
1. Incentives, contracts, and intellectual property exhaustion

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I. INTRODUCTION

This chapter examines the claim that the exhaustion doctrine reduces incentives for the creation of new works and inventions. In order to make the strongest argument in favor of intellectual property exhaustion, I will be working solely within the incentives-based justification for intellectual property. Since the claims for evisceration of incentives are most often made for copyright and patent, I will focus on copyright and patent exhaustion in the last section of this chapter. The positive conclusion is that intellectual property exhaustion is consistent with incentives-based justifications for intellectual property rights.

For the purposes of this chapter, I define incentives-based rationale for intellectual property rights¹ as the view that rights of exclusivity are needed in order to promote creativity and invention and their dissemination. This exclusivity allows the creator to sell rights of access or use to the work. With this ability to commercialize rights in a creative work, the creator can develop a market, and possibly an industry, within which the works can propagate under the control and management of the rights holder. Through these mechanisms, exclusivity creates incentives for the creative person (who harnesses the legally provided exclusivity to exploit the work) and the public (who can benefit from the work through market exchange).

However, the incentives theory can become groundless and unprincipled if taken too far. Law-makers, whether in the legislature or the courts, might fall victim to the claim that if some exclusivity is needed for creativity, then more exclusivity can produce more creative and innovative works. Since exclusive rights are relatively costless to provide and the potential upside for consumers and culture is great, the temptation readily arises for establishing expansive rights. Although it is easy to challenge the incentives argument from outside its terms, what is most compelling is that the terms of the incentives

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¹ See e.g. Benjamin N. Roin, *Intellectual Property Versus Prizes: Reframing the Debate*, 81 U. CHI. L. REV. 999, 1018 (2014) (discussing incentives); Eric E. Johnson, *Intellectual Property and the Incentive Fallacy*, 39 FLA. ST. U. L. REV. 623, 624 (2012) (discussing the fallacy of incentive theory); Jeanne C. Fromer, *Expressive Incentives in Intellectual Property*, 98 VA. L. REV. 1745, 1760 (2012) (showing the complementarities of utilitarian and moral theories with respect to copyright incentives). For an economic discussion of incentives generally, see DONALD CAMPBELL, *INCENTIVES: MOTIVATIONS AND THE ECONOMICS OF INFORMATION* 514 (2006). For an economic analysis of incentives in intellectual property, see SUZANNE SCOTCHMER, *INNOVATION AND INCENTIVES* 98–103 (2004) (asking how profitable should intellectual property rights be).

justification compels at some point limitations on exclusivity. Incentives are diverse and multifarious. Therefore, one needs to carefully consider the subsidiary incentive questions of “for whom?” and “for what?” This chapter unpacks the meaning of incentives and the implication for intellectual property exhaustion.

An exchange from the oral argument in the 2013 dispute over patent exhaustion and self-replicating seeds, *Bowman v. Monsanto*,² illustrates the claim that exhaustion undermines intellectual property incentives. During the oral argument, Justice Kagan raised the question of incentives.³ The petitioner, urging a finding of exhaustion, pointed out that contract remedies can serve to compensate the patent owner once the rights are exhausted upon an initial sale. Justice Kagan questioned whether contract remedies would provide enough of an incentive to create and distribute a seed that can be readily replicated after public distribution.⁴ The final opinion, authored by Justice Kagan, rested on the premise that contract remedies would not provide enough incentive for creation. While the Court’s ruling has its strength, the reasoning ignored the larger question of incentives “for whom?” and “for what?”

The roadmap for this chapter is as follows. The next section addresses several cases in which the U.S. Supreme Court has confronted questions of incentives and intellectual property broadly. The third section places the problem of exhaustion in the context of these broader cases. The fourth section concludes and analyzes the implications for policy.

II. ON INCENTIVES AND INTELLECTUAL PROPERTY

The word “incentive” is used synonymously with motivation, but has many nuances that are relevant to intellectual property law and policy.⁵ Intellectual property incentives are most often external and monetary.⁶ Packaged as legal rights to exclude, intellectual property incentives tap into the quest for money and wealth by encouraging individuals to focus their energies on creation. The size of the monetary reward depends on the scope of exclusivity, determined by the subject matter of the right, the range of potential markets to which the rights attach, and the types of uses that must be licensed by third parties. Intellectual property incentives fashion these dimensions of exclusive rights into a monetary reward as a beacon for a creatively-inclined person to pursue. To use the

² *Bowman v. Monsanto Co.*, 133 S. Ct. 1761 (2013).

³ Transcript of Oral Argument, *Bowman v. Monsanto Co.*, 133 S. Ct. 1761 (2013) (No. 11-796), available at www.supremecourt.gov/oral_arguments/argument_transcripts/11-796-1j43.pdf.

⁴ *Ibid.* at 19: “Mr. Walters, could you go back to the Chief Justice’s opening question because the Chief Justice asked you what incentive Monsanto would have to produce this kind of product if you were right. And you said, well, they can protect themselves by contract. Actually, it seems to me that that answer is peculiarly insufficient in this kind of a case because all that has to happen is that one seed escapes the web of these contracts, and that seed because it can self-replicate in the way that it can, essentially makes all the contracts worthless. So again, we are back to the Chief Justice’s problem, that Monsanto would have no incentive to create a product like this one.”

⁵ See e.g. Fromer, *supra* note 1.

⁶ See Johnson, *supra* note 1 (discussing internal and external motivations).

language of economics, intellectual property incentives are signals to which opportunities to pursue, alongside market wages, for early stage careerists on their desired paths, whether law, medicine, business, or artistic.

One criticism of intellectual property incentives is that direct rewards might be more effective and efficient.⁷ If society seeks a cure for a disease, then the state should offer a set of monetary rewards financed by tax revenues rather than grant exclusionary rights. If one views creativity and invention as serendipitous rather than planned, exclusionary rights may offer more freedom and openness to pursue creative pathways than targeted rewards. But acknowledging serendipity in the creative process may further undermine arguments for the incentive theory of intellectual property. Incentives do not work in a deterministic fashion. Instead, they set parameters within which individuals act in pursuit of creativity and its rewards.

A pure pecuniary conception of incentives must confront elements of randomness and serendipity in creation. One accommodation is to posit incentives in aggregate terms: a society with intellectual property will tend to create more creative works and inventions because of the play of incentives on all members of society. This accommodation suggests that intellectual property incentives may not work as direct motivations, but as defining the rules of society, like the use of social norms to guide good behavior. We can contrast these soft incentives with the tactile and compelling lure of monetary rewards. But once we move to this broader conception of incentives one has to ask, first, what is the purpose of the incentives and, second, how do they function? The cases to be discussed in the rest of this section address these questions. But one critical question illustrates these two subsidiary questions: how big should incentives be?

The simple answer to the last question is: as big as society wants. However, stating the question in the converse might be more instructive: when are incentives insufficient? One response is that anything short of full appropriation of the value of a creative work or invention is insufficient. But full appropriation cannot be the right measure of incentives. The value of a work, such as a vaccine or a movie, depends on factors that may be out of the control of the creator. In a market system, rewards are set by prices that reflect transactions of demanders and suppliers aggregating into a marketplace. But by definition, a unique creation may not support a thick market. There may be only a few demanders and only one seller. Negotiated prices will not be the result of a competitive dynamic. Consequently, we are left with this question: how much of a reward is enough? This question first depends upon what we are trying to incentivize through reward, and secondly, the manner in which incentives function.

With this conceptual background, we can turn to concrete cases, including the Supreme Court's review of copyright term extension, the escalator clauses conditional on patent grant in licensing arrangements, and the relationship between licenses and contracts. These concrete cases both illustrate the concept of incentive in action and set a background against which to examine exhaustion.

⁷ See Roin, *supra* note 1.

A. *Eldred v. Ashcroft*

In 2002, the Supreme Court ruled that Congress has wide latitude in expanding the term of copyright (and arguably other forms of intellectual property) in *Eldred v. Ashcroft*.⁸ This latitude includes extending the copyright for existing works. Constitutional language like “promoting progress” and “limited terms” were given a liberal interpretation.⁹ Congress was given deference on how best to promote progress through limited terms of exclusivity, as long as there was some rationale for the legislative choices. In the case of a twenty-year retroactive extension, the relevant rationales included conformity with international law, accommodation of increased life expectancy of authors, and the need of copyright owners to develop new digital markets on the Internet.¹⁰ The added years served as an incentive for the last set of goals.

Consider the Court’s lack of attention to the motives of the plaintiff in the case. Eldred was waiting for certain works to fall into the public domain precisely so they could be distributed digitally, as would be permissible once the copyright expired.¹¹ His business model involved transforming public domain works for consumption by the digerati.¹² With the extension of copyright, works about to be in the public domain fall within the exclusive rights of copyright owners. Eldred did not need the incentive of copyright to digitize already created works. The question is, why did the ex-copyright owners need additional exclusive rights to digitize existing works? The Court’s answer seems to be that it is up to Congress to determine how incentives are set.¹³ That determination cannot be second-guessed by the Court.

A prominent criticism of the *Eldred* decision stems from the minimal incentives that are provided by adding twenty years to an already long term of life of the author plus fifty years. Drawing on the *amicus* brief of Nobel Laureate economists, critics of *Eldred* emphasize that it is irrational to conclude that twenty years of exclusivity added more than fifty years away would provide adequate incentives for additional creativity.¹⁴ Congress, therefore, did not have sufficient rationale to justify its decision. This argument is compelling in terms of the mathematics of incentives. But for three equally compelling reasons, it does not slay the beast of deference that the Court released through its opinion.

First is the problem of the metric used to gauge incentives. Within the logic of the incentive rationale for copyright, even an iota of extra reward might compel some new works to be produced. Unless one has a measure of how much progress is desirable, it is hard to judge the amount of incentives Congress should pursue. It may not seem cost-effective

⁸ *Eldred v. Ashcroft*, 537 U.S. 186 (2003).

⁹ *Ibid.* at 223, 245, and 247.

¹⁰ *Eldred v. Reno*, 74 F. Supp. 2d 1 (D.D.C. 1999), *rev’d sub nom.* *Eldred v. Ashcroft*, 537 U.S. 186 (2003).

¹¹ *Ibid.*

¹² *Eldred*, *supra* note 8, 537 U.S. at 222.

¹³ *Ibid.*

¹⁴ Brief of George A. Akerlof, Kenneth J. Arrow, Timothy F. Bresnahan, James M. Buchanan, Ronald H. Coase, Linda R. Cohen, Milton Friedman, Jerry R. Green, Robert W. Hahn, Thomas W. Hazlett, C. Scott Hemphill, Robert E. Litan, Roger G. Noll, Richard Schmalensee, Steven Shavell, Hal R. Varian, and Richard J. Zeckhauser as Amici Curiae in Support of Petitioners at 13–16, *Eldred v. Ashcroft*, *supra* note 8.

to impose an additional twenty years if only one new work is produced. Ultimately, this calculus assumes that years of exclusivity should translate into a quantity of new works. What if that new work is on the scale of “Remembrance of Things Past” (or pick your own example of a mega opus)? Would the minimal incentives somehow be justified? My point is not to defend the reasoning of *Eldred* or to detract from the rhetoric of the *amicus* brief. Instead, I would like to illustrate the poverty of the incentives justification for copyright both to defend the enactment of copyright term extension and to attack it. To say that, on its face, the incentive of twenty additional years is too small or meaningless is to make assumptions about the scale and scope of desirable incentives. The adequacy of incentives perhaps can only be ascertained by looking outside the incentive justification for copyright.

Secondly, and more realistically, the force of the twenty-year extension benefited already existing copyright owners. Needless to say, such owners may not be incentivized to create extant works. But, the Court’s argument is that the twenty years may create incentives for more intensive use of the work. Rather than having the works go into desuetude, the Court believes copyright owners will revive the works and given them new life and new uses. As stated above, this argument ignores incentives outside of copyright that also permit such intensive uses. *Eldred* seemingly was driven by such incentives. Furthermore, scholars Mark Lemley and Paul Heald have independently shown how this justification for intensive usage of created works is flawed as theoretical and empirical matters.¹⁵ Professor Lemley argues against *ex post* rationales for copyright, suggesting that copyright is limited for the purposes of promoting originality.¹⁶ Professor Heald shows that extensive copyright has created gaps in the usage and marketing of copyrighted works in favor of public domain works.¹⁷ These two arguments taken together highlight the error of talking about incentives as “freely floating mechanisms” for Congress to deploy as it sees fit. Incentives are used to achieve certain ends, and those ends need to be kept in mind while assessing the adequacy of the means.

Finally, critics of *Eldred* who point to the irrationality of an additional twenty years as a meaningful incentive ignore half of the argument in the economists’ *amicus* brief. The brief begins with an analysis of the presently discounted value of an additional term of protection twenty years in the future.¹⁸ But the brief then compares these minimal benefits with the costs of exclusivity in terms of limiting use by individuals like *Eldred*.¹⁹ At the heart of the economists’ argument is the conclusion that the benefits are outweighed by the costs. To separate the parts of the argument by focusing solely on the minimal incentives ignores the central question of the goals for which incentives are set.

As I stated earlier in this chapter, the challenging and critical questions are determining incentives for whom and for what ends. The academic economists’ brief fairly and

¹⁵ See *infra* notes 16 and 17.

¹⁶ See Mark A. Lemley, *Ex Ante Versus Ex Post Justifications for Intellectual Property*, 71 U. CHI. L. REV. 129 (2004).

¹⁷ See Paul J. Heald, *Does the Song Remain the Same?: An Empirical Study of Bestselling Musical Compositions (1913–1932) and Their Use in Cinema (1968–2007)*, 60 CASE WES. RES. L. REV. 1 (2009).

¹⁸ *Amicus Brief in Support of Petitioners*, *supra* note 14, at 9–13.

¹⁹ *Ibid.* at 23–24.

rigorously states the problem of copyright incentives and contextualizes that problem within the larger set of actors who engage with copyrighted works. This set not only includes the creators, but also subsequent innovators, re-users, retrofitters, and consumers. The Court, to its fault, adopts a narrower domain for the role of incentives, one that includes only authors and their publishers. Consequently, the incentives rationale and copyright policy are less powerful than they could be for creating a marketplace and community of creative talent.

B. *Aronson v. Quick Point* and the Pre-emption Issue

As further illustration of the range of incentives that inform intellectual property systems consider the Supreme Court's decision in *Aronson v. Quick Point*.²⁰ At issue in this 1979 ruling is the interplay between contract and patent law for the incentives to create and propagate new technologies. Just as *Eldred* does not directly confront the question of exhaustion, so *Aronson* deals with the separate issue of conflict between federal and State law under the United States (U.S.) system of federalism. Both *Eldred* and *Aronson*, however, teach about incentives and have implications, as I address in the next section, about limitations on intellectual property rights and the perceived loss of incentives.

When Aronson invented a new key chain, consisting of a sliding ring locking onto a curved metal holder, she did not realize that her acts and the ensuing litigation would produce a critical case relating to intellectual property and commercialization. Aronson negotiated a manufacturing license with Quick Point while her patent application was pending.²¹ Under the terms of this license, Quick Point would produce the key chains and distribute them in exchange for a payment of royalties from its sales.²² The royalties were subject to an escalator clause which set a specific rate if the patent were issued and a lower rate if the patent was denied.²³ The United States Patent and Trademark Office (USPTO) rejected Aronson's application, but Quick Point manufactured and sold the key chains for several years. After about fourteen years, at the point when the patent would have expired if it had been granted, Quick Point questioned why it should have to pay under the license.²⁴ The license was of unspecified duration, and Quick Point was finding that there were numerous competitors who simply copied Aronson's unprotected design.²⁵ The Supreme Court ruled against Quick Point, holding that contractual obligations can complement patent law without conflict.²⁶

Both the *Eldred* and *Aronson* decisions center on the temporal limitations of intellectual property rights. *Eldred* questioned when Congress has the power to extend the term. In *Aronson's* predecessor, *Brulotte v. Thys*, the Supreme Court ruled that an obligation to pay royalties post-patent expiration was invalid because of conflict with the limited

²⁰ *Aronson v. Quick Point Pencil Co.*, 440 U.S. 257, 99 S. Ct. 1096, 59 L. Ed. 2d 296 (1979).

²¹ *Ibid.* at 259.

²² *Ibid.*

²³ *Ibid.*

²⁴ *Ibid.* at 260.

²⁵ *Ibid.*

²⁶ *Ibid.* at 266.

patent term.²⁷ The core issue was the ability of private parties to extend the effective term through contract. When the Court created a *per se* rule against post-expiration royalty payments in *Brulotte*, the concern then became the patent owner leveraging its exclusive rights to expand the scope of the patent beyond the statutory grant.

Quick Point's argument in *Aronson* extended the reasoning of *Brulotte* to the scenario when a patent was not granted. If a patent on an invention is denied, and the invention is not otherwise protected, there is no consideration for the royalty payments. Aronson was effectively leveraging the promise of a patent to obtain exclusive rights she did not have. Furthermore, if any inventor was allowed to do what Aronson had done, namely obtain protection for an unpatentable invention through contract, then Quick Point questioned what incentive would exist to enter the patent system at all.²⁸ Quick Point argued that enforcing contracts like the one between it and Aronson conflicts with the incentives of the patent system to obtain exclusive rights for inventions.²⁹

The Court rejected the conflict argument, concluding that contract incentives complemented those provided by patent law.³⁰ In broad terms, contracts facilitate the commercialization of patented inventions by allowing patentees to monetize rewards that flow from exclusivity. Even in the case of nonpatentable inventions, contracts can create incentives for an inventor to pursue a patent grant through escalating licensing terms. Although parties may not always be able to predict whether a patent will be granted, the possibility of obtaining a higher royalty rate or other contractual payment is an incentive for an inventor to file an application. Furthermore, even if an invention is nonpatentable, contracting for the use of the invention can help defray any expenses associated with producing the work. Since an inventor may invest in a range of inventions, some patentable, some not, entering into a contract allows the recoupment of fixed costs associated with research and development. Since the exclusivity established by contract is much narrower than that created by property, which creates rights against the world, the contract provides benefits without attendant costs from exclusivity. If there is a concern with abusive leveraging, the licensee can always propose terms for time-limiting the contract or lessening its burden through other means. In short, contract creates its own set of incentives that work in tandem with patent incentives for the creation and dissemination of new works.

As many scholars have pointed out, even before the Supreme Court's decision in *Aronson*, the complementarity of contract and patent counters the reasoning of the *Brulotte* ruling. Post-expiration royalties may serve many valid purposes that reinforce the goals of patent law. By potentially lowering payments over time, licensees may be more willing to enter into agreements with patentees for use of a technology. Royalty payments, although enforceable by patent law remedies, arise from contracting terms that bind only the parties and not the rest of the world. Should post-expiration payments be burdensome or the product of abusive leveraging, contract law doctrines can serve to limit their enforcement and antitrust law can sanction the patentee.

With the decision in *Aronson* as the applicable guide for how we should understand

²⁷ *Brulotte v. Thys Co.*, 379 U.S. 29, 85 S. Ct. 176, 13 L. Ed. 2d 99 (1964).

²⁸ *Aronson*, *supra* note 20, 440 U.S. at 263.

²⁹ *Ibid.*

³⁰ *Ibid.* at 266.

intellectual property incentives, the Court emphasizes the importance of contract law to provide incentives for inventors and patent owners. As pointed out above, these incentives complement the exclusivity of patents. But these incentives also exist absent the grant of a patent. Even for unpatentable inventions, contract law provides incentives for undertaking the quest for a novel and nonobvious invention. Should that quest succeed, then contract law offers tools for commercializing patent rights. But even if the quest fails, contracts can provide alternatives that aid in obtaining a return on the research and development investment. For Eldred, returns through contract may have spurred his decision to pursue a business model based on public domain works. More generally, the ability to contract is available for all unprotected creations, including those that have fallen out of protection and those not eligible for protection because of failure to meet legal standards.

One may wonder whether contracts provide as much incentive as exclusive property rights. But this query again raises the issue, discussed in section II.A above, of how to gauge the magnitude and effectiveness of incentives. Exclusive property rights may create incentives for creation and invention. But they may also serve as disincentives for those who are seeking new business models or forms of creativity and invention. In the case of Eldred, a digital publisher was willing to undertake a venture absent any ostensible intellectual property protection. Instead, working with contract and other business tools, Eldred was drawing on public domain works to cultivate and distribute them. Similarly, Quick Point was manufacturing and marketing an unpatented invention for the commercial life of the ungranted patent. It was only the expiration of the shadow patent term which spurred Quick Point to rely on the highly criticized precedent in *Brulotte* to escape from its contractual obligations. While Quick Point argued that Aronson's contract undermined incentives for patenting the keychain, it could equally be argued that nonenforcement of the contract undermined incentives for Aronson to seek commercialization of her creation.

A skeptical reader may cast my argument as suggesting that contract law is a substitute for patent law. No such argument is being made. Justice Kagan characterized the exhaustion argument in *Bowman* as promoting substitution of contract protection for patent protection. But that is a mischaracterization of how contract and patent work together, whether in the context of pre-emption, as in *Aronson*, or in the context of exhaustion (as I will explain in more detail in section III). As the Court in *Aronson* emphasized, contract law does not displace patent law. Instead, the bodies of law complement each other, even in cases where no patent is granted.

To understand that point more fully, note that the process of invention and product development is a risky one. The question is who should bear the risk. If a patent is granted, the patentee can, in theory and often in practice, recoup the costs of development. The risk undertaken by the inventor is effectively spread through the commercialization of a patent to the rest of society. Rights against the world can be characterized as a form of risk spreading. Users of the patented product bear the risk through higher prices. However, they gain reward through presumably useful, novel, and nonobvious products (if these gains are not present, the patent is invalid). Contract allows risk sharing for specific ventures within the commercialization process between the inventor, manufacturers, and distributors. What *Aronson* allows is for the inventor to share the risk of the failure of patent issuance with a licensee. An inventor, like Aronson, bears the risk of non-issuance in the form of lower royalties. A licensee bears the risk of paying for an invention that

others may be able to copy for free. But one advantage the licensee might gain is that of being first to market and being able to claim authorization from the inventor. Contract and patent work in tandem to allocate these and other identifiable risks in the development and commercialization process.

To summarize, contract and patent are complements. This conclusion should not be surprising. The counter-intuitive point is that contract law can complement patent law even if a patent is not granted. Contrary to Justice Kagan's doubt about contract in the *Bowman* oral argument, the complementary role of contract as incentive exists even when patent rights are exhausted. This last point is critical to the argument in section III.

III. EXHAUSTION AND INCENTIVES

We now turn to the question of incentives and intellectual property exhaustion. Two broad lessons follow from the previous discussion about intellectual property incentives. First, a critical part of the intellectual property incentive is that intellectual property rights are limited, certainly with respect to duration, but also respect to other dimensions of the right. Second, these limitations reflect a complex set of incentives targeted not only to owners of intellectual property but also to other creators and inventors. The doctrines of copyright and patent exhaustion reflect these two lessons.

The incentive argument needs to be acknowledged but also placed in the broader context of the impact of intellectual property rights on markets and other institutions. Debates over the exhaustion doctrine highlight the need to place the incentive arguments in the proper context so as to assess claims that intellectual property rights are being eviscerated. In the next subsection, we consider specifically the cases of copyright and patent exhaustion as canonical examples.

A. U.S. Approach to Copyright and Patent Exhaustion

Under U.S. law, exhaustion exists separately within copyright and patent, reflecting different policy goals for each type of intellectual property. Although courts and legislatures do refer to general exhaustion principles, the exhaustion doctrine is tailored to different intellectual property regimes.

(1) Copyright exhaustion

Exhaustion of copyright first arose in the U.S. in the 1908 decision by the U.S. Supreme Court in *Bobbs-Merrill v. Strauss*.³¹ Prior to this decision, there is evidence of an after-market for copyrighted materials, particularly books, suggesting that copyrighted works could be resold. But there are no reported cases on the issue, perhaps because the practice of resale itself was not seen as controversial. This hypothesis is consistent with the specific controversy in *Bobbs-Merrill*. The publisher had distributed its books on the condition that the books not be sold for less than a specific price.³² The question before the Court

³¹ *Bobbs-Merrill Co. v. Strauss*, 210 U.S. 339, 28 S. Ct. 722 (1908).

³² *Ibid.* at 341–42.

was whether this contractual term was enforceable, not whether resale in general would be permitted.³³ The two issues were related to each other, but the specific legal issue was the legality of the practice of maintaining the price at which books could be sold and resold.

The Court held that the contract term was unenforceable on the grounds of exhaustion.³⁴ Although the Court did analogize to price maintenance practices and other contractual restrictions under patent law (citing many of the cases discussed in the next subsection on U.S. patent exhaustion), the Court ultimately concluded that these patent law cases were inapposite to the copyright context.³⁵ The patent context was different because copyright was statutory, the Court deemed, although it is not completely clear from the opinion why that distinction is relevant.³⁶

Nonetheless, the Court based its decision on the reading of the copyright statute in light of the language in the U.S. Constitution that copyright and patent are enacted in order to “promote progress in science and the useful arts.”³⁷ The Copyright statute in force in 1908 did not mention exhaustion. Nonetheless, the Court read broadly the effective statute’s language about the owner’s right to vend the copyrighted work as promoting wide dissemination of the work without private contractual restrictions. Such wide, unfettered dissemination, the Court concluded, fulfills the goals of copyright law to benefit the public.³⁸

Revisions to the Copyright Act in 1909 included an express provision regarding exhaustion. Section 41 of the 1909 Copyright Act stated: “[N]othing in this Act shall be deemed to forbid, prevent, or restrict the transfer of any copy of a copyrighted work the possession of which has been lawfully obtained.”³⁹ This provision allows the transfer of a copy of a copyrighted work by someone who has lawfully obtained that copy. This provision is the first statutory codification of exhaustion under U.S. copyright law.

This version of exhaustion, referred to as the first sale doctrine, was recodified in the Copyright Act of 1976 under section 109(a), which has been in effect from 1978 to the present. This section provides that:

the owner of a particular copy or phonorecord lawfully made under this title, or any person authorized by such owner, is entitled, without the authority of the copyright owner, to sell or otherwise dispose of the possession of that copy or phonorecord.⁴⁰

The statute expressly states that this term is a limitation on the exclusive right of the copyright owner “to distribute copies or phonorecords of the copyrighted work to the public by sale or other transfer of ownership, or by rental, lease, or lending” under section 106(3) of the Copyright Act.⁴¹

While the understanding of section 109(a) limits the legal reselling of a copy of a

³³ *Ibid.* at 350.

³⁴ *Ibid.* at 346.

³⁵ *Ibid.*

³⁶ *Ibid.*

³⁷ *Ibid.* (citing U.S. Const. art. I, § 8).

³⁸ *Ibid.* at 351.

³⁹ Copyright Act of 1909, § 41 (repealed and superseded by the Copyright Act of 1976, in effect January 1, 1978).

⁴⁰ Copyright Act of 1976, 17 U.S.C. § 109(a).

⁴¹ See *ibid.*

copyrighted work that has been lawfully purchased (e.g., reselling a purchased book or DVD), the statutory language is fairly complex. Although section 109(a) is presented as a limitation on section 106(3), the limitation does not apply to the portion of section 106(3) that provides an exclusive right “for rental, lease, or lending.” This limitation on a limitation, so to speak, is an inference from the use of the word “owner” in section 109(a). Someone who obtains possession through rental, lease or lending would not be an owner of the copy. Section 109(d) clarifies this reading by expressly stating that section 109(a) does not apply to rental, lease or lending.⁴²

Exhaustion principles arise in other provisions of section 109. These further limitations illustrate the work- and industry-specific nature of copyright exhaustion. Section 109(b) provides that the copyright owner retains the rental right in copyrighted software and phonorecords even after a first sale.⁴³ This retention of rights effectively prohibits a rental market for software and phonorecords even if a purchaser buys a copy of software or a phonorecord, unless authorized by the copyright owner. Section 117, however, does allow the owner of a copy of software to make copies for archival purposes or for booting up or running requisite hardware. Under section 117, the owner is also allowed to make copies for the purpose of maintaining or repairing a machine that contains authorized copies of the software.⁴⁴ Section 109(c) allows a purchaser of a pictorial, graphic or sculptural work to publicly display the work without needing to obtain a license from the copyright owner.⁴⁵ Furthermore, section 109(e) allows the purchaser of an “electronic audiovisual game,” which was “lawfully made under this title,” to publicly perform and display the copyrighted content in the game, although this right does not extend to any content that might be infringing within the game, i.e., content that the creator of the game infringed.⁴⁶

Lower courts in the U.S. have addressed issues of copyright exhaustion in response to particular industry practices.⁴⁷ Courts have found that copyright exhaustion applies when there is a sale based on the economic and business realities of a transaction.⁴⁸ Therefore, exhaustion has applied to a transaction in which resale rights were purportedly limited by contractual provisions. Such contractual limitations on resale do not apply if the court finds under the circumstances that the copyright has transferred its rights in a particular copy to the acquiring party. However, right to resell digital content (works subject to technology protection measures) is an ongoing issue in the U.S. One district court ruling against exhaustion of digital works based its decision on the recopying of the work by the purchaser in reselling the technologically protected work.⁴⁹ According to the court, copyright exhaustion does not permit recopying the work since unlimited copying would lower the demand for the original work.⁵⁰ However, the purchaser could

⁴² 17 U.S.C. § 109(d).

⁴³ 17 U.S.C. § 109(b).

⁴⁴ 17 U.S.C. § 117.

⁴⁵ 17 U.S.C. § 109(c).

⁴⁶ 17 U.S.C. § 109(e).

⁴⁷ *UMG Recordings, Inc. v. Augusto*, 628 F.3d 1175 (9th Cir. 2011); *MDY Indus., LLC v. Blizzard Entm’t, Inc.*, 629 F.3d 928 (9th Cir. 2010).

⁴⁸ See discussion in *Vernor v. Autodesk*, 621 F.3d 1102 (9th Cir. 2010).

⁴⁹ *Capitol Records, LLC v. Redigi Inc.*, 934 F. Supp. 2d 640 (S.D.N.Y. 2013).

⁵⁰ *Capitol Records*, 934 F. Supp. 2d at 654.

resell the protected work embodied in a physical medium (such as a digital player or a personal computer) as long as no new copies were made. The application of copyright exhaustion to digital works will be of continued importance as more content migrates to electronic formats.

The contemporary version of copyright exhaustion in the U.S. dates back at least a century and illustrates the tailoring of the doctrine to specific works and uses. One overarching question that was resolved by the U.S. Supreme Court in 2013 is the application of copyright exhaustion to cross-border transactions. Although this question has been controversial for over a decade, the Court decided in favor of the principle of international exhaustion through its decision in *Kirtsaeng v. Wiley Publishing*.⁵¹

The debate over international copyright exhaustion began in the 1997 case *Quality King v. L'Anza*, a controversy over the gray market sales of cosmetics bearing labels copyrighted in the U.S.⁵² In *Quality King*, a parallel importer who had bought U.S. cosmetics overseas, resold the cosmetics bearing copyrighted labels, and was arbitraging the global price differential for the products.⁵³ The products themselves were initially exported from the U.S., but made their way back into the U.S. market through the round trip of global sales. While the owner of the copyright in the labels (also the manufacturer of the cosmetics) claimed that the act of importing the products into the U.S. was a violation of the distribution right, the importer asserted the exhaustion doctrine through the first sale defense.⁵⁴ However, it was not clear as a matter of statutory interpretation whether the first sale doctrine under section 109(a) applied to the importation right under section 601. For the courts, the issue was purely one of statutory interpretation. Since section 109(a) was stated as a limitation on section 106(3), it was not clear that the limitation would apply to the separate statutory provision establishing the importation right. The Supreme Court ultimately ruled that section 109(a) was a limitation on the rights under section 601, since section 601 was written to be a part of the distribution rights under section 106(3).⁵⁵

Although a relatively straightforward matter of statutory interpretation, several controversies were buried within the *Quality King* case. First, the U.S. government's position was that the first sale defense did not apply to the importation right because importation entailed the movement of goods across borders, which is to be considered as different than the sale of goods.⁵⁶ The Court in *Quality King* rejected this view since the first sale doctrine would apply to the sale of a work.⁵⁷ Application of the first sale doctrine would rest on whether there had been a sale triggering exhaustion. A separate importation right involving the movement of goods would not negate any application of exhaustion to the sale of the imported goods. Although the Court in *Quality King* seemingly gave a definitive negative response to the U.S. government's view, Justices Kagan and Alito in the 2013 *Kirtsaeng* decision authored a concurrence suggesting that perhaps the U.S. government

⁵¹ *Kirtsaeng v. John Wiley & Sons, Inc.*, 133 S. Ct. 1351 (2013).

⁵² *Quality King Distribs. v. L'Anza Research Int'l*, 523 U.S. 135, 118 S. Ct. 1125 (1998).

⁵³ *Ibid.* at 139.

⁵⁴ *Ibid.* at 152.

⁵⁵ *Ibid.* at 152–53.

⁵⁶ *Ibid.* at 146.

⁵⁷ *Ibid.* at 151–52.

was correct.⁵⁸ Therefore, the issue of treatment of importation as physical movement of goods still potentially remains open.

The second controversy arises from the nature of the transaction triggering exhaustion. At issue in *Quality King* was a round trip, meaning that the goods were originally exported from the U.S. before, after several transactions overseas, being imported back into the country. Justice Ginsburg in a separate opinion stated that the first sale doctrine applied only to this scenario.⁵⁹ Subsequently, lower courts followed Justice Ginsburg's analysis to conclude that the first sale doctrine applied only to goods that originated from the U.S. Some courts adopted an even stronger limitation that requires the copyrighted works be manufactured in the U.S. in order for exhaustion to apply to the importation of the goods into the country. A few courts, however, held that the first sale doctrine applied to all copyrighted goods regardless of place of manufacture or sale. This last position is referred to as international exhaustion, which is the principle adopted by the Court in the 2013 *Kirstaeng* decision.

At issue in *Kirstaeng* was the purchase overseas of textbooks manufactured and marketed by the copyright owner Wiley Publishers for the Thailand market.⁶⁰ *Kirstaeng*, a Thai student in the U.S., had bought large quantities of textbooks for a low price in Thailand and imported them into the U.S. for resale at the higher price in the U.S. market.⁶¹ Wiley, as copyright owner, asserted violation of the importation and distribution rights.⁶² *Kirstaeng* asserted exhaustion through the first sale doctrine.⁶³ The majority of the Supreme Court found for *Kirstaeng* on the grounds that there was no geographic limitation on the first sale doctrine in the statute, in case law, and in policy.⁶⁴

With respect to the statute, the Court addressed the language "lawfully made under this title," which some courts had interpreted to mean "made in the United States." The Court rejected this reading because "under this title" does not have a geographic meaning.⁶⁵ Instead, the phrase referred to the source of legal authority for making a work. Such legal authority would not extend to pirated or counterfeited works. In this case, Wiley had authorized the manufacture and sale of the books in Thailand. Furthermore, the roots of the first sale doctrine in case law did not support a geographic limitation. To this point, the Court majority refers to precedent in *Bobbs-Merrill* and the broad policy goals of dissemination to the public.⁶⁶ Finally, as a policy matter, the Court majority expressed concern regarding the uncertainty created in domestic markets as to the applicability of the first sale doctrine to copyrighted works that have multiple countries of origin, either with respect to manufacture or to sale.⁶⁷ For example, if there were a geographic limitation, a purchaser of an automobile containing copyrighted software may not be able to

⁵⁸ *Kirstaeng*, *supra* note 51, 133 S. Ct. at 1372.

⁵⁹ *Quality King*, *supra* note 52, 523 U.S. at 153–54.

⁶⁰ *Kirstaeng*, *supra* note 51, 133 S. Ct. at 1356.

⁶¹ *Ibid.*

⁶² *Ibid.* at 1357.

⁶³ *Ibid.*

⁶⁴ *Ibid.* at 1371.

⁶⁵ *Ibid.* at 1361.

⁶⁶ *Ibid.* at 1363.

⁶⁷ *Ibid.* at 1362.

resell the car domestically if the software originated overseas. International exhaustion was held to be consistent with the statute, judicial precedent, and copyright policy.

The three dissenting judges (Justices Ginsburg, Scalia, and Kennedy) read the statute as limiting first sale to works that originated in the U.S.⁶⁸ They emphasized the policy concern expressed by copyright owners and by the U.S. government: permitting imported works would lead to the introduction of pirated or counterfeit works within the U.S. Limiting the U.S. copyright owners' rights to prevent imports would allow unscrupulous importers to bring in unauthorized works. Therefore, the three justices advocated for a much narrower exhaustion principle, one limited to national boundaries. Even though Justices Kagan and Alito agreed with the majority on adopting international exhaustion, their concurring opinion expresses sympathy for the dissenting argument.⁶⁹ But ultimately, Justices Kagan and Alito concluded that adopting international exhaustion was consistent with precedent. However, their concurrence and the opinion of the three dissenters suggest that the issue of international exhaustion may be settled only temporarily.

There are, however, two lessons to be gleaned from the discussion of U.S. copyright exhaustion. The first is the basis of the doctrine in policies and principles of public dissemination. The second is the tailoring of the exhaustion doctrine to different works, industries, and uses. These potentially competing principles will be important in drawing broader policy implications for the exhaustion doctrine.

(2) Patent exhaustion

Like copyright exhaustion, patent exhaustion originates in judicial decisions. But unlike copyright exhaustion, patent exhaustion has not been codified in the statute. Instead, the case law is based on a mixture of patent law, antitrust law, and common law principles of property, and continues to be the basis for applying the patent exhaustion doctrine. Recent U.S. Supreme Court decisions have addressed novel issues of patent exhaustion, demonstrating both the doctrine's continued viability and evolution. Given the complexities of patent exhaustion, I break the analysis into parts.

(a) *What is patent exhaustion?* The grant of a patent to a useful, novel, and nonobvious invention is one step in the development of a free and competitive marketplace. The exclusive rights to make, use, sell, and offer to sell provided by 35 U.S.C. § 154(a)(1)⁷⁰ and enforced through 35 U.S.C. § 271(a)⁷¹ allow the patent owner to distribute the patented invention. The exclusive rights also allow the patent owner to enter into transactions permitting the dissemination of the protected product through a chain of manufacture and into the hands of many users. In this way, the existence of a patent is no different from any other legal rule that facilitates the working of a vibrant market. Just as the rules of property, contract, tort, and the sundry federal and State statutory schemes strive to protect consumers, investors, and manufacturers, the laws of patents (and its cousin of copyright law) set ground rules for competition.

⁶⁸ *Ibid.* at 1375.

⁶⁹ *Ibid.* at 1372.

⁷⁰ Patent Act, 35 U.S.C § 154(a)(1).

⁷¹ 35 U.S.C. § 271(a).

The patent exhaustion doctrine is one of the key elements of these ground rules. Under the patent exhaustion doctrine, once the invention is distributed through a lawful transaction, the invention passes into the hands of the purchaser, no longer subject to the exclusive rights of the patent owner. Like any other commodity, a patented invention enters into commerce and can be further distributed without the original seller encumbering and raising the costs of subsequent transactions. Put simply, the principle underlying the exhaustion doctrine is that the patent owner obtains “one bite at the apple” by first permitting the owner to extract the commercial returns in the first sale of a patented invention and then by preventing him from erecting a “tollgate” at each subsequent transaction.

While copyright exhaustion extinguishes the distribution right after the first sale, patent exhaustion applies to both the patent owner’s exclusive right to sale and the right to use. To the last point, the purchaser of a patented invention has an implied license to use the patented invention for the purposes intended. In addition, the purchaser has the right to repair the invention in order to “preserve the fitness for use.”⁷² However, a reconstruction entails the making of another copy of the patented invention, while repair entails reconstituting an existing invention.⁷³ The Supreme Court has distinguished a reconstruction from repair as an impermissible making of the invention.

(b) *Origins of patent exhaustion* The Supreme Court has recognized that the patent exhaustion doctrine is important for a functioning market shaped by patent law. The Court first articulated the broad contours of the doctrine in *Bloomer v. McQuewan*:

The inventor might lawfully sell it to him, whether he had a patent or not, if no other patentee stood in his way. And when the machine passes to the hands of the purchaser, it is no longer within the limits of the monopoly. It passes outside of it, and is no longer under the protection of the act of Congress.⁷⁴

In *Adams v. Burke*, the Court recognized the patent exhaustion doctrine as essential to the nature of transactions transferring patented inventions.⁷⁵ In *Burke*, the Court was faced with a territorial use restriction on the manufacturer-assignee, who was not permitted to distribute patented coffin lids outside a ten-mile radius of the City of Boston.⁷⁶ When a subsequent assignee of the patent owner sued an undertaker who had purchased the lids and removed them from the territory, the Court found that patent exhaustion barred the claim.⁷⁷ This out-of-territory purchaser, the Court reasoned, had “acquired the right to use that coffin for the purpose for which all coffins are used.”⁷⁸ “[I]n the essential nature of things,” the Court wrote, “when the patentee, or the person having his rights, sells a machine or instrument whose sole value is in its use, he receives the consideration

⁷² See discussion in *Aro Manufacturing Co. v. Convertible Top Replacement Co.*, 365 U.S. 336, 374 (1961).

⁷³ *Ibid.*

⁷⁴ *Bloomer v. McQuewan*, 55 U.S. 539, 549 (1852).

⁷⁵ *Adams v. Burke*, 84 U.S. 453, 456 (1873).

⁷⁶ *Ibid.*

⁷⁷ *Ibid.*

⁷⁸ *Ibid.*

for its use and he parts with the right to restrict that use.”⁷⁹ The protected work passes “without the limit of the monopoly.”⁸⁰

The exhaustion doctrine, in patent as well as copyright law, rests on a carefully constructed balance between property and contract rights. The doctrine recognizes that transactions between patent/copyright owners and their purchasers will be subject to a myriad of negotiated terms. In *Bobbs-Merrill*, for example, the Court applied the first sale doctrine to sales “without restriction.”⁸¹ This qualifying language recognizes that the copyright or patent owner can impose contractual restrictions on the initial purchaser, including, presumably, clear limitations on the right to resell the intellectual property. In this way, for example, the owner can create a rental market for intellectual property analogous to rental markets for real or personal property. But as the Court of Appeals for the Federal Circuit has acknowledged, “patented articles when sold ‘become the private individual property of the purchasers, and are no longer specifically protected by the patent laws.’ The fact that an article is patented gives the purchaser neither more nor less rights of use and disposition.”⁸² In other words, limitations imposed in the sale of a patented invention are a matter of contract law, not patent law. The exhaustion doctrine tells the purchaser of a patent-protected work and all subsequent distribution parties that the work has been transferred free of any patent claims of the original owner on the use or disposition of the work, although not necessarily of contract claims.

Both the *Bloomer* and *Adams* decisions were rendered before the enactment of the Sherman Act in 1890. The Supreme Court’s decision in *United States v. Univis Lens Co.*⁸³ illustrates how the exhaustion doctrine complements the antitrust treatment of use restrictions. At issue in *Univis Lens* was an alleged antitrust violation arising from resale restrictions imposed by a manufacturer patentee. The manufacturer argued under the rule of *General Electric* that it was engaged in a licensing transaction that allowed it to impose the resale restrictions.⁸⁴ The Court found that the transaction was a sale, and not a license, and therefore was outside the scope of the patent monopoly, reasoning:

[W]here one has sold an uncompleted article which, because it embodies essential features of his patented invention, is within the protection of his patent . . . The reward he has demanded and received is for the article and the invention which it embodies and which his vendee is to practice upon it. He has thus parted with his right to assert the patent monopoly with respect to it.⁸⁵

In short, the exhaustion doctrine made the legal issue a pure question of how the contractual restriction would be treated under antitrust law. The Supreme Court affirmed this approach to the patent exhaustion doctrine through the lens of antitrust law in its 2008

⁷⁹ *Ibid.*

⁸⁰ *Ibid.*

⁸¹ *Bobbs-Merrill*, *supra* note 31, 210 U.S. at 350.

⁸² *Jazz Photo Corp. v. Int’l Trade Comm’n*, 264 F.3d 1094, 1102 (Fed. Cir. 2001) (quoting *Mitchell v. Hawley*, 83 U.S. 544, 548 (1873)).

⁸³ *United States v. Univis Lens Co.*, 316 U.S. 241, 62 S. Ct. 1088 (1942).

⁸⁴ *Ibid.* at 247.

⁸⁵ *Ibid.* at 250–51.

decision in *Quanta v. LG Electronics*,⁸⁶ and it is the subject of the recent 2013 decision in *Bowman v. Monsanto*.

(c) *Recent Supreme Court developments: Quanta and Bowman* In *Quanta*, LG Electronic's licensee, to quote the language from *Univis Lens*, sold an article that "embodies essential features" of the patented invention and "has destined the article to be finished by the purchaser in conformity to the patent."⁸⁷ LG Electronics had acquired a large patent portfolio of technologies used in the manufacturing of computer chips. After a dispute with Intel, the company manufacturing the chips, the respondent entered into a complex licensing agreement with Intel that allowed Intel to use the technology in the construction and sale of chips. These chips in turn were sold to petitioners and incorporated as components in computer hardware systems. LG Electronics subsequently sought to enforce its patent rights against the petitioners based on their alleged violation of "conditions" placed on the original agreement with Intel.⁸⁸

The patent exhaustion doctrine was designed to prohibit precisely this type of "reach-through" by the patent owner to enforce its patent rights. Accordingly, in *Quanta*, the Supreme Court affirmed the long recognized patent exhaustion doctrine. Citing its precedents at the intersection of antitrust and patent laws, the Court stated the first sale doctrine broadly, holding that "[t]he authorized sale of an article that substantially embodies a patent exhausts the patent holder's rights and prevents the patent holder from invoking patent law to control post sale use of the article."⁸⁹

In *Bowman v. Monsanto*, the Supreme Court considered the applicability of patent exhaustion to genetically modified seeds.⁹⁰ At issue in the case were two patents owned by Monsanto that read on a type of gene and a type of synthase, respectively. Monsanto's patent claim was limited to its "chimera gene" sequence that allows the resulting plant to be pesticide resistant. Monsanto sold the genetically modified seeds directly to purchasers and licensed its patent to seed producers to manufacture and sell the genetically modified seeds.⁹¹

Monsanto did contractually restrict the right of the seed purchaser to replant the second generation seeds from the germinated plant. The patented gene sequence is sold and licensed subject to an agreement which states: (1) that the purchaser will plant the seed for only one growing season; (2) that the purchaser will not supply the seed to any other grower for planting; (3) that the purchaser will not save any crop from the planting for replanting or transfer the crop to a third party for replanting; and (4) that the purchaser will not use the seed or allow the seed to be used for research, crop breeding, or crop production.⁹² Bowman, a soybean farmer, planted seeds he had obtained from grain elevators to which other farmers had sold the second-generation seeds. Monsanto sued Bowman for patent infringement.

⁸⁶ *Quanta Computer, Inc. v. LG Elecs., Inc.*, 553 U.S. 617, 128 S. Ct. 2109 (2008).

⁸⁷ *Ibid.* at 627–28.

⁸⁸ *Ibid.* at 624.

⁸⁹ *Ibid.* at 631.

⁹⁰ *Monsanto Co. v. Bowman*, 657 F.3d 1341 (Fed. Cir. 2011).

⁹¹ *Ibid.* at 1345–46.

⁹² *Ibid.*

Bowman raised the exhaustion defense in accordance with the Supreme Court's ruling in *Quanta*. The U.S. Court of Appeals for the Federal Circuit rejected the defense on two grounds. First, the court reasoned that the exhaustion doctrine would not apply to self-replicating technologies, like genetically modified seeds.⁹³ Applying exhaustion, the court reasoned, would permit reuse and thereby limit the patent owner's ability to profit from the patented technology. Second, the Federal Circuit reasoned that exhaustion would not apply to Bowman because exhaustion permits reselling the seed and not making another copy of the patented technology.⁹⁴ By growing a third generation of plants containing the seeds, the Federal Circuit concluded, Bowman went beyond his rights under the exhaustion doctrine to make an unauthorized copy of the patented technology.⁹⁵

In its decision for *Monsanto*, the Federal Circuit created an exception to the patent exhaustion doctrine for the *sui generis* category of self-replicating technologies, meaning inventions that recreate themselves through reproduction. The court repeated its reasoning in *Monsanto v. Scruggs* that "[a]pplying the first sale doctrine to subsequent generations of self-replicating technology would eviscerate the rights of the patent holder."⁹⁶

The Federal Circuit rejected Bowman's argument that the seed sold by Monsanto contained all future generation seeds and thereby embodied Monsanto's patent fully. First, the court characterized the reproduction from the seed of a new plant as constructing an essentially new article, infringing the patent owner's right to exclude others from making the patented invention.⁹⁷ Second, the court rejected Bowman's argument that the only reasonable and intended use of the seed was for replanting them to create new seeds.⁹⁸ The Court suggested other use of the seeds, such as for feed. Consequently, the Court rejected the exhaustion argument because the patented technology at issue is one that recreates itself.⁹⁹ The application of the patent exhaustion doctrine to such a technology, the Federal Circuit concluded, would eviscerate patent rights over such technology.¹⁰⁰

The Supreme Court affirmed the Federal Circuit's ruling in favor of *Monsanto*, although through different reasoning. Writing for an unanimous court, Justice Kagan concluded:

Under the patent exhaustion doctrine, Bowman could resell the patented soybeans he purchased from the grain elevator; so too he could consume the beans himself or feed them to his animals. *Monsanto*, although the patent holder, would have no business interfering in these uses of Roundup Ready beans. But the exhaustion doctrine does not enable Bowman to make additional patented soybeans without *Monsanto's* permission (either express or implied).¹⁰¹

Citing precedent from 1882, the Court reasoned that the exhaustion doctrine did not permit the making of another copy of the patented invention without the patent owner's permission. As the Court explained:

⁹³ *Ibid.* at 1347 (citing *Monsanto v. Scruggs*, 459 F.3d 1328, 1336 (Fed. Cir. 2006)).

⁹⁴ *Ibid.* at 1349.

⁹⁵ *Ibid.* at 1348.

⁹⁶ *Ibid.* at 1347 (citing *Monsanto v. Scruggs*, 459 F.3d 1328, 1336 (Fed. Cir. 2006)).

⁹⁷ *Ibid.* at 1348.

⁹⁸ *Ibid.*

⁹⁹ *Ibid.*

¹⁰⁰ *Ibid.*

¹⁰¹ *Bowman v. Monsanto Co.*, 133 S. Ct. 1761, 1766 (2013).

[I]f simple copying were a protected use, a patent would plummet in value after the first sale of the first item containing the invention. The undiluted patent monopoly, it might be said, would extend not for 20 years (as the Patent Act promises), but for only one transaction. And that would result in less incentive for innovation than Congress wanted. Hence our repeated insistence that exhaustion applies to the particular item sold, and not to reproductions.¹⁰²

While the Court's reasoning echoes the concerns of the Federal Circuit in its decision, with the possibility of boundless copying after the first sale, the Court fell short of adopting an exception to patent exhaustion for self-replicating technologies. The Court concluded its opinion by stating that the holding "is limited" to the particular facts of the *Bowman* case.¹⁰³ As for other types of self-replicating technologies, such as software or digital content, "the article's self-replication might occur outside the purchaser's control. Or it might be a necessary but incidental step in using the item for another purpose."¹⁰⁴ Therefore, the Supreme Court's decision leaves open the question of how the patent exhaustion doctrine would apply to cases other than genetically modified soybeans.

One controversy left open by the Court's decision is the source of a farmer's right to plant the genetically modified seed. In an elaborate footnote, the Court states that its conclusion about exhaustion is applicable regardless of how a farmer acquires the patented seed.¹⁰⁵ Whether the farmer bought the seed directly from the patent owner or indirectly from a granary, the farmer cannot plant the seed to grow another generation of the patented germplasm. The Court does point out that a purchase directly from the patent owner would be subject to an express license that the patent owner uses to distribute the seeds.¹⁰⁶ But even absent such an express license, the Court suggests, "the farmer might reasonably claim that the sale came with an implied license to plant and harvest one soybean crop."¹⁰⁷ The language regarding implied license is confusing. It is not clear whether the Court is saying that exhaustion is a matter of implied/express license or a matter of the purchaser's rights to be free from restraints on alienation. The possibility of an implied license suggests that the patent owner could further restrict the farmer through contractual use of the patented seeds. How far a patent owner can limit the exhaustion doctrine through contract is an unclear question under the decision in *Bowman*.

IV. CONCLUSION: TOWARDS THE DIGITAL FUTURE

This chapter presents the arguments why placing limits on intellectual property rights does not undermine the incentives for creation and invention. These arguments have salient application to the doctrines of copyright and patent exhaustion. The points defended in this chapter will have ongoing implications for the continuing debate over the scope of intellectual property exhaustion as applied to the distribution of digital works. As courts and legislatures struggle over the scope of digital rights, their attention

¹⁰² *Ibid.* at 1768.

¹⁰³ *Ibid.* at 1769.

¹⁰⁴ *Ibid.*

¹⁰⁵ *Ibid.* at n. 3.

¹⁰⁶ *Ibid.*

¹⁰⁷ *Ibid.*

will undoubtedly turn to exhaustion. Lower courts have been hesitant to recognize digital exhaustion because the transfer of digital works often entails making a new copy of the work.¹⁰⁸ Their reasoning, steadfast but incorrect, is that permitting exhaustion would undermine incentives.

What this chapter advocates is a richer understanding of incentives, one that looks beyond incentives for creation and invention to include incentives for consumers, resellers, and other actors necessary for the active, competitive exchange of the fruits of intellectual property. An expansion of how we recognize incentives is not a rhetorical move. Instead, understanding incentives broadly is consistent with the incentives rationale for copyright and patent in promoting progress in the development of new works and inventions. While courts may have narrowed the meaning of incentives, a broader conception of incentives is present in Supreme Court precedent. What this chapter has done is identify and support a more complete formulation of intellectual property incentives. Such a formulation, grounded in legal traditions, can guide our approach to the digital future.

¹⁰⁸ See *Capitol Records v. ReDigi*, 934 F. Supp. 2d 640 (S.D.N.Y. 2013). But see also Case C-128/11 *UsedSoft v. Oracle International*, European Court of Justice, 2012 ECLI:EU:C:2012:407 (finding exhaustion in resale of digital licenses).