2018

Is the License Still the Product?

Robert W. Gomulkiewicz
University of Washington School of Law

Recommended Citation
Robert W. Gomulkiewicz, *Is the License Still the Product?*, 60 Ariz. L. Rev. 425 (2018), https://digitalcommons.law.uw.edu/faculty-articles/312

IS THE LICENSE STILL THE PRODUCT?

Robert W. Gomulkiewicz*

The Supreme Court rejected the use of patent law to enforce conditional sales contracts in Impression Products v. Lexmark*. The case appears to be just another step in the Supreme Court's ongoing campaign to reset the Federal Circuit's patent law jurisprudence. However, the decision casts a shadow on cases from all federal circuits that have enforced software licenses for more than 20 years and potentially imperils the business models on which software developers rely to create innovative products and to bring those products to market in a variety of useful ways. For over two decades, we could say that the license is the product—software provides the functionality but the license provides what can be done with the software.* Impression Products *now raises a critical question for the software industry: is the license still the product? This Article answers that question by assessing the impact of the* Impression Products *case on software licensing. Fortunately, the case does not disrupt licenses used to develop products and leaves adequate room for innovative distribution licensing. Although the Supreme Court shut the door on enforcing end-user licenses using patent law, it left the door wide open for enforcing licenses using contract law. By linking the patent exhaustion and copyright first sale doctrines, the Supreme Court also seemed to shut the door on using copyright law to enforce end-user licenses. Although that linkage is accurate, the statutory scope of the copyright first sale doctrine differs from common law patent exhaustion, suggesting that end-user licenses still can be enforced using copyright law. To clarify this, however, Congress should amend the Copyright Act to explicitly recognize that end-user licenses are not copyright first sales. As Congress and the courts begin to address software licensing in the aftermath of* Impression Products*, one guiding principle seems clear—both*

---

* UW Foundation Professor of Law and Director, Intellectual Property Law & Policy Graduate Program, University of Washington School of Law. For useful comments on this Article and discussions about the issues raised in *Impression Products v. Lexmark*, I thank Annemarie Bridy, Steve Calandrillo, Maggie Chon, Andy Culbert, Rochelle Dreyfuss, John Duffy, Andrea Lairson, Lydia Loren, Xuan-Thao Nguyen, Sean O'Connor, Ted Sichelman, Toshiko Takenaka, and participants at the 2017 Pacific Intellectual Property Scholars Conference and the Shefelman Faculty Colloquium at the University of Washington School of Law. For valuable research assistance, I thank Evan Hejmanowski and the librarians at the Marian Gould Gallagher Law Library.

software developers and users will be better served if the license is still the product.

TABLE OF CONTENTS

INTRODUCTION

Software developers rely on license agreements[1] in a multitude of ways. They use licenses to collaborate and share intellectual property during the software development process. They also use licenses to bring software products to market in a variety of useful ways. As software users, we encounter end-user licenses (often called "EULAs") on a regular basis. In the days when users acquired boxes of software loaded on floppy disks, these licenses were known as "shrink-wrap" licenses.[2] As software firms began delivering software pre-installed on computers or downloaded from the Internet, the licenses were called "click-wrap" licenses.[3] Now, software often is delivered as a service via a website with a license known as a "browse-wrap" license,[4] or simply "terms of use."[5] The names have changed but the concept remains the same: even though software provides the functionality, the license provides what can be done with the software. In other words, the *license* is the product.[6]

Software developers may love licenses, but many people love to hate licenses, especially EULAs.[7] Criticisms of EULAs take many forms.[8] Some focus on contract formation issues, arguing that EULAs are unenforceable contracts of adhesion.[9] Others argue that EULAs should be preempted by federal intellectual

---

1. A *license* is a permission and, in software industry parlance, a *license agreement* is a contract that describes the terms and conditions of the permission. *See infra* Part II.

2. So-called because the user manifests assent to the license contract by tearing open the box's plastic wrapper.

3. So-called because the user manifests assent to the license contract by clicking on an "I agree" button before the software runs or downloads.

4. So-called because the user manifests assent to the license contract by continuing to view or browse the website.

5. *See* Mark A. Lemley, *Terms of Use*, 91 MINN. L. REV. 459, 460 (2006). Some software developers deploy both EULAs and terms of use. *See* MDY Indus. v. Blizzard Entm't, 629 F.3d 928, 935 (9th Cir. 2010) (EULA for game software and terms of use for gaming service).

6. Robert W. Gomulkiewicz, *The License is the Product: Comments on the Promise of Article 2B for Software and Information Licensing*, 13 BERKELEY TECH. L.J. 891, 896 (1998). *See generally* Arthur A. Leff, *Contract as Thing*, 19 AM. U. L. REV. 131 (1970).

7. *See* Robert W. Gomulkiewicz, *Getting Serious About User-Friendly Mass Market Licensing for Software*, 12 GEO. MASON L. REV. 687, 687–88 (2004) (noting that in the past 20 years, over 100 law-review articles have been written about EULAs, most of them critical of EULAs). *See generally* Jonathan M. Barnett, *Why is Everyone Afraid of IP Licenses?*, 30 HARV. J.L. & TECH. 123 (2017).

8. The criticisms of EULAs are addressed in Part II, *infra*.

9. Although many commentators raise concerns that EULAs are contracts of adhesion that harm consumers, most EULA litigation is business versus business rather than business versus consumer, so there is less concern about consumer protection. *See* Lemley, *supra* note 5, at 462–63; Guy A. Rub, *Copyright Survives: Rethinking the Copyright-Contract Conflict*, 103 VA. L. REV. 1141, 1200–02 (2017); *see, e.g.*, Register.com, Inc. v. Verio, Inc., 356 F.3d 393 (2d Cir. 2004) (discussed by Professor Lemley, *supra* note 5, at 464, as illustrative of his point about EULA cases involving

property laws. Still others contend that EULAs are "first sales" under copyright law and therefore any restrictions on usage or re-distribution may be ignored.[10] For more than two decades,[11] however, state and federal courts have rejected these challenges, supporting the continuing widespread use of EULAs in the software industry.[12]

The software industry is not alone in utilizing end-user licensing. Firms in the so-called copyright industries that provide music, motion pictures, books, journals, and newspapers also use EULA-based business models.[13] Firms that sell patented hard goods do so as well, licensing products such as seeds[14] and printer cartridges.[15] The end-user licenses for patented products are referred to as *conditional sales contracts* rather than EULAs, reflecting a focus on the sale of the hard good rather than the rights in the underlying patent.[16]

Judicial acceptance of conditional sales contracts for patented products has largely paralleled judicial acceptance of EULAs for software. So long as these contracts respect the normal rules of contract formation and avoid antitrust and patent-misuse issues, courts enforce them. The Federal Circuit's decision in *Mallinckrodt, Inc. v. Medipart, Inc.* provides a good illustration.[17] Mallinckrodt sold nebulizer equipment to hospitals labeled "Single Use Only."[18] When hospitals contracted with a service company, Medipart, to refurbish the nebulizers, the

---

businesses). Moreover, software users are "unforgiving of companies that try to license software on unreasonable terms, and the Internet has given them a powerful tool to express their views," often causing software vendors to change course. Gomulkiewicz, *supra* note 6, at 898; *see also* AARON PERZANOWSKI & JASON SCHULTZ, THE END OF OWNERSHIP 2–4 (2016) (recounting stories of objectionable EULA practices but also noting that vendors often back off following negative publicity).

10. The copyright first sale doctrine is set out in 17 U.S.C. § 109(a) (2012).

11. The first federal appellate court decision to enforce EULAs was *ProCD, Inc. v. Zeidenberg*, 86 F.3d 1447, 1453 (7th Cir. 1996) ("In the end, the terms of the license are conceptually identical to the contents of the package."). For a district court case predating the *ProCD* decision, see *Ariz. Retail Sys., Inc. v. Software Link, Inc.*, 831 F. Supp. 759, 763–64 (D. Ariz. 1993). Another important EULA case is *Specht v. Netscape Corp.*, 306 F.3d 17 (2d Cir. 2002). The opinion in *Specht* was written by Justice Sotomayor when she was a circuit court judge.

12. *See infra* Part III; *see also* Gomulkiewicz, *supra* note 7, at 688 n.7 (summarizing the cases that have ruled on the enforceability of EULAs).

13. *See* John F. Duffy & Richard Hynes, *Statutory Domain and the Commercial Law of Intellectual Property*, 102 VA. L. REV. 1, 64–65 (2016) (describing Aspen's Connected Casebook business model). *See generally* Jonathan M. Barnett*, Hollywood Deals: Soft Contracts for Hard Markets*, 64 DUKE L.J. 605 (2015).

14. *See* Bowman v. Monsanto Co., 569 U.S. 278, 281 (2013).

15. *See* Impression Prods., Inc. v. Lexmark Int'l, Inc., 137 S. Ct. 1523, 1529–30 (2017). *See generally* Sean O'Connor, *The Use of MTAs to Control Commercialization of Stem Cell Diagnostics and Therapeutics*, 21 BERKELEY TECH. L.J. 1017 (2006).

16. *See, e.g.*, Mallinkdrodt, Inc. v. Medipart, Inc., 976 F.2d 700, 706 (Fed. Cir. 1992).

17. *Id.* at 709; *see also* Keurig, Inc. v. Sturm Foods, Inc., 732 F.3d 1370, 1372–75 (Fed. Cir. 2013) (single-serve coffee brewing systems).

18. Mallinkdrodt, Inc., 976 F.2d at 702.

Federal Circuit ruled that Medipart was liable for patent infringement for ignoring the condition on use.[19]

The U.S. Supreme Court has decided three conditional sales cases for patented products in recent years,[20] but *Impression Products, Inc. v. Lexmark International, Inc.* presents a watershed moment for software licensing. In *Impression Products*, the Court ruled that the patent exhaustion doctrine prevents Lexmark from using patent law to enforce a condition in its sales contracts for ink-jet printer cartridges. In doing so, the Court noted the strong link[21] between the patent exhaustion doctrine and the copyright first sale doctrine.[22]

Software is protected primarily by copyright.[23] Consequently, *Impression Products* suggests that software license agreements may suffer the same fate as Lexmark's conditional sales contracts, imperiling the business models that software developers rely on to create and distribute their products. Perhaps the Supreme Court's decision in *Impression Products* is just another small step in its larger effort to reset the Federal Circuit's patent jurisprudence, but by linking patent and copyright law, the case casts a shadow on copyright licensing precedents across all 13 federal circuits. The case raises a critical question for software developers: is the license *still* the product?

This Article answers that question by proceeding as follows: Part I explains the importance of licensing to all forms of innovation in the software industry and, in particular, the role that EULAs play in business-model innovation. Part II reviews the various challenges raised to the enforceability of EULAs and the judicial response to those challenges, including arguments based on contract law and the first sale doctrine. Part III begins the analysis of *Impression Products* by first examining the key conditional sales cases that led up to it. With that background in mind, Part IV closely examines the Court's *Impression Products* opinion.

Part V begins to apply the lessons learned from *Impression Products* to software licensing. It shows how the case does not disrupt upstream software development licensing models and leaves adequate room for distribution licensing. It highlights how the Court's opinion normalizes EULAs as contracts and thus eases concerns about contract-law-based challenges to EULAs. Part V also explores the adequacy of contract remedies in EULA cases. It then explains that despite the Court's emphatic rejection of patent remedies for conditional sales contracts and the link between the patent and copyright exhaustion doctrines, the Court has left the door ajar for using copyright remedies to enforce EULAs. This is

19. *Id.* at 709. *Impression Products* overturned *Mallinckrodt v. Medipart*, as discussed in Part IV, *infra*.

20. *Impression Prods.*, 137 S. Ct. 1523; Bowman v. Monsanto Co., 569 U.S. 278 (2013); Quanta Comput., Inc. v. LG Elecs., Inc., 553 U.S. 617 (2008).

21. *Impression Prods.*, 137 S. Ct. at 1536.

22. The copyright first sale doctrine is copyright's exhaustion doctrine. *See* 17 U.S.C. § 109 (2012).

23. *See* ROBERT W. GOMULKIEWICZ, SOFTWARE LAW AND ITS APPLICATION 13–14 (2014); *see also infra* Part II.

because the Copyright Act's first sale doctrine provides a more limited defense to infringement than patent exhaustion does under common law.

Part VI explores potential amendments to the Copyright Act that would clarify the first sale doctrine's relationship to licenses. Part VII addresses several practical implications of *Impression Products* for lawyers who advise software developers and draft EULAs. Finally, Part VIII looks to the future—even if *Impression Products* presents challenges for today's software products, what about tomorrow's software products? It explains that, as the focus of software products shifts from floppy disks to embedded software and software as a service, the significance of *Impression Products* will vary widely. Ultimately, both software developers and users will be better served if the license is *still* the product.

I. SOFTWARE TRANSACTION MODELS: EXPLORING THE OPTIONS

Software does many things. Software entertains us, providing experiences as diverse as Candy Crush and Call of Duty. It improves our personal productivity, allowing us to create, calculate, and communicate faster and more efficiently than ever. Software also improves productivity in all sectors of the economy. Indeed, it is hard to imagine any part of our modern world where software does not (or will not) play an influential role.[24] Before we know it, software will make driving an automobile truly "auto" and guide human beings to Mars.[25]

Reflecting the multi-dimensional nature of software, legal protection for software comes in several forms. Copyright law provides the primary source of legal protection for software. Copyright law protects software in its human-readable source code form,[26] in its machine-readable object code form,[27] and the visual displays that end users see and interact with.[28] Trade secret law can also protect software source code.[29] Patent law can protect software inventions,

---

24. *See, e.g.*, Angel Gonzalez, *Amazon's Army of Robots*, SEATTLE TIMES, Aug. 13, 2017, at D4 ("People don't realize that Amazon Robotics has a huge software stack."). *See generally* MARTIN CAMPBELL-KELLY, A HISTORY OF THE SOFTWARE INDUSTRY: FROM AIRLINE RESERVATIONS TO SONIC THE HEDGEHOG (2003).

25. *See* Rachael King, *Hewlett Packard Enterprise to Send Supercomputer to Space*, WALL ST. J. (Aug. 11, 2017, 1:51 PM), https://www.wsj.com/articles/hewlett-packard-enterprise-to-send-supercomputer-to-space-1502473896; Ianthe Jeanne Dugan & Mike Spector, *Tesla's Push to Build a Self-Driving Car Sparked Dissent Among Its Engineers*, WALL ST. J. (Aug. 24, 2017, 12:55 PM), https://www.wsj.com/articles/teslas-push-to-build-a-self-driving-car-sparks-dissent-among-its-engineers-1503593742; James Silver, *Twelve Things You Need to Know about Driverless Cars*, GUARDIAN (Jan. 15, 2017, 2:30 AM), https://www.theguardian.com/technology/2017/jan/15/driverless-cars-12-things-you-need-to-know.

26. *See* Apple Comput., Inc. v. Franklin Comput., Inc., 714 F.2d 1240, 1249 (3d Cir. 1983).

27. *Id.*

28. *See* Apple Comput., Inc. v. Microsoft Corp., 35 F.3d 1435, 1440–47 (9th Cir. 1994) (Macintosh user interface).

29. *See* McRoberts Software Inc. v. Media 100, Inc., 329 F.3d 557, 569–70 (7th Cir. 2003); Dun & Bradstreet Software Servs. v. Grace Consulting, Inc., 307 F.3d 197, 216–19 (3d Cir. 2002).

although the contours of patent protection for software remain a work in progress.[30]

While we marvel at the transformative power of software, we often do not appreciate the importance of the business models that make software successful in the marketplace.[31] The history of the software industry contains many cautionary tales of great software technology that faded away because its developers failed to adopt successful ways to bring it to market (that's why you search with Google rather than AltaVista or Lycos).[32] As software developers contemplate the best business model for their technology, they have many options. This Part explores these options showing, ultimately, why licensing has become the predominant transaction model in the software industry.

A. Choosing a Transaction Model: Assignment of Rights and Public-Domain Dedications

One potential transaction model is an *assignment of rights*.[33] In this model, software developers convey the ownership of their intellectual property rights to a third party.[34] This is a sale of the intellectual property rights themselves. The assignment-of-rights business model often works well for software developers who like to focus on software creation rather than software sales. An assignment of rights allows a software developer to create great software technology, transfer it to someone who has superior skill and resources in monetizing software, and move on to the next exciting software-development project with money in hand.

A software developer may also choose to dedicate software to the public domain.[35] Like an assignment of rights, a public-domain dedication transfers all intellectual property rights. But, rather than transferring the rights to a third party, a public-domain dedication transfers rights to the public at large. Some people put their software into the public domain for altruistic reasons. However, others put their software into the public domain as part of a business strategy, using it as a loss leader or publicity device to sell other products or services.[36]

---

30. *See generally* Alice Corp. v. CLS Bank Int'l, 134 S. Ct. 2347 (2014); Bilski v. Kappos, 561 U.S. 593 (2010).

31. *See generally* MICHAEL CUSUMANO, THE BUSINESS OF SOFTWARE 86 (2004); Peter S. Menell, *Envisioning Copyright Law's Digital Future*, 46 N.Y.L. SCH. L. REV. 63 (2002).

32. *See generally* STEVEN LEVY, IN THE PLEX: HOW GOOGLE THINKS, WORKS, AND SHAPES OUR LIVES (2011); KEN AULETTA, GOOGLED: THE END OF THE WORLD AS WE KNOW IT (2010).

33. *See* ROBERT W. GOMULKIEWICZ, XUAN-THAO NGUYEN & DANIELLE CONWAY, LICENSING INTELLECTUAL PROPERTY: LAW & APPLICATION 19–20 (3d ed. 2014) (providing an overview of assignments of rights).

34. RAYMOND T. NIMMER & JEFF C. DODD, MODERN LICENSING § 5:3 (Westlaw, Dec. 2017); Barefoot Architect, Inc. v. Bunge, 632 F.3d 822, 831 (3d Cir. 2011).

35. *See* GOMULKIEWICZ, NGUYEN & CONWAY, *supra* note 33, at 20.

36. *Id.*

B. Choosing a Transaction Model: Copyright First Sale

Alternatively, software developers may decide to sell copies of the software. This is known as a *first sale* under the Copyright Act.[37] The virtue of the first sale business model lies in its simplicity.[38] There is no need for an elaborate written contract—the customer simply pays the sale price to acquire a *copy* of the software. Books, newspapers, and magazines are normally sold using a first sale business model.

The "sale" nomenclature sometimes creates confusion. A first sale does not sell the underlying intellectual property rights.[39] A first sale is a sale of a copy, not a copyright.[40] Indeed, the buyer purchases a discrete, limited permission—namely, the permission to use and re-distribute a single copy of the software. A first sale does not allow the user to make or distribute additional copies or create derivative works, which are a key part of many software transaction models.[41] For example, free and open-source software such as GNU/Linux requires permission to copy and create derivative works of the underlying software.[42]

C. Choosing a Transaction Model: Licensing

Even though assignments of rights, public-domain dedications, and first sales can be attractive options, licensing has emerged as the dominant transaction model for software because it enables both technological innovation and business-model innovation.[43] To understand this, this Section explains briefly how licenses

---

37. The copyright first sale doctrine is set out in 17 U.S.C. § 109(a).

38. *See* GOMULKIEWICZ, NGUYEN & CONWAY, *supra* note 33, at 18–19.

39. *Id.* at 18.

40. *See* 17 U.S.C. § 202 (2012) (ownership of copyright as distinct from ownership of material object).

41. Section 117 of the Copyright Act allows the owner of a software copy to make any copies (e.g., copies made in random-access memory) or modifications that are an essential step in utilizing the software in the normal course and to make an archival copy. 17 U.S.C. § 117 (2012).

42. *See generally* Greg R. Vetter, *The Collaborative Integrity of Open-Source Software*, 2004 UTAH L. REV. 563; David McGowan, *Legal Implications of Open-Source Software*, 2001 U. ILL. L. REV. 241; Robert W. Gomulkiewicz, *How Copyleft Uses License Rights to Succeed in the Open Source Software Revolution and the Implications for Article 2B*, 36 HOUS. L. REV. 179 (1999).

43. Intellectual-property licensing is as old as intellectual property itself. The 1474 Venetian Patent Act mentions licensing in its text. *See* Giulio Mandich, *Venetian Patents (1450–1550)*, 30 J. PAT. & TRADEMARK OFF. SOC'Y 166, 177 (1948).

> [E]very person who shall build any new and ingenious device in this City, not previously made in our Commonwealth, shall give notice of it to the office of our General Welfare Board . . . . It being forbidden to every other person in any of our territories and towns to make any further device conforming with and similar to said one, *without the consent and license of the author*, for the term of 10 years.

Id. (emphasis added).

are used to build software products, create customer solutions, distribute software, and enable software end use.[44]

1. Licenses to Build Products

Licensing is a legal tool used by software developers to build innovative products. The basic personal computer ("PC") provides a good illustration. A PC runs operating-system software, such as GNU/Linux or Microsoft Windows. Although many see the "open source" GNU/Linux software and the "binary use" Microsoft Windows software[45] as opposites in many respects,[46] they share one important feature: they are developed using an array of licenses.[47]

If the PC is running Windows software, then the user is running software created by dozens of programmers who are not employed by Microsoft. Windows software includes many lines of code written by third parties, small and large.[48] It also includes inventions that are covered by third-party patents and depends upon third-party information, including trade secrets. Licensing is the primary legal tool that Microsoft uses to include third-party technology in its Windows software.[49] The operating system may be called Microsoft Windows, but it is a more innovative product than Microsoft could create alone because of the third-party technology included via licensing.[50]

If the PC is running the GNU/Linux operating system, then licensing has also played a key role in the operating system's creation. Linus Torvalds is known as the author of the Linux kernel, yet Torvalds did not write most of the code that comprises Linux today. Linux is the product of hundreds of programmers[51] who combine their work.[52] From a legal perspective, Linux was created by hundreds of licenses exchanged between the contributors to the Linux project. Further, Linux is only part of the operating system (the kernel). The Linux kernel is combined with

---

44. Section I.C. draws largely from material contained in Robert W. Gomulkiewicz, *The Federal Circuit's Licensing Law Jurisprudence: Its Nature and Influence*, 84 WASH. L. REV. 199, 204–08 (2009).

45. *See* Robert W. Gomulkiewicz, *General Public License 3.0: Hacking the Free Software Movement's Constitution*, 42 HOUS. L. REV. 1015, 1019–21 (2005) (explaining the difference between binary-use and open-source software).

46. *See* ROBERT YOUNG & WENDY GOLDMAN ROHM, UNDER THE RADAR: HOW RED HAT CHANGED THE SOFTWARE BUSINESS—AND TOOK MICROSOFT BY SURPRISE 81 (1999).

47. *See* HEATHER J. MEEKER, THE OPEN SOURCE ALTERNATIVE 27–49 (2008); LAWRENCE ROSEN, OPEN SOURCE LICENSING 51–69 (2004).

48. *See* Jonathan M. Barnett, *The Host's Dilemma: Strategic Forfeiture in Platform Markets for Informational Goods*, 124 HARV. L. REV. 1861 (2011).

49. *See* GOMULKIEWICZ, NGUYEN & CONWAY, *supra* note 33, at 397.

50. *See* Xuan-Thao Nguyen & Jeffery A. Maine, *Acquiring Innovation*, 57 AM. U. L. REV. 775, 776–92 (2008) (describing how technology companies, such as Microsoft and Sun Microsystems, improve their products by acquiring third-party technology).

51. *See* ERIC. S. RAYMOND, THE CATHEDRAL & THE BAZAAR: MUSINGS ON LINUX AND OPEN SOURCE BY AN ACCIDENTAL REVOLUTIONARY 21–63 (1999).

52. *See* STEVEN WEBER, THE SUCCESS OF OPEN SOURCE 172–79 (2004).

GNU software from the Free Software Foundation[53] (hence "GNU/Linux") and other third-party code via licensing to create a complete operating system.[54]

2. Licenses to Create Customer Solutions

After a technology product is built, the producer often wants to maximize the way that it interacts with other technologies so that the product is useful to end users.[55] For example, a PC may have a central processing unit produced by Dell; a pointing device developed by LogiTech; a microprocessor designed by AMD and fabricated by NEC; a keyboard manufactured by IBM; speakers by Bose; and software written by Microsoft, Mozilla, Apache, and Adobe. It may also connect to the Internet with technology created using standards by IETF and W3C, and telephony provided by AT&T.[56] For the PC to work as a useful customer system, these entities had to share technology, information, or intellectual property. Licensing is the method that allows this sharing to occur.

3. Licenses to Distribute Products

One feature of the information economy is the innovative ways that information product distributors get products to market.[57] Continuing with the PC example, PC software developers distribute their products through Value Added Resellers ("VARs"), Original Equipment Manufacturers ("OEMs"), distributors (e.g., Ingram), and retailers (e.g., Wal-Mart, Best Buy).[58] Software is also distributed electronically via email attachments, chat rooms, websites, social-media platforms, and bulletin boards. Licensing is the legal tool that enables these diverse distribution practices.

---

53. *See* RICHARD M. STALLMAN, FREE SOFTWARE, FREE SOCIETY: SELECTED ESSAYS OF RICHARD M. STALLMAN 28 (2002).

54. *See* Richard M. Stallman, *The GNU Operating System and the Free Software Movement*, *in* OPEN SOURCES: VOICES FROM THE OPEN SOURCE REVOLUTION 53, 65–66 (DiBona et al. eds., 1999).

55. A good example is the efforts of Microsoft and Amazon to partner on compatibility between their virtual assistants, Cortana and Alexa. *See* Matt Day, *Amazon Deal with Microsoft Likely Good for both Tech Giants*, SEATTLE TIMES, Aug. 31, 2017, at A1; Laura Stevens & Tripp Mickle, *Alexa, Siri and Rivals Battle for the Home*, WALL ST. J., Sept. 2, 2017, at A1.

56. *See Why Everything is Hackable*, ECONOMIST, Apr. 8, 2017, at 69–70.

57. *See* Disney Enters., Inc. v. VidAngel, Inc., 869 F.3d 878 (9th Cir. 2017) (describing multiple distribution channels for video content, including distribution on disks, through cable channels, and via streaming services).

58. *See, e.g.*, Apple Inc. v. Psystar Corp., 658 F.3d 1150 (9th Cir. 2011); Adobe Sys., Inc. v. Stargate Software, Inc., 84 F. Supp. 2d 1086 (N.D. Cal. 2000); Microsoft Corp. v. Grey Comput., Inc., 910 F. Supp. 1077 (D. Md. 1995); Microsoft Corp. v. Harmony Computs. & Elecs., Inc., 846 F. Supp. 208 (E.D.N.Y. 1994).

4. Licenses to Use Products

Software publishers began using EULAs as the personal-computer revolution unfolded.[59] Software licensing existed before that time, but software was not a mass-market product and the use of standard form contracts was unnecessary. End-user licensing provides a means for PC software developers to offer users various information products at various price points for various uses.[60] Software publishers come in all shapes and sizes and with a multitude of objectives. Universities, non-profit organizations, individuals, groups, and firms all develop and license software to end users using EULAs.[61] Free and open-source software again provides a powerful example. Because of open-source licensing, software users have the freedom to add new features and fix bugs and the legal ability to hire others to do the same.[62] End-user licensing also provides a means for software developers to offer packages of software and services; flexible client-server computing-usage models; the same code to business users at one price, home users for a lower price, academic users for yet a lower price, and charitable organizations for free; and the right to make multiple copies for multiple devices.[63]

II. CHALLENGES TO EULAS

A. State Contract-Law Challenges

Although software developers appreciate the value of EULAs, others do not. Some criticize EULA contract[64] formation and fairness, arguing that the contract-formation process is flawed;[65] that the "take it or leave it" process is unfair;[66] that the "pay first, terms come later" sequence is problematic;[67] and that it

---

59. To give one prominent example, the Netscape Navigator browser achieved its early success with a EULA granting noncommercial users the right to freely copy and distribute the software. *See* Gomulkiewicz, *supra* note 6, at 899.

60. *Id.* at 903; Robert W. Gomulkiewicz & Mary L. Williamson, *A Brief Defense of Mass Market Software License Agreements*, 22 RUTGERS COMPUTER & TECH. L.J. 335 *passim* (1996).

61. *See* Gomulkiewicz, *supra* note 6, at 894–95.

62. *See* Robert W. Gomulkiewicz, *De-Bugging Open Source Software Licensing*, 64 U. PITT. L. REV. 75, 75–76 (2002).

63. *See* Gomulkiewicz, *supra* note 44, at 208.

64. *See* McCoy v. Mitsuboshi Cutlery, Inc., 67 F.3d 917, 920 (Fed. Cir. 1995) ("[A] license is a contract governed by ordinary principles of state contract law."); *see also* Christopher M. Newman, *A License is Not a "Contract Not to Sue": Disentangling Property and Contract in the Law of Licenses*, 98 IOWA L. REV. 1101 (2013); Mark R. Patterson, *Must Licenses Be Contracts? Consent and Notice in Intellectual Property*, 40 FLA. ST. U. L. REV. 105 (2012).

65. *See* David A. Einhorn, *Box-Top Licenses and the Battle of the Forms*, 5 SOFTWARE L.J. 401, 404–11 (1992); Richard H. Stern, *Shrink-Wrap Licenses of Mass-Market Software: Enforceable Contracts or Whistling in the Dark?*, 11 RUTGERS COMPUTER & TECH. L.J. 51 *passim* (1985).

66. *See generally* Batya Goodman, *Honey, I Shrunk-Wrapped the Consumer—The Shrink-Wrap Agreement as an Adhesion Contract*, 21 CARDOZO L. REV. 319, 354–60 (1999).

is too easy to hide terms.[68] Courts have turned aside these challenges unless the software developer failed to give the user a reasonable opportunity to review the license agreement or the user did not meaningfully manifest assent.[69] In other words, judicial construction of EULAs has gone about the same way as other standard-form contract cases: terms are construed against the drafter, unconscionable terms are not enforced, specifically negotiated terms win out over terms in the form, and users are not excused because they chose not to read the contract.[70]

B. Federal Preemption Challenges

Another set of challenges to EULAs focuses on federal preemption. EULAs sit at the often turbulent intersection of state contract law and federal intellectual property law.[71] Some argue that EULAs cannot be enforced because federal intellectual property law supersedes enforcement of state contract law.[72]

---

67. *See generally* Michael J. Madison, *Legal Ware: Contract and Copyright in the Digital Age*, 67 FORDHAM L. REV. 1025 (1998). *But see* Robert A. Hillman, *Rolling Contracts*, 71 FORDHAM L. REV. 743 *passim* (2002) (arguing that reasonable terms of shrink-wrap contracts should be enforceable).

68. *See generally* Jean Braucher, *Amended Article 2 and the Decision to Trust the Courts: The Case Against Enforcing Delayed Mass-Market License Terms, Especially for Software*, 2004 WIS. L. REV. 753.

69. *See, e.g.*, Apple Inc. v. Psystar Corp., 658 F.3d 1150, 1152 (9th Cir. 2011); Vernor v. Autodesk, 621 F.3d 1102, 1103–04 (9th Cir. 2010); MDY Indus. v. Blizzard Entm't, 629 F.3d 928, 957 (9th Cir. 2010); Bowers v. Baystate Techs., Inc., 320 F.3d 1317, 1323–28 (Fed. Cir. 2003); Specht v. Netscape Commc'ns Corp., 306 F.3d 17, 20–21 (2d Cir. 2002); Micro Star v. Formgen Inc., 154 F.3d 1107, 1113–14 (9th Cir. 1998); ProCD, Inc. v. Zeidenberg, 86 F.3d 1447, 1455 (7th Cir. 1996); Adobe Sys., Inc. v. Stargate Software, Inc., 216 F. Supp. 2d 1051, 1059–60 (N.D. Cal. 2002); i.LAN Sys., Inc. v. Netscout Serv. Level Corp., 183 F. Supp. 2d 328, 335–38 (D. Mass. 2002); Storm Impact, Inc. v. Software of the Month Club, 13 F. Supp. 2d 782, 791 (N.D. Ill. 1998); Ariz. Retail Sys., Inc. v. Software Link, Inc., 831 F. Supp. 759, 764–67 (D. Ariz. 1993); I-A Equip. Co. v. I-Code, Inc., 43 U.C.C. Rep. Serv. 2d 807 (Mass. Dist. Ct. 2000); M.A. Mortenson Co. v. Timberline Software Corp., 998 P.2d 305, 307 (Wash. 2005). For cases where the court found inadequate opportunity to review or manifestation of assent, see, for example, Adobe Sys. Inc. v. Christenson, 809 F.3d 1071 (9th Cir. 2015); Nguyen v. Barnes & Noble Inc., 763 F.3d 1171 (9th Cir. 2014).

70. *See* JOSEPH M. PERILLO, CONTRACTS 23–66, 347–75 (7th ed. 2014); E.A. FARNSWORTH, CONTRACTS §§ 3.3, 3.10–.30, 4.9, 4.26 (4th ed. 2004). *See generally* Robert A. Hillman & Jeffery L. Rachlinsky, *Standard-Form Contracting in the Electronic Age*, 77 N.Y.U. L. REV. 429 (2002).

71. *See generally* Mark A. Lemley, *Beyond Preemption: The Law and Policy of Intellectual Property Licensing*, 87 CALIF. L. REV. 111 (1999); Raymond T. Nimmer, *Breaking Barriers: The Relation Between Contract and Intellectual Property Law*, 13 BERKELEY TECH. L.J. 827 (1998) (arguing that intellectual property and contract law work in "comfortable tandem").

72. *See generally* Dennis J. Karjala, *Federal Preemption of Shrinkwrap and On-Line Licenses*, 22 U. DAYTON L. REV. 511 (1997); Maureen A. O'Rourke, *Drawing the Boundary Between Copyright and Contract: Copyright Preemption and Software License Terms*, 45 DUKE L.J. 479 (1995).

For copyrighted works such as software, preemption issues can arise under either § 301 of the Copyright Act or the Supremacy Clause of the U.S. Constitution.[73] However, courts have concluded that contract law does not involve the same rights as copyright law and, for the most part, courts have rejected challenges to EULAs on this basis.[74]

C. Copyright First Sale Challenges

The Supreme Court articulated the first sale doctrine in 1908 in *Bobbs-Merrill v. Straus*.[75] According to the Court, a copyright holder's exclusive right to distribute copies ends for any given copy after the owner's sale of that copy.[76] Congress codified the first sale doctrine in § 109(a) of the Copyright Act. The modern first sale doctrine allows the "owner of a particular copy" to sell or dispose of the copy without the copyright holder's permission.[77]

The first sale doctrine only applies to *owners* of copies; it does not apply to a person who possesses a copy without owning it, such as a licensee.[78] A licensee only has permission to use or distribute a copy as provided in the license agreement. Thus, it is critical to ascertain whether the software developer has sold or licensed its software. The issue arises in various contexts in the software industry, three of which are useful to highlight.

Some cases arise in what I call the *unbundling* context. Some software developers distribute packages or suites of software at a discount compared to the price of the individual components. Sometimes a party in the chain of distribution unbundles the software packages to sell the components separately, hoping to

---

73. *See* Robert W. Gomulkiewicz, *Fostering the Business of Innovation: The Untold Story of* Bowers v. Baystate Technologies, 7 WASH. J.L. TECH. & ARTS 445, 454, 465–66 (2012) (describing the application of § 301 and the Supremacy Clause in *Bowers v. Baystate Technologies*).

74. *See, e.g.*, Utopia Provider Sys. Inc. v. Pro-Med Clinical Sys., LLC, 596 F.3d 1313, 1326–27 (11th Cir. 2010); Blizzard Entm't v. Jung, 422 F.3d 630, 638–39 (8th Cir. 2008); Altera Corp. v. Clear Logic, Inc., 424 F.3d 1079, 1089 (9th Cir. 2005); Bowers v. Baystate Techs., Inc., 320 F.3d 1317, 1323 (Fed. Cir. 2002); ProCD v. Zeidenberg, 86 F.3d 1447, 1454–55 (7th Cir. 1996); Nat'l Car Rental, Inc. v. Comput. Assocs., Inc., 991 F.2d 426, 430–35 (8th Cir. 1993); *see also* Vault Corp. v. Quaid Software Ltd., 847 F.2d 255, 268–70 (5th Cir. 1988) (ruling that a state law which dictated EULA contract terms conflicted with § 117 of the Copyright Act). *See generally* Rub, *supra* note 9 (observing that most courts have followed the *ProCD* case's approach to preemption).

75. 210 U.S. 339 (1908).

76. *Id.* at 350–51.

77. *See generally* Guy A. Rub, *Rebalancing Copyright Exhaustion*, 64 EMORY L.J. 741 (2015); Brian W. Carver, *Why License Agreements Do Not Control Copy Ownership: First Sales and Essential Copies*, 25 BERKELEY TECH. L.J. 1887 (2010); John A. Rothschild, *The Incredible Shrinking First Sale Rule: Are Software Resale Limits Lawful?*, 57 RUTGERS L. REV. 1 (2004).

78. *Cf.* Quality King Distribs., Inc. v. L'anaza Research Int'l, Inc., 523 U.S. 135, 146–47 (1998) ("[T]he first sale doctrine would not provide a defense to a §602(a) action against any non-owner such as a bailee, a licensee, a consignee, or one whose possession of the copy was unlawful.").

profit from the higher prices that can be charged for the individual components. Software developers use license contracts to prevent this unbundling.[79]

A second context deals with limitations placed on software use. A common example is discounted software licensed only for academic use or software provided at no charge for evaluation purposes.[80] Another common example is software licensed at one price for business use and at a lower price for personal use.[81]

A third context concerns EULA restrictions imposed on end-user re-distribution of the software. These restrictions are often placed on high-priced software (EULAs for consumer-oriented mass-market software products often allow re-distribution so long as the original user does not keep a copy). For example, in *Vernor v. Autodesk, Inc.*, the Ninth Circuit upheld a limit on distribution contained in the EULA for Autodesk's AutoCAD computer-aided design software that retails for around $1,600.[82]

As the prior illustrations highlight, determining whether a given transaction is a license or a first sale is critical in the software business. If a software user can claim the benefits of the first sale doctrine, then the user can ignore EULA restrictions on use or re-distribution. In practice, this determination is difficult to make—not every transaction that a software developer labels as a *license* should qualify as such, and some transactions that do not mention the word *license* still should be treated as licenses under the law.

Considering this difficulty, the Ninth Circuit developed a test for distinguishing between licenses and first sale transactions.[83] The court in *Vernor v. Autodesk* held that "a software user is a licensee rather than the owner of a copy where the copyright owner: (1) specifies that the user is granted a license; (2) significantly restricts the user's ability to transfer the software; and (3) imposes notable use restrictions."[84] The court used this test to determine that the EULA for Autodesk was a license, and in two additional cases decided by the same panel,[85] ruled that one transaction was a license[86] and another was a first sale.[87]

---

79. *See, e.g.*, Apple Inc. v. Psystar Corp., 658 F.3d 1150 (9th Cir. 2011); Adobe Sys., Inc. v. Stargate Software, Inc., 84 F. Supp. 2d 1086 (N.D. Cal. 2000); Microsoft Corp. v. Grey Comput., Inc., 910 F. Supp. 1077 (D. Md. 1995); Microsoft Corp. v. Harmony Computs. & Elecs., Inc., 846 F. Supp. 208, 213–14 (E.D.N.Y. 1994).

80. *See, e.g.*, Ariz. Retail Sys., Inc. v. Software Link, Inc., 831 F. Supp. 759 (D. Ariz. 1993); *cf.* UMG Recordings v. Augusto, 628 F.3d 1175 (9th Cir. 2011) (music CD sent for evaluation purposes in a first sale rather than a license transaction).

81. *See, e.g.*, ProCD. Inc. v. Zeindenberg, 86 F.3d 1447 (7th Cir. 1996).

82. Vernor v. Autodesk, Inc., 621 F.3d 1102, 1111–12 (9th Cir. 2010).

83. *Id.* at 1111.

84. *Id.*

85. The three judges deciding the *Vernor*, *MDY Industries*, and *UMG Recordings* cases were William C. Canby, Jr., Consuelo M. Callahan, and Sandra S. Ikuta.

86. MDY Indus. v. Blizzard Entm't, 629 F.3d 928, 938 (9th Cir. 2010) (EULA for World of Warcraft software and service).

D. The Many Facets of Copyright First Sales

Before turning to *Impression Products*, it is useful to highlight the many facets of copyright's first sale doctrine to understand the Court's decision about patent exhaustion and its ramifications. Part II explained that a first sale, as a type of transaction, is akin to a limited license because the user receives limited use and re-distribution rights. As such, a first sale is useful as a transaction model in some contexts but not in many others. A first sale can also be characterized as a user "privilege"[88] along the lines of copyright "fair use,"[89] which balances user rights against the exclusive rights granted to authors in the Copyright Act. In practice, however, the first sale doctrine has another facet: it is a defense to a claim of copyright infringement. As such, it directly affects the remedies that a copyright holder can recover for breach of a EULA—if the transaction is a first sale, then there is no infringement for using and re-distributing a copy and no copyright remedies are available.

III. PRELUDE TO *IMPRESSION PRODUCTS V. LEXMARK*

A. Early Supreme Court Cases

Long before the term *software* became a household word,[90] the Supreme Court had been considering applying patent exhaustion to conditional sales contracts for patented products.[91] Like a copyright first sale, patent exhaustion ends the intellectual property holder's right to control use and resale of a product.[92] Also, like the copyright first sale doctrine, the patent exhaustion doctrine originated in the common law but, unlike the first sale doctrine, patent exhaustion has never been codified in the U.S. patent statutes.[93]

The Supreme Court's modern patent exhaustion jurisprudence dates back to the World War II era. In 1938, the Court decided *General Talking Pictures Corp. v. Western Electric Co.* In *General Talking Pictures*, a patentee licensed a company to manufacture and sell amplifiers for noncommercial use only.[94] A commercial end user purchased the amplifiers from the distributor knowing that its

---

87. UMG Recordings v. Augusto, 628 F.3d 1175, 1180 (9th Cir. 2010) ("evaluation only" music CD).

88. The legislative history of § 109(a) calls it a *privilege*. H.R. REP. NO. 94-1476, at 79 (1976).

89. *See* 17 U.S.C. § 107 (2012).

90. The term *software* came into general usage around 1960. *See* FREDRICK P. BROOKS, THE MYTHICAL MAN MONTH: ESSAYS ON SOFTWARE ENGINEERING 4 (1975).

91. *See, e.g.*, Bloomer v. McQuewan, 55 U.S. (14 How.) 539 (1852); Providence Rubber Co. v. Goodyear, 76 U.S. (9 Wall.) 788 (1869); Am. Cotton-Tie Co. v. Simmons, 106 U.S. 89 (1882); Keeler v. Standard Folding Bed Co., 157 U.S. 659 (1895).

92. United States v. Univis Lens Co., 316 U.S. 241, 250 (1942).

93. *See* Vince Chiappetta, *Patent Exhaustion: What's It Good For?*, 51 SANTA CLARA L. REV. 1087, 1088 (2011). *See generally* Sean M. O'Connor, *Origins of Patent Exhaustion: Jacksonian Politics, Patent Farming, and the Basis of the Bargain* (Univ. of Wash. Sch. of Law Research Paper No. 2017-05), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2920738.

94. Gen. Talking Pictures Corp. v. W. Elec. Co., 305 U.S. 124, 125–26 (1938).

purchase was unlicensed.[95] The Supreme Court ruled that the amplifiers were sold outside the scope of the license and allowed the patentee to sue both the licensee and its customer.[96]

Four years after *General Talking Pictures*, the Supreme Court decided *United States v. Univis Lens Co*.[97] In that case, a maker of eyeglass lenses authorized an agent to sell its lenses to wholesalers and retailers on the condition that they sell the lenses at fixed prices. The U.S. government sued the Univis Lens Company for violating antitrust law. In its defense, Univis Lens argued that its conditional sales contracts were justified by its right to exclude use and sale under patent law. However, the Court rejected that argument, ruling that the initial sales to the wholesalers and retailers "relinquish[ed] . . . the patent monopoly with respect to the article[s] sold."[98]

B. Federal Circuit's Conditional Sales Cases

Univis Lens closed the book on the Supreme Court's consideration of the patent exhaustion doctrine until 2008. However, the patent exhaustion doctrine continued to evolve in the Federal Circuit Court of Appeals. Congress created the Federal Circuit in 1982 to unify appellate jurisdiction of patent law cases.[99] In doing so, Congress hoped to improve innovation by giving patentees a uniform body of judicial interpretations decided by judges with patent law expertise.[100] Since that time, the Federal Circuit has been a vigorous developer of patent law.[101]

The Federal Circuit's foundational patent exhaustion case was *Mallinckrodt, Inc. v. Medipart, Inc.*[102] In that case, a manufacturer of medical

---

95. *Id.* at 126.
96. *Id.* at 127.
97. 316 U.S. 241 (1942).
98. *Id.* at 249–51.
99. *See* Federal Courts Improvement Act of 1982, Pub. L. No. 97-164, Stat. 25 (1982).
100. Many scholars have commented on the merits of creating a specialized patent court. *See, e.g.*, Rochelle Cooper Dreyfuss, *The Federal Circuit: A Case Study in Specialized Courts*, 64 N.Y.U. L. REV. 1, 6 (1989); Rochelle Cooper Dreyfuss, *The Federal Circuit: A Continuing Experiment in Specialization*, 54 CASE W. RES. L. REV. 769 (2004); Glynn S. Lunney, *Patent Law, the Federal Circuit, and the Supreme Court: A Quiet Revolution*, 11 SUP. CT. ECON. REV. 1 (2004); S. Jay Plager, *The Price of Popularity: The Court of Appeals for the Federal Circuit 2007*, 56 AM. U. L. REV. 751 (2007); William C. Rooklidge & Matthew F. Weil, *Judicial Hyperactivity: The Federal Circuit's Discomfort with Its Appellate Role*, 15 BERKELEY TECH. L.J. 725 (2000); R. Polk Wagner & Lee Petherbridge, *Is the Federal Circuit Succeeding? An Empirical Assessment of Judicial Performance*, 152 U. PA. L. REV. 1105 (2004).
101. Wagner & Petherbridge, *supra* note 100, at 1116–17.
102. 976 F.2d 700 (Fed. Cir. 1992). For articles discussing *Mallinckrodt*, see Mark R. Patterson, *Contractual Expansion of the Scope of Patent Infringement Through Field-of-Use Licensing*, 49 WM. & MARY L. REV. 157 (2007); James B. Kobak, Jr., *Contracting Around Patent Exhaustion: Some Thoughts About the CAFC's* Mallinckrodt *Decision*, 75 J. PAT. & TRADEMARK OFF. SOC'Y 550 (1993); and Richard H. Stern, *The*

equipment, Mallinckrodt, sold nebulizers labeled as "Single Use Only" to hospitals.[103] When hospitals contracted with a service company, Medipart, to refurbish the equipment for reuse, Mallinckrodt sued Medipart for patent infringement and inducement to infringe.[104] Relying on *General Talking Pictures*, the Federal Circuit ruled that patent exhaustion occurs when the patentee makes an *unconditional* sale. By placing an express restriction on reuse, the patent holder could create a restricted license rather than an unconditional sale.[105]

The Federal Circuit elaborated upon *Mallinckrodt* in *B. Braun Medical, Inc. v. Abbott Laboratories*.[106] In *B. Braun Medical, Inc.*, the Federal Circuit ruled that an unconditional sale of a patented device exhausts the patentee's right to control the purchaser's use of the device but that this exhaustion doctrine does not apply to an expressly conditional sale or license. In such a transaction, it is more reasonable to infer that the parties negotiated a price that reflects only the value of the "use" rights conferred by the patentee.[107]

A decade after *Mallinckrodt*, the Federal Circuit revisited patent exhaustion in a different context. *Monsanto Co. v. Scruggs*[108] dealt with a licensing model for genetically modified seeds.[109] Monsanto licensed its biotechnology for "Roundup Ready" seeds to seed-distribution companies that then licensed the seeds to end-user growers.[110] This technology allows growers to use the pesticide "Roundup" for weed control without killing the genetically modified plants.[111] Monsanto's license allowed the seed distributors to incorporate Monsanto technology into the distributors' germ plasma, subject to certain conditions, including a condition that the seed distributors would not sell seed to growers unless the grower signed a Monsanto end-user license agreement.[112]

Scruggs, a grower, argued that he was not bound by the license conditions under the doctrine of patent exhaustion. However, the court found no patent

---

Unobserved Demise of the Exhaustion Doctrine in US Patent Law, 15 EUR. INTELL. PROP. REV. 460 (1993).

103. *Mallinckrodt*, 976 F.2d at 702.

104. *Id.*

105. *See id.* at 708–09.

106. 124 F.3d 1419, 1426–27 (Fed. Cir. 1997).

107. *Id.* at 1426.

108. 459 F.3d 1328 (Fed. Cir. 2006).

109. First sale legal issues aside, *Monsanto v. Scruggs* raises interesting, challenging, and controversial ethical issues about food and agricultural policy. *See* Peter Carstensen, *Post-Sale Restraints Via Patent Licensing: A "Seedcentric" Perspective*, 16 FORDHAM INTELL. PROP. MEDIA & ENT. L.J. 1053, 1064 (2006); Jason Savich, Monsanto v. Scruggs: *The Negative Impact of Patent Exhaustion on Self-Replicating Technology*, 22 BERKELEY TECH. L.J. 115, 116 (2007); *The End of Cheap Food*, ECONOMIST, Dec. 8, 2007, at 11.

110. *Scruggs*, 459 F.3d at 1333.

111. *Id.*

112. *Id.* The end-user license with growers included the following restrictions: the seed could be used only for planting a single crop; no transfer of seed for replanting; prohibition on research or experimentation; and payment of a technology fee. *Id.*

exhaustion, reasoning that "[t]here was no unrestricted sale because the use of the seeds by seed growers was conditioned on obtaining a license from Monsanto."[113] Moreover, as to the second generation of seeds, there was no "sale" by Monsanto (or the seed distributor for that matter), and therefore no "first sale" under patent law.[114]

Shortly after the *Scruggs* decision, the Federal Circuit again took up patent exhaustion in *Quanta Computer v. LG Electronics*.[115] In *Quanta Computer*, LG licensed certain computer systems patents to Intel.[116] LG's license with Intel contained a provision prohibiting use of LG's patents with non-Intel devices[117] and requiring Intel to notify its customers of this prohibition.[118] Intel sold chipsets covered by LG's patents to Quanta Computer and provided the required notification.[119]

When Quanta used Intel chipsets with non-Intel devices and failed to obtain the appropriate patent rights from LG, LG sued for patent infringement. Quanta argued that LG's patent rights were exhausted because Quanta bought the chipsets from Intel in an unconditional sale.[120] The Federal Circuit disagreed, holding that because Intel was limited by its license with LG as to how Intel could pass on patent rights to Intel's chipsets, and because it provided notice to Quanta of this limitation, the sale was conditional.[121] Because the sale was conditional, LG's patent rights were not exhausted.[122]

C. The Supreme Court Returns to Patent Exhaustion

At this juncture, the Supreme Court took *Quanta Computer* and reentered the patent exhaustion debate as part of its campaign to reset the Federal Circuit's patent jurisprudence.[123] The U.S. Solicitor General and several amicus briefs urged the Court to use *Quanta Computer* as a vehicle to overturn all *Mallinckrodt*-related jurisprudence.[124] The Court reversed the Federal Circuit in a unanimous opinion

113. *Id.* at 1336.

114. *Id.*

115. 453 F.3d 1364 (Fed. Cir. 2006). In the Federal Circuit, the case was known as *LG Electronics, Inc. v. Bizcom Electronics, Inc.*

116. *Id.* at 1368.

117. *Id.*

118. *Id.*

119. *Id.* at 1369.

120. *Id.* at 1370.

121. *Id.*

122. *Id.*

123. *See* Rochelle Cooper Dreyfuss, *Abolishing Exclusive Jurisdiction in the Federal Circuit: A Response to Judge Wood*, 13 CHI.-KENT J. INTELL. PROP. L. 327 (2014).

124. *See* Brief of United States as Amicus Curiae for Petitioner, *Quanta Comput., Inc. v. LG Elecs., Inc.*, 553 U.S. 617 (2008) (No. 06-937), 2007 WL 3353102, at *14–20; Brief for Consumers Union et al. as Amici Curiae Supporting Petitioner, *Quanta*, 553 U.S. 617 (No. 06-937), 2007 WL 3440937, at *2–4, 21; Brief for Automotive Engine Rebuilders Ass'n et al. as Amici Curiae Supporting Petitioners, *Quanta*, 553 U.S. 617 (No. 06-937), 2007 WL 3440938, at *21–25.

written by Justice Thomas, but did not overrule, criticize, or even mention *Mallinckrodt*.[125]

The Court cited *General Talking Pictures v. Western Electric Co.*[126] for the proposition that exhaustion does not apply where a sale is unauthorized. However, the Court found that Intel's sale *was* authorized, citing "the structure of the Intel-LG transaction."[127] Justice Thomas pointed specifically to language in the Intel-LG license that granted Intel broad rights to make, use, sell (directly or indirectly), offer to sell, import, or otherwise dispose of products, free from LG's patent claims. The license agreement also purported not to "in any way limit or alter the effect of patent exhaustion that would otherwise apply."[128]

The Court acknowledged that the parties had agreed in a separate license that Intel would notify Intel's customers that they were not licensed to practice LG's patents in Intel/non-Intel combinations (and had given that notice to Quanta), but found that "Intel's authority to sell its products embodying the LGE Patents was not conditioned on the notice or on Quanta's decision to abide by LGE's directions in that notice."[129] If anything, the Court indicated, LG might have a claim for breach of contract, but because LG had not pled a contract claim, the Court did not address it.[130]

The *Quanta Computer* ruling did not come as a surprise.[131] It fit neatly into the Court's pattern of correcting the Federal Circuit's direction for patent law.[132] Most saw *Quanta Computer* as just one more Supreme Court admonishment of the Federal Circuit for over-extending the rights of patent holders.

One notable exception to this Federal Circuit reset, however, involved the patent exhaustion doctrine. In *Bowman v. Monsanto Co.*, the Supreme Court considered the question of patent exhaustion in the context of Monsanto's sale of patented Roundup Ready soybean seeds just as the Federal Circuit had done in *Scruggs*.[133] Monsanto's license agreement for the seeds only permitted their use in

125. *See Quanta Computer, Inc.*, 553 U.S. at 637–38.
126. 304 U.S. 175 (1938).
127. *Quanta Computer, Inc.*, 553 U.S. at 636.
128. *Id.* at 623.
129. *Id.* at 636–37.
130. *See id.* at 637 n.7.
131. Indeed, both the increase in the number of patent cases decided by the Supreme Court in the past decade and the reversal rate of Federal Circuit decisions are truly eye popping. *See* John F. Duffy, Presentation at Center for Advanced Study and Research on Innovation Policy, University of Washington School of Law: U.S. Supreme Court and Biosimilar Litigation (July 10, 2017) (documenting the pattern of Supreme Court reversals of the Federal Circuit) (on file with author).
132. *E.g.*, Mayo v. Prometheus, 566 U.S. 66, 91 (2012); KSR Int'l Co. v. Teleflex, Inc., 550 U.S. 398, 415 (2007) ("We begin by rejecting the rigid approach of the Court of Appeals."); eBay, Inc. v. MercExchange, LLC, 547 U.S. 388, 393–94 (2006) (specifically objecting to the Federal Circuit's approach).
133. Bowman v. Monsanto Co., 569 U.S. 278, 280–81 (2013).

one (and only one) growing season.[134] When Mr. Bowman violated the license, Monsanto sued him for patent infringement. Bowman raised the defense of patent exhaustion but the District Court and Federal Circuit rejected Bowman's defense.[135] And, surprisingly, the Supreme Court unanimously affirmed the Federal Circuit.[136]

In one sense, *Bowman* involved a condition on the use of a patented product much like the conditional sale in *Makinckrodt*.[137] However, in substance, *Bowman* touched on the "make" right rather than the "use" right in patent law, because Mr. Bowman harvested and planted seeds grown from the licensed seeds. In other words, Mr. Bowman made new seeds from the old seeds. As such, patent exhaustion did not apply because it pertains to the use and sale of an item, and not the making of a new item. As the Court put it, "exhaustion applies only to the item sold, not to reproductions."[138]

D. A Copyright First Sale Interjection

Amidst the Supreme Court's focus on patent law cases, the Court also decided an important copyright first sale issue: whether the sale of copyrighted works made overseas qualifies as a first sale under U.S. copyright law.[139] Academic textbook publisher John Wiley & Sons licensed its wholly owned Asian subsidiary to print and distribute textbooks for the Asian market.[140] Wiley Asia's books contained a notice stating that they were not to be taken (without permission) into the United States.[141] Supap Kirtsaeng moved from Thailand to the United States to study mathematics.[142] He asked friends and family to buy foreign-edition English-language Wiley Asia textbooks in Thai book shops where they sold at low prices and to mail them to him in the United States. He then resold the books. John Wiley & Sons sued Mr. Kirtsaeng for copyright infringement, and Mr. Kirtsaeng raised copyright first sale as a defense.[143]

The Court sided with Mr. Kirtsaeng. Justice Breyer's opinion for the Court engages in a thorough analysis of § 109(a) of the Copyright Act in the context of foreign sales of copyrighted works. The Court held that the first sale doctrine applies to all copies legally made and sold anywhere in the world, not just in the United States.[144] Thus, wherever an authorized copy of a copyrighted work is first sold, it can be resold in the United States without obtaining additional

---

134. *Id.* at 281.
135. Monsanto Co. v. Bowman, 657 F.3d 1341, 1347–48 (2011).
136. *Bowman*, 569 U.S. 278.
137. As Justice Kagan put it: "Reproducing a patented article no doubt 'uses' it after a fashion." *Id.* at 287.
138. *Id.*
139. Kirtsaeng v. John Wiley & Sons, Inc., 568 U.S. 519 (2013).
140. *Id.* at 525–26.
141. *Id.* at 526.
142. *Id.* at 527.
143. Copyright law gives the copyholder the exclusive right to control distribution of a work of authorship. *See* 17 U.S.C. § 106 (2012).
144. *Kirtsaeng*, 568 U.S. at 525.

permission from the copyright holder. The Court concluded that Mr. Kirtsaeng's defense was supported by § 109(a)'s "language, its context, and the common-law history of the 'first sale' doctrine."[145]

IV. A CLOSE LOOK AT *IMPRESSION PRODUCTS V. LEXMARK*

We now turn to the Supreme Court's decision in *Impression Products, Inc. v. Lexmark International, Inc.*[146] The case centered on Lexmark's business model for selling its patented toner cartridges for laser printers.[147] When a cartridge runs out of toner, it can either be refilled or replaced with a new one. Lexmark will gladly sell a new toner cartridge, but other companies, known as remanufacturers, buy up empty cartridges, refill them with toner, and sell them at a price lower than the price charged by Lexmark for a new one. To compete with the remanufacturers, Lexmark sells cartridges using a business model that encourages customers to return empty cartridges.[148] Lexmark offers two options: a full priced "no strings attached" option or a 20% discount through Lexmark's Return Program.[149] To participate in the Return Program, the customer signs a contract agreeing to use the cartridge only once and to refrain from transferring it to anyone except Lexmark.[150]

Undeterred by the contractual arrangements in Lexmark's Return Program, Impression Products acquired, refilled, and sold cartridges that Lexmark customers had purchased via the Return Program.[151] Lexmark responded by suing Impression Products (and several other remanufacturers) for patent infringement. In defense, Impression Products argued that Lexmark's patents had been exhausted when Lexmark sold the toner cartridges to its customers.[152] When the case reached the Federal Circuit, the en banc court rejected the patent exhaustion defense, citing its *Mallinckrodt v. Medipart* line of cases.[153]

The Supreme Court took the case to address two questions: (1) "whether a patentee that sells an item under an express restriction on the purchaser's right to reuse or resell the product may enforce that restriction through an infringement lawsuit"; and (2) "whether a patentee exhausts its patent rights by selling its product outside the United States, where American patent laws do not apply."[154] Chief Justice Roberts's opinion for the Court reversed the Federal Circuit 8–0 on

---

145. *Id.* at 530.

146. Impression Prods., Inc. v. Lexmark Int'l, Inc., 137 S. Ct. 1523 (2017).

147. Lexmark holds patents that cover components of the printer cartridges and way they are used. *See id.* at 1529.

148. Lexmark has also used digital-rights management technology to limit its cartridges to a single use but remanufacturers have counteracted this technology. *Id.* at 1529–30.

149. *Id.*

150. *Id.* at 1530.

151. *Id.*

152. *Id.* at 1526.

153. Lexmark Int'l, Inc. v. Impression Prods., Inc., 816 F.3d 721, 735 (Fed. Cir. 2016).

154. *Impression Prods.*, 137 S. Ct. at 1529.

the first question and 7–1 on the second question,[155] with only Justice Ginsberg dissenting (largely based on her dissent in *Kirtsaeng v. John Wiley & Sons*). And this time—unlike in *Quanta Computer*—the Court specifically addressed the Federal Circuit's *Mallinckrodt* line of cases.

As to the first question, the Court concluded that Lexmark had exhausted its patent rights in the printer cartridges the moment it sold them. "The single use/no-resale restrictions in Lexmark's contracts with customers may have been clear and enforceable under contract law," according to the Court, "but they did not entitle Lexmark to retain patent rights in an item that it has elected to sell."[156] The Court called the exhaustion of patent rights "uniform and automatic," operating "regardless of any post-sale restrictions the patentee purports to impose" either directly with a customer or indirectly through an upstream license.[157] The Court asserted that its views on patent exhaustion were well-settled, citing its 1918 decision in *Boston Store of Chicago v. American Graphophone* and its 1942 *Univis Lens* decision. With a slight tone of indignation, the Court stated that "if there were any lingering doubt," *Quanta Computer* had "settled the matter."[158]

Critical to the Court's ruling is the distinction between a tangible item and an intangible invention.[159] When a customer buys a product, the customer owns that physical item as personal property with all the benefits that come with property ownership.[160] Although patent law gives a patentee the right to exclude others from making, using, or selling an invention, it does not alter the underlying ownership equation for the product that embodies the invention. When the patentee sells an item covered by a patent, the patent exhaustion doctrine automatically lifts the patent's power to exclude use or sale of the item because, at that point, the patent holder has received the reward from the invention provided by patent law.[161]

The Court highlighted its policy rationale: the historical hostility to restraints on alienation of chattels. The Court called these restraints "hateful" and "obnoxious to the public interest," and observed that "the inconvenience and annoyance to the public that an opposite conclusion would occasion" would be "too obvious to require illustration."[162] The Court worried that extending patent

---

155. The case was briefed and argued before Justice Gorsuch joined the Court.

156. *Impression Prods.*, 137 S. Ct. at 1531.

157. *Id.* at 1535.

158. *Id.* at 1533. In the aftermath of *Quanta Computer*, commentators did not think the Court's opinion provided such clarity. *See* Gomulkiewicz, *supra* note 44, at 237 (concluding that *Quanta Computer* affirmed *Mallinckrodt sub silentio*); Alfred C. Server & William J. Casey, *Contract-Based Post-Sale Restrictions on Patented Products Following* Quanta, 64 HASTINGS L.J. 561, 596 n.171 (2013) (listing the views of various commentators).

159. In the context of copyright, see 17 U.S.C. § 202 titled "Ownership of copyright as distinct from ownership of material object."

160. *Impression Prods.*, 137 S. Ct. at 1531.

161. *Id.* at 1531–32.

162. *Id.* at 1532 (citing Keeler v. Standard Folding Bed Co., 157 U.S. 659, 667 (1895)). However, some scholars dispute the Court's historical account of such an

rights beyond first sale "would clog the channels of commerce, with little benefit from the extra control that the patentees retain," with advances in the complexity of technology and supply chains likely to magnify the problem.[163]

The Court also criticized the approach to patent exhaustion that the Federal Circuit had employed in *Mallinckrodt* and its progeny. According to the Court, the Federal Circuit's misstep resulted from focusing too much on the Patent Act's right to exclude as a presumption that could be altered by contract.[164] This, the Court ruled, was a misstep because the exhaustion doctrine is not a presumption about the authority that comes along with a sale; it is instead a limit on the scope of the patentee's rights.[165] In other words, once the patentee decides to sell a product unit, *all* of the patentee's use and sale rights are exhausted for that product unit, not just the rights the patentee might wish to exhaust.[166]

At this point, the Court paused to address an inconvenient precedent: *General Talking Pictures*, a case relied on heavily by the Federal Circuit in *Mallinckrodt*. Not surprisingly, the Court distinguished the case as involving "a fundamentally different situation."[167] Recall that the transaction in *General Talking Pictures* involved three parties: the patentee, a licensee, and an end-user customer.[168] The license agreement prohibited the licensee from selling products to certain types of customers.[169] When the licensee sold to those customers, the Court permitted the patentee to sue both the licensee and the customer for patent infringement.[170]

To be sure, the factual setting for Lexmark's suit was fundamentally different than General Talking Pictures's suit: Lexmark sued a third-party remanufacturer who acquired a product from one of Lexmark's customers, whereas General Talking Pictures sued a customer of its manufacturer/distributor licensee. But the Court did not highlight or rely on this factual distinction. Instead, the Court justified the patent infringement suit against the customer in *General Talking Pictures* because the customer knew about the breach of the license and thus had "participated in the licensee's infringement."[171] According to the Court, "*General Talking Pictures*, then, stands for the modest principle that, if a patentee has not given authority for a licensee to make a sale, that sale cannot exhaust the patentee's rights."[172]

---

unequivocal rejection of restraints on alienation in the common law. *See, e.g.*, O'Connor, *supra* note 93.

163. *Impression Prods.*, 137 S. Ct. at 1532.
164. *Id.* at 1533–34.
165. *Id.* at 1534.
166. *Id.*
167. *Id.* at 1535.
168. *See supra* Section III.A.
169. Gen. Talking Pictures Corp. v. W. Elec. Co., 305 U.S. 124, 126 (1938).
170. *Id.* at 127.
171. *Impression Prods.*, 137 S. Ct. at 1535.
172. *Id.*

After reversing the Federal Circuit on the first question, the Court went on to reverse the Federal Circuit on the second question as well, ruling that once a product is sold anywhere in the world, the patent rights are exhausted for that unit.[173] This ruling unified the Court's approach to patent exhaustion with its approach to copyright first sales as articulated in *Kirtsaeng v. John Wiley & Sons*. In so doing, the Court relied on the "historic kinship" between patent and copyright law and the "strong identity" between patent exhaustion and copyright first sales.[174] Treating patent exhaustion and copyright first sales differently, according to the Court, would "make little theoretical or practical sense," especially in a world where many products are covered by both patents and copyrights.[175]

The Court's linkage of copyright first sales and patent exhaustion means that *Impression Products* is not simply another small skirmish in the Supreme Court's ongoing battle with the Federal Circuit over the direction of patent law. Instead, the case affects copyright first sale precedents from all 13 circuit courts. And critically, it impacts the business models used by the software industry. We now turn to the potential impact of *Impression Products* on the software industry, looking at the ramifications for each part of the software-licensing landscape described in Part I.

V. APPLYING *IMPRESSION PRODUCTS* TO THE SOFTWARE LICENSING LANDSCAPE

As described in Part I, software licenses can be fit into four basic categories: (1) to build products; (2) to create customer solutions; (3) to distribute products; and (4) to enable end use. Categories 1 and 2 are often referred to as "upstream" licenses and categories 3 and 4 as "downstream" licenses. How does *Impression Products* affect these licenses?

A. Upstream Licenses

The Supreme Court's decision in *Impression Products* will have little or no effect on upstream licenses for several reasons.

First, most upstream licenses require grants of rights that are more expansive than a copyright first sale allows. A copyright first sale only allows use and re-distribution of a single copy. However, upstream licenses typically involve rights to create derivative works and to make and distribute multiple copies.[176] For example, when Microsoft incorporates third-party code into its Windows operating system or when the Linux Foundation incorporates contributor code into the Linux kernel, Microsoft and the Linux Foundation need the rights to modify, reproduce, and distribute multiple copies of the underlying third-party code and any derivative works. Moreover, *Bowman v. Monsanto* suggests that transactions focused on

173. *Id.*
174. *Id.* at 1536.
175. *Id.*
176. *See* GOMULKIEWICZ, NGUYEN & CONWAY, *supra* note 33, at 397.

making copies will not be swept into the patent exhaustion doctrine and,[177] by extension, presumably will not be treated as copyright first sales either.

Second, upstream licensing focuses more on copyrights than copies.[178] In other words, software developers use upstream licenses to exchange whatever collection of intellectual property rights are needed to successfully build a particular piece of software technology.[179] To the extent the parties exchange copies at all, it is only to kick-start the overall collaboration and to exercise the licensed intellectual property rights.[180] Upstream licenses enable software development so that that each party can build products that it will provide to customers downstream.[181]

B. Downstream Licenses

The impact of *Impression Products* on downstream licenses is far greater than its impact on upstream licenses. Thus, this Section will discuss both licenses to distribute and licenses to enable use.

1. Licenses to Distribute Software

As explained in Part I, software developers use a variety of methods to distribute their software. In the early days of the software industry, software developers distributed their software either in boxes via the retail distribution channel or preinstalled on computers via the OEM[182] channel. Retail distribution involves several stages. After the software developer writes the software code, the software developer provides a master disk to a software manufacturer that copies the software on to diskettes and shrink-wraps them into boxes. The manufacturer ships the boxes to software distributors that, in turn, ship the boxes to retail stores for sale to end users. OEM distribution operates like retail distribution, with a few variations. The software developer provides a master disk to the OEM and the OEM installs the software on its PCs.[183] The PCs are then sold either directly by the OEM or through its distribution network to retail stores for sale to end users.

However, these days, software developers distribute their software in a wide variety of other ways including through email, on websites, in chat rooms,

---

177. 569 U.S. 278 (2013).

178. *See* 17 U.S.C. § 202 (2012) (ownership of a copy as distinct from ownership of material object).

179. *See Impression Prods.*, 137 S. Ct. at 1534 ("[A] license is not about passing title to a product, it is about changing the contours of the patentee's monopoly . . . . Because the patentee is exchanging rights, not goods, it is free to relinquish only a portion of its bundle of patent protections.").

180. Of course, business models continue to evolve in the software industry, and companies formerly considered software developers now create hardware products as well such as microprocessors and AI goggles.

181. *See* GOMULKIEWICZ, *supra* note 23, at 254–57.

182. OEM stands for "original equipment manufacturer" which referred to manufacturers of personal computers. These days the term OEM is often a misnomer because PCs labeled as *Dell* may not manufactured by Dell but for Dell by a third party.

183. *See generally* Microsoft Corp. v. AT & T Corp., 550 U.S. 437 (2007).

and via social-media platforms.[184] In these distribution channels, sometimes a copy of software is distributed or downloaded, but other times the software is streamed as a service over the Internet with no copy retained by the end user. In software-as-service distribution models, because no copy is in play, there is no copy that gets the benefit of the first sale doctrine.[185] But when a copy is in play, how does *Impression Products* relate to these distribution models, new and old? The answer depends on a careful parsing of *Impression Products*, particularly the Court's discussion of *General Talking Pictures*.

In *General Talking Pictures*, a patent holder had licensed a distributor to sell the patentee's amplifiers only to noncommercial end users. When the distributor violated the license by selling amplifiers to commercial end users, the patentee sued the distributor and end user for patent infringement and won.[186] In its analysis of *General Talking Pictures*, the Court in *Impression Products* described the transaction between the patentee and the distributor as a license rather than a first sale.[187] As such, according to the Court, the distributor violated a license condition rather than a condition on a product sale, which resulted in a successful patent infringement suit for the patentee rather than a successful first sale defense for the distributor.[188]

The impact of *Impression Products* for licenses to distribute software perhaps depends on the structure of the distribution transaction. The Court seems to acknowledge that businesses can structure transactions as licenses to distribute products rather than sales of products.[189] As the Court put it, "a license . . . is about changing the contours of the patentee's monopoly[,] . . . expanding the club of authorized producers and sellers."[190] To best fit the Court's paradigm, the parties should signal as clearly as possible in their contract documents that the transaction is indeed a distribution license rather than a sales contract. In addition, to the extent the license involves both copying and distributing software, the transaction moves even farther from a first sale along the lines of the Court's rejection of a

---

184. *See generally* Matt Day, *Freewheeling Valve*, SEATTLE TIMES, Aug. 6, 2017, at D6 (describing the Steam Internet-based distribution service for PC games replacing buying games on disks).

185. *See* Aaron Perzanowski & Jason Schultz, *Digital Exhaustion*, 58 UCLA L. REV. 889 (2011); R. Anthony Reese, *The First-Sale Doctrine in the Era of Digital Networks*, 44 B.C. L. REV. 577 (2003); Joseph Liu, *Owning Digital Copies: Copyright Law and the Incidents of Copy Ownership*, 42 WM. & MARY L. REV. 1245 (2010).

186. Gen. Talking Pictures Corp. v. W. Elec. Co., 305 U.S. 124, 126 (1938).

187. Impression Prods., Inc. v. Lexmark Int'l, Inc., 137 S. Ct. 1523, 1535 (2017).

188. *Id.*

189. *But see* Duffy & Hynes, *supra* note 13, at 41–43 (arguing that copyright exhaustion operates earlier in the chain of production and distribution than patent exhaustion). However, this approach treats every distribution transaction as a sale when, as the Supreme Court acknowledges and commercial practice confirms, distribution transactions between sophisticated parties can be structured either as licenses or sales.

190. *Impression Prods.*, 137 S. Ct. at 1536.

first sale defense in *Bowman v. Monsanto*, where the infringer both used and copied the patented product.[191]

2. Licenses to Enable Use

So far, we have seen that *Impression Products* leaves the software industry's upstream licenses intact and leaves room for its licenses to distribute products. But can the same be said for its impact on EULAs? Chief Justice Roberts's opinion seems to slam the door on any conditions purportedly placed on end-user sales.[192] A transaction with an end user, it seems, is a first sale no matter what.[193] Did the Court leave the door open even a crack for EULAs? We turn now to why the answer to that question could be "yes."

a. Enforcing EULAs Under Contract Law

One of the most striking things about *Impression Products* is how strongly the Court points to contracts and contract remedies as the normal way to implement conditional sales. On five separate occasions, Chief Justice Roberts's opinion mentions that conditions on end-user purchasers are a matter of contractual arrangements and contract remedies.[194] While this may not seem particularly groundbreaking, it is significant in the context of EULAs. Part II explained how many challenges to EULAs are based on contract law and, although courts have turned aside most of those challenges, the challenges continue to cast a shadow on the enforceability of EULAs.[195] Consistent with the trend in the lower courts,[196] *Impression Products* demonstrates the Court's comfort with transactions that use contracts in tandem with intellectual property rights. To be sure, the Court did not rule on contract grounds,[197] but it seems to be sending a strong positive

---

191. Bowman v. Monsanto Co., 569 U.S. 278, 287–88 (2013).

192. Notably, the Court's approach in *Impression Products* differs from its approach in *Kimble v. Marvel Entertainment*. In *Kimble*, although the Court affirmed its *Brulotte* precedent on the unenforceability of post-expiration patent royalties, it seemed to endorse a variety of practical ways to contract around *Brulotte*. *See* 135 S. Ct. 2401, 2408 (2015).

193. *See* Herbert J. Hovenkamp, *Reasonable Patent Exhaustion* (Penn Law: Legal Scholarship Repository, Faculty Scholarship, 2017), http://scholarship.law.upenn.edu/faculty_scholarship/1790.

194. *See Impression Prods.*, 137 S. Ct. at 1530, 1531, 1533, 1535, 1537; *see also* Quanta Comput., Inc. v. LG Elecs., Inc., 553 U.S. 617, 637 n.7 (2008) (noting that LG Electronics might have a claim for breach of contract).

195. *See* Raymond T. Nimmer, *Copyright First Sale and the Over-Riding Role of Contract*, 51 SANTA CLARA L. REV. 1311 (2011).

196. One of the most useful EULA cases is *Specht v. Netscape*, in which the opinion was written by Justice Sotomayor when she was a judge on the Second Circuit. That case demonstrates contracting practices that create enforceable contracts and those that do not. *See* Specht v. Netscape Corp., 306 F.3d 17 (2d Cir. 2002).

197. The Court's acceptance of modern standard-form contracting practices can be seen in *Carnival Cruise Lines, Inc. v. Shute*, 499 U.S. 585, 586 (1991) and *Bremen v. Zapata Off-Shore Co.*, 407 U.S. 1, 9 (1972).

signal about the use of contracts in technology businesses.[198] That signal should provide some comfort to software developers who rely on EULAs. Without this comfort, some software developers may turn to increased use of digital-rights-management technologies enforceable via the Digital Millennium Copyright Act.[199]

Even though the Court's comfort with contracts may be good news, the bad news is that the software developer will be suing its own customers because third parties, such as the remanufacturer in *Impression Products*, are not in contractual privity with the software developer. Most companies are reluctant to sue their customers and therefore look for ways to sue a third party.[200] Fortunately, however, most EULA cases do not involve consumers but involve rival businesses violating EULAs for competitive business purposes.[201] Additionally, in some instances, a software developer will be able to seek remedies against a third party for tortious interference with contract.[202]

More bad news is that contract remedies are often less desirable[203] than copyright or patent remedies because contract remedies consist primarily of

---

198. The same can be said for Justice Kagan's opinion in *Bowman v. Monsanto*, which seemed very much at home with Monsanto's seed-licensing model as a matter of contract practice.

199. *See* MDY Indus. v. Blizzard Entm't, 629 F.3d 928, 942–65 (9th Cir. 2010); Storage Tech. Corp. v. Custom Hardware, 421 F.3d 1307 (Fed. Cir. 2005); *see also* PERZANOWSKI & SCHULTZ, *supra* note 9, at 121–38 (critiquing the use of digital-rights management technologies); Art Neill, *Fixing Section 1201: Legislative and Regulatory Reforms for the DMCA's Anti-Circumvention Provisions*, 19 TUL. J. TECH. & INTELL. PROP. 27, 46 (2016); Kristian D. Stout, *Copyrights Without Limits—The Undefeatable Right of Access Control Under § 1201(A) of the Digital Millennium Copyright Act*, 19 MARQ. INTELL. PROP. L. REV. 181 (2015).

200. *See, e.g.*, Sony Corp. v. Universal City Studios, Inc., 464 U.S. 417 (1984) (suit against video recorder manufacturer rather than consumer); *see also* Duffy & Hynes, *supra* note 13, at 19 (noting the "severe practical problem" faced by publishers in playing "hardball with their customers").

201. *See* Lemley, *supra* note 5, at 459–62; Rub, *supra* note 9, at 1202.

202. *See MDY Indus.*, 629 F.3d at 955; Altera Corp. v. Clear Logic, Inc., 424 F.3d 1079, 1081 (9th Cir. 2005); Blizzard Entm't v. Ceiling Fan Software, LLC, 28 F. Supp. 3d 1006, 1015 (C.D. Cal. 2013); *see also* Shyamkrishna Balganesh, *Copyright as Market Prospect*, 166 U. PA. L. REV. 443 (2018); Duffy & Hynes, *supra* note 13, at 18–19 (describing a successful claim for tortious interference with contract in the *Bobbs–Merrill* litigation); Jessica Gallegos, Note, *A New Role for Tortious Interference in the Digital Age: A Model to Enforce End User License Agreements*, 38 FLA. ST. U. L. REV. 411 (2011). *See generally* DAN B. DOBBS, PAUL T. HAYDEN & ELLEN M. BUBLICK, THE LAW OF TORTS §§ 616–37 (2d ed. 2011); RESTATEMENT (SECOND) OF TORTS § 766.

203. However, contract remedies may be adequate in some cases. For example, even though injunctive relief may be the best remedy for breaches of open-source licenses, a specific-performance remedy may be equally useful for requiring attribution or releasing source code. *See* FARNSWORTH, *supra* note 70, at § 12.5; 12 JOSEPH M. PERILLO, CORBIN ON CONTRACTS §§ 63.1–.24 (Rev. ed. 2012); 25 RICHARD LORD, WILLISTON ON CONTRACTS § 67 (4th ed. 2002); RESTATEMENT (SECOND) OF CONTRACTS §§ 357–69 (1981); Alan Schwartz, *The Case for Specific Performance*, 89 YALE L.J. 271 (1979). Ironically, at one

compensatory damages while copyright and patent laws also provide for injunctive relief and statutory damages.[204] For example, the most useful remedy for a violation of a free and open-source software license may be a positive injunction to provide attribution or release derivative code.[205] As the court noted in *Jacobsen v. Katzer*, "these types of license restrictions might well be rendered meaningless absent the ability to enforce through injunctive relief."[206] Consequently, a close look at *Impression Products* is necessary to see whether it leaves the door open for obtaining intellectual property-based remedies.[207]

b. *Impression Products* Leaves the Door Ajar

Despite the Court's emphatic refusal to enforce conditions on transactions with end users through patent law, the Court's opinion leaves the door ajar. The opening can be found where the Court discusses *General Talking Pictures*. Recall that the patentee in *General Talking Pictures* successfully sued both the distributor and the end user for breach of a license which had restricted distribution to noncommercial end users. In explaining the reason for allowing the customer to be sued for patent infringement in *General Talking Pictures*, the Court in *Impression Products* noted that the user "knew about the breach" of the license and, consequently, "participated in" the distributor–licensee's infringement.[208] The Court treated the transaction as a non-sale for purposes of patent exhaustion because the sale was outside the scope of the distributor's license. As the Court put it, "*General Talking Pictures*, then, stands for the modest principle that, if a

---

time the open-source community insisted that open-source licenses were not contracts, although now that view largely has been put to rest. *See* Robert A. Hillman & Maureen A. O'Rourke, *Rethinking Consideration in the Electronic Age*, 61 HASTINGS L.J. 311, 326–31 (2009).

204. *See* Jane C. Ginsburg, *Copyright, Common Law, and Sui Generis Protection of Databases in the United States and Abroad*, 66 U. CIN. L. REV. 151, 167 (1997) ("Copyright remedies, featuring injunctive relief and its adjuncts such as seizure and destruction of infringing copies, are far stronger than contract remedies; for example, specific performance is a relative rarity.").

205. *See* Jacobsen v. Katzer, 535 F.3d 1373, 1382 (Fed. Cir. 2008); *see also* Robert W. Gomulkiewicz, *Conditions and Covenants in License Contracts: Tales from a Test of the Artistic License*, 17 TEX. INTELL. PROP. L.J. 335 (2009).

206. *Jacobsen*, 535 F.3d at 1376; *see also* Yamini Menon, Jacobsen *Revisited: Conditions, Covenants, and the Future of Open Source Licensing*, 6 WASH. J.L. TECH. & ARTS 311 (2011).

207. Another option is for software developers to rely increasingly on digital-rights-management technology. *See* Rub, *supra* note 9, at 1217–19.

208. Impression Prods., Inc. v. Lexmark Int'l, Inc., 137 S. Ct. 1523, 1535 (2017). Although the Court does not put it in these terms, its characterization seems like a description of some type of secondary liability. *See* Metro-Goldwyn-Mayer Studios, Inc. v. Grokster, Inc., 125 S. Ct. 2764, 2776–80 (2005) (describing contributory and vicarious liability); *see also* Brief for Intellectual Property Professors and American Antitrust Institute as Amici Curiae Supporting Petitioner, *Impression Prods.*, 137 S. Ct. 1523 (No. 15-1189), 2017 WL 394279, at *14–15 (describing the end user's liability as indirect and based on inducement).

patentee has not given authority for a licensee to make a sale, that sale cannot exhaust the patentee's rights."[209]

The Court was quick to point out, however, that patentees cannot impose patent-enforced post-sale restrictions on products either directly or indirectly through one of its licensees. Nonetheless, if a software developer can inform third parties about the limited scope of the license with its distributor with a prominent warning or notice,[210] then perhaps any third party who learns about the scope of the license via the warning and ignores it cannot take advantage of the first sale defense. This is because the third party "knew about" and therefore "participated in" the distributor's infringement. In other words, even though a software developer cannot get intellectual property-based remedies for breach of a condition in a EULA, it can get remedies for copyright infringement based on a third party's knowing disregard of an upstream condition on the distributor's license to distribute the developer's software.

However, label warnings were not enough to overcome a first sale defense in *Bobbs–Merrill*[211] or *Kirtsaeng*.[212] This suggests that a patentee or copyright holder must provide strong proof that a third party knew or should have known about the limited nature of the distributor's license. In other words, a clear and conspicuous warning describing the limited nature of the distributor's license might work, but a single warning buried in a EULA would not suffice.

c. Interpreting the Copyright Code Rather than the Common Law

Another potential opening for recovering copyright-based remedies for breach of a EULA can be found in the Copyright Act. *Impression Products* notes the kinship and common purpose between the patent and copyright exhaustion doctrines. Indeed, this common purpose and kinship led the Court to rule that the sale of patented products abroad, like sales of copyrighted books overseas in *Kirtsaeng*, exhausted the right to use, sell, and import patented products anywhere in the world.[213]

The congruence between patent and copyright first sales exists, as the Court notes, but only to a point: patent exhaustion is court-created common law but copyright exhaustion is Congress-codified statutory law. It is perfectly appropriate for the Supreme Court to develop the common law patent exhaustion doctrine by drawing on principles from a code like the Copyright Act—common law must come from somewhere, and the copyright first sale doctrine seems like a logical point of reference. However, the copyright first sale doctrine depends on

---

209. *Impression Prods.*, 137 S. Ct. at 1535.

210. For example, a notice for academic-use-only software could look like this—NOTICE OF LICENSE LIMITATION: The distributor of this software is licensed by the copyright holder **only** for distribution to ***academic users***. Because of this, **if** you are **not** an ***academic user***, **then** you are **not** permitted to use the software and **your use violates copyright law**.

211. 210 U.S. 339, 339–41 (1908).

212. 568 U.S. 519, 525 (2013).

213. *Impression Prods.*, 137 S. Ct. at 1535–36.

what Congress said in the Copyright Act. Thus, a court must assess the scope of the copyright first sale doctrine by interpreting Title 17 of the U.S. Code rather than tracing the development of the common law exhaustion doctrine from the seventeenth century as the Court did in *Impression Products*.[214]

Turning to the text of the Copyright Act, § 109(a) limits the copyright holder's right to enforce the exclusive distribution right granted in § 106(3) against "the owner of a particular copy." However, § 109(a) is itself limited by § 109(d): "The privileges prescribed by subsections (a) and (c) do not . . . extend to any person who has acquired possession of the copy . . . from the copyright owner by rental, lease, loan, *or otherwise*, without acquiring ownership of it."[215] To put it concisely, the first sale privilege applies to owners of a copy but not to anyone who has acquired a copy "otherwise."[216]

The history of §109(a) supports the conclusion that only owners of copies are entitled to claim a first sale defense. To begin, the common-law predecessor of § 109(a),[217] *Bobbs–Merill Co. v. Straus*, addressed a user-owned copy, and the Supreme Court noted that there was "no claim in this case of a . . . license agreement controlling the subsequent sales of the books."[218] Consistent with that, the House Report for § 109(a) says that it applies when a copyright holder "has transferred ownership of a particular copy."[219] The House Report for § 109(d)[220] states that the section limits the first sale defense, set out in § 109(a), "by making clear that [it does] not apply to someone who merely possesses a copy . . . without

---

214. *Id.* at 1531–32. *See generally* O'Connor, *supra* note 93.

215. 17 U.S.C. § 109(d) (2012) (emphasis added). Note that the Copyright Act clearly allows copyright holders to utilize a variety of transaction models, including first sales but also including renting, leasing, bailing, consigning, licensing, and lending. *See* 17 U.S.C. § 109(b)(1)(a); 17 U.S.C. § 203 (referring to exclusive and nonexclusive grants of a transfer or license of a copyright or any right under a copyright); Quality King Distribs., Inc. v. L'anza Research Int'l, Inc., 523 U.S. 135, 146–47 (1998) (referring to bailment, consignment, and licensing); *see also* 17 U.S.C. § 204 (2012)(referring to transferring ownership and licensing).

216. For comparison of a different legislative approach taken in Europe, see UsedSoft GmbH v. Oracle Int'l Corp., Case C-128/11, European Court of Justice (Grand Chamber) (July 3, 2012) (construing Articles 4(2) and 5(1) of Directive 2009/24/EC of the European Parliament which sets out the EU's exhaustion rules for computer programs).

217. The first sale doctrine was originally codified at 17 U.S.C. § 41 (1909). When Congress enacted the 1976 Copyright Act, the statutory reference became § 109(a). *See also* 17 U.S.C. § 204 (referring to transferring ownership and licensing).

218. 210 U.S. 339, 350 (1908); *see also* 17 U.S.C. § 109(d) ("The privileges prescribed by subsections (a) and (c) do not, unless authorized by the copyright owner, extend to any person who has acquired possession of the copy or phonorecord from the copyright owner, by rental, lease, loan, or otherwise, without acquiring ownership of it."); *cf.* Quality King Distribs., Inc., 523 U.S. at 146–47 ("[T]he first sale doctrine would not provide a defense to a § 602(a) action against any non-owner such as a bailee, a licensee, a consignee, or one whose possession of the copy is unlawful.").

219. H.R. REP. NO. 94-1476, at 79 (1976).

220. The House Report refers to § 109 (c) but that section was renumbered 109(d) in the 1984 amendments to the Copyright Act. *See* Pub. L. 100-450, § 2(1).

having acquired ownership of it. Acquisition of an object embodying a copyrighted work by rental, lease, loan, or bailment carries with it no privilege to dispose of it under section 109(a) . . . ."[221]

To summarize, the Copyright Act gives a first sale privilege to anyone who owns a copy. However, it does not give a first sale privilege to anyone else: not to lessees, consignees, bailees,[222] or anyone who acquires a copy *otherwise*. Thus, the Copyright Act does not give the first sale privilege to software end users who acquire a copy of software *otherwise* in a EULA transaction where they do not purchase title to a copy.

Scholars have criticized the notion that software developers can license *copies* as opposed to *copyrights*.[223] However, the Copyright Act clearly allows copyright holders to rent, lease, bail, consign, and lend copies. It also indicates that these transaction models are not exclusive because it uses the catchall phrase "or otherwise." Indeed, this flexibility is prescient. By leaving room for business model innovation, the Copyright Act has supported the innovative licensing practices such as those of the free and open-source software movement.[224] Sometimes recognizing the exhaustion of rights in a copy is good economic policy and consistent with copyright's objectives, but not always.[225] Other times, as Justice Kennedy reminded us in *eBay v. MercExchange*, we should bear in mind the economic impact of new ways to exploit intellectual property that "present conditions quite unlike earlier cases."[226]

---

221. H.R. REP. NO. 94-1476, at 80. The legislative history of § 117, a related provision that provides an essential-step defense for certain copies made by software users, suggests that, like § 109(a), the defense is only available to owners of copies rather than mere possessors. *See* Vernor v. Autodesk, Inc., 621 F.3d 1102, 1112 (9th Cir. 2010) (describing Congress's last-minute replacement of the words *rightful possessor* with the word *owner* in the final version of the bill that was enacted into law).

222. *See* Duffy & Hynes, *supra* note 13, at 54 (noting the Supreme Court's openness to leasing copies to avoid exhaustion).

223. *See* Carver, *supra* note 77, at 1896–97.

224. *See* BJ Ard, *Notice and Remedies in Copyright Licensing*, 80 MO. L. REV. 313, 320 (2015); David McGowan, *The Tory Anarchism of F/OSS Licensing*, 78 U. CHI. L. REV. 207, 223–24 (2011); Gomulkiewicz, *supra* note 42. The licensing practices of the open source movement continue to evolve. *See* Greg R. Vetter, *Commercial Free and Open Source Software: Knowledge Production, Hybrid Appropriability & Patents*, 77 FORDHAM L. REV. 2087 (2009).

225. Even ardent advocates of copy ownership acknowledge that first sale and licensing business models have their distinct advantages. *See* PERZANOWSKI & SCHULTZ, *supra* note 9, at 5–6 (summarizing the advantages of licensing). According to Perzanowski and Schultz, "Today, we operate in a market that—for the most part—affords a choice between ownership and more conditional, impermanent access to digital and physical goods. These choices are neither right nor wrong . . . . There are thing we gain and things we lose." *Id.* at 6.

226. 547 U.S. 388, 396 (2006) (Kennedy, J., concurring). Justice Kennedy was talking about so-called patent trolls, but his point goes beyond patents and the licensing practices of patent trolls. Software licensing does not (in the words of the Court in *Impression Products*) "clog the channels of commerce" with "little extra benefit." Software

d. Remedies Through a Better Lens: Contractual Covenants/License Conditions

As *Impression Products* highlights, a pivotal question in assessing intellectual property-related contracts is when intellectual property remedies should be available. To put that question squarely in the software context, when can a software developer sue an end user for copyright infringement for breach of a EULA? Commentators treat the license/first sale boundary as the critical fault line keeping intellectual property remedies in-bounds. But, that puts undue pressure on the first sale doctrine, perhaps encouraging us to interpret it too broadly for fear that copyright holders will gain too much litigation power.[227]

We can relieve pressure on the first sale doctrine by using a better lens. Rather than focus on the line between a license and first sale, the focus should be on the difference between a EULA's contractual covenants and its license conditions.[228] Copyright remedies are only available for breach of a license condition in a EULA, not a mere contractual covenant.[229] With this approach, a software developer gets all the contract-related benefits of its EULA but only gets the benefit of copyright remedies when there is a nexus between breach of a particular EULA term and an exclusive right granted by the Copyright Act.[230]

VI. CLARIFYING THE COPYRIGHT ACT'S FIRST SALE DOCTRINE THROUGH LEGISLATION

Part V's discussion of § 109 illustrates that the Copyright Act could certainly benefit from more clarity about how end-user licensing fits together with the first sale doctrine. This Part outlines a series of clarifications. The time might be right from a political standpoint to codify these clarifications for several reasons. First, although many commentators initially were skeptical about the benefits of end-user licensing, its importance for business model innovation in the software industry is now better known and appreciated.[231] Second, the potentially

---

licensing is critical to business model innovation, benefitting both software developers and end users. End users now expect EULAs and can deal with them expeditiously especially because EULAs are normally presented in electronic form. *See* Apple Inc. v. Psystar Corp., 658 F.3d 1150, 1156 (9th Cir. 2011).

227. *See* Molly Shaffer Van Houweling, *The New Servitudes*, 96 GEO. L.J. 885, 914 (2008).

228. *See* Ard, *supra* note 224, at 320; Newman, *supra* note 64, at 1154; Robert W. Gomulkiewicz, *Enforcement of Open Source Software Licenses: The MDY Trio's Inconvenient Complications*, 14 YALE J.L. & TECH. 106, 131–37 (2011).

229. *See* Sun Microsystems, Inc. v. Microsoft Corp., 188 F.3d 1115, 1122 (9th Cir. 1999).

230. *See* MDY Indus. v. Blizzard Entm't, Inc., 629 F.3d 928, 941 (9th Cir. 2010); *see also* Molly Shaffer Van Houweling, *Touching and Concerning Copyright: Real Property Reasoning in* MDY Industries v. Blizzard Entertainment, 51 SANTA CLARA L. REV. 1063 (2011).

231. *See* U.S. DEP'T COM., INTERNET POLICY TASK FORCE, COPYRIGHT POLICY, CREATIVITY, AND INNOVATION IN THE DIGITAL ECONOMY (2013); *see also* PERZANOWSKI & SCHULTZ, *supra* note 9, at 169 (stressing the benefits of copy ownership but noting that a

dire implications of *Impression Products* for copyright industries may bring those industries to the table,[232] overcoming their fear that amending § 109 will inevitably lead to an expansion of the copyright first sale doctrine to include digital streaming (which most oppose).[233]

My proposal would add two new provisions to the Copyright Act. The first would be an amendment to § 109(d) to specifically mention *licenses*. Among other benefits, this revision would clarify that free and open-source software licenses are not first sales under the distinction between licenses and first sales articulated by the Ninth Circuit in the *Vernor v. Autodesk* case.[234] The amendment would read: "The privileges prescribed by subsections (a) and (c) do not . . . extend to any person who has acquired possession of the copy or phonorecord from the copyright owner by rental, lease, loan, <u>license</u>, or otherwise, without acquiring ownership of it."

My proposal would also add new definitions to § 101 to more fully describe the set of possible transaction models that can be used for copyrighted works, such as software. It would clarify distinctions between first sales and assignments of rights and between first sales and licenses. The additional definitions would read:

> An "assignment" is any transaction in which the copyright owner transfers the title to the copyright in a work of authorship.
>
> A "first sale" is any transaction in which the copyright owner sells a copy of a work of authorship with no limits on the use or re-distribution of the copy.
>
> A "license" is any transaction in which the copyright owner either: (a) grants permission to exercise any of the rights granted in § 106, or (b) limits the use or re-distribution of a copy of a work of authorship in an enforceable contract.[235]

The new definition of *license* identifies it as a transaction model that is distinct from leases and first sales. In a license, the copyright holder provides a certain package of rights: sometimes more than a first sale would provide, sometimes less,

---

"future that deemphasizes ownership is not only inevitable, it's already here" and pointing out that this is part of a "broader and deeper cultural shift away from ownership"); Gomulkiewicz, *supra* note 6, at 897–98 (highlighting the use of EULAs by a variety of non-profits organizations, including Consumers Union and the University of California at Berkeley); Rub, *supra* note 9, at 1199–211 (concluding that the doomsday predictions of scholars about the negative effect of EULAs on consumer rights and copyright fair use are not born out in the case law).

232. *See generally* Maria A. Pallante, *The Next Great Copyright Act*, 36 COLUM. J.L. & ARTS 315 (2013).

233. *See* U.S. DEP'T COM., INTERNET POLICY TASK FORCE, FIRST SALE, AND STATUTORY DAMAGES (2016).

234. *See* Gomulkiewicz, *supra* note 228, at 120–24 (highlighting the mismatch between the *Vernor* test and free and open-source software licensing).

235. Subsection (b) codifies a variation of the definition set forth in *Vernor v. Autodesk, Inc.*, 621 F.3d 1102, 1111 (9th Cir. 2010).

but often more rights in some ways and less in other ways. For example, an end-user license for word processing software might limit use and distribution to student users but allow the end user to make additional copies for up to three devices and create derivative works of clip art.

	Use	Copies	Derivative Works	Distribution
License	*Variable* Limited←→Unlimited	*Variable* 1←→Unlimited	*Variable* 0←→ Unlimited	*Variable* 0←→Unlimited
Lease	*Variable* Limited ←→Unlimited	1	None	None
First Sale	Unlimited	1	None	Unlimited

FIGURE: Comparison of License, Lease, and First Sale Transactions

The new definitions, of course, assume that Congress accepts the value of licensing—including licensing copies—as consistent with the purposes of the Copyright Act.[236] To be sure, many commentators will object. Among scholars, EULAs are the Rodney Dangerfield of transaction models—they get no respect. Objections to EULAs contributed to the limited adoption of the Uniform Computer Information Transactions Act ("UCITA").[237] But in the courts EULAs do get respect, with courts enforcing EULAs regularly for over two decades. It makes sense for Congress to put licenses on par with leases, consignments, and bailments for purposes of the first sale doctrine for several reasons.

First, licenses are a distinct and valuable transaction model that provides better flexibility for software developers and more choice for end users than other models (such as first sales).[238] It took a while for this to come into focus, but that is

---

236. As the court put it in describing open-source software, "[o]pen source licensing has become a widely used method of creative collaboration that serves to advance the arts and sciences in a manner and at a pace that few could have imagined a few decades ago." Jacobsen v. Katzer, 535 F.3d 1373, 1378 (Fed. Cir. 2008); *cf.* Wallace v. IBM Corp., 467 F.3d 1104 (7th Cir. 2006) (describing how free and open-source licensing advances competition-law policies).

237. *See* MD. CODE ANN., COM. LAW §§ 22-101 to -816 (West 2000); VA. CODE ANN. §§ 59.1-501.1 to -509.2 (2001). For a summary of the debates surrounding UCITA, see GOMULKIEWICZ, NGUYEN & CONWAY, *supra* note 33, at 6–7.

238. *See supra* Section II.C (summarizing the benefits of EULAs for customers). I do not believe that business models utilizing EULAs are perfect by any means. The use of EULAs has downsides, of course, including the information costs associated with ascertaining license terms and the perils always associated with standard-form contracting practices. Indeed, I believe that using EULAs is not the best option in many situations and, *infra*, I urge practicing lawyers to assess judiciously whether a EULA is better than a first sale. However, the question is not whether EULAs are perfect; the question is whether software developers should be able to choose a EULA-based business model when and if it makes sense. *See* PERZANOWSKI & SCHULTZ, *supra* note 9, at 169 (pointing out the benefits of first sale transactions, but ultimately emphasizing the importance of meaningful choice in

not surprising because transaction models develop over time. Land provides a useful example. As the needs of land owners and land users evolved, transaction models developed to meet their needs—transactions for land now include sales, leases, easements, and licenses of various types.[239] Software licensing has now arrived as a discrete and worthy transaction model,[240] and now it makes sense for Congress to explicitly acknowledge that in § 109(d).[241]

Second, the need for licensing is significantly more pronounced for software than for hard goods because of the nature of software products.[242] Software's usefulness varies from product to product and often involves nuanced permissions to use, copy, distribute, and create derivative works.[243] This makes sense because software products are as much or more of a *service* than a *good*,[244] so the transactions for software should resemble service contracts as much or more than sales contracts.[245] Thus, software licenses do not present (as the Court in *Impression Products* suggested) "hateful" and "obnoxious" restraints on

---

transaction models); *see also* Gomulkiewicz, *supra* note 7 (describing ways to improve EULAs).

239. *See generally* JESSE DUKENMINIER, PROPERTY § 3 (7th ed. 2010); CURTIS J. BERGER, PROPERTY: LAND OWNERSHIP AND USE § 3.2 (4th ed. 1997). The same is true of personal property, which has developed transactions to sell, rent, lease, bail, consign, and lend (among others), as reflected for example in the Uniform Commercial Code, Article 2 (sales of goods), 2A (leases of goods), and Article 9 (secured transactions). Indeed, the official recognition of new commercial practices through passage of the Uniform Commercial Code took a long time. *See* Raymond T. Nimmer, *UCITA and the Continuing Evolution of Digital Licensing Law*, COMPUTER & INTERNET L., Mar. 2004, at 10–11. Commentators note, however, that personal-property forms are more limited than real-property forms for a variety of reasons, including information costs. *See* Christina Mulligan, *Personal Property Servitudes on the Internet of Things*, 50 GA. L. REV. 1121, 1126–32 (2016).

240. *See* Apple Inc. v. Psystar Corp., 658 F.3d 1150, 1156 (9th Cir. 2011); ProCD, Inc. v. Zeidenberg, 86 F.3d 1447 (7th Cir. 1996).

241. As discussed *supra*, § 109(d) already includes licenses *implicitly*. Doing so *explicitly* will improve certainty of contracting. My proposed revisions to the Copyright Act would be part of the ongoing process of commercial law and intellectual property law attempting to catch up with each other. *See, e.g.*, Xuan-Thao Nguyen, *In the Name of Patent Stewardship: The Federal Circuit's Overreach into Commercial Law*, 67 FLA. L. REV. 127 (2015); Xuan-Thao Nguyen, *Collateralizing Intellectual Property*, 42 GA. L. REV. 1 (2007).

242. Commentators stress the concerns associated with the licensing of hard goods, particularly concerns related to consumer expectations and privacy. *See, e.g.*, Stacy-Ann Elvy, *Hybrid Transactions and the Internet of Things: Goods, Services, or Software?*, 74 WASH. & LEE L. REV. 77 (2017); Mulligan, *supra* note 239.

243. Even though this Article focuses on software licensing, other copyright industries have or will experiment with licensing copies of their works. However, as discussed *infra*, the choice of licensing as a transaction model requires careful weighing of the pros and cons. And even if licensing seems attractive to the copyright holder, this approach may fail in the marketplace. *See* Duffy & Hynes, *supra* note 13, at 64 (describing the challenges Aspen faced with its connected casebook business model).

244. Think, for example, of Google's search and map software and the Facebook's social-network software.

245. *See* Duffy & Hynes, *supra* note 13, at 70.

chattels.[246] Instead, they present appropriately fitting terms and conditions for products that are a hybrid of goods and services. Moreover, as a digital good, software is easy to copy and modify in contrast to most hard goods, which encourages users to make copies and derivative works that a first sale does not allow. Consequently, EULAs play an important instructional role for software end users.[247] Indeed, to the extent the Supreme Court is concerned with encumbering commerce, it should avoid burdening hybrid goods/services products by limiting the available transaction options to those that were developed for sales of chattels.[248]

Third, while the Supreme Court concluded in *Impression Products* that the commerce-clogging effect of conditional sales is not worth the extra control that patent remedies provide,[249] the opposite is true for software. Software developers need the extra control because of the nature of software, as explained above. In contrast to sales of goods, end-user licensing of software is the expected—rather than the exceptional—transaction model.[250] Thus, EULAs flow easily with software products throughout the digital economy, lubricating commerce rather than clogging it up.[251]

Fourth, the Supreme Court pointed out that many modern products are subject to both copyright and patent protection, concluding it "would make little theoretical or practical sense" to have patent and copyright exhaustion doctrines that differ. However, as discussed previously, the different underpinnings of patent exhaustion (common law) and copyright first sale (statutory) require different approaches. But just as important, differing approaches do not present the practical challenges that the Court assumes. Software is often protected by copyright and patent law, as well as trademark and trade secret law.[252] Consequently, in software litigation, courts routinely evaluate many types of intellectual property claims in

---

246. Impression Prods., Inc. v. Lexmark Int'l, Inc., 137 S. Ct. 1523, 1532 (2017). Indeed, to the extent the Supreme Court is concerned with encumbering commerce, it should avoid burdening hybrid goods/services products by limiting the available transaction options to those that were developed for sales of goods. *See* Raymond T. Nimmer et al., *License Contracts Under Article 2 of the Uniform Commercial Code: A Proposal*, 19 RUTGERS COMPUTER & TECH. L.J. 281 (1993); Lorin Brennan, *Why Article 2 Cannot Apply to Software Transactions*, 38 DUQ. L. REV. 459 (2000); Raymond T. Nimmer, *An Essay on Article 2's Irrelevance to Licensing Agreements*, 40 LOY. L.A. L. REV. 235 (2006).

247. *See* Gomulkiewicz & Williamson, *supra* note 60, at 346–52.

248. *See* Nimmer et al., *supra* note 246; Brennan, *supra* note 246; Nimmer, *supra* note 246.

249. *Impression Prods.*, 137 S. Ct. at 1532.

250. *See* Adobe Sys. Inc. v. Christenson, 809 F.3d 1071, 1078 (9th Cir. 2015) (noting that software licenses are "ubiquitous" and the "predominate form of the transfer of rights" in the software industry); Apple Inc. v. Psystar Corp., 658 F.3d 1150, 1156 (9th Cir. 2011).

251. *See Impression Prods.*, 137 S. Ct. at 1532. Indeed, no one questions the ease of presenting and manifesting assent to EULAs; the main problem is how to get people to slow down to pay attention to them. *See* Aaron Perzanowski & Chris Jay Hoofnagle, *What We Buy When We 'Buy Now'*, 165 U. PA. L. REV. 315 (2017).

252. *See* GOMULKIEWICZ, *supra* note 23, at 8.

the same case.[253] For each type of intellectual property claim, courts carefully analyze the varying standards for scope of protection, purported infringing activity, and applicable defenses (such as different approaches to "fair use").[254] They also apply the differing remedy regimes for each type of intellectual property, adjusting remedies when needed to avoid unfair redundant recovery.[255]

VII. ADVISING SOFTWARE INDUSTRY CLIENTS AFTER *IMPRESSION PRODUCTS*

Impression Products will undoubtedly cause lawyers who advise software developers to evaluate the continuing viability of their downstream licensing models. This Article provides some guidance on where changes may be needed. For example, lawyers should consider whether a clear and conspicuous warning is better than a wordy EULA to provide notice of upstream license conditions that could trigger a claim for copyright infringement.[256]

This Part highlights two additional impacts for practicing lawyers to consider. First, *Impression Products* shows the importance of contract law remedies in software transactions. Often contract remedies will be the only remedies available. As such, lawyers need to make sure their clients are taking adequate measures to form an enforceable contract.[257] Courts have provided the general template for an enforceable EULA: the software developer needs to provide a meaningful opportunity to review the terms and a meaningful way to manifest assent.[258]

Even with the best legal counsel, however, clients sometimes push back on taking the measures necessary to form an enforceable contract.[259] Occasionally the client nefariously wants to hide terms,[260] but usually the client simply wants to use the EULA-devoted space to communicate other information to the customer or believes the contract formation process (paradoxically) is not "customer

---

253. *E.g.*, Comput. Assocs. Int'l, Inc. v. Altai, Inc., 982 F.2d 693 (2d Cir. 1992) (copyright and trade secret); Bowers v. Baystate Tech., 320 F.3d 1317 (Fed. Cir. 2003) (patent and copyright).

254. *See generally* Mark A. Lemley & Mark P. McKenna, *Scope*, 57 WM. & MARY L. REV. 2197 (2016).

255. *See* UNIFORM TRADE SECRETS ACT §§ 2–4 (2012) (trade secret remedies); 35 U.S.C. §§ 283–85 (2012) (patent remedies); 17 U.S.C. §§ 502–05 (2012) (copyright remedies); 15 U.S.C. §§ 1116–18 (2012) (trademark remedies). *See generally* Gomulkiewicz, *supra* note 73 (describing the court's skillful treatment of contract, copyright, and patent remedies).

256. *See supra* Section V.B.2.b.

257. *See* Duffy & Hynes, *supra* note 13, at 4 ("IP lawyers advising clients on commercial transactions must constantly ask whether, and to what extent, any IP rights will survive the contemplated transactions.").

258. *See* Specht v. Netscape Corp., 306 F.3d 17, 28–35 (2d Cir. 2002); Ariz. Retail Sys., Inc. v. Software Link, Inc., 831 F. Supp. 759, 762–66 (D. Ariz. 1993).

259. *See, e.g.*, Adobe Sys. Inc. v. Christenson, 809 F.3d 1071, 1080 (9th Cir. 2015); Nguyen v. Barnes & Noble Inc., 763 F.3d 1171 (9th Cir. 2014).

260. *See generally* Braucher, *supra* note 68.

friendly."[261] This phenomenon leads to a second impact of *Impression Products*: advising clients to use fewer EULAs.

Impression Products should motivate practicing lawyers to systematically assess the pros and cons of using a EULA at all. Lawyers should have been performing such an assessment all along, but even talented lawyers get caught up in a bandwagon of contracting practices.[262] Lawyers who counsel software developers often uncritically recommend EULAs because it is customary; in other words, they do it just to be "safe." But deploying EULAs comes at a cost to clients, and, in many cases, the cost of deploying a truly enforceable EULA is not worth the benefit. If a client wants the benefits of contract law remedies, then the client needs a contract that is enforceable. So if a client resists doing the things necessary to create an enforceable contract, then it's simply not worth deploying a nonenforceable EULA. At the same time, lawyers should be re-motivated to explore creative contracting techniques that are both enforceable and user friendly[263] or other creative commercial law alternatives to EULAs.[264]

VIII. LOOKING TO THE FUTURE: HOW MUCH DOES *IMPRESSION PRODUCTS* REALLY MATTER?

As we look to the future of software technology, we see two significant trends: software as a service and software embedded in goods. One trend indicates that *Impression Product*s does not matter much, while the other indicates that it matters very much. To the extent business models move toward software as a service, the first sale doctrine does not matter because the software developer is not providing copies in the transaction.[265] To the extent business models move toward embedded software, the first sale doctrine comes squarely into play because the product always contains a copy of the software. Indeed, for software embedded in hard goods, the congruence between copyright and patent exhaustion articulated by the Supreme Court in *Impression Products* seems particularly strong.

However, the only safe thing that we can say about the future of business models in the software industry is that they will continue to evolve. Technology companies such as Amazon, Apple, Facebook, Google, and Microsoft constantly experiment with different mixes of goods and services.[266] Do they provide

---

261. *See* Gomulkiewicz, *supra* note 7, at 693–94.

262. *See* GOMULKIEWICZ, NGUYEN & CONWAY, *supra* note 33, at 537–38 (rubric for deciding whether to use a EULA).

263. *See* Gomulkiewicz, *supra* note 7, at 696–717.

264. *See* Duffy & Hynes, *supra* note 13, at 72–73 (suggesting the use of security interests).

265. *See generally* Perzanowski & Schultz, *supra* note 185; Reese, *supra* note 185; Liu, *supra* note 185.

266. *See* Maria Armental & Rachael King, *Cisco Adds to Shift Toward Software*, WALL ST. J., Aug. 22, 2017, at B4; Matt Day, *Office 365 Beats Sales of Old Office*, SEATTLE TIMES, July 21, 2017, at B15; Tripp Mickle, *Apple's Breakthrough Product: Services*, WALL ST. J., Aug. 3, 2017, at B4; BRAD STONE, THE EVERYTHING STORE: JEFF BEZOS AND THE AGE OF AMAZON 193 (2013). *See generally* Elvy, *supra* note 242.

services? Yes! Do they provide goods? Yes! Do they provide bundles of goods and services? Yes! The most important principle for the law post-*Impression Products* is that it enables, rather than impedes, business-model innovation. The precise question, then, is not whether "the license *is* the product"—sometimes it will be and sometimes it won't—but whether the license *can* be the product when it makes sense for the innovative business models that software developers dream up to bring their technology to market.[267]

CONCLUSION

We live in an information economy in which licensing is the predominant transaction model. The software industry relies on licenses to develop innovative products and bring them to market in a variety of creative ways. As software users, we encounter licenses on a regular basis. For us, the license is the product—software provides the functionality but the license provides what can be done with the software. State and federal courts have enforced software licenses for more than two decades. However, after *Impression Products* the software industry now faces a critical question—is the license *still* the product?

Fortunately, the case does not disrupt licenses used to build products and create customer solutions and leaves adequate room for innovative distribution licensing. And while the Supreme Court shut the door on enforcing end-user licenses using patent law, it left the door open for using contract law to enforce them. The Supreme Court also seemed to shut the door on using copyright law to enforce end-user licenses by linking the patent and copyright exhaustion doctrines. However, a close examination of the Copyright Act reveals that a statutory copyright first sale differs from common law patent exhaustion, leaving the door ajar for enforcement of end-user licenses using copyright law. Nonetheless, it would be wise for Congress to amend the Copyright Act to clarify that end-user licenses are not first sales. As Congress and the courts begin to address software licensing in the aftermath of *Impression Products*, one guiding principle seems clear—both software developers and users will be better served if the license is still the product, enforceable under contract and copyright law.

267. *See* PERZANOWSKI & SCHULTZ, *supra* note 9, at 169 (extolling the benefits of first sale transactions but, ultimately, emphasizing the importance of meaningful choice in transaction models); David McGowan, *The Unfallen Sky*, 51 HOUS. L. REV. 337, 373–74 (2103) (highlighting the risk of mandatory rules that limit freedom to choose approaches that suit particular business needs).