

THE CONTINUING RIGHT TO REPAIR

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I. INTRODUCTION

My thesis is quite simple: the right to repair is continuing, not emerging. This point respectfully questions the title of this Symposium on the Emerging Right to Repair. When this conference was initially launched in 2020, it was called “Right to Repair Under Siege.” The pandemic, which delayed the scheduling of the symposium, has perhaps saved the right to repair from whatever crisis it was facing. But the right to repair has always existed, and what we are seeing is not an emergence but a continued saliency of this right.¹

Although many states have passed legislation creating a state right to repair,² and there is a push for analogous federal legislation,³ the right to repair has roots in the exhaustion doctrine—a rule that exists at the intersection of

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1. See generally Michael Williams & Vanessa Farago-Diener, *Rewriting Judicial History or Just Refilling Ink? Patents and the Right to Repair in Australia Post-Calidad: “Logic, Simplicity, and Coherence with Legal Principle” Prevail over “Rights Which They Have Held for More than a Century,”* 31 AUSTL. INTEL. PROP. J. 147 (2020) (discussing the long-standing roots of the right to repair).

2. See generally Leah Chan Grinvald & Ofer Tur-Sinai, *Intellectual Property Law and the Right to Repair*, 88 FORDHAM L. REV. 63 (2019); Leah Chan Grinvald & Ofer Tur-Sinai, *The Right to Repair: Perspectives from the United States*, 31 AUSTL. INTEL. PROP. J. 98 (2020).

3. See AARON PERZANOWSKI, *THE RIGHT TO REPAIR: RECLAIMING THE THINGS WE OWN* 228 (2022).

intellectual property and competition law, and which has an established pedigree.⁴ Modern statutes expand on the right to repair's roots in exhaustion. But these roots inform how we interpret these statutes and glean their policies. Exhaustion also grounds right to repair in antitrust law. This Article develops these points in two stages: First, it addresses the question of why recognizing the exhaustion doctrine is important for the emergent right to repair. Subsequently, this Article turns to the implications of exhaustion for implementing the right to repair. These implications stem from understanding the exhaustion doctrine as applying to reuses as well as resales, as reflecting the common law rules against restraint of trade, and as abrogating limits on right to repair through contract. After navigating through these three arguments, the Article ends with a challenge to the right to repair arising from technology protection measures (TPMs) that block repair. The right to repair's roots in the exhaustion doctrine can address the challenge of TPMs and continue the tradition of this critical right.

II. WHY DOES THE RIGHT TO REPAIR MATTER?

As right to repair statutes progress through the courts as a subject of litigation, judges will need to interpret the breadth of the statutory language and potential conflicts with other legislation. Although it is beyond the scope of this Article to assess all right to repair statutes, one predictable challenge to the implementation of these statutes may come from intellectual property laws—that is, perceived conflicts between an individual's right to repair a product and a patent or copyright owner's right to exclude. As issues of how state or federal right to repair statutes conflict with intellectual property laws, the roots of right to repair in the exhaustion doctrine serve to reconcile the two bodies of law. Federal and state statutes continue the right to repair. They do not create it. Instead, they embellish it.

For those reasons alone, the right to repair's roots in the exhaustion doctrine must be recognized. Exhaustion is a doctrine that limits or cuts off certain intellectual property rights upon some event.⁵ The classic example is the first sale doctrine, under patent, copyright, and trademark laws, which ends the distribution right associated with a particular copy of a work after it is first sold.⁶ Similarly the right to repair is a limitation on the exclusive right to use,

4. See SHUBHA GHOSH & IRENE CALBOLI, EXHAUSTING INTELLECTUAL PROPERTY RIGHT: A COMPARATIVE LAW AND POLICY ANALYSIS 11–12 (2018).

5. See *id.* at 6.

6. *Id.* at 12.

typically under patent law, after a particular copy of a patented invention is distributed to the public.⁷

Aside from the right to repair statutes, the exhaustion doctrine is relevant for assessing the competition laws, specifically the antitrust laws (the Sherman and Clayton Acts) and the Federal Trade Commission Act (FTCA). Intellectual property laws do not create an immunity from the competition laws, but intellectual property rights provide latitude for exclusionary practices that are anticompetitive. Despite the Supreme Court's ruling in *FTC v. Actavis*,⁸ the scope of the patent doctrine is vestigial, allowing patent owners to engage in conduct that is within their rights under patent law even if there are anticompetitive effects. Copyrights and trademarks also provide some limits on antitrust enforcement against intellectual property owners.⁹ But when repair is at issue, and an intellectual property owner engages in conduct that impinges on the repair right, the right to exclude is exhausted in the face of repair. Under the Intellectual Property Licensing Guidelines,¹⁰ licensing restrictions on repair are subject to the rule of reason, and the existence of intellectual property exhaustion would weigh the rule of reason against the intellectual property owner. In addition, recognizing the right to repair as a right, rooted in common law restrictions on restraint of trade (a point which I discuss in more detail, *infra* Part IV), weighs in favor of consumers and their surrogates within a competition analysis. In short, recognizing the right to repair in the exhaustion doctrine has implications for enforcement under competition laws.

The contours of competition laws are complex, but exhaustion plays a role in the analysis. Under the antitrust laws, restrictions on repairs need to be analyzed under established antitrust claims. Restricting repairs by requiring purchasers to hire repair service providers designated by the seller would

7. *Id.* at 86–87.

8. 570 U.S. 136, 141 (2013) (holding that agreements between pharma patent owner and generic drug manufacturer to delay generic entry would be subject to antitrust scrutiny under the rule of reason).

9. There is no scope of the copyright or scope of the trademark doctrine as analogue to the scope of the patent doctrine, but courts do find enforcement of a valid copyright or trademark as rights that do not violate antitrust laws. *See, e.g.*, *Data Gen. Corp. v. Grumman Sys. Support Corp.*, 36 F.3d 1147 (1st Cir. 1994) (copyright enforcement). *But see* *United States v. Loew's, Inc.*, 371 U.S. 38 (1962) (antitrust enforcement against block booking practices based on copyright in motion pictures). As for trademarks, see *Clorox Co. v. Sterling Winthrop, Inc.*, 117 F.3d 50, 51 (2d Cir. 1997) (protection of trademarks as procompetitive justification to antitrust claims). *But see* *Timken Roller Bearing Co. v. United States*, 341 U.S. 593, 598 (1951) (“Nor can the restraints of trade be justified as reasonable steps taken to implement a valid trademark licensing system.”).

10. DEP'T OF JUSTICE & FED. TRADE COMM'N, ANTITRUST GUIDELINES FOR THE LICENSING OF INTELLECTUAL PROPERTY 16–19 (2017).

potentially fail as an illegal tying arrangement. Furthermore, a manufacturer or distributor cutting off independent repair technicians from parts or the ability to service products would be the basis for a claim of restraint of trade or monopolization. Other scholars in this Symposium discuss the potential problems with these claims, especially those arising from intellectual property laws. One approach is to develop the law of “unfair methods of competition” under § 5 of the FTCA.¹¹ Under this approach, acts limiting the right to repair would be addressed as an illegal business practice that deceives consumers as to the usability of the product or unfairly limits the consumer’s enjoyment of the product, by requiring repurchase or the purchase of expensive repair plans. Under all these legal strategies, the right to repair’s common law roots in exhaustion would weigh in favor of the plaintiff as it makes the case for exercising its long-recognized right.

Recognizing the right to repair as a type of exhaustion would also address the internal debate between competition law and consumer protection law. To summarize, the debate divides competition law’s role in preserving competitive processes from the role of consumer protection law in protecting consumers from deception. The terms of this debate can be explored in a companion piece on antitrust and false advertising. Within the universe of repair cases, the argument is made that consumers should look to consumer protection law, whether under state law or through federal provisions like the Magnusen—Moss Act¹² that provide warranty protections for consumer products, to address limitations on the repair right, whether through contractual provisions, restrictions on independent service providers, or denial of access to spare parts.

The right to repair’s roots in exhaustion can enhance the enforcement of these consumer protection laws, but the right can also support the claim that manufacturers and distributors might be overcharging for products and services by limiting the right to repair without reducing the price of the underlying product. Under this legal claim, consumers have long enjoyed the right to repair and buy products with the expectation that the product can be repaired either by the consumer or through the services of a knowledgeable technician. As products have been designed and sales contracts have been written to limit the right, the consumer has not been compensated for the

11. See FED. TRADE COMM’N, NIXING THE FIX: AN FTC REPORT TO CONGRESS ON REPAIR RESTRICTIONS 11 (2021); Daniel A. Hanley, Claire Kelloway & Sandeep Vaheesan, *Fixing America: Breaking Manufacturers’ Aftermarket Monopoly and Restoring Consumers’ Right to Repair*, OPEN MKTS. INST. 18–23 (2020).

12. Magnusen-Moss Warranty Act, 15 U.S.C. § 2301 (1975); see PERZANOWSKI, *supra* note 3, at 218.

resulting limitations on the right to repair. As a practical matter, it may be difficult, if not impossible, to price out separately the right to repair from all the other attributes of a product. But the point of this argument is to counter the statement sometimes made that recognizing a right to repair will lead to increases in the price of consumer goods. That statement is questionable if the long standing right to repair has been taken away without corresponding compensation for diminished right. Recognizing the right to repair's long-standing roots in the exhaustion doctrine raises the question of why consumers should have to buy back the right from sellers who have been diminishing the right over time. This dynamic may explain why this Symposium was originally called "Right to Repair under Siege" and is now called "The Emergent Right to Repair." But what is emerging has deep legal roots and should not be accepted as an innovation when in truth it is a lost tradition.

Having made the case for why the exhaustion doctrine matters for the right to repair, I turn next to developing the connection between the right to repair and the exhaustion doctrine. I first show that the exhaustion doctrine extends beyond its narrow association with the first sale doctrine to include the right to use. Repair is one example of this protected class of use. As a protection of the right to resell and to reuse, the exhaustion doctrine has roots in the common law restriction on restraints on trade. The right to repair as a check on restraints on trade appears in the often-cited 1956 IBM Consent Decree¹³ and in antitrust cases involving independent repair service providers. The Article concludes with an analysis how the exhaustion doctrine limits the use of contract and technology protection measures to interfere with the right to repair.

III. EXHAUSTION APPLIES TO USE AS WELL AS RESALE.

Based on the publicity surrounding the Supreme Court's decisions in *Kirtsaeng*¹⁴ and *Lexmark*,¹⁵ readers may immediately associate the exhaustion doctrine with the more familiar term "first sale doctrine,"¹⁶ under which the purchaser of a product protected by intellectual property has the right to resell the product after the initial sale. But exhaustion is not limited to the

13. *United States v. IBM* [2018] Trade Cas. (CCH) ¶ 68,245, 1956 WL 113173 (S.D.N.Y. Jan. 25, 1956).

14. *Kirtsaeng v. John Wiley & Sons, Inc.*, 568 U.S. 519, 545–47 (2013) (holding that sale of a copyrighted work anywhere in the world would exhaust the importation right in the United States).

15. *Impression Prods., Inc. v. Lexmark Int'l, Inc.*, 137 S. Ct. 1523, 1536–37 (2017) (holding that the sale of a patented work anywhere in the world would exhaust the importation right in the United States).

16. See discussion of "first sale doctrine" in *Kirtsaeng*, *supra* note 14, at 525.

distribution right nor to an initial sale of a product. As discussed in separate scholarship,¹⁷ the exhaustion doctrine stands for a set of rules under which some of the intellectual property owners' rights are exhausted upon some triggering event. The familiar first sale doctrine cuts off the intellectual property owners' right to prevent distributions of a particular product after the first sale of that product, allowing the purchaser to resell, rent, gift, or otherwise transfer the product. But this example of exhaustion applies even if the intellectual property owner does not sell the product, but instead gives away or abandons it. The act that triggers the exhaustion doctrine need not be an initial sale. It can be some other transaction by the intellectual property owner.

Furthermore, the exhaustion doctrine is not limited to the distribution right of the intellectual property owner. The exhaustion doctrine can cut off the right of the intellectual property owner to prevent further use by the recipient of the protect product. This further use includes the right to repair. As an example of the broader principle of reuse under the exhaustion doctrine, consider the United States Supreme Court's decision in *Quanta Computer, Inc. v. LG Electronics, Inc.*,¹⁸ a critical exhaustion case that paved the way for the Court's noted decisions in *Kirstaeng* and *Lexmark*. At issue in *Quanta* was a post-sale use restriction that patent owner LG Electronics imposed on Intel who used the patented processes to install Intel's microprocessors and other components in electronic products. Quanta was an electronic product manufacturer that installed Intel's microprocessors that included LG's patents.¹⁹ Rejecting LG's claims of patent infringement against Quanta, the Supreme Court affirmed the application of the exhaustion to the use of a patent after sale:

The longstanding doctrine of patent exhaustion provides that the initial authorized sale of a patented item terminates all patent rights to that item. This Court first applied the doctrine in 19th-century cases addressing patent extensions on the Woodworth planing machine. Purchasers of licenses to sell and use the machine for the duration of the original patent term sought to continue using the licenses through the extended term. The Court held that the extension of the patent term did not affect the rights already secured by purchasers who bought the item for use "in the ordinary pursuits of life."²⁰

17. See GHOSH & CALBOLI, *supra* note 4.

18. 553 U.S. 617 (2008).

19. *Id.* at 623–24.

20. *Id.* at 625 (quoting *Bloomer v. McQuewan*, 55 (14 How.) U.S. 539, 549 (1853)).

The Court's reasoning rested on several patent exhaustion precedents as well as on antitrust precedents:

We agree with Quanta that *Univis* governs this case. As the Court there explained, exhaustion was triggered by the sale of the lens blanks because their only reasonable and intended use was to practice the patent and because they “embodie[d] essential features of [the] patented invention.” Each of those attributes is shared by the microprocessors and chipsets Intel sold to Quanta under the License Agreement. ... *Univis* held that “the authorized sale of an article which is capable of use only in practicing the patent is a relinquishment of the patent monopoly with respect to the article sold.”²¹

Intellectual property exhaustion embraces not only resales but also reuses, particularly of components in complex manufacturing processes. This principle is grounded both in intellectual property and antitrust.

The right of repair is an example of permitted reuse. At the outset, the right of repair is distinct from reconstructing a product from broken parts, which is an act of unpermitted making of a patented product, rather than permitted reuse. The Court emphasized that the exhaustion doctrine does not apply to the exclusive right to remake in *Bowman v. Monsanto Co.*²² But longstanding Supreme Court precedent recognizes the right to repair as a type of reuse that does not constitute a making of a patented product. In *Wilson v. Simpson*, the Court ruled:

[I]t does not follow, when one of the elements of the combination has become so much worn as to be inoperative, or has been broken, that the machine no longer exists, for restoration to its original use, by the owner who has bought its use. When the wearing or injury is partial, then repair is restoration, and not reconstruction.

Illustrations of this will occur to any one, from the frequent repairs of many machines for agricultural purposes. Also from the repair and replacement of broken or worn-out parts of larger and more complex combinations for manufactures.

In either case, repairing partial injuries, whether they occur from accident or from wear and tear, is only refitting a machine for use. And it is no more than that, thought it shall be a replacement of an essential part of a combination.²³

21. *Id.* at 631 (internal citations omitted).

22. 569 U.S. 278, 287 (2013).

23. 50 (9 How.) U.S. 109, 123 (1850).

These principles were reiterated in a pair of decisions from the Supreme Court on repair of convertible automobiles, the well-known *Aro* decisions:

No element, not itself separately patented, that constitutes one of the elements of a combination patent is entitled to patent monopoly, however essential it may be to the patented combination and no matter how costly or difficult replacement may be. While there is language in some lower court opinions indicating that “repair” or “reconstruction” depends on a number of factors, it is significant that each of the three cases of this Court, cited for that proposition, holds that a license to use a patented combination includes the right “to preserve its fitness for use so far as it may be affected by wear or breakage.”²⁴

In a follow-up decision, the Court limited the application of the right to repair to licensed distributions of the patented item:

[S]ince Ford infringed the patent by making and selling the top-structures without authority from the patentee, persons who purchased the automobiles from Ford likewise infringed by using and repairing the structures; and hence *Aro*, by supplying replacement fabrics specially designed to be utilized in such infringing repair, was guilty of contributory infringement.²⁵

The Federal Circuit subsequently followed these Supreme Court precedents in a case involving spent disposable cameras which were resold after having the film refilled:

It was elaborated by the Court in *Aro Manufacturing Co. v. Convertible Top Replacement Co.*, 365 U.S. 336, 81 S.Ct. 599, 5 L.Ed.2d 592 (1961), where the patented combination was a fabric convertible top and the associated metal support structure. The Court explained that replacement of the worn fabric top constituted permissible repair of the patented combination, and could not be controlled by the patentee. The Court restated the principles that govern the inquiry as applied to replacement of unpatented parts of a patented article.²⁶

This line of case law shows that in the context of products protected by patents (and perhaps other forms of intellectual property), the right to repair permits replacing the unpatented components of a patented product to permit reuse of the product.

But what is the place of the exhaustion doctrine when the relevant component is patented? Patent law does not, as it appears from the *Bowman*

24. *Aro Mfg. Co. v. Convertible Top Replacement Co.*, 365 U.S. 336, 345 (1961).

25. *Aro Mfg. Co. v. Convertible Top Replacement Co.*, 377 U.S. 476, 482 (1964).

26. *Jazz Photo Corp. v. Int'l Trade Comm'n*, 264 F.3d 1094, 1103 (Fed. Cir. 2001).

decision, permit the user to make a replacement component to repair the damaged product. Patents on components can restrict the right to repair. Two possible lines of argument can limit this interference with the right to repair.

The first is the *Quanta* decision, which does allow the use of licensed patented products for their intended purpose. This ruling implies the need for a vibrant market for patented components, including a market for spare parts. Such a market can be supported by the proposed spare parts legislation, discussed briefly, *infra* Part IV, and advocated by several interest groups. It can also be supported by avoiding too broad a reading of patents on components, especially protections from design patents. In this regard, the Federal Circuit's decision in *Automotive Body Parts Association v. Ford Global Technologies, LLC* needs to be considered closely and reconsidered. In that case, the court ruled:

In our view, the breadth of the term “article of manufacture” simply means that Ford could properly have claimed its designs as applied to the entire F-150 or as applied to the hood and headlamp. To determine what repair rights apply, we look to what Ford actually claimed. As always, “the name of the game is the claim.” Ford chose to claim designs as applied to portions of particular components, and the law permits it to do so. That the auto-body components covered by Ford's patents may require replacement does not compel a special rule. Just as the patentee in *Aiken* could have only claimed the needles in conjunction with the knitting machine, Ford could have only claimed its design as applied to the whole truck. Unfortunately for ABPA, Ford did not do so; the designs for Ford's hood and headlamp are covered by distinct patents, and to make and use those designs without Ford's authorization is to infringe.

We thus reject ABPA's attempts to develop design patent-specific exhaustion and repair rules. Consequently, we affirm the district court's ruling that ABPA has not shown that Ford's designs for an F-150 hood and headlamp are exhausted when Ford sells an F-150 truck.²⁷

The Federal Circuit's reasoning on design, exhaustion, and repair is an obstacle to developing a robust right to repair. It is also inconsistent with the roots of the right to repair in the exhaustion doctrine. Future litigation and Supreme Court analysis will perhaps correct the error to bring the right to repair back on track.

Some antitrust precedents might support anticompetitive restrictions on the right to repair. In *Alcoa*, Judge Learned Hand ruled on an influential claim of monopolization, which rested in part on the defendant's limitations of the

27. *Auto. Body Parts Ass'n v. Ford Glob. Techs., LLC*, 930 F.3d 1314, 1324–25 (Fed. Cir. 2019).

right of repair.²⁸ As the court stated: “The [patent] monopolist cannot prevent those to whom he sells from ... reconditioning articles worn by use, unless they in fact make a new article.”²⁹ A little over a thirty years later, in its settlement for an antitrust suit based on monopolization, IBM entered into a consent decree with the Department of Justice, whose terms included the following provision on protecting the right to repair:

IBM is hereby ordered and directed:

(a) to offer to render, without separate charge, to purchasers from it of tabulating or electronic data processing machines the same type of services, other than maintenance and repair services, which it renders without separate charge to lessees of the same types of machines;

(b) to offer, commencing one year after the entry of this Final Judgment and so long thereafter as IBM shall continue to render

repair and maintenance service, to maintain and repair at reasonable and nondiscriminatory prices and terms IBM tabulating and electronic data processing machines for the owners of such machines; provided that, if any such machine shall be altered, or connected by mechanical or electrical means to another machine, in such a manner as to render its maintenance and repair impractical for IBM personnel having had the standard training and instruction provided by IBM to such maintenance and repair personnel, then IBM shall not be required by this Final Judgment to render maintenance and repair service for such IBM machine; and

(c) to offer to sell at reasonable and nondiscriminatory prices and terms, to owners of IBM tabulating or electronic data processing machines (whether or not the purchaser receives IBM repair and maintenance service) and to persons engaged in the business of maintaining and repairing such machines and during the period when IBM has such parts and subassemblies available for use in its leased machines, repair and replacement parts and subassemblies for any tabulating machines or electronic data processing machines manufactured by IBM.³⁰

In addition to these examples of how antitrust claims of monopolization, brought by the United States Government, protect the right of repair, independent service providers have brought monopolization claims when cut

28. United States v. Aluminum Co. of Am., 148 F.2d 416, 425 (2d Cir. 1945).

29. *Id.*

30. United States v. IBM [2018] Trade Cas. (CCH) ¶ 68,245, 1956 WL 113173 (S.D.N.Y. Jan. 25, 1956).

off from access to repair parts or service contracts.³¹ These claims rest on the theory that the intellectual property owner is attempting to monopolize the aftermarket for repair services of the patent or copyrighted product. Although not expressly based on the right to repair, the antitrust claims indirectly protect the right to repair by creating a robust service aftermarket.

Much of the discussion of exhaustion, reuse, and repair rests on patents. An open question is how the right to repair arises under Copyright law. Separate scholarship analyzes how copyright exhaustion rests on statute rather than on common law principles.³² Repair rights under the Copyright Act are limited to § 117(c), which allows purchasers of software to make back-up copies and repair technicians to upload copies of software for diagnostic purposes. As pointed out by the other comments in this Symposium because the right to repair evolves from its basis in exhaustion, its place in copyright law needs to be more closely delineated.

IV. EXHAUSTION'S COMMON LAW ROOTS

This Part demonstrates how the right to repair, with its roots in the exhaustion doctrine, prevents restraints of trade. The argument is based on an analysis of legislation, both enacted and proposed, regulating the market for automobile spare parts. Debates over automobile spare parts legislation focus our attention on how preventing the right to repair imposes an anticompetitive restraint on trade.

The case of consumer repair, especially the controversy over spare automobile parts, illustrates how exhaustion doctrine can be tailored in a way that seems to mimic competition law. At issue is the need for accessing spare parts in the aftermarket for automobile repair. One impediment in this market is the possibility of claims for infringement of protected design in these parts. The European Union resolved this issue decades ago through the imposition of legislative protection for spare part manufacturers.³³ As Professor Carvalho reports, “the laws of a number of WTO members take two different

31. See *Eastman Kodak Co. v. Image Tech. Servs., Inc.*, 504 U.S. 451, 459 (1992). For a discussion of this and subsequent cases, see Severn Borenstein, Jeffrey K. Mackie-Mason & Janet S. Netz, *Antitrust Policy in Aftermarkets*, 63 ANTITRUST L.J. 455, 458–59 (1995); Carl Shapiro, *Aftermarkets and Consumer Welfare: Making Sense of Kodak*, 63 ANTITRUST L.J. 483, 483–85 (1995).

32. See GHOSH & CALBOLI, *supra* note 4, at 116 (discussing 17 U.S.C. § 117(c), which provides an exception from copyright protection of software for repair diagnosticians).

33. See Council Regulation (EC) No 6/2002 of 12 December 2001 on Community designs, 2002 O.J. (L 3) 1, <http://data.europa.eu/eli/reg/2002/6/oj>.

approaches to exclude *must fit* and *must match* components from protection”³⁴ of intellectual property laws. For *must fit* components, protection is denied “because their shape is essentially dictated by technical or functional considerations.”³⁵ Professor Carvalho points out that some WTO member states also exclude *must match* parts from protection since “once the body is designed, its parts must necessarily adjust to the whole design, which makes the design of those parts essentially functional.”³⁶

Such tailoring of intellectual property rights to consumer and company needs in the automobile industry reflects a question of the scope of intellectual property rights. Exhaustion arises in this debate because of the secondhand market for parts and because of the consumer’s alleged right to repair a purchased automobile. As the Supreme Court stated in its 1850 decision in *Wilson v. Simpson*: “[I]t is a hardship for the man who invested his capital in the purchase of an entire machine, that he should be deprived of the use of it because one part only has worn out.”³⁷ Purchasers have a right to repair worn parts in a patented machine: “[An assignee] having a right . . . to continue the use of the patented machine, has a right to replace new cutters or knives for those which are work out.”³⁸

An exemption from intellectual property protection creates a utilitarian-based rule that balances interest in the market for automobile spare parts. For example, legislation enacted in France in 2021 makes a distinction between protection for automobile parts in the foremarket and protection in the aftermarket.³⁹ This legislation recognizes intellectual property protection for *must match* parts in the original equipment parts when the parts are first incorporated into the new finished product but deny protection for resales of these parts in the aftermarket, whether as separate components or as part of the automobile.⁴⁰ Such countries are applying the exhaustion doctrine to spare parts to promote a ready consumer-oriented used market.

34. NUNO PIRES DE CARVALHO, THE TRIPS REGIME OF TRADEMARKS AND DESIGNS 437 (2014) (*italics in original*).

35. *Id.*

36. *Id.*

37. 50 U.S. 109, 116 (1850).

38. *Id.* at 120.

39. Loi 2021-1104 du 22 août 2021 portant lutte contre le dérèglement climatique et renforcement de la résilience face à ses effets (1) [Law 2021-1104 of August 22, 2021 on the fight against climate change and strengthening resilience to its effects (1)], Journal Officiel de la République Française [J.O.] [Official Gazette of France], Aug. 24, 2021.

40. *Car Spare Parts: The Repair Clause is Finally Adopted*, BEAU DE LOMÉNIE (Oct. 29, 2021), <https://www.bdl-ip.com/en/2021-10-car-spare-parts-the-repair-clause-is-finally-adopted/>.

Professor Carvalho criticizes these various approaches on the grounds that they do not reflect intellectual property policies, but instead introduce extraneous considerations of competition and consumer protection.⁴¹ He concludes that such exemptions are violations of obligations to protect design under Article 5 *quinquies* of the Paris Convention and Article 25.1 of the TRIPS Agreement.⁴² Furthermore, competition law might not be the most appropriate instrument to shape the markets for automobile parts since the competitive harms are minimal. Quoting Professor Herbert Hovenkamp, Professor Carvalho concludes that any ability to raise prices in the market for auto parts does not reflect abusive market behavior, but rather the ability to raise prices in markets for differentiated products.⁴³ They reflect what economic theory would call rents that arise from having a unique product. But if others are free to differentiate and create their own type of unique product, there is no anticompetitive effect in the marketplace. Therefore, he recommends that specific consumer protection laws address any concerns with the market for automobile parts. Consumers should be educated about the costs of spare parts, and the providers of the parts, presumably the intellectual property owners, should be prepared to meet the market demand for these parts to avoid artificial shortages.⁴⁴

Professor Carvalho's criticisms arguably ignore how the exhaustion doctrine serves to define the scope of intellectual property rights to accommodate interests related to intellectual property, such as those of consumers.⁴⁵ To repeat the point set forth at the outset of this article, exhaustion reflects a utilitarian calculus that intellectual property rights should be cut off to accommodate rights attendant to the innovation goals of intellectual property. These goals include the creation of markets that complement that for the new product.

To illustrate this last set of points and the broader debates over exhaustion, consider the "Promoting Automotive Repair, Trade, and Sales Act" ("PARTS Act")—legislation the United States Congress considered at the time of writing. If enacted, this legislation would exclude consumer repair of automobiles from design patent infringement, effectively exhausting the patent owner's right to make in the context of repairing automobile parts. This proposed legislation is an example of the industry-tailored application of exhaustion to accommodate goals attendant to that of intellectual property.

41. CARVALHO, *supra* note 34, at 438.

42. *Id.*, at 437.

43. *Id.*, at 440.

44. *Id.*

45. *Id.*

Relevant provisions would allow consumers to restore the appearance of a motor vehicle or repair it without being potentially liable for design patent infringement:

It shall not be an act of infringement of the design patent [claiming a component part of an automobile exterior as originally manufactured] to make or offer to sell within the United States, or import into the United States, any article of manufacture that is similar or the same in appearance to the component part that is claimed in the design patent if the purpose of the article of manufacture is for the repair of a motor vehicle so as to restore the motor vehicle to the appearance of the motor vehicle as originally manufactured.⁴⁶

After the expiration of a period of 30 months beginning on the first day on which any such component part is first offered to the public for sale as part of a motor vehicle in any country, it shall not be an act of infringement of the design patent to use or sell within the United States any article of manufacture that is similar or the same in appearance to the component part that is claimed in the design patent if the purpose of the article of manufacture is for the repair of a motor vehicle so as to restore the motor vehicle to the appearance of the motor vehicle as originally manufactured.⁴⁷

Together, these two provisions would exempt any article of manufacture like a protected design in the context of repair of an automobile from design patent infringement acts of selling, making, using, and importing. Although the provisions do not use the language of *must fit* and *must match*, the proposed statute would include these types of parts under the exemption for repair and restoring appearance. But, unlike the European counterparts, the legislation would not exempt such designs from registration, only from enforcement in specific contexts. A predicted consequence of the United States legislation would be a market for automobile spare parts, including parallel imports, and a service market for repair and restoration.

The case of auto parts shows the subtle ways in which the exhaustion doctrine enters the debate over market promotion and consumer protection. It also demonstrates how exhaustion as a limitation on intellectual property rights interacts with competition law. The PARTS Act creates exemptions from a narrow set of intellectual property rights, namely certain rights of the design patent owner in the automotive industry. Although these exemptions are not couched in terms of exhaustion, at heart the limitations are based on

46. The PARTS Act, S. 812, H.R. 1879, 115th Cong. (2017) § 2 (proposed § 271(j)(1)(A) of the Patent Act).

47. *Id.* (proposed § 271(j)(1)(B) of the Patent Act).

protecting uses of a protected commodity after a transfer. Arguably, the exemptions go beyond traditional exhaustion, protecting not only purchasers, but insurance companies, rental car agencies, and lessees. Furthermore, the rights exhausted go beyond the right to distribute and include the rights to make and use. If enacted, the legislation recognizes the role of intellectual property law as a policy to promote markets. This policy goal overlaps with the goals of competition law, but without the open-ended balancing of the rule of reason. Exhaustion is a *per se* rule, sometimes a rule with many qualifications, that promotes markets through placing limitations on intellectual property rights before they are granted. Competition law, by contrast, limits the exercise of intellectual property rights after they have been defined. Exhaustion limits the scope of intellectual property rights; competition law limits how intellectual property owners control their right to exclude.

V. NO ELIMINATION BY CONTRACT

This Part addresses the question of how the right to repair can be eliminated through contract. One way contract can eliminate the right to repair is through rental rather than sale of the product. Under the exhaustion doctrine, especially in recent US Supreme Court decisions such as *Kirstaeng*, *Lexmark*, and *Quanta*, the power of contract to restrict or eliminate the exhaustion doctrine is limited. The rationale of these decisions would also apply to the right to repair.

An intellectual property rights holder has to the right to keep others from distributing a work containing the intellectual property, whether trademark, copyright, or patent. Distribution includes sale, rental, licensing, assignment, or any other transaction that involves the transfer of a product for any purpose. However, many jurisdictions separate within copyright law the rental right from the distribution right.

For example, in the United States, the copyright owners of software or recordings retain a rental right distinct from the broader distribution right. It is worth considering the language of the statute:

Notwithstanding the provisions of subsection (a), unless authorized by the owners of copyright in the sound recording or the owner of copyright in a computer program (including any tape, disk, or other medium embodying such program), and in the case of a sound recording in the musical works embodied therein, neither the owner of a particular phonorecord nor any person in possession of a particular copy of a computer program (including any tape, disk, or other medium embodying such program), may, for the purposes of direct or indirect commercial advantage, dispose of, or authorize the

disposal of, the possession of that phonorecord or computer program (including any tape, disk, or other medium embodying such program) by rental, lease, or lending, or by any other act or practice in the nature of rental, lease, or lending. Nothing in the preceding sentence shall apply to the rental, lease, or lending of a phonorecord for nonprofit purposes by a nonprofit library or nonprofit educational institution. The transfer of possession of a lawfully made copy of a computer program by a nonprofit educational institution to another nonprofit educational institution or to faculty, staff, and students does not constitute rental, lease, or lending for direct or indirect commercial purposes under this subsection.⁴⁸

It is worth noting that the statute excludes software that is embedded in a machine or product and cannot be copied or software in a limited-purpose device for playing videogames. The statute also expressly states that the provisions do not disrupt the application of antitrust laws.⁴⁹ Note that the rental right provision is notwithstanding the provision in § 109(a), which sets forth the first sale doctrine. The rental right must be negotiated separately from the right to distribute. If the rental right is not transferred, whether through license or assignment, the copyright owner retains this right. This implies that exhaustion of the distribution right does not mean that the rental right has been exhausted as well.

Unlike copyright, patent and trademark law typically do not separate out the rental right from the exclusive right to sell or distribute the product. This exclusion most likely reflects the business reality that patented or trademarked products are for the most part sold rather than licensed. However, the question remains about the treatment of rentals of patented or trademarked goods under the exhaustion doctrine. A rental would include a restriction, either implicit or explicit on resale since the transfer is for a limited period. With respect to patent, under *Lexmark*, presumably a sale with a condition prohibiting resale would be in tension with the exhaustion doctrine. While such a condition would not be illegal, breach of the condition would not be a basis for patent infringement. Instead, the patent owner would have a claim for contract damages. Although the U.S. Supreme Court has not addressed trademark exhaustion, a reasonable inference from the *Kirstaeng* and *Lexmark* decisions is that this same analysis would apply to the sale of trademarked goods conditioned with restrictions on resale.

48. 17 U.S.C. § 109(b)(1)(A).

49. 17 U.S.C. § 109(b)(3).

The European Union has adopted provisions like § 109(b) of the Copyright Act in the 1992 Council Directive⁵⁰ on rental right and lending right in the field of copyright. Once again rental rights in patents and trademarks are not addressed in the European Union directive, except for matters of competition law that this Article discussed. The Directive applies to: (1) authors with respect to the original and copies of their work, except for architectural works and applied art; (2) performers with respect to fixation of their performance; (3) phonogram producers; and (4) producers to first fixation of a film work. The goal of the directive is to provide harmonization with respect to rental rights and other neighboring rights of copyright in order “to prevent piracy, but also to secure an adequate income for those involved in creative and artistic work, in order to foster the Community’s economic and cultural development.”⁵¹ Like § 109(b) of the Copyright Act, the rental right directive recognizes the business practices of rental markets for certain types of works and the economic need for allowing rentals to create income streams for certain copyright owners.

The rental right is a carve-out from the general distribution right. There are two business implications from this carve-out. First, in cases where the rental right is recognized, a distribution of a work does not entail a transfer of the right to rent, and the copyright owner retains that right unless expressly granted. What this means is that a purchaser of a copyright work takes subject to the copyright owner’s rental right and must negotiate that right separately if the purchaser wants to start a rental business. A vivid example of this limitation is from the *Santosh* decision of the Delhi High Court.⁵² Santosh sought to create an online video rental service. However, the copyright owners retained the rental right under Indian copyright law. Therefore, Santosh’s lawful purchase of the videos precluded him from renting them. A second implication is about the resale of rented works. Since the rental of a copyrighted work includes a reversion of the work to the copyright owner or authorized lessor, the lessee cannot sell the rented work. This restriction might extend to further rentals or other distribution depending on the terms of the rental agreement. For rentals, the limited transfer of the rights and contract restrictions impose restrictions on resale.

For these two reasons, the rental right is an example of a restraint on alienation. However, as the discussion of the law demonstrates, the restraint is

50. The original version of Directive 92/100 has been replaced with a new version, Directive 2006/115. See CATHERINE SEVILLE, EU INTELLECTUAL PROPERTY LAW AND POLICY 33 (2016).

51. *Id.* at 30.

52. Warner Bros. Ent. v. Santosh, (2009) INDLHC 1365, ¶ 24 (India).

tolerated and even encouraged. What is the policy rationale for this restraint and what implications arise for the exhaustion doctrine more broadly?

In ruling on a challenge to the Directive, the European Court of Justice set forth a revealing analysis of the rental right and its relationship to exhaustion.⁵³ The challenge was brought by a retailer who claimed that the Directive, by recognizing and establishing the rental right, interfered with “the fundamental rights of undertakings operating rental businesses . . . including the right freely to pursue a trade.”⁵⁴ The German court reviewing the petition expressed the concern that the rental right interfered with the principle of exhaustion of rights.⁵⁵ The European Court of Justice upheld the rental right directive, largely on economic grounds. Revenues from sales were not sufficient to compensate copyright owners in film and phonograms since a sale did not adequately gauge the number of times the work was viewed or hired out.⁵⁶ “Rental rights,” as Professor Seville summarizes, “were therefore clearly justified on grounds of the protection of industrial and commercial property.”⁵⁷ The Court concluded that any restriction on the trade of the complaining businessperson was proportionate to the goals of the general interest.

How the European Court of Justice describes these goals is important for understanding the policies underlying the rental right and the corresponding abrogation of exhaustion. Specifically, the Court concluded that the Rental Directive “did pursue objectives of general interest, including the economic and cultural development of the Community, and the need to guarantee that authors and performers could ‘receive appropriate income and mortise the especially high and risky investments required particularly for the production of phonograms and films.’”⁵⁸ The Court concluded that traditional rental businesses could continue but only upon negotiating the requisite license from the copyright owners.⁵⁹

What the European Court of Justice teaches is a utilitarian justification for restraining alienation through the recognition of the rental right. While the costs of the rental right include restrictions on distribution of the rented work on businesses and personal users, the benefits are the realization of a new income stream for copyright owners that reflects the uses of the work and

53. Case C-200/96, *Metronome Musik GmbH v. Music Point Hokamp GmbH*, ECLI:EU:C:1998:172 (Apr. 28, 1998).

54. SEVILLE, *supra* note 50, at 30.

55. *Id.*

56. *See* Case C-180/05, *Comm’n of the Eur. Cmty. v. Grand Duchy of Lux.*, 2006 E.C.R. I-00054, 20.

57. SEVILLE, *supra* note 50, at 30.

58. *Id.*

59. *Id.*

realities of distribution for certain types of works. As a restraint on alienation, rental rights serve to promote new markets for works that benefit the copyright owner and thereby the process of creating and disseminating new works. The Court's logic reflects the logic of intellectual property, not surprisingly. The exclusive rights of intellectual property restrict certain uses, such as distribution, to promote invention and innovation. Limitations on alienation reward the intellectual property owner and benefit markets in the long run.

As a rationale for restraining alienation, the Court's analysis perhaps proves too much. Recognizing the rental right may create a new revenue stream for copyright owners, but so would recognizing any additional right to exclude. Applying the Court's rationale, any new intellectual property right would justify the costs of the right to business entities, users, and creators. Thus, the Court's analysis is unsatisfying when too grossly generalized. A more cogent and satisfying analysis would focus on the specifics of markets and industries. The Rental Directive applies to a limited class of works; it does not apply to software or to works of fine art, for example. Just as the rationale for restraints on alienation may differ among real property, personal property, and intellectual property, the rationale may be more finely assessed for different types of works embodying intellectual property. The risk is that such finely grained qualifications will make legal analysis clumsy, overly complex, and unpredictable. But that may be the unfortunate consequence of a utilitarian justification for law.

This discussion of the Rental Directive highlights the detailed policy analysis that informs an assessment of restraints on alienation and the scope of the exhaustion doctrine. Two other details from the Rental Directive further illustrate this point. First is the requirement of equitable remuneration of copyright owners from the rental of copyrighted works recognized under the Directive.⁶⁰ This requirement is imposed to limit unjust enrichment of the rental right licensee in distributing the licensed work.

The second detail worth noting in the Rental Directive is the recognition of public lending rights to protect lending of works by public libraries.⁶¹ While the specific scope of this right is still under discussion,⁶² its existence points to the need for allowing distribution mechanisms that benefit the public to

60. Directive 2006/115/EC of the European Parliament and of the Council of 12 December 2006 on rental right and lending right and on certain rights related to copyright in the field of intellectual property (codified version), art. 5 2006 O.J. (L 376).

61. Directive 2006/115/EC of the European Parliament and of the Council of 12 December 2006 on rental right and lending right and on certain rights related to copyright in the field of intellectual property (codified version), art. 6 2006 O.J. (L 376).

62. SEVILLE, *supra* note 50, at 37.

flourish. It is difficult to question the social benefit of public libraries. The hard policy question is how to limit the rental right to permit public library lending without undermining rental markets. For national governments, designing the public lending right is a delicate balance of protecting identified revenue streams for copyright owners and protecting intermediary businesses that rent out copyrighted works while promoting public institutions like libraries. From a legal perspective, the balance is an intricate one. The rental right is a carve-out from the distribution right that creates an exception to the exhaustion principle and the public lending right is a carve-out from the rental right that restores exhaustion for public libraries. Policymakers must confront an exception to an exception to a limitation on copyright. We are dealing not so much with the “metaphysics of the law”⁶³ as with doctrinal gymnastics.

Looking beyond the Directive’s domain of copyright, the intricacies of the rental right illustrate why some courts, like the United States Supreme Court, may prefer the broad rule of exhaustion with at best narrow statutory exceptions (found under § 109(b) in the United States).⁶⁴ While there are certain desirable features to a clear rule of exhaustion, allowing rental benefits consumers and the market economy, for reasons set forth throughout this article. One approach is to allow an exception to exhaustion for rentals. Such an exception would allow intellectual property owners to contract out uses of a protected work for a time limited period. The problem is how to contain such an exception. Arguably, parties might contract out intellectual property rights subject to negotiated conditions that would go beyond the rental situation. This possibility is the conditional sale doctrine recognized by the Federal Circuit but abrogated in the *Lexmark* decision. Courts will need some guidelines to determine when contractual limitations on exhaustion are permitted and when they are not. Without such guidelines, the broad rule in favor of exhaustion is an illusion.

The Supreme Court recognized this dilemma when the *Lexmark* majority wrote:

A patentee can impose restrictions on licensees because a license does not implicate the same concerns about restraints on alienation as a sale. Patent exhaustion reflects the principle that, when an item passes into commerce, it should not be shaded by a legal cloud on title as it moves through the marketplace. But a license is not about passing title to a product, it is about changing the contours of the patentee’s monopoly: The patentee agrees not to exclude a licensee

63. See *Folsom v. Marsh*, 9 F. Cas. 342 (C.C.D. Mass. 1841) (Justice Story describing both copyright and patent law as metaphysical).

64. 17 U.S.C. § 109(b).

from making or selling the patented invention, expanding the club of authorized producers and sellers. Because the patentee is exchanging rights, not goods, it is free to relinquish only a portion of its bundle of patent protections.

A patentee's authority to limit licensees does not, as the Federal Circuit thought, mean that patentees can use licenses to impose post-sale restrictions on purchasers that are enforceable through the patent laws. So long as a licensee complies with the license when selling an item, the patentee has, in effect, authorized the sale. That licensee's sale is treated, for purposes of patent exhaustion, as if the patentee made the sale itself. The result: The sale exhausts the patentee's rights in that item. A license may require the licensee to impose a restriction on purchasers, like the license limiting the computer manufacturer to selling for non-commercial use by individuals. But if the licensee does so—by, perhaps, having each customer sign a contract promising not to use the computers in business—the sale nonetheless exhausts all patent rights in the item sold.⁶⁵

To summarize, the patent owner can place limitations in licenses but not in sales. Yet, how can one distinguish between a license and a sale? The Supreme Court offers no guidance and lower courts have struggled to come up with an approach to identifying when a transaction is sale-like.⁶⁶ The Rental Directive example shows that the distinction between a license and a sale is a policy distinction that rests upon the justifications supporting the exhaustion doctrine. The European Court of Justice's broad language does not provide a meaningful standard. The Court states a rental right is needed to benefit the copyright holder. But such language is circular and proves too much.

Instead, the analysis is helpful in identifying business practices and expectations that support the need for rental, rather than sales, as the more desired form of distribution. This analysis mandates a fact-intensive inquiry, like what one might find in an antitrust or competition law review of a business practice. Furthermore, the sale/license distinction, which is equivalent to an exhaustion/no exhaustion distinction, will depend upon the type of work in question. From such factual inquiry, precise rules may emerge, but the law may not be there yet. Instead, we are confronted with generalities about contractual freedom, rewards to the intellectual property owner, and market alienability. As I argue there, intellectual property and antitrust law intersect in addressing when exhaustion applies and when it can be circumvented through contract.

65. *Impression Prods., Inc. v. Lexmark Int'l, Inc.*, 137 S. Ct. 1523, 1534–35 (2017) (internal citations omitted).

66. GHOSH & CALBOLI, *supra* note 17, at 86.

But before considering antitrust, it is instructive to consider technology protection measures limiting exhaustion.

VI. THE CHALLENGE OF TECHNOLOGY PROTECTION MEASURES

This Part addresses the question of how technology protection measures, which block the ability to access code or parts that need to be repaired, can limit the right to repair. Technology protection measures often require users to copy or transform the protected work and infringe the rights of the intellectual property owner.⁶⁷ Exercising the right to repair would require exhaustion of the reproduction, adaptation, or making rights in addition to the right to resell. This Part presents arguments for expanding the exhaustion doctrine beyond the right to resell to facilitate the right to repair. In support of these arguments, this Part also presents case law correcting anticompetitive enforcement of technology protection measures.

Some scholars,⁶⁸ however, have cited the U.S. case *Kipling v. G.P. Putnam's Sons*⁶⁹ as supporting a broader application of exhaustion beyond distribution. The decision has relevance for technology protection measures and is worthy of discussion. A distributor bought unbound copies of Kipling's books from the publisher and then rebound separate volumes into one. Kipling, the copyright owner, claimed copyright infringement, but the court found for the distributor. Nothing in the Copyright Act prohibited the purchaser from binding the copyrighted sheets, according to the court. Kipling relied upon a supposed agreement with the publisher not to sell the unbound sheets. But the court concluded:

There is nothing in the law ... which prohibits the owner of a copyright from selling unbound books, if he desires to do so, and what he may do, his agent or licensee may do also. ... [I]f such as provision [prohibiting the sale of unbound sheets] were present the plaintiff's remedy would be an action against the publishers for breach of contract.⁷⁰

Two points are relevant from this pre-digital case for digital exhaustion. The first is the Second Circuit's construction of the purchaser's right to make a

67. For background discussion on technology protection measures, see generally GHOSH & CALBOLI, *supra* note 4, at 91; JESSICA LITMAN, DIGITAL COPYRIGHT (2017); David Nimmer, *A Riff on Fair Use in the Digital Millennium Copyright Act*, 148 U. PA. L. REV. 673, 681–84 (2000).

68. See Aaron Perzanowski & Jason Schultz, *Digital Exhaustion*, 58 UCLA L. REV. 889, 916 (2011).

69. 120 F. 631 (2d Cir. 1903).

70. *Id.* at 634.

different version of the copyrighted work after the sale. The recognition of such a right shows that exhaustion may go beyond the narrow right to redistribute. Second, any restrictions on the distribution are a matter of contract, rather than copyright, a result consistent with application of exhaustion. The court's ruling does not resolve the digital exhaustion issue. An important fact is that the purchaser did not copy the expression, but rather took the unbound sheets containing copies of the expression and bound them in a new form. Such acts may implicate the copyright owner's adaptation right, and the court's ruling has little application to copying post-sale, which very likely would be prohibited under U.S. law.

Though this case is pre-digital, it sets forth possible parameters for the evolving debate on digital exhaustion. As geoblocking and other technology protection measures develop, legal regimes will move towards preventing circumvention of these measures, as Professor Trimble predicts, and towards limitations on anti-circumvention, as this article suggests.⁷¹ Digital exhaustion will be one such limitation, as the European experience shows. Another limitation may arise from identified abuse of digital rights by intellectual property owners. Court interpretations in the United States of the Digital Millennium Copyright Act (DMCA) provide an important example of this second type of limitation, one that overlaps with competition law and policy.

The DMCA prohibits anti-circumvention measures of technology protections that are designed to prevent copying of copyright-protected works. Although limited to the domain of copyright, the emergence of 3D printing has highlighted the need for digital patent protection as inventive works can be as readily digitized as copyrighted expressions. How far can anticircumvention measures go to prevent digital copying? The Act does address limitations for fair use, research, and other practices. But exhaustion is not mentioned in the statute. Nonetheless courts have creatively resolved the issue of anticircumvention measures and uses by purchasers of products containing digital protections.

Lexmark marketed printers that included a technology protection measure that prevented the use of noncompatible printer cartridges. The cartridge contained a chip that only was unlocked with a companion chip in the printer. Static Controls found a way to circumvent the chip and marketed its own cartridges that could be used with Lexmark printers. A lawsuit ensued and Lexmark lost on its digital copyright claims against Static Controls. The Sixth

71. Marketa Trimble, *Copyright and Geoblocking: The Consequences of Eliminating Geoblocking*, 25 B.U.J. SCI. & TECH. L. 476, 477 (2019).

Circuit's opinion is a complex one and its many details are beyond the scope of this article. But it summarized the central rationale elegantly:

A poem in the abstract could be copyrightable. But that does not mean that the poem receives copyright protection when it is used in the context of a lock-out code. Similarly, a computer program may be protectable in the abstract but not generally entitled to protection when used necessarily as a lock-out device.⁷²

In other words, the purpose of the DMCA was to allow technology measures to protect copyright, not to protected uncopyrighted consumer products like a printer. Lexmark was claiming a right that went beyond what the DMCA provided to copyright owners. Its claims constituted a form of misuse, expanding the Act beyond its purpose and scope. Lexmark's loss in asserting its technological protection measures led to its use of contractual controls over reuse of printers, a practice that United States Supreme Court put to rest in the company's dispute with Impression Products. The connections between technology and contract could not be more transparent.

As Lexmark sought protection of the technological system for its printers and cartridges, Chamberlain brought an analogous DMCA claim against a company circumventing its software code for garage door openers. The Federal Circuit ruled against Chamberlain. Its reasoning rested on a distinction between property and liability. According to the Federal Circuit, the anticircumvention provisions did not create a new property right, but rather a rule of liability to the copyright owner for circumventing:

The distinction between property and liability also addresses an important policy issue that Chamberlain puts into stark focus. According to Chamberlain, the 1998 enactment of the DMCA "renders the pre-DMCA history in the GDO industry irrelevant. By prohibiting the trafficking and use of circumvention technology, the DMCA fundamentally altered the legal landscape.... Any analysis of practices within the GDO industry must now be undertaken in light of the DMCA." Chamberlain reiterated and strengthened this assertion at oral argument, claiming that the DMCA overrode all pre-existing consumer expectations about the legitimate uses of products containing copyrighted embedded software. Chamberlain contends that Congress empowered manufacturers to prohibit consumers from using embedded software products in conjunction with competing products when it passed § 1201(a)(1). According to Chamberlain, all such uses of products containing copyrighted software to which a technological measure controlled access are now

72. *Lexmark Int'l, Inc. v. Static Control Components, Inc.*, 387 F.3d 522, 544 (6th Cir. 2004).

per se illegal under the DMCA unless the manufacturer provided consumers with explicit authorization. Chamberlain's interpretation of the DMCA would therefore grant manufacturers broad exemptions from both the antitrust laws and the doctrine of copyright misuse.⁷³

Such an exemption, however, is only plausible if the anticircumvention provisions establish a new property right capable of conflicting with the copyright owner's other legal responsibilities—which as explained *supra*, they do not. The anticircumvention provisions convey no additional property rights in and of themselves. They simply provide property owners with new ways to secure their property.

The Federal Circuit, like its sister circuit in the *Lexmark v. Static Controls* case, found against the copyright owner. The court reasoned that Chamberlain had given implicit authorization for consumers to obtain substitute garage door openers from a competing company because there were no contractual restrictions on what technology had to be used with the garage doors. An implication is that express contractual restrictions might have allowed Chamberlain to block Static Controls. The Supreme Court's ruling against Lexmark casts some doubt on this strategy, however. Furthermore, the Federal Circuit dismissed the DMCA claim on grounds very similar to that of the Sixth Circuit. Chamberlain was not using the technology measures to protect a copyrighted work, such as an encrypted movie on a DVD. Instead, Chamberlain was using the technology measure to protect a consumer product—a functional work—that was not copyrightable. That claim went beyond the reach of the DMCA.

What the experiences with printer cartridges and garage door openers teach is that the protection of the right to repair against TPMs requires a more complicated response than a legal prohibition against anticircumvention. Courts have responded to attempts to expand TPMs beyond the domain of intellectual property rights—that is, to include products purchased by consumers with certain expectations about uses and sales. This experience suggests some hope for a digital exhaustion doctrine that might limit practices like geoblocking that restrain alienability and use through technology. Policies of competition and restrictions on the creation of competing products that can benefit consumers and potentially expand markets are implicit in the *Static Controls* and *Chamberlain* cases. Although neither court expressly frames the issues in terms of competition, a more rigorous analysis of exhaustion's place

73. *Chamberlain Grp., Inc. v. Skylink Techs., Inc.*, 381 F.3d 1178, 1193 (Fed. Cir. 2004).

in competition policy may set the course for a more vibrant future for the exhaustion doctrine.