the PTO should consider good faith efforts in deciding whether a failure to use was reasonable. However, as in trademark law, token use would be insufficient.<sup>353</sup> A statement of use should be recorded with the PTO, which would carry a presumption of validity. But ultimately, the question of whether sufficient use was timely made should be decided by a court, just like any other basis for ex post invalidation.

The case for a use requirement is stronger for copyrights. An unused patent at least discloses some information to the public, but a work collecting dust in a publisher’s vault gives the public nothing.

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prohibits “forfeiture.” Paris Convention for the Protection of Industrial Property art. 5, Mar. 20, 1883, 828 U.N.T.S. 307. Neither “work” nor “forfeiture” are defined, and we maintain that neither term applies to our proposal. Our use requirement is significantly broader than the notion of “working” a patent, and the loss of rights we propose is invalidation rather than forfeiture.

<sup>348</sup> See Duffy, *supra* note 343, at 1397 (arguing that courts should be more skeptical of infringement claims regarding non-practiced patents).

<sup>349</sup> See Oskar Liivak, *When Nominal Is Reasonable: Damages for the Unpracticed Patent*, 56 B.C. L. REV. 1031, 1065 (2015) (arguing that patent trolls should receive only nominal damages for infringement).

<sup>350</sup> David S. Olson, *Removing the Troll from the Thicket: The Case for Enhancing Patent Maintenance Fees in Relation to the Size of a Patent Owner’s Patent Portfolio*, 68 FLA. L. REV. 519, 522 (2016); James Bessen & Brian J. Love, *Make the Patent “Polluters” Pay: Using Pigovian Fees to Curb Patent Abuse*, 4 CALIF. L. REV. CIR. 84, 86–87 (2013).

<sup>351</sup> Lau, *supra* note 339, at 133–34.

<sup>352</sup> Sarah R. Wasserman Rajec, *Patent Term Tailoring*, 99 IND. L.J. 475, 486 (2024).

<sup>353</sup> See 15 U.S.C. § 1127 (requiring “bona fide use of a mark in the ordinary course of trade, and not made merely to reserve a right in a mark”); H.R. REP. NO. 100-1028, at 15 (1988) (recognizing that the “ordinary course of trade” varies between industries); Perel, *supra* note 333, at 795–96 (arguing that licensing alone should be insufficient to prove use).

Aside from trolls, copyright also struggles with an orphan works problem. Works cannot be licensed for new uses if the identity of the copyright holder is unknown, stymying a range of creative endeavors.<sup>354</sup> Almost invariably, orphan works are not being commercially exploited by rights holders. And copyright's unjustifiably long duration ensures a glut of such works.

Again, we propose a broad understanding of use. Public distribution, display, or performance of a work would count. So would the creation of derivative works that are publicly used. These uses could be made by the copyright holder or its licensees. As long as the public has some reasonable opportunity to access and enjoy the work, our use requirement would be easily satisfied. But token use—like offering an ebook download for \$10 million or reciting a poem in a remote and inaccessible location—would not suffice.

Given copyright's irrational duration, even a forgiving use requirement could significantly reduce the troll and orphan works problems. Imagine copyright holders had fourteen years—the initial copyright term—before non-use led to invalidation. And assume that once use is made, they enjoyed another fourteen years before a lapse in use ends their exclusive rights. Even under those lax terms, rights in unused works would end decades before they would expire under existing law. Accommodations could also be made for reasonable delays. Screenplays trapped in development hell, for example, should not lose copyright protection so long as rights holders and licensees are making good faith efforts towards a qualifying use.<sup>355</sup> But in the end, courts would decide whether sufficient use was made.

Invalidating copyrights on the basis of non-use is an admittedly provocative proposal. For one, it arguably conflicts with the Berne Convention. Under its terms, the exercise of copyrights “shall not be subject to any formality.”<sup>356</sup> For the reasons we've outlined, we reject the idea that a use requirement is a mere administrative hurdle like notice, deposit, or renewal.<sup>357</sup> Communicating the work in some manner should be understood as an indispensable component of the copyright

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<sup>354</sup> See generally U.S. COPYRIGHT OFF., REPORT ON ORPHAN WORKS (2006) (describing the scope of the problem and proposing solutions).

<sup>355</sup> See generally DAVID HUGHES, TALES FROM DEVELOPMENT HELL (2012) (describing the sometimes long and tortuous path to producing and releasing films).

<sup>356</sup> Berne Convention for the Protection of Literary and Artistic Works art. 5, Sep. 9, 1886, S. TREATY DOC. NO. 99-27, 828 U.N.T.S. 223 [hereinafter Berne Convention].

<sup>357</sup> See WIPO, GUIDE TO THE BERNE CONVENTION 5.5 (1978) (describing formalities as “administrative obligations” like “deposit of a copy of a work,” or “payment of registration fees”). In our view, use would be more akin to fixation, which Berne acknowledges as a substantive requirement. *Id.* at 2.9.

bargain.<sup>358</sup> Berne also provides that its protections extend to works “whether published or not.”<sup>359</sup> But our use requirement, while certainly tied to the question of publication, is distinct. Many of the uses that would satisfy our test would fall short of publication as understood under U.S. copyright law. For example, “[a] public performance or display of a work does not of itself constitute publication.”<sup>360</sup> In any case, the United States is free to impose requirements for domestic works regardless of Berne’s terms.<sup>361</sup>

Termination of transfer poses another challenge. The Copyright Act allows authors to rescind decades-old licenses and assignments to regain control of their works.<sup>362</sup> But authors can’t assert their termination rights until long after the initial transfer, leaving them at the mercy of assignees or licensees who may have little interest in using those works. Even worse, a publisher could threaten to cease use and thus invalidate the copyright to gain the upper hand in negotiating with authors over potential termination. We offer a simple solution to this problem. Where a work that has been assigned or exclusively licensed is not used in the required time frame, all interests should revert to the original author. At that point, the clock would start ticking for the author to make use. Otherwise, the copyright would be invalidated, and the work would enter the public domain.

Although trade secrecy does not appear to suffer from a serious troll problem,<sup>363</sup> it may also benefit from a use requirement. Neither the Uniform Trade Secrets Act (UTSA) nor the Federal Defend Trade Secrets Act treats use as a prerequisite for protection,<sup>364</sup> but the pre-

<sup>358</sup> Congress is free to conclude that copyright for unused works is sound policy. *See* 17 U.S.C. § 102 (establishing the requirements for copyrightability). There is a plausible argument that the full term of protection may prod authors or their heirs to make unpublished works available eventually.

<sup>359</sup> Berne Convention, *supra* note 356, at art. 3.

<sup>360</sup> 17 U.S.C. § 101; *see also* Estate of Martin Luther King, Jr., Inc. v. CBS, Inc., 194 F.3d 1211, 1216–17 (11th Cir. 1999) (finding that public performance of King’s “I Have a Dream” speech to an audience of hundreds of thousands did not constitute a general publication).

<sup>361</sup> *See* Berne Convention, *supra* note 356, at art. 5(3) (“Protection in the country of origin is governed by domestic law.”); *see also* 17 U.S.C. § 411 (requiring registration of “United States works” before instituting an infringement claim).

<sup>362</sup> *See* 17 U.S.C. §§ 203(a)(3), 304(c) (laying out conditions for termination).

<sup>363</sup> *See* James Pooley, *The Myth of the Trade Secret Troll: Why the Defend Trade Secrets Act Improves the Protection of Commercial Information*, 23 GEO. MASON L. REV. 1045, 1062–78 (2016) (dismissing the idea that there can be such a thing as a “trade secret troll”). *But see* David S. Levine & Sharon K. Sandeen, *Here Come the Trade Secret Trolls*, 71 WASH. & LEE L. REV. ONLINE 230, 234–37 (2015) (arguing recent federal legislation will create “trade secret trolls”).

<sup>364</sup> UNIF. TRADE SECRETS ACT § 1 cmt. 5 (UNIF. L. COMM’N 1995); 18 U.S.C. § 1839(3).

UTSA understanding of trade secrets did demand use.<sup>365</sup> Courts frequently cited the Restatement (First) of Torts, which explained that trade secrets included “any formula, pattern, device or compilation of information which is used in one’s business, and which gives him an opportunity to obtain an advantage over competitors.”<sup>366</sup> Moreover, plaintiffs had to establish “continuous use” of their secrets, rather than mere temporary or ephemeral use.<sup>367</sup>

Occasionally, courts still apply this use requirement, but it has largely been jettisoned since the adoption of the UTSA.<sup>368</sup> The UTSA eliminated the use requirement in order to “extend[] protection to a plaintiff who has not yet had an opportunity or acquired the means to put a trade secret to use.”<sup>369</sup> Affording the developers of valuable secrets some period of time to put them into practice is a sensible policy choice. Otherwise, under-resourced firms would be vulnerable to misappropriation by larger competitors in the early stages of development and commercialization.

That said, eliminating the use requirement entirely is a rather blunt intervention. Although that change protects small innovators working diligently to implement their secrets, it also allows sophisticated, well-capitalized firms to sit on unused secrets while maintaining legal

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<sup>365</sup> See Eric R. Claeys, *The Use Requirement at Common Law and Under the Uniform Trade Secrets Act*, 33 *HAMLIN L. REV.* 583, 587–89 (2010) (citing *Victor Chem. Works v. Iliff*, 132 N.E. 806, 813 (Ill. 1921)).

<sup>366</sup> See, e.g., *Sinclair v. Aquarius Elecs., Inc.*, 42 Cal. App. 3d 216, 221 (Cal. Ct. App. 1974) (citing Restatement (First) of Torts § 757, cmt. b (A.L.I. 1939)); *Fid. Fund, Inc. v. DiSanto*, 40 Pa. D. & C.3d 254, 256 (Pa. Ct. Com. Pl. 1982); *Boost Co. v. Faunce*, 80 A.2d 246, 249 (N.J. Super. Ct. Ch. Div. 1951), *aff’d*, 86 A.2d 283 (N.J. Super. Ct. App. Div. 1952); *Allen Mfg. Co. v. Loika*, 144 A.2d 306, 309 (Conn. 1958).

<sup>367</sup> See, e.g., *Boost Co.*, 80 A.2d at 249 (quoting Restatement (First) of Torts § 757, cmt. b (A.L.I. 1939)); *Allen Mfg. Co.*, 144 A.2d at 309; *J.T. Healy & Son, Inc. v. James A. Murphy & Son, Inc.*, 260 N.E.2d 723, 729 (Mass. 1970).

<sup>368</sup> See, e.g., *Portfolioscope, Inc. v. I-Flex Sols. Ltd.*, 473 F. Supp. 2d 252, 255 (D. Mass. 2007) (dismissing trade secret claim where plaintiff failed to “allege that [the] trade secret is in continuous use”); 77th St. v. Am. Fam. Mut. Ins. Co., No. 12-cv-01910-PHX, 2014 WL 12642162, at \*1 (D. Ariz. Aug. 15, 2014) (finding plaintiff had “not adequately demonstrated that the relevant training materials are trade secrets that are currently in use”); see also *Swartz v. Schering-Plough Corp.*, 53 F. Supp. 2d 95, 101 n.7 (D. Mass. 1999) (citing failure to use a secret as an alternative basis for “abandonment”).

<sup>369</sup> UNIF. TRADE SECRETS ACT § 1 cmt. 5 (UNIF. L. COMM’N 1995); see also *Contour Design, Inc. v. Chance Mold Steel Co.*, 794 F. Supp. 2d 315, 321 (D.N.H. 2011) (citing UNIF. TRADE SECRETS ACT § 1 cmt. 14 U.L.A. 5 (1985)); *State ex rel. Besser v. Ohio State Univ.*, 732 N.E.2d 373, 378 (Ohio 2000) (same); RESTATEMENT (THIRD) OF UNFAIR COMPETITION § 39 cmt. e (AM. L. INST. 1995) (“Use . . . is not a prerequisite to protection” because such a “requirement can deny protection during periods of research and development and is particularly burdensome for innovators who do not possess the capability to exploit their innovations”); *Hrdy & Lemley, supra* note 10, at 22–25 (detailing reasons why the UTSA dispensed with the use requirement).

protection. These dormant trade secrets deny the public the benefits of valuable information. Imagine a fossil fuel company discovers a refining technique that results in significant increases in efficiency. Worried about its impact on sales volume, they decline to implement those secrets to develop new products. Keeping that information secret is undoubtedly valuable to the firm, but it imposes a significant cost on the public. Should a former employee be exposed to misappropriation liability for sharing this uncommercialized breakthrough out of sincere concern for the environment? We favor an approach that encourages use while still allowing firms a reasonable opportunity to exploit their secrets.<sup>370</sup>

Across IP regimes, ex post invalidation may seem harsh. From our perspective, that harsh result is a feature, not a bug. The ultimate aim of the patent, copyright, and—to a lesser extent—trade secret systems is to encourage the public enjoyment and benefits of intellectual creations. Inventions, works, and secrets that are not being used, in the broad sense we have outlined, are not creating the kind of social value the law was designed to generate. Under those circumstances, the costs of maintaining the owner's monopoly cannot be justified.

### C. *Rethinking Abandonment*

Although all four principal bodies of IP law recognize abandonment, the doctrine's application varies considerably across them. Copyright and trade secret law rely purely on the common law rule requiring intent to abandon.<sup>371</sup> Patent law supplements that approach with a straightforward statutory path to abandoning inventions.<sup>372</sup> And the Lanham Act alters the common law standard by focusing on the trademark owner's "intent not to resume . . . use" rather than the intent to abandon.<sup>373</sup> It also creates an evidentiary presumption of abandonment after three years of non-use.<sup>374</sup> These variations suggest ways we might modify abandonment to better address particular policy concerns.

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<sup>370</sup> Admittedly, trade secret law's favorable treatment of independent discovery and reverse engineering creates a more hospitable competitive environment. Claeys, *supra* note 365, at 597. But a use requirement would nonetheless reduce the risks facing competitors who may reasonably fear misappropriation claims arising from, among other things, hiring a competing firm's former employees by limiting the number of valid trade secrets.

<sup>371</sup> See *supra* Section I.B; see also Fagundes & Perzanowski, *supra* note 10, at 493 (pointing to the intent requirement for copyright surrender).

<sup>372</sup> See 35 U.S.C. § 253(b) (providing for patent renunciation).

<sup>373</sup> 15 U.S.C. § 1127.

<sup>374</sup> *Id.*

To start, trademark law could show greater respect for owner autonomy by focusing on the intent to abandon. What distinguishes abandonment from other terminal mechanisms is the rights holder's intent. The ultimate question is whether the owner's conduct manifests an intent to give up their rights. A statutory period of non-use may well be an appropriate trigger for a presumption of such intent. But rebutting that presumption should turn on the intent to abandon the mark rather than the intent to resume use. Admittedly, that shift might make abandonment harder to prove on the margins. Evidence of concrete plans to resume use would satisfy that standard, as it does today. But evidence of a trademark owner's efforts to maintain ownership of a mark in the vague hope that it develops commercial value in the future might as well. Of course, since use in commerce is a substantive requirement for trademark protection, the Lanham Act could simply dispense with the abandonment framing altogether and declare marks invalid *ex post* after three years of non-use, regardless of intent.<sup>375</sup> And common law abandonment would remain available when a trademark owner demonstrates their intent to give up a mark regardless of any period of non-use.

Trademark abandonment differs from copyright and patent law in another respect. Abandoned works and inventions permanently enter the public domain, and anyone is free to use them. In contrast, an abandoned mark, much like abandoned personal property, can be plucked from the public domain by a new owner. When once-abandoned marks are adopted and used by new providers of goods or services, there is some risk of consumer confusion.<sup>376</sup> That's especially true with respect to inherently distinctive marks—those that require no proof of consumer association between the mark and the source—or when the revived mark is used on similar goods and services. On the other hand, the number of effective trademarks is finite.<sup>377</sup> Without occasionally recycling marks, we may steer firms towards increasingly esoteric source indicators, which carry their own risk of confusion. We suggest trademark law balance these considerations by demanding

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<sup>375</sup> As discussed in Section I.B, the Lanham Act treats genericide as a species of abandonment. We think that's a category error, as genericide is properly considered a form of *ex post* invalidation.

<sup>376</sup> Courts sometimes consider residual goodwill, the association in the minds of consumers between an unused mark and its one-time owner, in determining whether that mark has been abandoned. But they "typically reject the invitation." Linford, *supra* note 16, at 826. Linford has argued that trademark law should account for this risk by limiting abandonment to those cases in which the loss of rights is "less likely to harm consumers and distort competition than the preservation of trademark rights." *Id.* at 851.

<sup>377</sup> See Beebe & Fromer, *supra* note 191.

some showing of secondary meaning for any revived marks used in connection with classes of goods and services similar to those offered by the prior owner.

Copyright law has not developed a clear standard for what acts or omissions indicate an intent to abandon.<sup>378</sup> To address that uncertainty, copyright might benefit from its own statutory presumptions. But unlike trademarks, two or three years of copyright non-use tells us little about a rights holder's intent. Given the duration of copyright and the cyclical nature of pop culture relevance, works may lay fallow for long stretches only to be rereleased, rebooted, or reimagined. But if a work has been out of print or otherwise commercially unavailable for decades, a rebuttable presumption of abandonment might be warranted.

A presumption of abandonment makes even more sense when copyright holders proactively disappear works. As Mark Lemley has described, copyright holders have increasingly clawed back access to streaming exclusives, leaving those works entirely unavailable to the public.<sup>379</sup> Disney, for example, removed the *Willow* series from Disney+ only six months after its streaming premiere despite spending \$100 million on its production.<sup>380</sup> With no physical release, *Willow* fans have no licensed avenues to watch the show.<sup>381</sup> Just as troublingly, studios are shelving completed films, like *Batgirl* and *Coyote vs. Acme*, before the public even has a chance to see them.<sup>382</sup> In large part, these decisions are driven by efforts to minimize studios' tax burdens by writing off production costs as losses.<sup>383</sup> Copyright law does not compel the release of works, even if the case for protecting unpublished works is relatively tenuous.<sup>384</sup> But at the very least, rights holders should not be permitted to have their

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<sup>378</sup> See Fagundes & Perzanowski, *supra* note 10, at 540–52 (highlighting judicial uncertainty about what qualifies as intent to abandon).

<sup>379</sup> Mark A. Lemley, *Disappearing Content*, 101 B.U. L. REV. 1255, 1266–67 (2021). These works don't even need to be deposited with the Library of Congress under current rules. See 37 C.F.R. § 202.19(c)(5) (exempting from the deposit requirements of section 407(a) “electronic-only books and electronic serials available only online until such time as a demand is issued by the Copyright Office”).

<sup>380</sup> Dan Selcke, *Disney Spent \$100 Million on Willow Show Only to Remove It From Disney+*, WINTERISCOMING (Aug. 23, 2023), <https://winteriscoming.net/2023/08/23/disney-spent-100-million-willow-show-remove-disney/> [<https://perma.cc/C63R-6FP6>].

<sup>381</sup> *Id.*

<sup>382</sup> Jodee Brown, ‘That’s Sad’: *Batgirl* Directors Speak Out on *Coyote vs. Acme Cancellation*, CBR (May 31, 2024), <https://www.cbr.com/batgirl-directors-coyote-vs-acme-cancellation/> [<https://perma.cc/LU5Z-7VWM>].

<sup>383</sup> Adam B. Vary & Brent Lang, *Why Warner Bros. Killed ‘Batgirl’: Inside the Decision Not to Release the DC Movie*, VARIETY (Aug. 2, 2022, at 05:17 PT), <https://variety.com/2022/film/news/batgirl-movie-why-not-releasing-warner-bros-1235332062/> [<https://perma.cc/DT9W-EFMT>].

<sup>384</sup> See *supra* Section III.B.

cake and eat it too. If a firm obtains a tax break for disappeared or unreleased works, the Copyright Act should treat those works to be abandoned and free for public use. Allowing copyright holders to benefit financially for works the public cannot enjoy is fundamentally at odds with the purpose of copyright law.<sup>385</sup>

#### D. Reinforcing Fraud-on-the-Office

Even after the Federal Circuit's efforts to limit the doctrine,<sup>386</sup> patent law's inequitable conduct rule provides a robust terminal mechanism designed to encourage accurate disclosures of material information. Applicants who withhold or intentionally mislead patent examiners about material facts risk the "atomic bomb" of not only rendering an entire patent unenforceable but losing related patents and pending applications as well.<sup>387</sup> The inequitable conduct rule seeks to incentivize accuracy and completeness in prior art disclosures. While there is robust debate about the doctrine, empirical evidence indicates that it does achieve these goals.<sup>388</sup> Copyright and trademark, in contrast, do not provide a similarly strong incentive to be truthful in registration applications. Both feature only a relatively toothless fraud-on-the-office doctrine that, if proven, only denies plaintiffs the evidentiary presumptions afforded by registration but does not preclude infringement.<sup>389</sup> We argue that copyright's and trademark's fraud-on-the-office doctrines would benefit from adopting patent's more aggressive stance against false representations.

The advent of artificial intelligence makes the weakness of copyright's protections against fraudulent applications especially salient. As AI models have become capable of creating works that rival the quality of those made by people, courts have doubled down on the requirement that only humans can be authors within the meaning of the

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<sup>385</sup> The Copyright Act's termination of transfer provisions, which allow authors to eventually reclaim ownership of works that were licensed or assigned, would complicate this proposal. See 17 U.S.C. §§ 203, 304. If a work was deemed abandoned based on a studio assignee's choice to pull it from circulation and claim a tax write-off, that would foreclose the original author's opportunity to terminate. This problem already exists under common law abandonment, although it rarely arises. One way to sidestep it would be to limit any presumption of abandonment to works made for hire. Those works, which make up the bulk the works studios have disappeared in recent years, are not subject to termination of transfer. See *id.* (exempting works made for hire).

<sup>386</sup> See Swanson, *supra* note 220, at 703–06.

<sup>387</sup> *Aventis Pharma S.A. v. Amphastar Pharms., Inc.*, 525 F.3d 1334, 1349 (Fed. Cir. 2008).

<sup>388</sup> See Lee Petherbridge, Jason Rantanen & R. Polk Wagner, *Unenforceability*, 70 WASH. & LEE L. REV. 1751, 1777–79 (2013) (discussing study results pointing to beneficial effects of the inequitable conduct doctrine).

<sup>389</sup> See 6 McCARTHY, *supra* note 90, § 31:60; 5 PATRY, *supra* note 17, § 17:126.

Copyright Act.<sup>390</sup> To implement this requirement, the Copyright Office has adopted a policy of refusing registration “[i]f a work’s traditional elements of authorship were produced by a machine.”<sup>391</sup> When artificial intelligence generates “complex written, visual, or musical works” in response to a simple prompt, human authorship is lacking.<sup>392</sup> For works that combine significant human-authored contributions with AI outputs, the Office imposes a “duty to disclose the inclusion of AI-generated content . . . and to provide a brief explanation of the human author’s contributions.”<sup>393</sup>

But the Office has little capacity to scrutinize the use of AI in the hundreds of thousands of applications it receives annually.<sup>394</sup> Instead, it must rely on applicants truthfully disclosing their reliance on AI. But even if an applicant lies about the use of AI in their work, the only consequence is losing a registration the applicant wasn’t entitled to in the first place. What’s more, applicants can salvage false or misleading registrations by submitting a more accurate factual record.<sup>395</sup> This fraud-on-the-office regime is so forgiving that it creates zero disincentive to deceive the Copyright Office, risking a flood of uncopyrightable works being fraudulently registered.<sup>396</sup>

Trademark law faces its own challenges with mendacious registration records. The number of registration applications flowing into the USPTO has risen to historical highs in recent years.<sup>397</sup> Add to that the fact that trademarks are potentially infinite so long as owners comply with lax renewal requirements, and two problems result. One is depletion: fewer

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<sup>390</sup> See *Thaler v. Perlmutter*, 130 F.4th 1039, 1044–48 (D.C. Cir. 2025).

<sup>391</sup> Copyright Registration Guidance: Works Containing Material Generated by Artificial Intelligence, 88 Fed. Reg. 16190, 16192 (Mar. 16, 2023) (to be codified at 37 C.F.R. pt. 202).

<sup>392</sup> *Id.*

<sup>393</sup> *Id.* at 16193. Other material misrepresentations include the author’s identity, whether the work is co-authored, made for hire, or a derivative work. See 5 PATRY, *supra* note 17, § 17:124.

<sup>394</sup> In 2024, the Office issued more than 400,000 registrations. See U.S. COPYRIGHT OFF., FY2024 ANNUAL REPORT 20 (2024).

<sup>395</sup> Jacob Noti-Victor, *Regulating Hidden AI Authorship*, 111 VA. L. REV. 139, 163 n.126 (2025) (first citing 5 PATRY, *supra* note 17, § 17:126; and then quoting *Morgan, Inc. v. White Rock Distilleries, Inc.*, 230 F. Supp. 2d 104, 108–09 (D. Me. 2002) (finding “evasions and artful omissions” in a copyright registration, but dismissing claim without prejudice “since a copyright owner may register his claim at any time during the life of the copyright”)).

<sup>396</sup> The Copyright Act does provide for a meager \$2,500 fine for “a false representation of a material fact.” 17 U.S.C. § 506(e). However, that provision is rarely enforced. See Noti-Victor, *supra* note 395, at 163 (citing Jason Mazzone, *Copyfraud*, 81 N.Y.U. L. REV. 1026, 1036 (2006)). On the strategy of requiring disclosure of AI authorship, see generally Noti-Victor, *supra* note 395.

<sup>397</sup> There were 767,138 trademark classes filed in 2024, a significant increase from the 673,233 trademark classes filed five years previously in 2019. TRADEMARK PUB. ADVISORY COMM., ANNUAL REPORT 2024 4; TRADEMARK PUB. ADVISORY COMM., ANNUAL REPORT 2019 5.

and fewer quality marks remain unclaimed for future users to claim.<sup>398</sup> The other is congestion: in a world saturated with trademarks, those marks are less capable of protecting business goodwill and preserving consumer search.<sup>399</sup> At least part of this proliferation and its attendant social costs is due to false representations on trademark applications. A 2021 Inspector General report “found that USPTO’s trademark registration process was not effective in preventing fraudulent or inaccurate registrations.”<sup>400</sup> Material misrepresentations and omissions may relate to whether the claimed term is descriptive or generic, whether and when a mark was used in commerce, or whether it was used on all claimed categories of goods and services, among others.<sup>401</sup> The standard for fraud on the Trademark Office is high.<sup>402</sup> But even when fraud is established, the consequences are limited. The registration is canceled, but underlying common law rights can survive, and owners of unregistered trademarks can still sue under the Lanham Act.<sup>403</sup>

How could we deploy terminal mechanisms to reduce fraudulent copyright and trademark registrations? Neither the Copyright Office nor the PTO ultimately determines the validity of copyrights and trademarks; they simply register them.<sup>404</sup> And even without registration, rights holders can bring infringement suits and claim exclusive rights.<sup>405</sup>

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<sup>398</sup> See Beebe & Fromer, *supra* note 191, at 981–1008 (reporting results of study showing high incidence of trademark depletion).

<sup>399</sup> See *id.* at 1012–21 (reporting results of studies showing trademark congestion).

<sup>400</sup> U.S. DEP’T OF COM. OFF. OF INSPECTOR GEN., FINAL REPORT NO. OIG-21-033-A, USPTO SHOULD IMPROVE CONTROLS OVER EXAMINATION OF TRADEMARK FILINGS TO ENHANCE THE INTEGRITY OF THE TRADEMARK REGISTER 3 (2021).

<sup>401</sup> See 6 MCCARTHY, *supra* note 90, § 31:69–74. Both initial applications and renewals are subject to allegations of fraud. See, e.g., *Torres v. Cantine Torresella*, 808 F.2d 46, 48 (Fed. Cir. 1986).

<sup>402</sup> See, e.g., *In re Bose Corp.*, 580 F.3d 1240, 1243 (Fed. Cir. 2009) (“A party seeking cancellation of a trademark registration for fraudulent procurement bears a heavy burden of proof. Indeed, ‘the very nature of the charge of fraud requires that it be proven “to the hilt” with clear and convincing evidence.’” (citation omitted)).

<sup>403</sup> As with inequitable conduct in patent law, the consequences of fraud on the Trademark Office can extend beyond the immediate material misrepresentation. If a registrant’s statement of use overclaims the categories of goods and services for which a mark is used, the entire registration can be canceled. See *Medinol Ltd. v. Neuro Vasx, Inc.*, 67 U.S.P.Q.2d 1205, 1208 (T.T.A.B. 2003) (“[D]eletion of the goods upon which the mark has not yet been used does not remedy an alleged fraud upon the Office. If fraud can be shown in the procurement of a registration, the entire resulting registration is void.”).

<sup>404</sup> See 3 PATRY, *supra* note 17, § 9:11 (noting that because “the Copyright Office is one of record and not one of rigorous examination,” the presumptions created by registration can be rebutted by evidence that cast doubt on its validity); 3 MCCARTHY, *supra* note 90, § 20:68 (“The cancellation of a registration does not invalidate underlying common law rights in the trademark because those rights do not flow from federal registration.”).

<sup>405</sup> See 17 U.S.C. § 411(a) (“[W]here the deposit, application, and fee required for registration have been delivered to the Copyright Office in proper form and registration has been refused, the applicant is entitled to institute a civil action for infringement . . .”);

Nonetheless, Congress could enact laws stripping would-be rights holders of their copyrights or trademarks, subject to judicial review, in the event the relevant agency found fraud in the registration process. However, given their limited bandwidth and the ever-increasing inflow of registration applications, expecting those agencies to scrutinize every application for material misrepresentations is a practical impossibility. Regular registration audits would offer a more plausible way to ratchet up enforcement. The mere possibility of losing copyrights or trademarks found to be fraudulent could be enough to deter fraud.<sup>406</sup> This threat could be amplified by imposing a significant fine. Currently fraud on the office carries no monetary penalty for trademark registration applicants and a discretionary, rarely enforced maximum fine of \$2,500 for copyright registration applicants.<sup>407</sup>

A second approach would rely on courts to ferret out fraud in litigation. Defendants in infringement suits could argue that the work or mark was registered fraudulently, and if they were to prevail, that would not only provide a complete defense but would also strip the plaintiff of the asserted IP interest. That loss of rights would be premised on invalidity—for example, if a mark has not been used or a work was not authored by a human. Like patent’s inequitable conduct rule, that penalty could extend to related trademarks or to components of a work that were in fact human-authored.

In either case, the standard for fraud on the office should remain exacting in order to filter out baseless assertions of the doctrine. As with patents, this enhanced fraud on the office doctrine would create a powerful disincentive to misleading the Copyright Office or PTO in order to secure copyright or trademark registrations.

## CONCLUSION

We began with the observation that while IP tends to feature built-in endpoints, private rights in physical property do not. We end with a final provocation: What if physical property *were* subject to IP-style terminal mechanisms? Subjecting land and chattels to temporal or use-based limits seems counterintuitive. It should. The fee simple absolute—the most common form of ownership—grants broad rights

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15 U.S.C. § 1125 (providing cause of action for “false designation of origin” for unregistered marks).

<sup>406</sup> The emergence of AI technology could also enable audits without straining already limited manpower and resources. AI could act as a first-order screen of those registrations likeliest to contain fraud, with human employees then analyzing the selected registrations to identify any possible misrepresentations.

<sup>407</sup> See Noti-Victor, *supra* note 395, at 163; 17 U.S.C. § 506(e).

of use, exclusion, and transfer until the owner sells or dies.<sup>408</sup> Even posthumously, owners can choose their successors and impose ongoing limitations on those assets.<sup>409</sup>

Nonetheless, the idea of terminal mechanisms for traditional property interests is not as implausible as it might seem. For one thing, the major justifications for limits on IP have traction in the physical property context as well. Copyright, patent, and physical property are all monopolies granted by the state in order to encourage investment.<sup>410</sup> There are, of course, any number of distinctions worth invoking, but our point is simply that there is no inescapable logic to ending IP rights while tolerating infinite rights in tangible assets. That distinction is simply a policy choice.

Moreover, physical property is already subject to limits that resemble IP's terminal mechanisms. Attempts to exercise posthumous control over property are limited by several hoary doctrines like the rule against perpetuities, the rule of Shelley's Case, and the doctrine of worthier title.<sup>411</sup> Adverse possession allows productive trespassers to take title to real property, which has echoes of the use-based limits of trademark and trade secret law.<sup>412</sup> The state also can confiscate property associated with the commission of a crime, akin to invalidation on moral grounds.<sup>413</sup> Finally, the state can terminate ownership of both land and chattel property thanks to its eminent domain power.<sup>414</sup> This prerogative has analogs to IP doctrines that strip owners of their

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<sup>408</sup> See Fennell, *supra* note 7, at 1468–73 (providing a detailed historical and substantive overview of this form of ownership).

<sup>409</sup> Subject to some limitations, owners can devise property subject to defeasing conditions that survive them. See THOMAS W. MERRILL & HENRY E. SMITH, *PROPERTY: PRINCIPLES & POLICIES* 500–15 (2d ed. 2012) (enumerating estates in land and future interests, including defeasing doctrines). Easements and covenants can also run with the property after their owner-creator's death. See *id.* 986–87, 1038–39.

<sup>410</sup> See Eric A. Posner & E. Glen Weyl, *Property Is Only Another Name for Monopoly*, 9 *J. LEGAL ANALYSIS* 51, 51 (2017) (“Property rights of all sorts . . . give the owner a monopoly over a resource. . . . [This monopoly] gives the owner an incentive to invest in improving the property because she receives the entire payoff from its use or sale.”). Some scholars take the view that property derives from natural rights and is not merely an economic monopoly. See generally ERIC R. CLAEYS, *NATURAL PROPERTY RIGHTS* (2025) (defending this position).

<sup>411</sup> See JOHN G. SPRANKLING, RAYMOND R. COLETTA & RACHAEL E. SALCIDO, *PROPERTY: A CONTEMPORARY APPROACH* 344–59 (6th ed. 2024) (discussing these and other limits on transfers).

<sup>412</sup> See Nadav Shoked, *Who Needs Adverse Possession?*, 89 *FORDHAM L. REV.* 2639, 2647–49 (2021) (summarizing the doctrine of adverse possession).

<sup>413</sup> See Caleb Nelson, *The Constitutionality of Civil Forfeiture*, 125 *YALE L.J.* 2446, 2488–92 (2016) (tracing the evolution of the justification for civil forfeiture).

<sup>414</sup> See Daniel B. Kelly, *The “Public Use” Requirement in Eminent Domain Law: A Rationale Based on Secret Purchases and Private Influence*, 92 *CORN. L. REV.* 1, 9–12 (2006) (discussing the sources and development of the eminent domain power).

rights when compelling public concerns warrant it, such as genericide in trademark and march-in rights in the patent. And some scholars have begun to question the limitless nature of the fee simple absolute, opening the door to rights that terminate.<sup>415</sup>

IP's terminal mechanisms suggest novel ways that physical property might end. It's worth imagining, even if politically infeasible, how term limits might translate to physical property. One possibility would be to declare a fixed temporal limit that applied to all acquisitions, such as 100 years from the most recent transfer. Another possibility would be to model term limits for physical property on copyright and limit ownership to the life of the most recent transferee plus some other term of years. The former would be more predictable, but the latter would capture the policy at play in copyright to allow use during the life of the transferee and one generation of their descendants. Still another option would be to have a bifurcated term along the lines of the 1909 Copyright Act.<sup>416</sup> This would allow owners a chance to assess whether continued ownership was worthwhile and would speed the transfer of property to owners who may value it more. In any of these cases, the term once set would become like a life estate: The owner could transfer but only for the time left in the term.

Physical property could also be subject to a use requirement, one that parallels trademark's use requirement and echoes patent law's imposition of maintenance fees. Here, as with trademark and trade secrets, owners who were not making economically valuable residential, commercial, or agricultural use of their land would risk losing it. Such a requirement would incentivize active use of land and would do so more effectively than rarely invoked adverse possession doctrines.<sup>417</sup> But it would also entail more process and would inevitably raise hard questions over whether and what it meant for property to be in use.<sup>418</sup>

Innumerable questions follow. We pause to address only one here: What would happen to property upon termination of an owner's right? Allowing IP assets to migrate into the public domain comes at no

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<sup>415</sup> Fennell, *supra* note 7, at 1482–94 (suggesting alternatives to the longstanding fee simple absolute default).

<sup>416</sup> See Copyright Act of 1909, ch. 320, § 9, 35 Stat. 1075, 1077 (1909) (repealed 1976).

<sup>417</sup> It is also worth asking whether active use is something we want to incentivize. If a wealthy person were to buy 1,000 acres of pristine forest land to leave untouched subject to a conservation easement, such non-use may well be regarded as more socially beneficial than creating a strip mall or parking lot. See generally James L. Olmsted, *Foreword: Conservation Easements: New Perspectives in an Evolving World*, 74 L. & CONTEMP. PROBS. i (2011) (discussing conservation easements). One way to capture this would be to make the standard something like “social benefit” rather than “active use,” though the former sets a very amorphous standard.

<sup>418</sup> *Id.*

social cost. But physical property is rivalrous and requires upkeep and management. It cannot be transformed into a commons as easily. One option would be ending just the owner's private right, not making the property a shared resource for the public. It could become available for repurchase, just as abandoned or invalid trademarks can be reacquired by new owners. Those transactions could be designed to maximize revenue or to encourage ownership by those with demonstrated need. This would not be a permanent end to private property in the resource, though, just a forced transfer by the state.

Ending real property rights could instead mean the resource was permanently deprived of private ownership and dedicated to the public, similar to expired copyrights and patents. This would result in the creation of countless new public spaces but would raise hard questions about how to govern them and whether a surfeit of shared land is normatively attractive given the current housing shortage. Yet another option would be for expired real property to be claimed by the state, where it could be used for public-oriented aims, such as infrastructure, schools, or libraries.<sup>419</sup>

Objections are easy to conjure. The value of property transcends the purely economic, so that ending private rights may work a dignitary harm. Imposing terminal mechanisms would also disrupt family succession plans and lower property values. The degree to which these outcomes are problematic turns on how you weigh them against the wealth maldistribution and housing affordability crisis our current property regime enables. We also acknowledge the risk that the effects of temporal limits on real property interests may disproportionately fall on the most resource-strapped owners rather than idle landlords. But our goal is not to offer fully developed policy proposals. Rather, it is to illustrate the power of terminal mechanisms to shape policy and upend how we think about ownership of both intellectual and tangible property.

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<sup>419</sup> Under escheatment regimes in various European and South American jurisdictions, abandoned real property is claimed by the local or national government, which then determine its best use. See Strahilevitz, *supra* note 23, at 394–95. A similar approach could be adopted for real property after expiration or non-use.