

11-25-2014

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Recommended Citation

Gaia Bernstein, *The Rise of the End User in Patent Litigation*, 55 B.C.L. Rev. 1443 (), <http://lawdigitalcommons.bc.edu/bclr/vol55/iss5/3>

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THE RISE OF THE END USER IN PATENT LITIGATION

GAIA BERNSTEIN*

Abstract: The patent system focuses on the actions of two players: the patentee and its competitor. It assumes that the competitor will represent the interests of the end user. But, end users are increasingly becoming significant players in the patent system, with their interests sometimes diverging from those of competitors. Attention has recently turned to Patent Assertion Entities (“PAEs”)—also known as patent trolls—who are suing vast numbers of customers using patented technologies in their everyday businesses. Yet, end users were also principal players in some of the main recent patent cases before the U.S. Supreme Court. In *Bowman v. Monsanto Co.*, Monsanto sued farmers for re-using its patented self-replicating seeds. In *Association for Molecular Pathology v. Myriad Genetics*, patients and physicians sued to invalidate breast cancer gene patents. And, patients and drug stores repeatedly challenge pay-for-delay agreements between patentees and competitors, claiming they undermine patients’ interests in access to generic drugs.

The drafters of the America Invents Act (the “AIA”) intended the legislation to catch up with the changing patent landscape. Yet, the AIA did not predict and is largely ill-equipped to address the growing role of end users. The AIA addresses the needs of small entities, mainly, by adding procedures to challenge patents in the United States Patent and Trademark Office (“PTO”), providing a cheaper and faster forum for challenging validity. However, end users are different from small technological competitors. End users lack technological sophistication, they are often one-time players and tend to become involved in the patent dispute relatively late in the life of the patent. The AIA’s novel PTO procedures are largely unsuitable for end

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* Professor of Law, Seton Hall University School of Law. I would like to thank for their very helpful comments and suggestions: David Abrams, Christopher Beauchamp, Andrew Beckerman-Rodau, Christopher Bucaffusco, Michael Burstein, Michael Carrier, Thomas Cooter, Rochelle Dreyfuss, Jeanne Fromer, Megan La Belle, Brian Love, Andrea Matwyshyn, Orna Rabinovich-Einy, Jason Rantanen, Daniel Ravicher, Amit Solomon, Philip Swain, Charles Sullivan, Harry Sunder, David Schwartz, Felix Wu and Tal Zarsky. I would also like to thank the participants of the Tri-State Intellectual Property Colloquium at the New York University School of Law, the ABA-IPL First Intellectual Property Scholarship Symposium at the 29th ABA Annual Intellectual Property Conference, the Cardozo School of Law Intellectual Property and Information Law Colloquium, the Intellectual Property Scholars Conference at the Cardozo School of Law, the Patcon4 Conference at the University of San Diego School of Law, the Haifa Faculty of Law Technology and Law Colloquium and the Seton Hall University School of Law Summer Brownbag. For excellent research assistance I would like to thank Ashley LeBrun, Isabelle Fabian and Julie Rich. This Article was generously supported by the summer research stipend of the Seton Hall University School of Law.

users because they permit expansive challenges mostly early in the life of the patent before end users are likely to be implicated.

Paradoxically, as end users play an increasingly larger role in patent law disputes, they have few legal tools to assert their interests. This Article argues for the need to equip end users with tools to defend their interests in this new patent litigation landscape. Specifically, since end users, who lack internal resources of technological sophistication, are especially ill suited to fund the expense of patent litigation, fee shifting is particularly warranted when the prevailing party is an end user. In 2014, the Supreme Court *Octane Fitness v. Icon Health & Fitness*, in which it lowered the standard courts need apply to award fee shifting in patent cases. And, at the same time, a flurry of Congressional bills proposes different versions of fee shifting. Yet, while these cases and bills address the general fee shifting standard and the issue of PAE lawsuits, they do not consider the unique status end users. This Article argues for the need to consider the special status of end users in any fee shifting reform.

INTRODUCTION

The landscape of patent litigation is changing. While two players traditionally dominated patent litigation—the patent owner and the competitor—end users are occupying a growing role. The media, legislators, and commentators have recently started paying attention to Patent Assertion Entities (“PAEs”), also known as “patent trolls,” and their lawsuits against customers.¹ PAEs, who primarily own software patents,² are threatening to sue and are suing thousands of customers, who use the allegedly patented technology they purchase from manufacturers and suppliers.³ For example, in January 2013, Personal Audio, LLC, a PAE, began sending demand letters for licensing fees and suing podcasters, including comedian Adam Carrola, claiming it owns a patent over podcasting technology and that these individual podcasters in-

¹ See generally, e.g., Saving High-Tech Innovators from Egregious Legal Disputes (SHIELD) Act, H.R. 845, 113th Cong. (2013) (providing for fee shifting to the prevailing party if the losing party is a PAE); Brian J. Love & James C. Yoon, *Expanding Patent Law's Customer Suit Exception*, 93 B.U. L. REV. 1605 (2013) (proposing expanding the customer suit exception as a solution to PAEs' lawsuits against customers); Ashby Jones, *Cisco Calls Patent Trolls Racketeers*, WALL ST. J., Nov. 11, 2012, <http://online.wsj.com/news/articles/SB10001424127887324073504578113082258844080>, archived at <http://perma.cc/RLD2-VTAN?type=pdf> (describing a PAE's lawsuits and threats against Cisco's customers); Colleen V. Chien & Edward Reines, *Why Technology Customers Are Being Sued en Masse for Patent Infringement & What Can Be Done* (Santa Clara Univ. Sch. of L. Legal Studies Research Papers Series, Working Paper No. 20-13, 2013), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2318666, archived at <http://perma.cc/QPZ4-87GT> (analyzing PAEs' lawsuits against customers).

² James Bessen et al., *The Private and Social Costs of Patent Trolls*, REG., Winter 2011–12, at 26, 28 (stating that PAEs are particularly common in the software industry).

³ Chien & Reines, *supra* note 1, at 8–11 (discussing PAE lawsuits against numerous customers).

fringed its patent.⁴ Another PAE, Project Paperless LLC, sent multiple demand letters for licensing fees and sued small businesses, claiming that anyone using an office scanner to scan documents and email them infringes its patent.⁵

While lawsuits against customer end users have garnered some attention, end users are occupying a growing role beyond lawsuits filed by PAEs. End users were litigants in some of the main recent patent cases before the Supreme Court. In 2013, in the Supreme Court case *Ass'n for Molecular Pathology v. Myriad Genetics*, patients and physicians sued Myriad Genetics (“Myriad”) to invalidate Myriad’s breast cancer gene patents.⁶ Their goal was to enhance patients’ access to Myriad’s breast cancer genetic testing, which Myriad priced at \$3,000.⁷ In the same year, in the Supreme Court case of *Bowman v. Monsanto Co.*, Monsanto, which owns patents on genetically engineered seeds, sued farmers who re-used its seeds by saving some of the crops for re-planting the next season.⁸

End user involvement is not limited to PAE lawsuits and major patent cases. In the pharmaceutical industry, patients increasingly find that competitors of patented drug manufacturers fail to protect their interests. Patients, drug stores, and the Federal Trade Commission (FTC) are challenging numerous agreements (known as pay-for-delay or reverse payment agreements) between patented drug manufacturers and generic manufacturers. Through these agreements, patent owners compensate generic manufacturers not to enter the mar-

⁴ Press Release, Elec. Frontier Found., EFF Files Challenge with Patent Office Against Troll’s Podcasting Patent, (Oct. 16, 2013), <https://www.eff.org/press/releases/eff-files-challenge-patent-office-against-trolls-podcasting-patent>, archived at <http://perma.cc/S563-PRK7?type=image>.

⁵ Joe Mullin, *Patent Trolls Want \$1,000—for Using Scanners*, ARS TECHNICA (Jan. 2, 2013, 9:30 AM), <http://arstechnica.com/tech-policy/2013/01/patent-trolls-want-1000-for-using-scanners/>, archived at <http://perma.cc/3JBX-CSHF>; Steven Salzberg, *Did You Scan and Email That Document? You Might Owe \$1,000 to a Patent Troll*, FORBES (Aug. 5, 2013, 8:00 AM), <http://www.forbes.com/sites/steven-salzberg/2013/08/05/did-you-scan-and-email-that-document-you-might-owe-1000-to-a-patent-troll/>, archived at <http://perma.cc/7N23-KQEZ?type=live>.

⁶ *Ass'n for Molecular Pathology v. Myriad Genetics, Inc.*, 133 S. Ct. 2107, 2114 (2013); Complaint at *3–13, *29–30, *Ass'n for Molecular Pathology v. U.S. Patent & Trademark Office*, 669 F. Supp. 2d 365 (S.D.N.Y. 2009) (No. 09 Civ. 4515) [hereinafter Complaint, *Ass'n for Molecular Pathology*], available at http://www.aclu.org/images/asset_upload_file939_39568.pdf, archived at <http://perma.cc/M2UA-YQZK>, *aff'd in part, rev'd in part* 654 F.3d 1329 (Fed. Cir. 2011), *vacated, appeal reinstated*, 467 F. App'x 890 (Fed. Cir. 2012), *aff'd* 689 F.3d 1303 (Fed. Cir. 2012), *aff'd in part, rev'd in part sub nom. Ass'n for Molecular Pathology*, 133 S. Ct. at 2120.

⁷ See Complaint, *Ass'n for Molecular Pathology*, *supra* note 6, at *3–13; Jonathan Stempel, *Myriad Wins Gene Patent Ruling from US Appeals Court*, REUTERS (Aug. 6, 2012 4:23 PM), <http://www.reuters.com/article/2012/08/16/us-myriad-patent-idUSBRE87F12K20120816>, archived at <http://perma.cc/459N-Z447> (reporting on the cost of genetic testing for BRCA1/BRCA2).

⁸ *Bowman v. Monsanto Co.*, 133 S. Ct. 1761, 1764–65 (2013); see *Organic Seed Growers & Trade Ass'n v. Monsanto Co.*, 718 F.3d 1350, 1353 (Fed. Cir. 2013) (“Between 1997 and 2010, Monsanto brought some 144 infringement suits for unauthorized use of its seed. Approximately 700 other cases were settled without litigation.”).

ket. Plaintiffs are suing to invalidate these agreements in order to obtain access to less expensive generic drugs.⁹ The Supreme Court decided one of these cases—*FTC v. Actavis, Inc.*—in 2013.¹⁰

End users are likely to become even more prevalent in patent litigation as an emerging new technology—the Three-Dimensional (“3D”) printer—becomes more popular.¹¹ 3D printers can replicate three-dimensional products and are becoming increasingly accessible to consumers.¹² Recently, UPS started deploying these printers at its stores for general customer use and Staples sells them for approximately \$1300.¹³ 3D printers transform the access to the means of production by allowing consumers the opportunity to make items at home.¹⁴ This new capability increases the likelihood that an individual or a small business will make an infringing item that will expose them to patent liability.¹⁵

End users may be individuals or businesses, they are often small but may not necessarily be so, and they occupy different roles in the patent litigation landscape. This Article defines end users broadly to include those using a patented technology for personal consumption and those using it in business. But importantly, they are strictly users. End users may incorporate the patented technology within a product or service they offer to their customers, but they do not make or sell the technology itself. They are usually not knowledgeable about it. And, at times, they may even be unaware of its existence.¹⁶

End users differ from small technological competitors in three respects. First, end users are usually individuals or businesses that are not technological companies (or do not produce and supply the allegedly infringing technology). This puts them at a significant disadvantage in patent disputes, where arguments for patent invalidity and infringement need to rely on an intricate understanding of the patented technology, the prior art, and the alleged infringing

⁹ See *infra* notes 101–123 and accompanying text.

¹⁰ See generally *FTC v. Actavis, Inc.*, 133 S. Ct. 2223 (2013).

¹¹ A similar trend occurred in copyright law when digitization of copyrighted materials on the Internet exposed users to increased copyright liability. See generally Justin Hughes, *On the Logic of Suing One’s Customers and the Dilemma of Infringement-Based Business Models*, 22 CARDOZO ARTS & ENT. L.J. 725 (2005) (discussing the music industry’s lawsuits against individuals who downloaded music on the Internet).

¹² See Davis Doherty, *Downloading Infringement: Patent Law as a Roadblock to the 3D Printing Revolution*, 26 HARV. J.L. & TECH. 353, 353–54 (2012) (stating that, although 3D printers currently do not have the capabilities of Star Trek replicators, they are no longer an expensive curiosity).

¹³ Deven R. Desai & Gerard N. Magliocca, *Patents, Meet Napster: 3D Printing and the Digitization of Things*, 102 GEO. L.J. (forthcoming 2014) (manuscript at 10), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2338067, archived at <http://perma.cc/5Y3K-T5PP>; see Doherty, *supra* note 12, at 357 (describing the market adoption of 3D printers).

¹⁴ See Desai & Magliocca, *supra* note 13 (manuscript at 8, 11–12).

¹⁵ See *id.* (manuscript at 6); Doherty, *supra* note 12, at 359.

¹⁶ See *infra* notes 124–150 and accompanying text.

technology. Second, end users usually become embroiled in the patent conflict relatively late in the life of the patent, after the patented technology enters the market and achieves widespread adoption. Third, end users are typically one-time players. They are not in the business of producing and selling the technology. In most cases the technology is ancillary to their business and they do not have a long-term stake. End users would, therefore, prefer to settle or withdraw from use of the technology, rather than pursue litigation.¹⁷

As end users are taking a greater role at the center and in the shadows of patent litigation, they are faced with the absence of appropriate procedural litigation tools. The equities of end user cases differ and so does our sympathy toward them. Some end users may be willful infringers while others may be individuals or small businesses unaware they are using a technology, whether patented or not.¹⁸ But, irrespective of whether their substantive claims are justified, end users are uniquely situated participants in patent litigation. End users need procedural tools that will grant them equal footing to that of patent owners and competitors.

The promoters of the recent patent reform, the America Invents Act (the “AIA”), which came into effect primarily in 2013, intended patent legislation to catch up with the changing patent landscape.¹⁹ One of their goals was to protect the interests of small entities. Yet, the AIA failed to predict and is largely ill-equipped to address the growing role of end users. A major set of reforms focused on procedures in the PTO. The objective was to provide an efficient, timely, and less costly alternative to the notoriously expensive patent litigation and assist the PTO by relying on the expertise of the public.²⁰ The AIA amended the third party submission process to facilitate interested parties’ submissions to challenge patent applications.²¹ It also created the post-grant review

¹⁷ See *infra* notes 124–150 and accompanying text.

¹⁸ See *infra* notes 124–150 and accompanying text. Some commentators propose that end users should be given immunity from lawsuits. See, e.g., *Legislative Solutions for Patent Reform*, ELEC. FRONTIER FOUND. <https://www.eff.org/issues/legislative-solutions-patent-reform#enduser>, archived at <http://perma.cc/HX8C-XLQV> (last visited Nov. 12, 2014). This Article does not weigh the equity of end users cases and does not presume that all end users are necessarily blameless. End users come in all shades and colors. Instead, the Article’s goal is more limited to placing end users in a more equal procedural footing with the traditional patent players.

¹⁹ See Leahy-Smith America Invents Act, Pub. L. No. 112-29, 125 Stat. 284 (codified as amended in scattered sections of 35 U.S.C. (2012)).

²⁰ See Bradley William Baumeister, *Critique of the New Rule 1.99: Third-Party Information Disclosure Procedure for Published Pre-Grant Applications*, 83 J. PAT. & TRADEMARK OFF. SOC’Y 381, 387–88 (2001) (explaining that the public would provide the PTO with public documents that, in an ideal world, the examiner could find on his own); Philip De Corte et al., *AIA Post-Grant Review & European Oppositions: Will They Work in Tandem, or Rather Pass Like Ships in the Night?*, 14 N.C. J.L. & TECH. 93, 126 (2012) (explaining that the goal of creating the post-grant review was to create a less expensive, more efficient alternative to litigation to challenge patent validity).

²¹ See *infra* notes 198–205 and accompanying text.

procedure to provide a forum for challenging a patent application in the PTO.²² These procedures, however, fail to address the needs of end users, mainly because they are available only very early in the life of the patent. A party can submit a third party submission no later than the issuance of the patent,²³ while a petitioner can challenge a patent's validity in a post-grant review only up to nine months from the issuance of the patent.²⁴ End users are unlikely to be aware of the technology so early in the life of the patent because it usually has not yet entered the market, and even if it has, it is unlikely to have already gained widespread adoption.²⁵

Congress created two additional procedures—the *inter partes* review and the covered business method patent review—where a petitioner can challenge a patent's validity after the post-grant window closes.²⁶ But, although end users could time-wise avail themselves of the *inter partes* review, the scope of permitted challenges is significantly narrower than in the post-grant review procedure, limiting the options for such a challenge.²⁷ The covered business method patent review is also a limited alternative for end users, particularly because it is available only to petitioners who are directly sued or threatened by the patentee.²⁸

Another AIA reform expanded the prior user rights defense. A party who successfully asserts user rights can continue using the patented invention without paying licensing fees within certain restrictions.²⁹ The defense now applies to all inventions, not just business methods, and importantly, no longer requires that the party asserting the defense be the inventor who reduced the in-

²² See *infra* notes 206–213 and accompanying text.

²³ A party can submit a third party submission, as long as it is submitted before the earlier of (i) the date of notice of allowance, or (ii) the later of: six months from the publication of the application or the date of the first rejection by an examiner. 35 U.S.C. § 122(e) (2012).

²⁴ See *id.* § 321(c).

²⁵ Technologies have different adoption rates and some may be adopted earlier than others. But generally, it is less likely that money will be invested in commercialization before a patent is granted. See EVERETT M. ROGERS, *DIFFUSION OF INNOVATIONS* 219–66 (5th ed. 2003) (discussing rates of adoption of new technologies and the factors affecting those rates). See generally Christopher A. Cotropia, *The Folly of Early Filing in Patent Law*, 61 HASTINGS L.J. 65 (2009) (discussing the problem of patenting early in the technological cycle before the technology is ready for commercialization); Ted Sichelman, *Commercializing Patents*, 62 STAN. L. REV. 341 (2010) (same).

²⁶ See 35 U.S.C. § 311(c) (providing the filing window for an *inter partes* review); 37 C.F.R. § 42.303 (2013) (providing the filing window for business method patents review).

²⁷ Challenges under *inter partes* review are limited to narrower grounds, i.e., only prior art and obviousness, while challenges under post-grant review can extend to broader grounds, including subject matter, utility, definiteness, written description and enablement. See 35 U.S.C. § 311(b) (providing the grounds permitted for challenges under *inter partes* review); *id.* § 321(b) (providing the grounds permitted for challenges under post-grant review).

²⁸ See *infra* notes 219–230 and accompanying text.

²⁹ See DAVID J. KAPPOS & TERESA STANEK REA, UNITED STATES PATENT & TRADEMARK OFFICE, REPORT ON THE PRIOR USER RIGHTS DEFENSE 5 (2012).

vention to practice.³⁰ Eliminating the reduction to practice requirement provides end users with access to the defense. To take advantage of the defense, however, the end user needs to have used the invention in commerce at least one year before the filing of the patent application or public disclosure.³¹ This renders the prior user rights defense largely inapplicable to end users, who are less likely to have access to the technology that early in the life of the patent.

The AIA's failure to account for the rise of the end user leaves end users without tools that can put them on more equal footing with traditional patent litigation parties. This Article examines the role that fee shifting of litigation expenses to the prevailing party can play in end user cases. Fee shifting, by no means, will motivate all end users to litigate even meritorious cases and challenge potentially invalid patents. The advent of the end user is a complex phenomenon. A series of reforms is needed to address this transformation, including: changing the standards for standing to sue in patent litigation;³² expanding the customer suit exception,³³ and changing contractual practices to incorporate more frequent use of indemnification procedures between manufacturers and customers. Nonetheless, fee shifting is applicable to the diverse array of end user cases and can contribute toward leveling the footing of end users in all type of end user-patentee disputes.

The general U.S. rule governing fee shifting ("The American Rule") does not allow the prevailing party to recover legal fees from the loser.³⁴ Congress, however, has carved out many exceptions to the American Rule that allows for fee shifting to the prevailing party.³⁵ The current standard under the Patent Act

³⁰ See 35 U.S.C. § 273(a) (2012); see also KAPPOS & REA, *supra* note 29, at 18 (stating that the AIA does not require the party asserting prior use rights to be the actual inventor).

³¹ See *infra* notes 231–238 and accompanying text.

³² For further discussion addressing this issue of end users' standing to sue for declaratory judgment in a separate article, see generally Gaia Bernstein, *End Users and Standing to Sue* (Oct. 6, 2014) (unpublished manuscript) (on file with author).

³³ See generally Love & Yoon, *supra* note 1 (proposing expanding the customer suit exception as a solution to PAEs' lawsuits against customers).

³⁴ See *Arcambel v. Wiseman*, 3 U.S. (3 Dall.) 306, 306 (1796) ("The general practice of the United States is in opposition to [the indemnity rule] and even if that practice were not strictly correct in principle, it is entitled to the respect of the court, till it is changed, or modified, by statute.").

³⁵ See, e.g., The Civil Rights Attorney's Fees Awards Act of 1976, 42 U.S.C. § 1988(b) (2012) ("[T]he court, in its discretion, may allow the prevailing party, other than the United States, a reasonable attorney's fee as part of the costs . . ."); see also Charles Silver, *Unloading the Lodestar: Toward a New Fee Award Procedure*, 70 TEX. L. REV. 865, 866 (1992) (stating that "[f]ee shifting is common in federal cases" and that by enacting over 150 statutes entitling parties who prevail to claim fee awards, Congress greatly restricted the American Rule); Peter N. Cubita et al., Note, *Awards of Attorney's Fees in the Federal Courts*, 56 ST. JOHN'S L. REV. 277, 286–89 (1982) (describing federal statutes that authorize awards of attorneys' fees to prevailing parties).

is that courts have the discretion to grant attorney's fees to the prevailing party in "exceptional circumstances."³⁶

This exceptional circumstances standard has recently come under close scrutiny. Recently, the Supreme Court decided important cases involving fee shifting in patent litigation.³⁷ In 2014, in *Octane Fitness LLC v. ICON Health & Fitness, Inc.*, the Court lowered the standard for awarding fee shifting in patent litigation.³⁸ At the same time, Congress is considering multiple bills advocating different versions of fee shifting.³⁹ The impetus for this activity is concern regarding the impact of PAE lawsuits on innovation.⁴⁰ The petitions before the Court and some of the bills presented to Congress focused on facilitating fee shifting generally, without targeting PAEs specifically, while other bills focused on PAEs, making it more likely that fee shifting to the prevailing party will occur if the loser is a PAE.⁴¹

This Article argues that the case for fee shifting is particularly strong where end users are implicated. First, there is significant inequality between the parties when an end user is a part of litigation.⁴² Patent litigation is exorbitantly expensive compared to many other forms of civil litigation.⁴³ These costs are even higher for end users because patent litigation relies on technological expertise to invalidate a patent. End users, unlike technological competitors, cannot rely on in-house expertise and need to expend significant resources on external experts. In addition, unlike patent owners, they cannot avail themselves of contingent fee representation.⁴⁴ This puts end users at a significant disadvantage, making them much more likely to settle and avoid litigation even when their claims are meritorious.

³⁶ 35 U.S.C. § 285 (2012).

³⁷ See generally *Octane Fitness, LLC v. ICON Health & Fitness, Inc.*, 134 S. Ct. 1749 (2014); *Highmark, Inc. v. Allcare Health Mgmt. Sys., Inc.*, 134 S. Ct. 1744 (2014).

³⁸ See 134 S. Ct. at 1755–58.

³⁹ See Innovation Act, H.R. 3309, 113th Cong. § 3 (2013); Patent Litigation Integrity Act, S. 1612, 113th Cong. § 101 (2013); Patent Abuse Reduction Act, S. 1013, 113th Cong. § 5 (2013); Saving High-Tech Innovators from Egregious Legal Disputes (SHIELD) Act, H.R. 845, 113th Cong. § 2 (2013).

⁴⁰ See, e.g., H.R. 3309 (amending the Patent Act to provide that attorney fees will be awarded to the prevailing party, unless the court finds that the conduct or position of the non-prevailing party were substantially justified, or that special circumstances make the award unjust); Petition for Writ of Certiorari at 17–20, *Octane Fitness LLC v. ICON Health & Fitness, Inc.*, 496 Fed. Appx. 57 (Fed. Cir. 2012) (No. 12-1184), 2013 WL 1309080, at *17–20 (arguing for the need to lower the standard for an alleged infringer to prove exceptional circumstances under Section 285 of the Patent Act).

⁴¹ See, e.g., H.R. 845 (indicating that the Patent Act's fee shifting provision only applies if the non-prevailing entity is a PAE).

⁴² See Jay P. Kesan, *Carrots and Sticks to Create a Better Patent System*, 17 BERKELEY TECH. L.J. 763, 792–93 (2002) (explaining that fee shifting helps equalize a disparity in strength between parties).

⁴³ See *infra* notes 256–273 and accompanying text.

⁴⁴ See *infra* notes 256–273 and accompanying text.

Second, end users may want to initiate patent litigation as a preemptive measure to seek declaratory judgment of patent invalidity.⁴⁵ Currently, there are significant disincentives for bringing a declaratory judgment action, including the expense of litigation, lack of financial rewards, and the risks of triggering countersuits of infringement.⁴⁶ At the same time, a declaratory judgment of patent invalidity can be beneficial to many potential infringers not directly before the court.⁴⁷ Consequently, actions for declaratory judgment are relatively rare in patent litigation.⁴⁸ Fee shifting can help resolve this collective action problem and encourage more declaratory judgment lawsuits under a private attorney general theory.⁴⁹

Third, PAEs threaten and sue thousands of users, asserting, what many believe, are weak patent claims.⁵⁰ These users tend to settle even when their cases are meritorious. Commentators believe that fee shifting is likely to at least reduce the number of meritless patent suits, even if it is unclear whether it will reduce the number of settlements.⁵¹ In addition, fee shifting can serve a punitive function to deter and punish such abusive litigation practices.⁵²

⁴⁵ Standing for declaratory judgment patent lawsuits, however, is currently under much debate, and can affect some end users' ability to sue for declaratory judgment. See *Organic Seed Growers & Trade Ass'n*, 718 F.3d at 1361 (holding that the end user-appellants lacked standing to bring a declaratory judgment suit). See generally Michael J. Burstein, *Rethinking Standing in Patent Challenges*, 83 GEO. WASH. L. REV. (forthcoming 2014), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2359873&download=yes, archived at <http://perma.cc/HR56-R3NJ> (arguing for the need for broader grounds for standing in patent cases). For further discussion on standing issues relating to end users, see generally *Bernstein*, *supra* note 32.

⁴⁶ Megan M. La Belle, *Patent Law as Public Law*, 20 GEO. MASON L. REV. 41, 44 (2012).

⁴⁷ See *Blonder-Tongue Labs., Inc. v. Univ. of Ill. Found.* 402 U.S. 313, 350 (1971) (holding that a patent infringer can use issue-preclusion to foreclose an infringement suit where the patent claim in question had already been declared invalid in an earlier suit).

⁴⁸ See Kimberly A. Moore, *Forum Shopping in Patent Cases: Does Geographic Choice Affect Innovation?*, 79 N.C. L. REV. 889, 921 (2001) (finding that only fourteen percent of the patent cases filed annually were declaratory judgment actions).

⁴⁹ The Private Attorney General advocates fee shifting to encourage filing lawsuits where the litigation serves a public or broader private interest. See Thomas D. Rowe, Jr., *The Legal Theory of Attorney Fee Shifting: A Critical Overview*, 1982 DUKE L.J. 651, 662–63.

⁵⁰ John R. Allison et al., *Patent Quality and Settlement Among Repeat Patent Litigants*, 99 GEO. L.J. 677, 693–94 (2011) (finding PAE suits were much less likely than non-PAE suits to result in a ruling for patentee); Robert P. Merges, *The Trouble with Trolls: Innovation, Rent-Seeking, and Patent Law Reform*, 24 BERKELEY TECH. L.J. 1583, 1603–04 (2009) (discussing allegations that PAEs file suits based on weak patents); Chien & Reines, *supra* note 1, at 8–11 (discussing PAE lawsuits against numerous technological customers).

⁵¹ See Marie Gryphon, *Assessing the Effects of a "Loser Pays" Rule on the American Legal System: An Economic Analysis and Proposal for Reform*, 8 RUTGERS J.L. & PUB. POL'Y 567, 581–83 (2011); Walter Olson & David Bernstein, *Loser-Pays: Where Next?*, 55 MD. L. REV. 1161, 1161–62 (1996); Rowe, *supra* note 49, at 665–66; Frances Kahn Zemans, *Fee Shifting and the Implementation of Public Policy*, 47 LAW & CONTEMP. PROBS. 187, 193 (1984).

⁵² For discussions of the punitive function of fee shifting, see Rowe, *supra* note 49, at 653; Cubita et al., *supra* note 35, at 288.

End users would benefit from any change that facilitates fee shifting, particularly pro-alleged infringer fee shifting. General changes to fee shifting standards, however, are less likely to be effective because they do not carry a direct message to the end user.⁵³ Moreover, changes to fee shifting standards that focus on PAE status resolve only a subset of end user cases. This Article, therefore, proposes including the end user status as a factor that weighs in favor of fee shifting.

While this Article defines end user broadly, including end user status as a factor in the fee shifting analysis enables a more granular investigation into the nature of the specific end user. Even prevailing end users who are not liable for infringement can differ significantly. For example, although most end users know little about the patented technology, some are technological innovators and for other users the patented technology is central to their business. In these cases, inequality between the parties may not be as significant and the justification for fee shifting weaker. In other cases, end users may represent a broader public interest in a declaratory judgment action. In these instances, the private attorney general theory will strengthen the case for fee shifting.

This Article proceeds as follows. Part I describes the growing role of end users in patent litigation.⁵⁴ Part II discusses the reasons for the shift from a competitor model to a hybrid competitor-user model and distinguishes the characteristics of the end user from those of the traditional competitor.⁵⁵ Part III then shows that the AIA largely fails to protect the interests of the end user.⁵⁶ Finally, Part IV discusses the contemporary fee shifting debate and argues that there is a strong case for including end user status as a factor in fee shifting analysis in patent cases.⁵⁷

I. THE GROWING ROLE OF THE END USER IN PATENT LITIGATION

Many believe that until recently end users have largely been absent from patent litigation.⁵⁸ At the same time, there are some reports indicating that end

⁵³ Laws have both coercive and expressive effects. The expressive function of the law delivers a message to the public. See Gaia Bernstein, *The Paradoxes of Technological Diffusion: Genetic Discrimination and Internet Privacy*, 39 CONN. L. REV. 241, 287 (2006) (discussing the expressive power of the law); Richard H. McAdams, *The Origin, Development, and Regulation of Norms*, 96 MICH. L. REV. 338, 397–400 (1997) (same). See generally Elizabeth S. Anderson & Richard H. Pildes, *Expressive Theories of Law: A General Restatement*, 148 U. PA. L. REV. 1503 (2000) (same); Steven D. Smith, *Expressivist Jurisprudence and the Depletion of Meaning*, 60 MD. L. REV. 506 (2001) (same).

⁵⁴ See *infra* notes 58–123 and accompanying text.

⁵⁵ See *infra* notes 124–179 and accompanying text.

⁵⁶ See *infra* notes 180–238 and accompanying text.

⁵⁷ See *infra* notes 239–342 and accompanying text.

⁵⁸ *Abusive Patent Litigation: The Impact on American Innovation and Jobs, and Potential Solutions: Hearing Before the Subcomm. on Courts, Intellectual Prop. & the Internet of the Comm. on the*

users have been part of patent litigation during certain historical periods.⁵⁹ Empirical research needs to be conducted to establish the exact scope of the transformation. Yet, few doubt that a change has indeed been taking place. This Part shows that end users are appearing in patent litigation not just as defendants in PAE lawsuits but in a variety of roles. They have appeared as parties in recent major patent cases before the Supreme Court and the Federal Circuit, both as defendants and as plaintiffs in declaratory judgment suits. They also take a central role in challenging pay-for-delay agreements between patent owners and generic manufacturers that undermine users' interests in access to cheaper drugs.

A. End Users as Parties in Major Patent Cases

End users have played an important role in some of the major patent law cases litigated before the Supreme Court and Federal Circuit.⁶⁰ They appeared as both plaintiffs in declaratory judgment actions and as defendants. In 2013, in the Supreme Court case of *Ass'n for Molecular Pathology v. Myriad*, patients and physicians sued to invalidate Myriad's breast cancer gene patents.⁶¹ Myriad owned the patents on BRCA1/BRCA2, which are the genetic mutations responsible for a high risk of breast and ovarian cancer. Myriad charged \$3,000 for testing for the breast cancer genetic mutations, a rate significantly higher than rates charged for other genetic tests.⁶² In addition, Myriad sent

Judiciary, 103d Cong. 9–11 (2013) (statement of Mark Chandler, Senior Vice President and General Counsel, Cisco Systems, Incorporated) (testifying that the problem of PAE lawsuits has now spread to customers); *id.* at 35 (statement of Janet L. Dhillon, Executive Vice President, General Counsel and Corporate Secretary, JCPenney Company, Incorporated) (testifying that, prior to 2009, JCPenney never had to defend against a patent lawsuit, but had to defend approximately two dozen patent lawsuits between 2010 and 2013); Chien & Reines, *supra* note 1, at 8 (stating that “customer suits have been, until recently, relatively uncommon”); Scott Shane, *How to Neuter Patent Trolls*, BUSINESS WEEK (Mar. 26, 2013), <http://www.businessweek.com/articles/2013-03-26/how-to-neuter-patent-trolls>, archived at <http://perma.cc/8BWS-5GGC> (describing PAE suits against small businesses as a new trend).

⁵⁹ See Gerard N. Magliocca, *Blackberries and Barnyards: Patent Trolls and the Perils of Innovation*, 82 NOTRE DAME L. REV. 1809, 1819–25 (2007) (describing the existence of patent trolls in the Nineteenth Century who enforced agricultural patents).

⁶⁰ See *Ass'n for Molecular Pathology*, 133 S. Ct. at 2114; *Bowman*, 133 S. Ct. at 1765; *Organic Seed Growers & Trade Ass'n*, 718 F.3d at 1353.

⁶¹ Complaint, *Ass'n for Molecular Pathology*, *supra* note 6, at *3–13, *29–30.

⁶² Jonathan Stempel, *Myriad Wins Gene Patent Ruling from US Appeals Court*, REUTERS, (Aug. 6, 2012), <http://www.reuters.com/article/2012/08/16/us-myriad-patent-idUSBRE87F12K20120816>, archived at <http://perma.cc/43A6-D7TW> (reporting on the cost of genetic testing for BRCA1/BRCA2); *What Is the Cost of Genetic Testing, and How Long Does It Take to Get the Results?*, GENETICS HOME REFERENCE, <http://ghr.nlm.nih.gov/handbook/testing/costresults>, archived at <http://perma.cc/Z94L-4GSP> (last updated Aug. 12, 2014) (stating that the cost of genetic testing can range from less than \$100 to more than \$2,000).

cease and desist letters to physicians and laboratories that offered testing.⁶³ As a result, patients could only test through Myriad. Some patients were unable to test due to the high fees and lack of insurance coverage for genetic testing.⁶⁴ In addition, patients could not undergo repeat testing with another entity to confirm accuracy or undergo more extensive testing.⁶⁵ A group of patients joined forces with physicians, laboratories, medical centers, and non-profit organizations seeking a declaratory judgment of patent invalidity.⁶⁶ The case garnered significant media and academic attention⁶⁷ and was eventually decided by the Supreme Court in June 2013.⁶⁸

That same year, in the Supreme Court case of *Bowman v. Monsanto Co.*, the owner of patents on genetically engineered seeds that are resistant to herbicide, sued Bowman, a farmer who re-used the seeds.⁶⁹ Monsanto's genetically engineered seed, which is resistant to the herbicide, enables farmers to spray herbicide on crops in order to destroy weeds without destroying the crops.⁷⁰ But, the seed also has an additional quality of self-replication. Farmers can purchase the seeds once and save some crops to re-plant in subsequent seasons.⁷¹ To prevent this, Monsanto required farmers who bought the patented seed to sign a contract agreeing not to use the seed for an additional season. According to the agreement, none of the crops grown could be re-planted.⁷² Monsanto sued or threatened to sue over 800 farmers who re-planted the self-replicating seeds.⁷³ The Court decided the case on May 2013.⁷⁴

⁶³ *Ass'n for Molecular Pathology*, 689 F.3d 1303, 1314–15 (describing the cease and desist letters sent by Myriad).

⁶⁴ *Id.* at 1315; Complaint, *Ass'n for Molecular Pathology*, *supra* note 6, at *2.

⁶⁵ See *Ass'n for Molecular Pathology*, 689 F.3d at 1315; Complaint, *Ass'n for Molecular Pathology*, *supra* note 6, at *10–13.

⁶⁶ See Complaint, *Ass'n for Molecular Pathology*, *supra* note 6, at *3–13.

⁶⁷ See, e.g., Dan L. Burk, *Edifying Thoughts of a Patent Watcher: The Nature of DNA*, 60 UCLA L. REV. DISCOURSE 92 (2013) (criticizing the focus on the products of nature doctrine); Robert Barnes & Brady Dennis, *Supreme Court Rules Human Genes May Not Be Patented*, WASH. POST, June 13, 2013, http://www.washingtonpost.com/politics/supreme-court-rules-human-genes-may-not-be-patented/2013/06/13/9e5c55d2-d43d-11e2-a73e-826d299ff459_story.html, archived at <http://perma.cc/L7Z7-DGAX> (discussing the U.S. Supreme Court's decision); Adam Liptak, *Justices, 9-0, Bar Patenting Human Genes*, N.Y. TIMES, June 14, 2013, at A1, available at <http://www.nytimes.com/2013/06/14/us/supreme-court-rules-human-genes-may-not-be-patented.html>, archived at <http://perma.cc/KTT6-M4RW> (same).

⁶⁸ *Ass'n for Molecular Pathology*, 133 S. Ct. at 2107.

⁶⁹ 133 S. Ct. at 1764–65.

⁷⁰ *Id.* at 1764.

⁷¹ *Id.* at 1764–65.

⁷² *Id.* at 1764.

⁷³ *Organic Seed Growers & Trade Ass'n*, 718 F.3d at 1353 (“Between 1997 and 2010, Monsanto brought some 144 infringement suits for unauthorized use of its seed. Approximately 700 other cases were settled without litigation.”); see Jeremy N. Sheff, *Self-Replicating Technologies*, 16 STAN. TECH. L. REV. 229, 235–38 (2013), available at

Finally, in 2013, the Federal Circuit considered *Organic Seed Growers & Trade Ass'n v. Monsanto Co.*, where organic farmers, who did not use Monsanto's genetically engineered seed, filed suit for declaratory judgment that Monsanto's patents were invalid.⁷⁵ The organic farmers sued because the wind may blow seeds from one field to another, causing Monsanto's seeds to grow in their fields.⁷⁶ Given Monsanto's extensive history of lawsuits against farmers, they were concerned that Monsanto would sue them for inadvertently growing the patented seeds.⁷⁷ To prevent this, the organic farmers decided to act proactively and file suit for a judgment declaring that Monsanto's patents are invalid.⁷⁸ The Federal Circuit decided the case in June 2013. The Court held that the farmers lacked standing and denied their request for declaratory judgment.⁷⁹

B. PAEs' Litigation Against Customers

PAEs are a relatively recent phenomenon in patent litigation.⁸⁰ Nonetheless, they currently file the majority of patent lawsuits in the United States.⁸¹ They do not manufacture or sell the patented technology. Instead, these companies purchase patents in order to enforce them. PAEs have a number of business strategies.⁸²

A prominent group of PAEs, defined as the "bottom feeder trolls," threatens and sues large numbers of alleged infringers.⁸³ Unlike patent owners who are in

technology-law-review-stlr/online/self-replicatingtechnologies.pdf, archived at <http://perma.cc/SUMQ-LTJD> (discussing Monsanto's suits against farmers).

⁷⁴ *Bowman*, 133 S. Ct. at 1765–66, 1769.

⁷⁵ *Organic Seed Growers & Trade Ass'n*, 718 F.3d at 1353–54.

⁷⁶ *See id.* at 1356–57.

⁷⁷ *Id.* at 1353.

⁷⁸ *Id.* at 1353–54; First Amended Complaint at *1, *Organic Seed Growers & Trade Ass'n v. Monsanto*, 851 F. Supp. 2d 544 (S.D.N.Y. 2012) (No. 11-cv-2163-NRB) [hereinafter Complaint, *Organic Seed Growers & Trade Ass'n*], available at <http://www.pubpat.org/assets/files/seed/OSGATA-v-Monsanto-Complaint.pdf>, archived at <http://perma.cc/ay7s-p73q>.

⁷⁹ *Organic Seed Growers & Trade Ass'n*, 718 F.3d at 1360–61.

⁸⁰ *Litigations Over Time*, PATENT FREEDOM, <https://www.patentfreedom.com/about-npes/litigations>, archived at <http://perma.cc/ZCE5-7MKP> (last updated July 14, 2014) (showing the dramatic increase in PAE lawsuits from 2004 onward).

⁸¹ *See* Colleen V. Chien, Associate Professor of Law, Santa Clara Law, Patent Assertion Entities Presentation at FTC/DOJ Hearings on PAEs, 23 (Dec. 10, 2012), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2187314, archived at <http://perma.cc/ZYV6-972E>.

⁸² *See* Mark A. Lemley & A. Douglas Melamed, *Missing the Forest for the Trolls*, 113 COLUM. L. REV. 2117, 2123 (2013) (discussing the different business strategies employed by PAEs).

⁸³ *See id.* at 2126; *see also* Tracie L. Bryant, *The America Invents Act: Slaying Trolls, Limiting Joinder*, 25 HARV. J.L. & TECH. 687, 691–92 (2012) (describing PAEs' strategy of joining multiple unrelated defendants); Stijepko Tokic, *The Role of Consumers in Deterring Settlement Agreements Based on Invalid Patents: The Case of Non-Practicing Entities*, 2012 STAN. TECH. L. REV. 2, 9, available at <http://dl4a.org/uploads/pdf/tokic-role-of-consumers.pdf>, archived at <http://perma.cc/>

the business of marketing their inventions, PAEs do not have a business relationship they need cultivate with customers. Therefore, increasingly, these PAEs have been suing end users who are customers of a manufacturer or supplier of the alleged infringing technology.⁸⁴ Bottom feeders target customers for their use or adoption of existing technology.⁸⁵

PAE suits against customers have become increasingly common. PAEs find customer lawsuits attractive. First, these lawsuits provide PAEs with a large number of potential targets.⁸⁶ Second, customers, who are not technological companies with know-how regarding the patent, are easy targets who prefer to settle instead of entering expensive litigation.⁸⁷ The following are a few illustrative examples of PAEs' enforcement actions against end users.

One PAE, Innovatio, acquired patent rights to certain wireless Internet technologies, which it claims are necessary to implement the standards for wireless local area networking (Wi-Fi).⁸⁸ Wi-Fi technology is ubiquitously used. To enforce its patent rights, Innovatio has sent more than 8,000 infringement letters to businesses that use Wi-Fi technology and has initiated twenty-three lawsuits.⁸⁹ Innovatio's enforcement measures targeted many end users who are not technological companies. Some businesses, such as bakeries, restaurants and cafes, offer wireless technology to their customers, while other businesses use it for their internal business operations.⁹⁰

Another PAE, ArrivalStar, owns patent rights that allegedly cover systems and methods that enable users to receive vehicle or shipment status and arrival information through cell phones, telephones, and computers.⁹¹ It has filed hundreds of lawsuits, mostly ending in settlements, and has sent many more in-

FQD8-UFX3 (stating that there have been cases where PAEs sued over 20 defendants in one lawsuit); Chien & Reines, *supra* note 1, at 8–10 (discussing PAE lawsuits against many customers).

⁸⁴ See Chien & Reines, *supra* note 1, at 2 (indicating that PAE suits against customers have become increasingly common).

⁸⁵ Colleen Chien, *Startups and Patent Trolls*, 17 STAN. TECH. L. REV. 461 (2014), https://journals.law.stanford.edu/sites/default/files/stanford-technology-law-review/online/startupsandpatent_trolls.pdf, archived at <http://perma.cc/F3QH-FCXZ>.

⁸⁶ See *id.* at 461–62.

⁸⁷ See Magliocca, *supra* note 59, at 1813 (discussing the preference of those threatened by PAEs to settle); Randall R. Rader et al., Op-Ed., *Make Patent Trolls Pay in Court*, N.Y. TIMES, June 4, 2013, http://www.nytimes.com/2013/06/05/opinion/make-patent-trolls-pay-in-court.html?_r=0, archived at <http://perma.cc/57SC-GQZF> (describing the PAE business model, which is based on extracting financial settlements).

⁸⁸ *In re Innovatio IP Ventures, LLC Patent Litig.*, 921 F. Supp. 2d 903, 906 (N.D. Ill. 2013).

⁸⁹ *Id.* at 907, 909.

⁹⁰ *Id.* at 906.

⁹¹ *In re ArrivalStar S.A. Fleet Mgmt. Sys. Patent Litig.*, 802 F. Supp. 2d 1378, 1379 (J.P.M.L. 2011).

fringement letters.⁹² One of ArrivalStar's primary targets has been public transit systems. It has sued public transit systems in many major cities, including, the Metropolitan Transportation Authority and New York City Transit Authority, the Massachusetts Bay Transportation Authority, the Maryland Transit Administration, the Greater Cleveland Regional Transit Authority, and the Port Authority of New York and New Jersey.⁹³ ArrivalStar alleged that its patents cover systems monitoring travel data. Specifically, they pointed to systems allowing users to contact the transit authority by SMS text message to request arrival times for vehicles monitored by the system; the system then texts back the arrival time of the train or bus to the user.⁹⁴ Nearly all public transit systems preferred to avoid expensive litigation and have settled for amounts between \$50,000 and \$75,000.⁹⁵ In June 2013, the American Public Transportation Association, took a proactive step and filed suit for declaratory judgment of patent invalidity against ArrivalStar to protect its members from ArrivalStar's enforcement measures.⁹⁶

Finally, Lodsys, LLC ("Lodsys") has sent infringement letters and sued to enforce its software patents against non-technology companies, asserting that these companies infringe Lodsys' patents by incorporating its patented technology into their company websites.⁹⁷ Specifically, Lodsys claimed that these companies infringed its patents through use of live interactive chat with con-

⁹² *Id.*; Joe Mullin, *Patent Troll That Sues Public Transit Systems Gets Hauled into Court*, ARS TECHNICA (June 27, 2013, 1:30 AM), <http://www.arstechnica.com/tech-policy/2013/06/patent-troll-that-sues-public-transit-systems-gets-hauled-into-court/>, archived at <http://perma.cc/GA94-Q8M7>.

⁹³ Complaint at 3, 6–7, *Am. Pub. Transp. Ass'n v. ArrivalStar S.A.*, No. 1:13-cv-04375-ALC (S.D.N.Y. filed June 25, 2013) [hereinafter Complaint, *Am. Pub. Transp. Ass'n*].

⁹⁴ *See, e.g.*, Letter from ArrivalStar S.A. et al., to Toledo Area Reg'l Transit Auth. (Feb. 22, 2012).

⁹⁵ *See* Complaint, *Am. Pub. Transp. Ass'n*, *supra* note 93, at 1–2 (stating that nearly all of the targeted public transportation agencies preferred to settle quickly); Joe Mullin, *A New Target for Tech Patent Trolls: Cash Strapped-American Cities*, ARS TECHNICA (Mar. 15, 2012, 8:00 AM), <http://www.arstechnica.com/tech-policy/2012/03/a-new-low-for-patent-trolls-targeting-cash-strapped-cities>, archived at <http://perma.cc/5HDW-MF9P> (reporting that most public transportation authorities settled quickly for \$50,000–\$75,000). The Port Authority of New York and New Jersey, however, decided to fight ArrivalStar. *See* *ArrivalStar S.A., v. Port Auth.*, No. 11 CIV. 1808, 2012 WL 1059693, at *3 (S.D.N.Y. 2012) (denying the Port Authority's motion to dismiss for failure to state a claim).

⁹⁶ Complaint, *Am. Public Trans. Ass'n*, *supra* note 93, at 2, 10–13.

⁹⁷ Complaint for Declaratory Judgment at 4–5, *Oracle Am., Inc. v. Lodsys, LLC*, No. 2:12-cv-00550-CNC (E.D. Wis. filed June 1, 2012) [hereinafter Complaint, *Oracle Am.*] (stating that Lodsys sent infringement letters to and sued Oracle customers); Complaint for Declaratory Judgment at 3–4, *Foresee Results, Inc., v. Lodsys, LLC*, No. 11-cv-3886 (N.D. Ill. filed June 6, 2011) [hereinafter Complaint, *Foresee Results, Inc.*], available at <http://thepriorart.typepad.com/files/foresee-results-complaint.pdf>, archived at <http://perma.cc/R3EF-Y4MZ> (describing cease and desist letters); Josh Lowensohn, *Lodsys Files Suit Against New York Times, Five Others*, CNET NEWS (July 5, 2011, 2:27 PM), http://news.cnet.com/8301-13578_3-20076975-38/lodsys-files-suit-against-new-york-times-five-others/, archived at <http://perma.cc/3WFL-35D6> (describing Lodsys' patent enforcement actions against technology companies and retailers).

sumers and consumer survey functions on their company websites.⁹⁸ Lodsys sued many non-technology companies including Adidas America, Best Buy Solutions, Inc., Best Western International, CVS Caremark Corporation, and Vitamin Shoppe.⁹⁹ The defendant companies purchased the alleged patented technology from technology companies that manufactured it. Oracle, for example, reported that within a year-and-a-half period, Lodsys sent infringement letters to dozens of its customers, some of its customers, such as Walgreens, were eventually sued.¹⁰⁰

C. End Users and Pay-for-Delay Agreements in the Pharmaceutical Industry

In the pharmaceutical industry, competitors' and users' interests increasingly diverge. This occurs when generic manufacturers and patent owners reach settlements that are not in the best interests of patients who seek access to less expensive drugs. Although the FTC (representing consumer interests) has played an important role challenging these settlements,¹⁰¹ patients¹⁰² and drugstores¹⁰³ have also sued independently to challenge these agreements.¹⁰⁴

⁹⁸ Complaint for Patent Infringement at 3–6, *Lodsys, LLC v. Adidas Am., Inc.*, No. 2:11-cv-00283 (E.D. Tex. filed June 10, 2011) [hereinafter Complaint, *Lodsys, LLC*]. See generally Joe Mullin, *Patent Troll Lodsys Sues Mobile Game Makers, Despite Apple's Intervention*, ARS TECHNICA, (Apr. 7, 2013, 9:30 PM), <http://arstechnica.com/tech-policy/2013/04/patent-troll-lodsys-sues-10-mobile-game-makers-despite-apples-intervention/>, archived at <http://perma.cc/M2ZE-9KC6> (reporting on additional lawsuits by Lodsys filed in 2013). Some of these companies, such as Adidas America, Inc., proceeded to litigate these claims. See *Lodsys, LLC v. Brother Int'l Corp.*, No. 2:11-cv-00090-JRG, 2013 U.S. Dist. LEXIS 85614, at *6–9 (E.D. Tex. June 14, 2013).

⁹⁹ Complaint, *Lodsys, LLC*, *supra* note 98, at 1–2.

¹⁰⁰ See Complaint, *Oracle Am.*, *supra* note 97, at 4–5.

¹⁰¹ See, e.g., *Actavis*, 133 S. Ct. at 2237 (urging the Supreme Court to hold that reverse payment settlement agreements are presumptively unlawful).

¹⁰² For more examples of lawsuits by patients, see *In re Ciprofloxacin Hydrochloride Antitrust Litig.*, 544 F.3d 1323, 1327, 1329–30 (Fed. Cir. 2008) (individual drug purchasers and several advocacy groups challenging an agreement between patentee and generic drug manufacturer regarding the drug Cipro); *In re Cardizem CD Antitrust Litig.*, 332 F.3d 896, 899–900 (6th Cir. 2003) (individual drug purchasers of Cardizem CD challenging an agreement between a patentee and generic drug manufacturer); *In re Tamoxifen Citrate Antitrust Litig.*, 277 F. Supp. 2d 121, 123–24 (E.D.N.Y. 2003) (individual drug purchasers, medical benefits organizations, and consumer advocacy groups challenging an agreement between a patentee and generic drug manufacturer regarding the drug Tamoxifen Citrate); *In re Buspirone Patent & Antitrust Litig.*, 210 F.R.D. 43, 46–47 (S.D.N.Y. 2002) (individual drug purchasers suing with others to challenge an agreement between a patentee and generic drug manufacturer regarding the drug buspirone).

¹⁰³ For examples of lawsuits by drugstores, see *Valley Drug Co. v. Geneva Pharms., Inc.*, 350 F.3d 1181, 1183–84 (11th Cir. 2003) (wholesalers selling the drug terazosin hydrochloride challenging an agreement between a patentee and generic drug manufacturer); *In re Skelaxin Metaxalone Antitrust Litig.*, 2013 U.S. Dist. LEXIS 70968, at *8–9 (E.D. Tenn. May 20, 2013) (drugstores suing with others to challenge an agreement between a patentee and generic drug manufacturer regarding the drug metaxalone); *In re Neurontin Antitrust Litig.*, 2009 U.S. Dist. LEXIS 77475, at *2, 16

A pharmaceutical company seeking to market a new drug to the public needs to obtain approval from the FDA by submitting a New Drug Application (“NDA”).¹⁰⁵ The submission of an NDA is extremely expensive and time-consuming.¹⁰⁶ The Hatch-Waxman Act allows generic drug manufacturers to file an Abbreviated New Drug Application (“ANDA”), which relies on the information in a NDA previously filed for a patented drug.¹⁰⁷ A generic manufacturer filing an ANDA needs to certify that the drug does not infringe a patent.¹⁰⁸ One way to certify non-infringement is through a process known as “Paragraph IV Certification.”¹⁰⁹ Under the Paragraph IV Certification process, the generic manufacturer certifies that the patent either is invalid or will not be infringed by the proposed generic product.¹¹⁰ The patent owner then has forty-five days to file an infringement suit in court, and if such a suit is filed, the FDA may not approve the generic drug for thirty months or until the suit is resolved, whichever occurs earlier.¹¹¹ The result is often a lengthy and expensive litigation that patent owners prefer to settle. One type of settlement that has received significant attention is called a “reverse payment agreement” or “pay-for-delay agreement.”¹¹²

While a primary goal of the Hatch-Waxman Act was to increase the availability of low cost drugs to patients, “pay-for delay” agreements undermine this objective. Under the Hatch-Waxman scheme the first generic company that files Paragraph IV certification receives 180 days exclusivity.¹¹³ Once this 180-day period is over and multiple generic companies enter the market, the drug price typically drops significantly.¹¹⁴ Pay-for-delay agreements prevent the public from enjoying the benefits of competition. In such agreements, the

(D.N.J. Aug. 28, 2009) (Rite-Aid, CVS, and other direct purchasers of the drug Neurontin challenging an agreement between a patentee and generic drug manufacturer).

¹⁰⁴ See Rochelle Cooper Dreyfuss & Lawrence S. Pope, *Dethroning Lear? Incentives to Innovate After MedImmune*, 24 BERKELEY TECH. L.J. 971, 972 (2009) (discussing the divergence between the public interest and competitors’ interests).

¹⁰⁵ 21 U.S.C. § 355(a) (2012).

¹⁰⁶ C. Scott Hemphill, *Paying for Delay: Pharmaceutical Patent Settlement as a Regulatory Design Problem*, 81 N.Y.U. L. REV. 1553, 1564 (2006).

¹⁰⁷ 21 U.S.C. § 355(j).

¹⁰⁸ *Id.* § 355(j)(2)(A)(vii).

¹⁰⁹ *Id.* § 355(j)(2)(A)(vii)(IV).

¹¹⁰ *Id.*

¹¹¹ *Id.* § 355(j)(5)(B)(iii).

¹¹² See Carl W. Hittinger & Lesli C. Esposito, *In re K-Dur Antitrust Litigation: The Third Circuit’s Controversial Pay-for-Delay Antitrust Decision Splits with Other Circuit Courts*, 58 VILL. L. REV. 103, 105 (2013).

¹¹³ 21 U.S.C. § 355(j)(5)(B)(iv).

¹¹⁴ C. Scott Hemphill & Mark A. Lemley, *Earning Exclusivity: Generic Drug Incentives and the Hatch-Waxman Act*, 77 ANTITRUST L.J. 947, 953 (2011); see CONG. BUDGET OFFICE, HOW INCREASED COMPETITION FROM GENERIC DRUGS HAS AFFECTED PRICES AND RETURNS IN THE PHARMACEUTICAL INDUSTRY 28 (1998) (describing the drop in the cost of drugs once generic drugs enter the market).

generic manufacturer typically agrees to delay entering the market in return for monetary compensation.¹¹⁵ Although these agreements serve the interests of both the patentee and the competitors, consumers' interests in obtaining less expensive access to essential drugs are hindered.

Pay-for-delay agreements are becoming increasingly common. The FTC assessed that in 2012, forty settlements between patent owners and generic manufacturers involved pay-for-delay agreements.¹¹⁶ In 2013, the Supreme Court granted certiorari in several cases involving such agreements.¹¹⁷ In *FTC v. Actavis*, the FTC represented end-users' interests to challenge pay-for-delay agreements involving a drug called AndroGel, which increases testosterone levels for men.¹¹⁸ And, in *In re K-Dur Antitrust Litigation*, end-users: wholesalers, such as Walgreens and CVS Pharmacy, that sell the drug K-Dur, which treats low blood levels of Potassium, challenged the settlement agreement.¹¹⁹ The Court decided the cases in June 2013, and held that such agreements are not presumptively invalid and, thus, the conflict between end user and competitor interests remains.¹²⁰

End users' roles in challenging pay-for-delay agreements differ in two respects from end users' roles in other forms of patent litigation. First, in other cases, end users interests are usually aligned with those of competitors. For example, in PAE litigation the manufacturer and its end user customers seek to

¹¹⁵ David W. Opperbeck, *Rational Antitrust Policy and Reverse Payment Settlements in Hatch-Waxman Patent Litigation*, 98 GEO. L.J. 1303, 1307–08 (2010); see C. Scott Hemphill, *Drug Patent Settlements Between Rivals: A Survey*, 4 (2007) (Columbia Law School, Working Paper 2007), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=969492, archived at <http://perma.cc/4LQ6-8VBF>.

¹¹⁶ BUREAU OF COMPETITION, FED. TRADE COMM'N, AGREEMENTS FILED WITH THE FEDERAL TRADE COMMISSION UNDER THE MEDICARE PRESCRIPTION DRUG, IMPROVEMENT, AND MODERNIZATION ACT OF 2003: OVERVIEW OF AGREEMENTS FILED IN FY 2012, at 1 (2013), available at <http://www.ftc.gov/sites/default/files/documents/reports/agreements-filed-federal-trade-commission-under-medicare-prescription-drug-improvement-and/130117mmareport.pdf>, archived at <http://perma.cc/LJC9-AWHG>. These 2012 numbers can be compared to twenty-eight settlements involving pay-for-delay agreements in 2011, thirty-one in 2010, nineteen in 2009, sixteen in 2008, fourteen in 2007, fourteen in 2006, three in 2005, and zero in 2004. *Id.* at 2.

¹¹⁷ *Upsher-Smith Labs., Inc. v. La. Wholesale Drug Co.*, 133 S. Ct. 2849, 2849 (2013) (granting certiorari); *Merck & Co. v. La. Wholesale Drug Co.*, 133 S. Ct. 2849, 2849 (2013) (same); *FTC v. Watson Pharm., Inc.*, 133 S. Ct. 787, 787 (2012) (same).

¹¹⁸ 133 S. Ct. at 2229–30 (describing the FTC's lawsuit); see ANDROGEL, <http://www.androgel.com>, archived at <http://perma.cc/MLT9-J7XK> (last visited Nov. 12, 2014) (describing the function of AndroGel).

¹¹⁹ 686 F.3d 197, 202 (3d Cir. 2012) (describing the parties to the lawsuit), *vacated sub nom. Upsher-Smith Labs., Inc.*, 133 S. Ct. at 2849. K-Dur treats low blood levels of potassium. *K-Dur*, DRUGS.COM, <http://www.drugs.com/k-dur.html>, archived at <http://perma.cc/GEX6-CYSA> (last visited Nov. 12, 2014).

¹²⁰ *Actavis*, 133 S. Ct. at 2237 (declining to find that pay-for-delay agreements are presumptively invalid); see *Upsher-Smith Labs., Inc.*, 133 S. Ct. at 2849 (vacating and remanding *In re K-Dur Antitrust Litig.* in light of the decision in *Actavis*); *Merck & Co.*, 133 S. Ct. at 2849 (same).

defeat the patentee's infringement claims. Conversely, in pay-for-delay cases, the generic manufacturer competitor and the patent owner brand name act together to resist the end user's challenge of the settlement agreement.¹²¹ It is the different alignment of the parties' interests that underscores the importance of assessing the new role of the end user. As pay-for-delay agreements indicate, end users cannot always rely on competitors for protection.

Second, the litigation concerning pay-for-delay agreements is, in a sense, a hybrid creature of patent and antitrust litigation. Pay-for-delay agreements are an inadvertent result of the Hatch-Waxman Act's Paragraph IV Certification process. The Hatch-Waxman Act is patent legislation designed to encourage early entry of generic versions of patented drugs into the market. At the same time, petitioners challenging these agreements, including end users, challenge them through antitrust claims.¹²² Unlike patent law, antitrust law is more flexible regarding consumers' standing to sue.¹²³ The relaxed standing standards explain the prevalence of end users, such as patients and drugstores, as plaintiffs in these lawsuits. At the same time, it highlights the fact that when end users can avail themselves of procedural tools that enable them to partake in patent disputes, they will take advantage of them and become active participants.

II. FROM A COMPETITOR MODEL TO A HYBRID COMPETITOR-USER MODEL

End users may be businesses or individuals and may have different roles in patent litigation. This Article defines end users broadly to encompass users who use the patented technology for personal consumption or in business. End users, however, are not in the business of making or directly selling the technology. This Part differentiates end users from small technological competitors, by highlighting three characteristics: (i) end users are not technologically sophisticated; (ii) they tend to enter the patent conflict later in the life of the patent; and (iii) they are often one-time players. It then turns to describe the shift from the traditional model that focuses on the patentee and the competitor to a model that includes end users as players in patent litigation. Finally, this Part analyzes the reasons for the rise of the end user in patent litigation, pointing to a combination of technological change and a transformation in litigation

¹²¹ See Michael A. Carrier, *Unsettling Drug Patent Settlements: A Framework for Presumptive Illegality*, 108 MICH. L. REV. 37, 39–40 (2009) (discussing the shared incentives of patentees and generic manufacturers).

¹²² See generally Herbert Hovenkamp, *Anticompetitive Patent Settlements and the Supreme Court's Actavis Decision*, 15 MINN. J.L. SCI. & TECH. 3 (2014) (discussing the Supreme Court's Actavis decision and its application of antitrust principles to the pay-for-delay agreements resulting from the Hatch-Waxman Act).

¹²³ See 1 JOHN J. MILES, HEALTHCARE & ANTITRUST LAW: PRINCIPLES AND PRACTICE § 9.7 (2014).

practices. It highlights the integration of technology into daily life and into businesses that were not previously highly technology-reliant, the development of new technologies that change the means of production, and the advent of PAEs who do not have a customer relationship and depend on a business model of suing thousands of end users.

A. Identifying the End User

End users may be plaintiffs taking proactive measures to invalidate a patent by seeking declaratory judgment¹²⁴ or by challenging pay-for-delay agreements to obtain access to drugs.¹²⁵ End users may also be defendants sued for infringing a patent¹²⁶ or they may be threatened by litigation through cease and desist letters and choose to settle out of court.¹²⁷ In some of these cases, end users may, in fact, be infringers.¹²⁸ And in other cases, end users may be alleged infringers of patents that are invalid.¹²⁹ End users may use a technology for personal consumption or in business. Despite these variations, all end users differ from the traditional competitor in that they are not in the business of making or directly selling the technology at stake. They are strictly users. Even if they incorporate the patented technology within a product or service they offer their customers, they do not make or sell the technology itself, and therefore are usually not knowledgeable about it. At times, they may even be unaware of its existence.

End users also differ in the equities of their cases. Some end users may advertently risk infringing a patent. For example, the farmers in *Bowman v. Monsanto Co.* knew that re-planting Monsanto's patented seeds violated the contracts they signed with Monsanto and that Monsanto claimed that re-

¹²⁴ See, e.g., Complaint, *Organic Seed Growers & Trade Ass'n*, *supra* note 78, at 1; Complaint, *Ass'n for Molecular Pathology*, *supra* note 6, at 3–13.

¹²⁵ See, e.g., *In re Ciprofloxacin Hydrochloride Antitrust Litig.*, 544 F.3d 1323, 1327, 1329–30 (Fed. Cir. 2008) (patients challenging an agreement between a patentee and generic drug manufacturer regarding the drug Cipro); *In re Neurontin Antitrust Litig.* 2009 U.S. Dist. LEXIS 77475, at *2, *16 (D. N.J. Aug. 28, 2009) (drug stores, such as Rite-Aid and CVS, challenging an agreement between a patentee and generic drug manufacturer regarding the drug Neurontin).

¹²⁶ See, e.g., *Bowman v. Monsanto Co.*, 133 S. Ct. 1761, 1764–65 (2013); Complaint, *Lodsys, LLC*, *supra* note 98, at 1–2.

¹²⁷ See, e.g., Mullin, *supra* note 95 (reporting that public transportation authorities sued by PAEs have preferred to settle quickly).

¹²⁸ See, e.g., *Bowman*, 133 S. Ct. at 1769 (holding that the farmers infringed Monsanto's patent because the patent exhaustion doctrine does not apply to their actions).

¹²⁹ See, e.g., *Ass'n for Molecular Pathology v. Myriad Genetics*, 133 S. Ct. 2107, 2111, 2120 (2013) (invalidating certain breast cancer gene patent claims that were enforced against end users). In addition, many suits against end users are filed by PAEs who tend to enforce weak patents. See Allison et al., *supra* note 50, at 693–94 (finding that PAE suits were much less likely than non-PAE suits to result in a ruling for the patentee).

planting the seeds amounts to patent infringement.¹³⁰ At the same time, podcasters who purchased podcasting technology from those they believed were the legitimate owners of the technology were extremely surprised to find themselves sued by a PAE for patent infringement.¹³¹ Our sympathies are more likely to lie with the innocent podcasters than with the savvy farmers. Yet, regardless of the equities of the cases and where our sympathies lie, all end users share certain characteristics that place them at a procedural disadvantage in the patent litigation arena.

End users are often, although not always, small companies or individuals.¹³² Small entities are not new to the patent conflict zone. Traditionally, these small entities were technological companies with a sophisticated understanding of the patented technology and the relevant prior art. Often such a company develops a technology that another company seeks to patent. In these cases, the small technological entity may challenge the patent application in the PTO or may later contest the validity of the patent in court. In other cases, a patentee may sue a small technological company that is selling the technology it developed.¹³³ Regardless of these differences, small technological entities are in the business of making and selling, not just using the technology.¹³⁴ They, therefore, share a technological sophistication that facilitates challenging a patent application or the validity of an issued patent. In addition, these technological companies often become involved in the patent conflict early in the life of a patent when they realize a potential competitor has filed a patent application or has received a patent and is entering the market.

End users differ from these small technological companies in three respects. First, end users lack technological sophistication. Their lack of techno-

¹³⁰ *Bowman*, 133 S. Ct. at 1764–65.

¹³¹ See Press Release, Elec. Frontier Found., *supra* note 4.

¹³² Examples of individuals as end users include patients suing in pay-for-delay cases or podcasters threatened for use of podcasting technology. See, e.g., *In re Cardizem CD Antitrust Litig.*, 332 F.3d 896, 899–900 (6th Cir. 2003) (patients challenging a pay-for-delay agreement); Press Release, Elec. Frontier Found., *supra* note 4 (a PAE enforcing a podcasting patent against podcasters). Examples of small businesses as end users include businesses sued or threatened for using scanning technology. See, e.g., Salzberg, *supra* note 5. Sometimes large businesses, such as Adidas, are the end users swept into a patent conflict. See Complaint, *Lodsys, LLC*, *supra* note 98, at 1.

¹³³ In a famous recent example, Richard Ditzik lost his claim that Apple's iPhone infringes his patent for a handheld device that combines computer and wireless-communication functions over both a Wi-Fi and cellular network. See Edvard Pettersson & Valerie Reitman, *Apple Defeats Patent Claim Over Invention of Smartphone*, BLOOMBERG (Nov. 26, 2013, 12:01 AM), <http://www.bloomberg.com/news/2013-11-25/apple-wins-patent-trial-brought-by-purported-smartphone-inventor.html>, archived at <http://perma.cc/ZW49-WBL6>.

¹³⁴ Although, at times, small technological companies may use technologies they did not develop as a component in their own technology. In these cases they would be using the technology as end users. I am focusing here on technological companies that are involved in a patent conflict involving a technology they have developed.

logical sophistication puts them at a significant disadvantage in patent conflicts. While small companies that develop a technology have in-house engineers who are acquainted with the technology and any related innovations, end users rarely have this know-how.¹³⁵ End users are often individuals, such as patients, who lack any knowledge regarding the drug or test they seek to use.¹³⁶ And even when individual end users, like farmers, use the patented technology in business, they are usually not technologically-savvy about the composition of the technology itself.¹³⁷ The same applies to larger companies, such as Starbucks, who uses allegedly patented wireless technology in their business.¹³⁸

Technological sophistication is crucial in patent conflicts. Patent cases are decided based on the resolution of two main issues: patent validity and infringement. Parties can challenge patent applications and issued patents' validity on grounds of subject matter, novelty, non-obviousness, utility, and disclosure.¹³⁹ All challenges to patent validity require an intricate understanding of the technology at issue.¹⁴⁰ In addition, challenges based on novelty, statutory bar, and non-obviousness, require an understanding not only of the technology at issue, but also of the prior art, which includes other related technologies in use, patents, patent applications, and publications.¹⁴¹ In-house engineers and developers usually have the knowledge and understanding of both the technology they developed and the universe of relevant technologies and publications.¹⁴² Infringement arguments also depend on technological expertise and competitors' in-house employees tend to have an in-depth understanding of the technology that facilitates making non-infringement arguments.¹⁴³

¹³⁵ See Love & Yoon, *supra* note 1, at 1628–29 (discussing the in-house knowledge that technological competitors can rely on).

¹³⁶ See, e.g., *Ciprofloxacin Hydrochloride Antitrust Litig.*, 544 F.3d at 1327, 1329–30 (where patients challenged an agreement between patentee and generic drug manufacturer regarding the drug Cipro); Complaint, *Ass'n for Molecular Pathology*, *supra* note 6, at 3–13 (where patients challenged the validity of Myriad's BRCA1/BRCA2 patents).

¹³⁷ See *Bowman*, 133 S. Ct. at 1764–65 (discussing farmers who re-used Monsanto's patented genetically engineered seeds).

¹³⁸ See, e.g., Complaint for Patent Infringement at 4–15, *Innovatio IP Ventures, LLC v. Starbucks Corp.*, No. 12-cv-3872 (N.D. Ill. 2012) [hereinafter Complaint, *Innovatio IP Ventures, LLC*] (alleging that Starbucks infringed Innovatio's patent in wireless technology).

¹³⁹ See 35 U.S.C. §§ 101, 102, 103, 112 (2012) (providing grounds for invalidity).

¹⁴⁰ For example, to challenge a patent under the disclosure requirement, the challenger needs to comprehend the way the technology operates and compare it to the description in the patent. See *id.* § 112 (providing the disclosure requirement).

¹⁴¹ See *id.* §§ 102–103.

¹⁴² See Love & Yoon, *supra* note 1, at 1628–29 (discussing the in-house knowledge that technological competitors can rely on).

¹⁴³ See *id.* (discussing manufacturers in PAE lawsuits).

Patent litigation is notoriously expensive, even for technological companies who can rely on in-house experts.¹⁴⁴ Although all parties to the litigation often rely on outside experts, patent owners and competitors can do so to a lesser extent.¹⁴⁵ The absence of in-house technological knowledge forces end users to depend on outside experts, which increases the cost of patent litigation. This increased cost makes settlement without resolving the merits of the claims particularly attractive.¹⁴⁶

Second, end users are unique in the stage in which they enter the patent conflict. End users do not manufacture the technology—they utilize it. They usually become embroiled in the patent conflict relatively late in the life of the patent. While competitors who manufacture and sell the technology and are well acquainted with the market may challenge the patent during the application process or as it enters the market, end users enter the picture later. As users, their first contact with the patented technology is when it enters the market, and often only when it achieves widespread adoption. Patented technologies frequently attain widespread adoption late in the life of the patent.¹⁴⁷ The stage in which end users enter the conflict affects their opportunities to chal-

¹⁴⁴ See *infra* notes 256–269 and accompanying text.

¹⁴⁵ Technical experts may be testifying or non-testifying experts. See Bindu Donovan, *Effective Selection and Retention of Testifying Experts for Patent Infringement Litigation*, IP LITIGATOR, July–Aug. 2013, at 1, 1, available at http://www.sidley.com/files/Publication/40030074-fe05-4901-8e2a-ebd22a2f95de/Presentation/PublicationAttachment/52b81ea8-4cc3-453a-82e9-ece657f5cbd1/IPLIT_070813_Donovan.pdf, archived at <http://perma.cc/5BPE-J4CN>. Non-testifying experts often play an important role. See *id.* at 2. They are instrumental in educating attorneys regarding the technology and assist in preparing validity or infringement arguments. See *id.* Law firm publications often recommend resorting to in-house counsels as experts. See, e.g., Mark L. Levine & Alan Littmann, *Managing Patent Litigation: Successful Results at Reasonable Cost*, BARTLIT, BECK, HERMAN, PALENCHAR, & SCOTT LLP (July 2009), <http://www.bartlit-beck.com/about-news-118.html>, archived at <http://perma.cc/373H-D7MR> (recommending evaluating the patent and accused product as early as possible by relying on employees within the company); see also Alex Reese, *Employee and Inventor Witnesses in Patent Trials: The Blurry Line Between Expert and Lay Testimony*, 16 STAN. TECH. L. REV. 423, 424–25 (2013), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2254996, archived at <http://perma.cc/5UFP-W2SC> (explaining that parties often choose in-house witnesses such as employees or company founders rather than outside experts because of the added expense of relying on paid experts and the possibility that a paid expert may not completely agree with the litigant’s position); Edward G. Poplawski, *Selection and Use of Experts in Patent Cases*, 9 FED. CIR. B.J. 145, 151–52 (1999) (discussing the strengths and weaknesses of using different parties as expert witnesses).

¹⁴⁶ See James C. Yoon, *Expanding the Customer Suit Exception in Patent Law*, Presentation at the Stanford Law School Intellectual Property Scholar Conference, 17 (Aug. 9–10, 2012), available at <http://www.jdsupra.com/legalnews/expanding-the-customer-suit-exception-in-28989/>, archived at <http://perma.cc/FQ6H-PRXW>.

¹⁴⁷ See ROGERS, *supra* note 25, at 219–66 (discussing rates of adoption of new technologies and the factors affecting these rates). See generally Cotropia, *supra* note 25 (discussing the problem of patenting early in the technological cycle before the technology is ready for commercialization); Sichelman, *supra* note 25 (same).

lenge the patent. Specifically, they are precluded from challenging the patent in the PTO during the application stage or soon thereafter.

Finally, end users are typically one-time players. Manufacturers have high stakes in the resolution of the conflict because the patented technology is often central to their business.¹⁴⁸ End users, however, are not in the business of manufacturing or selling the alleged infringing technology. Instead, they are surprised to find themselves involved in a patent dispute. In most cases the patented technology is ancillary to their business or may be substituted by other technologies on the market.¹⁴⁹ As one-time players, they do not have an incentive for a long-term resolution. Therefore, independent of the merits of the case, most end users will take the least costly option, which is often settlement or withdrawal from use of the technology.¹⁵⁰

B. The Traditional Competitor Model

Patent law pays little attention to the end user. The utilitarian model driving patent law seeks to find a balance between incentivizing the inventor to promote innovation and preserving the public interest in access to new inventions.¹⁵¹ Yet, patent law, in effect, places the competitor as the guardian of the public interest, assuming that in all cases the interests of the public and the competitor converge. The patent owner receives a twenty-year monopoly and typically a technologically-savvy competitor can challenge a patent application in the PTO or argue that the patent is invalid in court. Patent law presumes that the competitor's business interest will motivate it to challenge invalid patents, thereby increasing public access to technology.

Patent law doctrines, which regulate the patented innovation post market-entry and are particularly relevant to user access, highlight patent law's neglect of the end user. For example, both compulsory licensing and the doctrine of patent misuse focus on the actions of the patent owner and competitors to facil-

¹⁴⁸ This was illustrated recently by the patent litigation known as the "Smartphone Wars." See Agustino Fontevecchia, *Smartphone Wars: Who Wins and Who Loses from the Apple-Samsung Patent Ruling*, FORBES (Aug. 27, 2012, 4:05 PM), <http://www.forbes.com/sites/afontevecchia/2012/08/27/smartphone-wars-who-wins-and-who-loses-from-the-apple-samsung-patent-ruling>, archived at <http://perma.cc/7HSF-R4MJ>.

¹⁴⁹ Though in some cases where the technology cannot be substituted and its expense is high, end users may be players with a long-term interest. For example, a group of Fabry (a genetic disease) patients asked the National Institute of Health ("NIH") to use its march-in power to address a patented drug shortage. William O'Brien, *March-in Rights Under the Bayh-Dole Act: The NIH's Paper Tiger?*, 43 SETON HALL L. REV. 1403, 1405-06 (2013). In this case, the patients had no replacement and had a long-term interest in the production of the drug. See *id.*

¹⁵⁰ See Yoon, *supra* note 146, at 19-20.

¹⁵¹ See David S. Olson, *Taking the Utilitarian Basis for Patent Law Seriously: The Case for Restricting Patentable Subject Matter*, 82 TEMP. L. REV. 181, 182-83 (2009) (describing the utilitarian theory).

itate access through competition and price reduction.¹⁵² In the case of compulsory licensing, the behavior of the patentee instigates the issuance of a compulsory license. A compulsory license may be issued where the patent owner engages in anti-competitive behavior, does not use the patent, refuses to license to a dependent patent that cannot be used without infringing the patent, or acts in a way that harms the public interest.¹⁵³ The law then turns to the patentee's competitor to resolve the dissemination and access problem. By compelling the patentee to license to competitors, the law seeks to accomplish increased production of the invention, which will lower prices and result in increased dissemination and access.¹⁵⁴ Although the goal is promoting user access, patent law provides the user no active role.

Similarly, the patent misuse doctrine is triggered when the patentee takes unfair advantage of its patent rights,¹⁵⁵ such as when the patentee engages in discriminatory licensing (charging some licensees more than others).¹⁵⁶ Patent misuse can be raised as a defense in patent infringement cases. In these cases, the law focuses on the acts of the patent owner who has taken unfair advantage of the patent, and resolves the problem by turning to the competitors, absolving them from liability for patent infringement.¹⁵⁷ By defining the patentee's behavior as patent misuse and preventing the patentee from enforcing the patent, courts strengthen the market power of competitors, assuming that competition will lower prices and increase public access. Again, although their interests are clearly at stake, patent law does not provide users an active role.¹⁵⁸

C. Reasons for the Change Toward a Hybrid Competitor-User Model

The proliferation of some, although not all cases involving end users, can be explained as a result of changes in technology and patent litigation practices. Two technological trends contributed toward making the end user a player

¹⁵² See Gaia Bernstein, *Incentivizing the Ordinary User*, 66 FLA. L. REV. 1275, 1282–87 (2014).

¹⁵³ *Id.* at 1282. Although compulsory licenses are quite rare in the United States, through its treaty obligations and a combination of statutory obligations, the United States may, and at times does, issue some version of a compulsory license in all categories, excluding the purpose of exploiting a dependent patent. *Id.* at 1284–85.

¹⁵⁴ See F.M. SCHERER, *THE ECONOMIC EFFECTS OF COMPULSORY PATENT LICENSING* 13–14, 66, 78 (1977); Bernstein, *supra* note 152, at 1285–86.

¹⁵⁵ Bernstein, *supra* note 152, at 1288; see 6 R. CARL MOY, *MOY'S WALKER ON PATENTS* § 18.1 (4th ed. 2012). Although courts and the legislature have greatly constricted the patent misuse defense through the years, certain actions by the patent owners are still considered misuse. See HERBET HOVENKAMP ET AL., *IP AND ANTITRUST: AN ANALYSIS OF ANTITRUST PRINCIPLES APPLIED TO INTELLECTUAL PROPERTY LAW* § 3.2 (2d ed. 2010) (describing the historical demise of patent misuse).

¹⁵⁶ See, e.g., *Laitram Corp. v. King Crab, Inc.*, 244 F. 9, 16–17 (D. Alaska 1965) (finding discriminatory licensing rates of shrimp peeling machinery to constitute patent misuse).

¹⁵⁷ Bernstein, *supra* note 152, at 1286–87.

¹⁵⁸ *Id.*

in patent litigation: the integration of technology into previously non-technological functions of daily life and changes in the means of production that transformed users into producers. These technological trends took place at the same time as the exponential growth in PAE lawsuits that popularized threats and legal action against users who are customers.

1. Technological Changes

First, in the last decade, technology has further integrated into everyday life, becoming part of businesses and daily functions that previously did not require use of technology.¹⁵⁹ For example, we traditionally did not view cafes as businesses that rely much on technology. Now, however, many cafes offer wireless services to their customers. Innovatio, a PAE, sued Starbucks Cafés for offering their customers wireless communications allegedly containing Innovatio's patented technology.¹⁶⁰ Similarly, Adidas America, a sportswear manufacturer, can no longer rely solely on its physical stores for sales. Like many other non-technology companies, it relies on sales through its website. Lodsys, another PAE, sued Adidas for alleged use of its patented technology in its website's customer surveys and chat rooms.¹⁶¹

Second, new genres of technologies are changing the means of production, blurring the line between users and producers of technologies. Consequently, patentees are increasingly targeting users as defendants in patent litigation. This transformation is similar to the changes in the means of production of creative works that took place over a decade ago. As content became digitized on the Internet, users could easily make copies of copyrighted works and create their own versions.¹⁶² As the means of production of copyrighted works changed, copyright owners began targeting users as defendants in copyright litigation.¹⁶³

One way in which the modes of production are currently changing is the advent of self-replicating technologies.¹⁶⁴ Certain technologies can replicate themselves thereby transforming users into inadvertent producers of technolo-

¹⁵⁹ See generally, e.g., GERARD GOGGIN, *CELL PHONE CULTURE: MOBILE TECHNOLOGY IN EVERYDAY LIFE* (2006) (describing how cell phone technology is integrated into many aspects of life).

¹⁶⁰ See, e.g., Complaint, *Innovatio IP Ventures, LLC*, *supra* note 138, at 3–15 (alleging that Starbucks infringed Innovatio's patented wireless technology).

¹⁶¹ See Complaint, *Lodsys, LLC*, *supra* note 98, at 4, 6.

¹⁶² See Neil Weinstock Netanel, *Copyright and a Democratic Civil Society*, 106 *YALE L.J.* 283, 299–300 (1996) (describing the digitization of materials on the Internet).

¹⁶³ See generally Hughes, *supra* note 11 (discussing the music industry's lawsuits against individuals who downloaded music on the Internet).

¹⁶⁴ See Sheff, *supra* note 73, at 230 (discussing Monsanto's self-replicating seeds in the context of other self-replicating technologies, such as nanorobots or organic computers).

gy.¹⁶⁵ In *Bowman*, Monsanto's genetically engineered seeds could self-replicate. Farmers could purchase seeds once and save some of the crops to re-plant in subsequent seasons.¹⁶⁶ The patent exhaustion doctrine grants users of a patented article the right to use or sell the article. But, it does not allow users to reproduce the article.¹⁶⁷ Therefore, users of self-replicating technologies are exposed to litigation threats and lawsuits.

Another transformation in the means of production that is likely to expand the role of the user is the introduction of the 3D printer. 3D printers can replicate three-dimensional products and have gone beyond being merely an expensive curiosity.¹⁶⁸ UPS has started providing these printers in its stores for customers to use and Staples sells them for approximately \$1300.¹⁶⁹ 3D printers transform the access to the means of production by allowing consumers the opportunity to make items at home.¹⁷⁰ This new capability makes it more likely that an individual or a small business will make an infringing item that will expose them to patent liability.¹⁷¹

2. Changes in Patent Litigation Practices

PAEs have become an integral part of the patent litigation landscape.¹⁷² In 2012, PAEs brought the majority of all patent lawsuits in the country.¹⁷³ Unlike the traditional patentee-plaintiff, the PAE, is a non-practicing entity. It accrues revenues by purchasing patents and demanding licensing fees from those mak-

¹⁶⁵ See *id.* at 242 (“Self-replicating technologies don’t merely teach competitors how to practice a new invention, they supply such competitors with a factory as well.”).

¹⁶⁶ *Bowman*, 133 S. Ct. at 1764–65.

¹⁶⁷ *Id.* at 1766.

¹⁶⁸ Doherty, *supra* note 12, at 353–54. For further discussion on the advent of the 3D printers, see generally Lucas S. Osborn, *Regulating Three-Dimensional Printing: The Converging Worlds of Bits and Atoms*, 51 SAN DIEGO L. REV. 553 (2014); Lucas S. Osborn, *Of PhDs, Pirates, and the Public: Three-Dimensional Printing Technology and the Arts*, 1 TEX. A&M L. REV. 811, 812 (2014).

¹⁶⁹ Desai & Magliocca, *supra* note 13, at 10; see Doherty, *supra* note 12, at 357 (describing the market adoption of 3D printers).

¹⁷⁰ See *id.* at 8, 11–13.

¹⁷¹ Doherty, *supra* note 12, at 358–59.

¹⁷² See *Litigations Over Time*, *supra* note 80 (showing the dramatic increase in PAE lawsuits from 2004 onward).

¹⁷³ Mark Lemley and Douglas Melamed explain that because PAEs tend to sue multiple defendants in a single suit it is important to focus on the number of assertions, i.e., number of defendants sued. Lemley & Melamed, *supra* note 82, at 2119 n.13. Colleen Chien reported that in 2012 PAEs were responsible for 57% of suits and 53% of assertions. Colleen Chien & Aashish R. Karkanis, *Functional Claiming and Software Patents*, (Santa Clara Univ. Legal Studies Research Paper No. 6-13, 2013), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2215867, archived at <http://perma.cc/5CLR-DUL6>; see also Sara Jeruss et al., *The AIA 500 Expanded: The Effects of Patent Monetization Entities*, (UC Hastings Research Paper No. 45, 2013), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2247195, archived at <http://perma.cc/X3PF-HKKE> (reporting that PAEs filed 58.7% of the patent lawsuits in 2012 compared to 24.6% in 2007).

ing and using technology allegedly covered under its patents.¹⁷⁴ The PAE model differs from the traditional patent litigation model and this distinction accounts for large numbers of end users being pulled into the heart of the patent conflict zone.

One important difference between the traditional model and the PAE mode of operation is that many PAEs base their business on casting a broad net to demand licensing fees from thousands of alleged infringers.¹⁷⁵ They demand licensing fees through infringement letters that are sent to hundreds or thousands of users. Often PAEs make money by accumulating low settlement fees from many users.¹⁷⁶ And although most cases end in settlements, some proceed to litigation. When in court PAEs tend to pursue a large number of alleged infringers instead of focusing on one manufacturer or supplier.¹⁷⁷

The second important characteristic of this PAE model is that it does not discriminate between potential defendants. PAEs do not commercialize inventions, compete in the marketplace, or have customers.¹⁷⁸ As a result, PAEs are free to target major manufacturers/suppliers and users alike. Although the traditional patentee-plaintiff often refrains from suing competitors' customers because they may one day become its own customers, the PAE is not similarly restrained. The end result is PAE lawsuits against users who are customers on a grand scale.¹⁷⁹

III. THE AMERICA INVENTS ACT AND THE END USER

Advocates of the AIA hailed the patent statutory reform as a victory for the interests of small businesses. They claimed that the AIA will "protect small business patent holders from harassment by infringers,"¹⁸⁰ "reduce fees for

¹⁷⁴ See Michael Risch, *Patent Troll Myths*, 42 SETON HALL L. REV. 457, 458 (2012) (pointing to the general belief that PAEs are patent plaintiffs who do not produce a product or sell a service); Colleen V. Chien, *Of Trolls, Davids, Goliaths, and Kings: Narratives and Evidence in the Litigation of High-Tech Patents*, 87 N.C. L. REV. 1571, 1578 (2009) (defining PAEs as a "corporate patent enforcement entity that neither practices nor seeks to commercialize its inventions").

¹⁷⁵ See Chien & Reines, *supra* note 1, at 8–10 (explaining that the economics of these suits favors large pools of potential targets).

¹⁷⁶ See Lemley & Melamed, *supra* note 82, at 2126 (describing this as one PAE business model).

¹⁷⁷ PAEs join as many alleged infringers as possible in one lawsuit and file multiple lawsuits. After the AIA limited the number of defendants that can be joined, the number of lawsuits filed by PAEs' has grown. See Bryant, *supra* note 83, at 691–92, 695–96 (describing PAE's strategy of joining multiple unrelated defendants and the impact of the AIA joinder provision on the number of defendants in PAE lawsuits).

¹⁷⁸ See Lemley & Melamed, *supra* note 82, at 2126–29 (describing three patent troll business models).

¹⁷⁹ Chien & Reines, *supra* note 1, at 8–11 (discussing PAE lawsuits against multiple customers).

¹⁸⁰ Press Release, Senator Patrick Leahy, The America Invents Act: Promoting American Innovation, Creating American Jobs, Growing America's Economy, available at <http://www.leahy.senate>.

small business patent applicants,¹⁸¹ and “eliminate interference proceedings, which are often costly to small businesses.”¹⁸² The media frequently echoed these sentiments.¹⁸³

Small entities, however, differ significantly from end users. This Part shows that the AIA envisaged a technologically-savvy business competitor of the patentee or the patent applicant, that is well acquainted with the technology at issue and the relevant prior art, and often becomes involved in the patent conflict early in the life of the patent. As this Article has illustrated, the end user is a different creature.

As part of the AIA’s overhaul of the Patent Act, the AIA created three new PTO procedures to replace the *inter partes* reexamination procedure: post-grant review, *inter partes* review, and the covered business method patent review.¹⁸⁴ In addition, the AIA overhauled the third party submission procedure and broadened the prior user rights defense.¹⁸⁵ Regardless of whether the AIA benefits small businesses, its amendments largely do not aid end users. End users are unlikely to be able to take advantage of the AIA’s reforms because they lack technical expertise and are usually exposed to the technology at a later stage.

A. The AIA’s Overhaul of PTO Procedures

Supporters of the AIA argued that small entities would benefit from the creation of new PTO procedures that will serve as an efficient and less costly

gov/imo/media/doc/PRESS-GoodForSmallBusiness-OnePager-FINAL.pdf, archived at <http://perma.cc/U9AW-G4WB>.

¹⁸¹ *Id.*

¹⁸² *Id.*; see Joe Matal, *A Guide to the Legislative History of the America Invents Act: Part I of II*, 21 FED. CIR. B.J. 435, 454–55 (2012) (describing Senators Coons and Klobucher’s statements regarding the expense of interference proceedings for small inventors).

¹⁸³ See, e.g., John Koenig, *The America Invents Act Is Better for Small Business*, REUTERS (Sept. 21, 2011), <http://johnkoenig.com/the-america-invents-act-is-better-for-small-business/>, archived at <http://perma.cc/5W9P-FLVV> (mentioning reduced fees for small entities and the potential of challenging patent applications without legal representation). Academics and commentators also debated the impact of the AIA on small businesses. See generally, e.g., David S. Abrams & R. Polk Wagner, *Poisoning the Next Apple? The America Invents Act and Individual Inventors*, 65 STAN. L. REV. 517 (2013) (arguing, based on the Canadian experience that a first-to-file system will harm individual inventors); Steve Moore, *The AIA: A Boon for David or Goliath? (Part 1)*, IPWATCHDOG (Aug. 15, 2013, 7:45 AM), <http://www.ipwatchdog.com/2013/08/15/the-aia-a-boon-for-david-of-goliath/id=44651/>, archived at <http://perma.cc/V8GH-4FFU> (assessing the impact of the AIA and arguing that despite its promises it has not benefitted small entities); Steve Moore, *The AIA: A Boon for David or Goliath? (Part 2)*, IPWATCHDOG (Aug. 16, 2013, 10:39 AM), <http://www.ipwatchdog.com/2013/08/16/aia-david-goliath-2/id=44661/>, archived at <http://perma.cc/YL5R-QLDP> (same).

¹⁸⁴ See *infra* notes 206–218 and accompanying text.

¹⁸⁵ See *infra* notes 198–205, 231–238 and accompanying text.

alternative to litigation. Patent litigation is exorbitantly expensive.¹⁸⁶ These costs dissuade many (especially small) companies from pursuing litigation.¹⁸⁷ The pre-AIA PTO alternative to litigation—the *inter partes* reexamination proceeding—failed to serve as an effective option.¹⁸⁸ The process was lengthy as it generally lasted a minimum of three years.¹⁸⁹ Challengers could contest the patent only on Section 102 (novelty and statutory bar) and Section 103 (non-obviousness) grounds.¹⁹⁰ Furthermore, they could not fully participate in the process because they were only allowed a single response to a patentee's filings.¹⁹¹

Although challengers were limited in their ability to participate in the proceedings; they were also bound by strong estoppel provisions. First, challengers were estopped from challenging the validity of any fact determined during reexamination.¹⁹² Second, challengers were estopped from later asserting the invalidity of the patent on any ground that was raised or could have been raised during reexamination.¹⁹³ Consequently, challengers rarely used *inter partes* reexaminations.¹⁹⁴

The AIA replaced *inter partes* reexamination with three new proceedings: 1) post-grant review, 2) *inter partes* review, and 3) covered business method patent review. In addition, it amended the third party submission process to facilitate interested parties' ability to challenge patent applications. Supporters of these new procedures argued that small companies, for whom the cost of litiga-

¹⁸⁶ See *infra* notes 256–269 and accompanying text; see also Joseph Farrell & Robert P. Merges, *Incentives to Challenge and Defend Patents: Why Litigation Won't Reliably Fix Patent Office Errors and Why Administrative Patent Review Might Help*, 19 BERKELEY TECH. L.J. 943, 948–49 (2004) (reporting the average costs of patent litigation and the discovery process). Additional costs of litigation may include higher royalties imposed on alleged infringers by the patentee as a penalty for refusing to settle early. See *id.* at 954–55. Those challenging patent validity may also be enjoined from selling their products or be required to pay substantial damages. See Michael A. Carrier, *Post-Grant Opposition: A Proposal and a Comparison to the America Invents Act*, 45 U.C. DAVIS L. REV. 103, 110–11 (2011).

¹⁸⁷ See Carrier, *supra* note 186, at 110.

¹⁸⁸ See *id.* at 113–14 (discussing failings of the *inter partes* reexamination procedure); U.S. PATENT & TRADEMARK OFFICE, REPORT TO CONGRESS ON *INTER PARTES* REEXAMINATION 6–8 (2004), available at http://www.uspto.gov/web/offices/dcom/olia/reports/reexam_report.htm#_ftnl, archived at <http://perma.cc/5GSP-ATH7> (analyzing inequities contained within the *inter partes* reexamination procedure).

¹⁸⁹ Lawrence A. Stahl & Donald H. Heckenberg, *The Scope and Ramifications of the New Post-Grant and Inter Partes Review Proceedings at the USPTO*, FITZPATRICK, CELLA, HARPER & SCINTO 1–2, http://www.fitzpatrickcella.com/DB6EDC/assets/files/News/Fitz_PTO_1_4_8.pdf, archived at <http://perma.cc/3MFV-HRZM> (last visited Nov. 12, 2014).

¹⁹⁰ Carrier, *supra* note 186, at 113–14.

¹⁹¹ *Id.* at 114.

¹⁹² *Id.*

¹⁹³ *Id.*

¹⁹⁴ *Id.*

tion and the long discovery process often renders litigation infeasible, would particularly benefit from these options.¹⁹⁵ Others argued that these changes would not benefit small entities.¹⁹⁶ Regardless, the small entities envisioned by both supporters and opponents are competitors who, unlike end users, are technologically-savvy. The goal of these procedures was to bring more information to the system by taking advantage of the knowledge of competitors who are best acquainted with the prior art and can best challenge the patent applicant's affidavits and declarations.¹⁹⁷ Although competitors are likely to be aware of the patent application and become involved during the application stage, end users are less likely to benefit from these procedures because they lack the technological know-how, and are unlikely to be implicated in the patent conflict at the time periods when the patent can be most effectively challenged.

1. Third Party Submission

Critics of the patent system often point to the PTO's inability to properly examine the growing number of patent applications as a main cause for the outpouring of low quality patents. Over-burdened PTO examiners who may not be very familiar with the technology at issue are often unable to locate all the relevant prior art.¹⁹⁸ To address this, Congress created the procedure of third party submission. The goal was to assist the PTO in obtaining the relevant prior art to assess whether a patent meets the requirements of Sections 102 and 103 of the Patent Act. Through the third party submission procedure,

¹⁹⁵ See *Patent Quality Improvement: Post-Grant Opposition: Hearing Before the Subcomm. on Courts, the Internet, & Intellectual Prop. of the H. Comm. on the Judiciary*, 108th Cong. 37 (2004) [hereinafter *Patent Quality Improvement Hearing*] (statement of Michael K. Kirk, Executive Director, American Intellectual Property Law Association) ("I think that the fact that we can provide an attractive procedure that would determine the validity of claims of issued patents more efficiently, more effectively, quicker, than District Court litigation, which, as I noted, runs into the millions of dollars, is going to help large and small companies but especially the small company and the independent inventor."); see also *Changes to Implement the Preissuance Submissions by Third Parties Provision of the Leahy-Smith America Invents Act*, 77 Fed. Reg. 42,150, 42,164 (July 17, 2012) (to be codified at 37 C.F.R. pts. 1, 41) (stating that the anonymity added to the third party submission procedure will encourage small entities to submit without fear of retaliation from a large competitor); Carrier, *supra* note 186, at 116–19 (focusing on the post-grant proceeding).

¹⁹⁶ See, e.g., Jason Rantanen et al., *Debate, America Invents, More or Less?*, 160 U. PA. L. REV. PENNUMBRA 229, 241–45 (2012), <http://www.pennlawreview.com/online/160-U-Pa-L-Rev-PENnumbra-229.pdf>, archived at <http://perma.cc/UG7Z-SB7W> (arguing that the post-grant review procedure would be harmful for small entities).

¹⁹⁷ See Carrier, *supra* note 186, at 116.

¹⁹⁸ See Joseph Scott Miller, *Building a Better Bounty: Litigation-Stage Rewards for Defeating Patents*, 19 BERKELEY TECH. L.J. 667, 733 (2004) (describing the limitations that constrain patent examiners).

the PTO could rely on the expertise of the public to provide the examiner with relevant prior art documents.¹⁹⁹

The AIA's goal in reforming the third party submission procedure was to enhance the public's access to the procedure.²⁰⁰ Congress made changes to facilitate the procedure generally and, specifically, to facilitate the access of small entities. First, the period of time during which a third party could submit prior art was extended. Under the AIA, a third party can submit a patent, patent application or other printed application, as long as it is submitted before the earlier of (1) the date of notice of allowance; or (2) the later of: six months from the publication of the application or the date of the first rejection by an examiner.²⁰¹ Second, prior to the AIA, third parties could submit prior art documents, but could not explain their relevance. Under the AIA, the third party submission should be accompanied by a description of relevance.²⁰²

Congress incorporated two additional changes targeted specifically at improving access for small entities. First, under the AIA, parties can participate anonymously in the third party submission procedure. Anonymity was not available under the previous law. The promoters of the law hoped that this will encourage small entities to submit without fear of retaliation if they have a valuable relationship with a larger applicant.²⁰³ Secondly, the AIA instituted lower fees for small entities.²⁰⁴

Changes facilitating small entities' access to third party submission may be helpful for small entities who are business competitors. They are knowl-

¹⁹⁹ See Baumeister, *supra* note 20, at 387–88 (the public would provide the PTO with public documents that in an ideal world the examiner could find on his own); see also David J. Kappos, *Investing in America's Future Through Innovation: How the Debate Over the Smart Phone Patent Wars (Re)Raises Issues at the Foundation of Long-Term Incentive Systems*, 16 STAN. TECH. L. REV. 485, 493–94 (2013), <https://journals.law.stanford.edu/sites/default/files/stanford-technology-law-review-stlr/online/investinginamericasfuture.pdf>, archived at <http://perma.cc/45W6-S5YL> (discussing this purpose in the context of software patents).

²⁰⁰ The procedure was infrequently used. In 2007, for every five hundred patent applications published, the PTO received only one third party submission. William Alsup, Memo to Congress, *A District Judge's Proposal for Patent Reform: Revisiting the Clear and Convincing Standard and Calibrating Deference to the Strength of the Examination*, 24 BERKELEY TECH. L.J. 1647, 1653 (2009).

²⁰¹ 35 U.S.C. § 122(e) (2012). This amends the previous law, which limited the time period to two months after publication or mailing of notice of allowance, whichever was earlier. Changes to Implement the Preissuance Submissions by Third Parties Provision of the Leahy-Smith America Invents Act, 77 Fed. Reg. 42,150, 42,150 (July 17, 2012) (to be codified at 37 C.F.R. pts. 1, 41).

²⁰² 35 U.S.C. § 122(e); Changes to Implement the Preissuance Submissions by Third Parties Provision of the Leahy-Smith America Invents Act, 77 Fed. Reg. at 42,150.

²⁰³ Changes to Implement the Preissuance Submissions by Third Parties Provision of the Leahy-Smith America Invents Act, 77 Fed. Reg. at 42,150, 42,164.

²⁰⁴ Currently, a small entity pays \$90 and a micro entity pays no fees for third party submission. *United States Patent and Trademark Office Fee Schedule*, U.S. PATENT & TRADEMARK OFFICE, <http://uspto.gov/web/offices/ac/qs/ope/fee010114.htm>, archived at <http://perma.cc/832N-EFD5> (last updated Oct. 1, 2014).

edgeable about the technology at issue and can locate relevant documents of prior art to submit. End users, however, are unlikely to possess this knowledge without relying on expensive outside sources. But most importantly, third party submission occurs very early in the life of the patent, even before the notice of allowance. At that point, business competitors may realize that a patent application has been submitted and want to prevent the issuance of a patent. End users, however, are unlikely to be aware of the patent application and the relevance of the technology because in most cases the invention has not yet reached the market.²⁰⁵ Therefore, end users are unlikely to avail themselves of the third party submission procedure, despite the AIA induced changes.

2. Post-Grant Review

The AIA instituted the post-grant review to replace the ineffective *inter partes* reexamination as a less expensive and more efficient forum than litigation to challenge a patent after its issuance.²⁰⁶ To reduce costs and increase efficiency, the AIA charged the newly formed Patent Trial and Appeal Board (PTAB) to perform post-grant reviews and issue a final determination within a year, with a possibility of a six-month extension.²⁰⁷ In addition, the AIA imposed restrictions on post-grant review discovery to limit its scope and its cost as compared to patent litigation.²⁰⁸

A petitioner can only file a post-grant review petition within a narrow time window—from the time a patent is granted or a reissue patent is issued to nine months after that date.²⁰⁹ The nine-month window requires petitioners to act quickly to take advantage of the broad grounds available to challenge a patent under the post-grant review.²¹⁰ A post-grant review petitioner can request cancellation of patent claims on any ground under Sections 101, 102,

²⁰⁵ For discussions of the problem of patenting early in the technological cycle before the technology is ready for commercialization, see generally Cotropia, *supra* note 25; Sichleman, *supra* note 25.

²⁰⁶ See De Corte et al., *supra* note 20, at 126; see also Susan J. Marsnik, *Will the America Invents Act Post-Grant Review Improve the Quality of Patents? A Comparison with the European Patent Office Opposition*, in *THE CHANGING FACE OF US PATENT LAW AND ITS IMPACT ON BUSINESS STRATEGY* 183, 186 (Daniel R. Cahoy & Lynda J. Oswald eds., 2013) (“For years, scholars, practitioners and government bodies have advocated instituting post-issuance administrative trial proceedings at the PTO to determine validity more efficiently than litigation.”).

²⁰⁷ 35 U.S.C. § 326(a)(11) (2012); see Paul M. Janicke, *Overview of the New Patent Law of the United States*, 21 *TEX. INTELL. PROP. L.J.* 63, 70–71 (2013) (describing the time limitations of the post-grant review procedure).

²⁰⁸ See 35 U.S.C. § 326(a)(5) (limiting discovery to evidence directly related to factual assertions advanced by either party); De Corte et al., *supra* note 20, at 127–29 (explaining that discovery in post-grant proceedings is much more limited than in U.S. patent litigation).

²⁰⁹ 35 U.S.C. § 321(c).

²¹⁰ De Corte et al., *supra* note 20, at 123–24.

103, and 112. These include prior art anticipation (novelty and statutory bar), obviousness, lack of utility, lack of patent subject matter and failure to meet the requirements of definiteness, written description, and enablement.²¹¹

Although, many commentators and legislators believed that the post-grant review would benefit small entities,²¹² the small entities that may benefit from the post-grant review procedure are, again, business competitors and not end users. First, as explored, end users are likely to become involved in a patent conflict only later in the life of the patent, long after the narrow post-grant review window closes. Second, although post-grant review is designed to be less costly than litigation, estimates indicate that filing fees combined with attorney's fees are likely to bring the cost to approximately half a million dollars.²¹³ This cost is likely to be even higher for end users who cannot rely on in-house expertise. Finally, end users, who are often one time participants in the patent landscape, are unlikely to pursue conflict at the cost of half a million dollars or more in legal fees.

3. *Inter Partes* Review

The AIA designed the *inter partes* review as a less expensive and potentially more effective alternative to litigation.²¹⁴ As with the post-grant review, the AIA limited the duration of the proceeding. *Inter partes* review should be completed within one year though it can be extended by an additional six months.²¹⁵ The scope of discovery is also more limited than discovery in federal court patent litigation.²¹⁶

²¹¹ See 35 U.S.C. § 321(b); De Corte et al., *supra* note 20, at 121.

²¹² See, e.g., *Patent Quality Improvement Hearing*, *supra* note 195, at 37 (statement of Michael Kirk, Executive Director, American Intellectual Property Law Association); Carrier, *supra* note 186, at 118.

²¹³ Patent office fees are currently, a filing fee of \$12,000, plus a fee of \$250 for each claim over \$20, and a post-institution fee of \$18,000 plus a fee of \$550 for each claim over 15. *Fee Schedule*, *supra* note 204. The PTO estimated the costs of attorney's fees for the procedure based on the and the number of hours to prepare for various stages in the proceedings the AIPLA mean private firm attorney fee of \$371. See Marsnik, *supra* note 206, at 22.

²¹⁴ See generally Melissa F. Wasserman, *The Changing Guard of Patent Law: Chevron Deference for the PTO*, 54 WM. & MARY L. REV. 1959 (2013) (arguing that the creation of post-grant review and *inter partes* review appoints the PTO instead of the courts as the interpreter of the core patentability standards).

²¹⁵ 35 U.S.C. § 316(a)(11).

²¹⁶ *Id.* § 316(a)(5); see *Garmin Int'l, Inc. v. Cuozzo Speed Techs., LLC*, IPR2012-00001, 2013 WL 2023626, at *2-4 (T.T.A.B. Mar. 5, 2013) (clarifying the scope of routine discovery and additional discovery in an *inter partes* review proceeding); Andrei Lancu et al., *Challenging Validity of Issued Patents Before the PTO: Inter Partes Reexam Now or Inter Partes Review Later?*, 94 J. PAT. & TRADEMARK OFF. SOC'Y 148, 154-55 (2012) (describing the scope of limited discovery in *inter partes* review and arguing that it mainly favors patentees).

Inter partes review, in essence, continues where the post-grant review leaves off. Parties may challenge patent claims under *inter partes* review once the window to challenge them under the post-grant review closes.²¹⁷ But, under *inter partes* review, unlike post-grant review, parties may challenge the validity of the patent only under Sections 102 and 103 (prior art and obviousness) and only on the basis of patents and prior patent applications.²¹⁸ Thus, nine months after the grant of the patent, a party can no longer challenge it in the PTO based on many of the grounds available during post-grant review. These include challenges based on lack of utility, lack of patent subject matter and failure to meet the requirements of definiteness, written description, and enablement. Additionally, parties can no longer challenge the novelty and non-obviousness of the patent based on use or publications.

Inter partes review, on the one hand, appears more suitable for end users because parties may challenge the patent at a later point in time after its issuance. Parties can challenge the patent in an *inter partes* review from nine months after its issuance to the time it expires. During this period, end users are more likely to be utilizing the patented technology, and therefore, find themselves implicated in a patent dispute. At the same time, the scope of *inter partes* review is extremely narrow. By the time the end user can actually avail himself of a PTO proceeding its options are quite limited. Furthermore, the end user remains, in many cases, a one-time player who would prefer to settle or switch technologies rather than incur the costs of a PTO proceeding, which are particularly onerous for the end user.

4. Covered Business Method Patent Review

The AIA also designed a new eight-year transitory covered business method patent review process that went into effect on September 16, 2012 and is to be applicable only to petitions filed on or by September 16, 2020.²¹⁹ Congress intended this proceeding, like the other PTO proceedings, to provide a less costly

²¹⁷ 35 U.S.C. § 311(c) (allowing a petition for *inter partes* review to be filed after the later of either (1) the date that is nine months after the grant of a patent; or (2) if a post-grant review was instituted, the date of the termination of that review); see Jeffrey P. Kushan, *The Fruits of the Convoluted Road to Patent Reform: The New Invalidity Proceedings of the Patent and Trademark Office*, 30 YALE L. & POL'Y REV. 385, 405 (2012) (describing the timing relationship between post-grant review and *inter partes* review).

²¹⁸ 35 U.S.C. § 311(b) (limiting the grounds for challenging a patent's validity in *inter partes* review); see De Corte et al., *supra* note 20, at 121 (explaining that the grounds for challenging a patent are much narrower under *inter partes* review than under post-grant review).

²¹⁹ See Leahy-Smith America Invents Act, Pub. L. No. 112-29, § 18 (a)(2) & (3)(A), 125 Stat. 284, 330 (2011) (codified in scattered provisions of 35 U.S.C. (2012)).

alternative to litigation.²²⁰ The AIA and PTO final rules reflect that the procedure is to apply to a broad definition of business methods for financial products, including “a method or corresponding apparatus for performing data processing or other operations used in the practice, administration, or management of a financial product or service.”²²¹ The legislative history indicates that this procedure is not intended to be limited to patents covering specific financial products or services and instead also covers ancillary activities related to financial services or products.²²² Some interpretations of the covered business method review assert that it also applies to patents that involve “every-day business applications.”²²³ And multiple bills are seeking to expand its scope further.²²⁴ Preliminary evidence from the first hundred covered business method patent petitions demonstrates that the PTO has broadly interpreted the scope of patents that can be reviewed under the procedure.²²⁵

Petitioners may request a covered business method review from the time the post-grant review window closes until the patent expires.²²⁶ Generally, a petitioner can raise most grounds for challenging a patent under this proceeding. Specifically, a petitioner challenging a patent filed under the first to file regime can challenge the patented business method under any ground, while those filing a petition to challenge a patent filed under the first to invent regime are more limited in the scope of their challenges to certain challenges under Section 102 and 103.²²⁷

Unlike the other AIA PTO proceedings, only a party that is sued or charged with infringement may petition for a covered business method review

²²⁰ See Jeff Kettle, *Congress Giveth and Taketh Away: A look at Section 18 of the America Invents Act and the Review of Business Method Patents*, 94 J. PAT. & TRADEMARK OFF. SOC'Y 201, 214 (2012).

²²¹ See 35 U.S.C. § 18 (d)(1); see also Covered Business Method and Technological Invention Definitions Final Rules, 77 Fed. Reg. 48,756, 48,735 (Aug. 14, 2012) (to be codified at 37 C.F.R. pt. 42). However, it was not to apply to “technological inventions” defined as patents that claim a novel and unobvious technological feature that solves a technical problem using a technical solution. See 35 U.S.C. § 18 (d)(1); see also 37 C.F.R. § 42.301(b) (2013) (defining “technological invention”).

²²² See Joe Matal, *A Guide to The Legislative History of the America Invents Act: Part II of II*, 21 FED. CIR. B.J. 539, 636–38 (2012).

²²³ See Kettle, *supra* note 220, at 209.

²²⁴ P. Andrew Riley et al., *The Surprising Breadth of Post-Grant Review for Covered-Business-Method Patents: A New Way to Challenge Patent Claims*, 15 COLUM. SCI. & TECH. L. REV. 235, 262 (2014) (describing various bills attempting to broaden the scope of the procedure).

²²⁵ *Id.* at 275–79.

²²⁶ See 37 C.F.R. § 42.303 (2013).

²²⁷ See Kettle, *supra* note 220, at 212–13; Matal, *supra* note 222, at 626–27.

of the patent.²²⁸ A party charged with infringement is a petitioner who would have standing to bring a declaratory judgment action in federal court.²²⁹

Since covered business method review lasts until the patent expires, end users can take advantage of this process. The procedure will still be available at the time that they find themselves involved in the patent dispute.

The covered business method review, however, is limited in significant ways, making it only a partial solution for end users. First, an end user who has not been sued or received a cease or desist letter cannot file a petition. Unlike competitors, there are usually large numbers of end users who are similarly situated. Once a patentee starts suing end users, others may fear they will be sued next or may want to take action to gain access to a patented technology that is crucial for them. Nonetheless, they would be precluded from taking preemptive action by filing for a covered business method review. Second, the procedure is temporary in nature and will sunset in six years.²³⁰ Therefore, it does not provide a long-term solution. Third, although broadly defined, this procedure does not apply to all categories of patents. At its broadest interpretation it may apply to patents on business method applications or to ancillary activities related to financial services or products. It does not apply to many of the lawsuits involving end users, particularly those involving drugs and medical tests.

B. The AIA's Expansion of the Prior User Rights Defense

The prior user rights defense to patent infringement is afforded to a party that was commercially using an invention, which is later patented by another party. A party who successfully asserts the defense may continue to use the patented invention without paying licensing fees within certain restrictions.²³¹ Prior to the adoption of the AIA, the Patent Act provided a limited defense that applied only to business method patents.²³² In addition, a party could raise the defense only if that party was the inventor who reduced the invention to practice.²³³

The AIA's expanded prior use defense now applies to all inventions and is not limited solely to business method patents.²³⁴ Third parties receive protec-

²²⁸ See Leahy-Smith America Invents Act, Pub. L. No. 112-29, § 18 (a)(1)(B), 125 Stat. 284, 330 (2011) (codified in scattered provisions of 35 U.S.C. (2012)); see also Kettle, *supra* note 220, at 213–14 (comparing covered business method review standing to post grant review standing).

²²⁹ See 37 C.F.R. § 42.302(a).

²³⁰ 125 Stat. at 830.

²³¹ See KAPPOS & REA, *supra* note 29, at 5.

²³² American Inventors Protection Act of 1999 § 4302(a), 35 U.S.C. § 273(a)(3), (b)(1) (2006) (repealed and replaced by 125 Stat. at 297–99).

²³³ *Id.* § 273(b)(1).

²³⁴ 35 U.S.C. § 273(a) (2012).

tion if they demonstrate that they were using the invention for at least one year prior to the filing date of a patent application or disclosure to the public.²³⁵ And importantly, the AIA does not contain a requirement that a party claiming the prior use defense needs to be the inventor who reduced the invention to practice. Instead, it applies to any party that commercially used the subject matter of the invention.²³⁶

Some argued that prior user rights would benefit small businesses while others disagreed. Yet, the parties to the debate only envisioned the small inventor or technology competitor. End users were not at the core of that debate.²³⁷ And, while the AIA's expansion of the prior user rights defense opens the door to some end users to avail themselves of the defense, it is unlikely to be frequently used by end users.

The elimination of the reduction to practice requirement would facilitate end users' ability to take advantage of the prior user rights defense. To avail of the prior user rights defense, the end user needs to use the invention in commerce at least one year prior to the filing of the application or disclosure to the public. Some end users, in fact, use technologies in commerce, such as cafes offering wireless technology to their customers or mass transit systems offering train-tracking information to their passengers. And, end users may license or purchase a technology that is later patented by another. In most cases, however, end users do not have access to a technology early in its life cycle. This lack of early access to the technology makes it difficult for end users to utilize the defense.²³⁸

²³⁵ *Id.* § 273(a)(2).

²³⁶ *See id.* § 273(a)(1) (providing that “[a] person shall be entitled to a defense . . . if (1) such person, acting in good faith, commercially used the subject matter in the United States, either in connection with an internal commercial use or an actual arm’s length sale or other arm’s length commercial transfer of a useful end result of such commercial use”); *see also* KAPPOS & REA, *supra* note 29, at 18 (stating that the AIA does not require the party asserting prior use rights to be the actual inventor).

²³⁷ *See* Keith Kupferschmid, *Prior User Rights: The Inventor’s Lottery Ticket*, 21 AIPLA Q.J. 213, 234 (1993) (noting benefits for small entities whose licensees could take advantage of prior user rights); *see also* KAPPOS & REA, *supra* note 29, at 39 (noting that the prior user rights defense could be important for small inventors who do not have the resources to get to the PTO first in a first-to-file system). *But see* Edward L. MacCordy, *The Threat of Proposed Patent Law Changes to the Research University*, 20 J.C. & U.L. 295, 303 (1994) (arguing that it would be impossible to tell whether a potential infringer has prior user rights without expensive litigation that small businesses and independent inventors cannot afford).

²³⁸ Beyond the unsuitability of the defense to the circumstances of the end user, it appears that even in countries where the defense was extensively available, neither competitors nor end users tended to use it. *See* KAPPOS & REA, *supra* note 29, at 38.

IV. SHIFTING LEGAL FEES AS A TOOL IN END USER LITIGATION

The recent patent reform under the AIA failed to consider the growing role of end users. Consequently, irrespective of whether end users' claims are substantively justified, they currently lack the procedural tools to pursue their claims in patent litigation. This Part argues that a fee shifting regime that considers the end user status, and increases the likelihood that a court would compensate prevailing end users for their expenses, could help level the playing field for end users in a broad array of cases.

Fee shifting is by no means the only procedural tool necessary to accomplish this leveling. Granting end users standing to sue in declaratory judgment cases would also be an important tool.²³⁹ In addition, some end users who are customers of manufacturers of the allegedly patented technology could resolve the problem through contractual indemnification obligations by the manufacturers. And another option for customer end users is a stay of the lawsuit against them, while the manufacturer and patentee are litigating the case, through the expansion of the customer suit exception.²⁴⁰ This Article, however, focuses on fee shifting because it is the one procedural tool that is applicable to all end user cases. And while the availability of fee shifting will only motivate some end users to litigate their meritorious claims, all categories of end users can potentially benefit from this remedy.

This Part begins by presenting an overview of the American Rule regarding fee shifting the current fee shifting regime under patent law, the costs of patent litigation and the rationales for and against fee shifting in litigation. Next, this Part examines recent legislative and Supreme Court activity regarding fee shifting in patent litigation. It argues that the unique qualities and circumstances of end users make fee shifting particularly appropriate. Finally, this Part discusses the design and implementation of a fee shifting regime that addresses end users' interests in patent litigation.

A. The American Rule and the Patent System

The American Rule governing legal fees differs from the rules prevalent in the majority of other jurisdictions. The traditional American Rule does not allow successful litigants to recover legal fees from the defeated party,²⁴¹ while

²³⁹ For my discussion of the issue of end users' standing to sue for declaratory judgment of patent invalidity, see generally Bernstein, *supra* note 32.

²⁴⁰ See generally Love & Yoon, *supra* note 1 (discussing an expansion of the customer suit exception).

²⁴¹ See *Arcambel v. Wiseman*, 3 U.S. (3 Dall.) 306, 306 (1796) ("The general practice of the United States is in opposition to [the indemnity rule] and even if that practice were not strictly correct in principle, it is entitled to the respect of the court, till it is changed, or modified, by statute.").

the established rule in England and many other countries permits the prevailing party to collect reasonable attorney's fees from the losing party.²⁴² Congress, however, has frequently circumvented the default rule by enacting statutes that allow fee shifting to prevailing parties in certain situations,²⁴³ such as civil rights cases,²⁴⁴ fair housing cases,²⁴⁵ and consumer protection cases.²⁴⁶ In addition, certain states created exceptions to the American Rule. For instance, state courts in Alaska follow a loser pays rule.²⁴⁷

These deviations from the American Rule follow different forms. Many federal statutes allow attorney fees to prevailing parties. Some authorize both plaintiffs and defendants to recover fees,²⁴⁸ while others only allow plaintiffs to recover fees.²⁴⁹ In addition, some statutes allow judges to grant fee awards,²⁵⁰ while other statutes require judges to grant fee awards.²⁵¹

Under the Patent Act, courts have the discretion to grant attorney's fees to the prevailing party, whether plaintiff or defendant, in exceptional circum-

²⁴² See *Fleischmann Distilling Corp. v. Maier Brewing Co.*, 386 U.S. 714, 717–18 (1967) (describing the differences between the English Rule and the American Rule); *Cubita et al.*, *supra* note 35, at 188 (stating that the United States is the only common law jurisdiction where each party must bear the total expense of compensating his attorney).

²⁴³ See *Silver*, *supra* note 35, at 866 (“Fee shifting is common in federal cases” and that, by enacting over 150 statutes entitling parties who prevail to claim fee awards, Congress greatly restricted the American Rule); see also *Cubita et al.*, *supra* note 35, at 286–89 (describing federal statutes that authorize awards of attorney's fees to “prevailing parties”).

²⁴⁴ The Civil Rights Attorney's Fees Awards Act of 1976, 42 U.S.C. § 1988(b) (2012) (“[T]he court, in its discretion, may allow the prevailing party, other than the United States, a reasonable attorney's fee as part of the costs . . .”).

²⁴⁵ The Fair Housing Act § 812, 42 U.S.C. § 3612(p) (2012) (“[T]he administrative law judge or the court, as the case may be, in its discretion, may allow the prevailing party, other than the United States, a reasonable attorney's fee and costs.”).

²⁴⁶ The Truth in Lending Act § 130, 15 U.S.C. § 1640(a)(3) (2012) (providing that creditors could be liable to successful plaintiffs for the costs of the action, together with a reasonable attorney's fee).

²⁴⁷ See, e.g., Alaska R. Civ. P. 82 (establishing a prevailing party fee shifting system in Alaska); see also *Olson & Bernstein*, *supra* note 51, at 1180–86 (describing the evolution of the Alaskan fee shifting rule).

²⁴⁸ *Silver*, *supra* note 35, at 872–73; see, e.g., 42 U.S.C. § 1988(b) (allowing any prevailing party to receive attorney's fees in a civil rights case); *Christiansburg Garment Co. v. EEOC*, 434 U.S. 412, 421 (1978) (holding that a court may award attorney's fees to a prevailing defendant (employer) in an employment discrimination suit under Title VII if it finds that the plaintiff's action was frivolous, unreasonable, or without foundation even though not brought in bad faith).

²⁴⁹ *Silver*, *supra* note 35, at 873; see, e.g., 15 U.S.C. § 1640(a)(3) (allowing prevailing plaintiffs to receive attorney's fees from creditors in consumer protection cases); The Fair Credit Reporting Act § 616(3), 15 U.S.C. § 1681n(c) (stating that liability to a prevailing consumer plaintiff could include attorney's fees if a filing was made in bad faith or for purposes of harassment).

²⁵⁰ *Silver*, *supra* note 35, at 872; see, e.g., 15 U.S.C. § 77k(e) (2012) (providing judges with the discretion to award reasonable attorney's fees to prevailing parties in certain securities cases).

²⁵¹ *Silver*, *supra* note 35, at 872; see, e.g., Clayton Act § 4, 15 U.S.C. § 15 (2012) (mandating attorney's fee awards in certain antitrust cases).

stances.²⁵² Historically, the Federal Circuit narrowly interpreted the phrase “exceptional circumstances,” which made it difficult for prevailing parties to receive attorney’s fees. The Supreme Court, however, in its 2014 *Octane Fitness, LLC v. ICON Health & Fitness, Inc.* decision, relaxed the Federal Circuit’s strict interpretation.²⁵³ According to the Court, an exceptional case is simply a case that “stands out from others with respect to the substantive strength of a party’s litigating position . . . or the unreasonable manner in which the case was litigated.”²⁵⁴ It explained that the district court should decide whether a case is “exceptional” based on the totality of the circumstances.²⁵⁵ The Supreme Court rejected the Federal Circuit standard as too rigid. Specifically, it held that fee shifting is not limited to cases involving misconduct that usually extends to independently sanctionable conduct. It also held that the prevailing party no longer has to prove both that the litigation is objectively baseless and that the plaintiff brought it in subjective bad faith. Instead, it could be sufficient to show subjective bad faith. Under this new standard articulated by the Supreme Court, district courts are more likely to award attorney’s fees in patent cases.

B. The Costs of Patent Litigation

Patent litigation is notoriously expensive. In 2013, the American Intellectual Property Law Association (the “AIPLA”) reported that when less than one million dollars was at stake the mean for the total cost of the litigation was \$968,000 (median cost was \$700,000).²⁵⁶ The AIPLA also reported that when one to ten million dollars were at stake, the mean for the total cost of litigation was \$2,100,000 (median was \$2,000,000).²⁵⁷ In addition, when ten million to twenty-five million dollars were at stake the mean for the total cost of litigation was \$3,354,000 (median was \$3,325,000).²⁵⁸ Finally, the AIPLA reported that when more than twenty-five million was at stake the mean for the total

²⁵² 35 U.S.C. § 285 (2012).

²⁵³ *Octane Fitness, LLC v. ICON Health & Fitness, Inc.*, 134 S. Ct. 1749, 1755 (2014) (“The framework established by the Federal Circuit . . . is unduly rigid, and it impermissibly encumbers the statutory grant of discretion to district courts.”).

²⁵⁴ *Id.* at 1756.

²⁵⁵ *Id.* at 1756–58.

²⁵⁶ AIPLA, REPORT OF THE ECONOMIC SURVEY I-129 (2013). The mean cost by the end of discovery was \$530,000 (median cost was \$350,000). AIPLA, REPORT OF THE ECONOMIC SURVEY I-129 (2013).

²⁵⁷ *Id.* at I-130. The mean cost by the end of discovery was \$1,229,000 (median cost was \$1,000,000). *Id.* at I-129.

²⁵⁸ *Id.* at I-130. The mean cost by the end of discovery was \$2,192,000 (median cost was \$2,000,000). *Id.*

cost of litigation, was \$5,911,000 (median was \$5,500,000).²⁵⁹ Furthermore, in addition to direct litigation costs, studies show that there are indirect costs to defendant's business such as diversion of resources, delays in new products, and loss of market share.²⁶⁰ Patent litigation expenses are particularly striking considering that only about eighty percent of patent cases settle.²⁶¹ Five percent of the cases go to trial, eight percent are terminated on the merits through a motion for summary judgment, and the remainder is disposed of through some form of non-merit disposition.²⁶²

Fees to litigate a patent dispute are many times higher than those for other civil actions.²⁶³ To compare, civil litigation costs are generally much lower with median civil litigation costs for a plaintiff of \$15,000 and \$20,000 for a defendant.²⁶⁴ And although some reports indicate somewhat higher fees for certain categories of civil litigation, such as \$43,000 median overall costs for automobile cases, \$54,000 for premises liability, \$66,000 for real property cases, \$88,000 for employment cases, \$91,000 for contract cases, and \$122,000 for malpractice cases, these figures are still well below the costs of patent litigation.²⁶⁵

Certain characteristics that are unique to patent litigation contribute to its escalated costs. In general, the number of patent cases that go to trial is still relatively high compared to civil case. Patent cases take a longer period of time to resolve. The average time in high-volume patent venues is longer than two years.²⁶⁶ But of particular importance, unlike some other forms of litigation, patent infringement actions are rarely dismissed at the pleading stage. Courts hearing patent disputes conduct a special hearing called a Markman hearing to

²⁵⁹ *Id.* at I-132. The mean cost by the end of discovery was \$3,571,000 (median cost was \$3,000,000). *Id.* at I-131.

²⁶⁰ James Bessen & Michael J. Meurer, *The Direct Costs from NPE Disputes*, 99 CORNELL L. REV. 387, 409 (2014) (focusing on NPE litigation). *But cf.* David L. Schwartz & Jay P. Kesan, Essay, *Analyzing the Role of Non-Practicing Entities in the Patent System*, 99 CORNELL L. REV. 425, 431–48 (2014) (criticizing Bessen & Meurer's study).

²⁶¹ Jay P. Kesan & Gwendolyn G. Ball, *How Are Patent Cases Resolved? An Empirical Examination of the Adjudication and Settlement of Patent Disputes*, 84 WASH. U. L. REV. 237, 259 (2006).

²⁶² *Id.* at 258–59, 271–72, 311.

²⁶³ David L. Schwartz, *The Rise of Contingent Fee Representation in Patent Litigation*, 64 ALA. L. REV. 335, 348 (2012).

²⁶⁴ See Emery G. Lee III & Thomas E. Willging, *Defining the Problem of Cost in Federal Civil Litigation*, 60 DUKE L.J. 765, 770 (2010). Older data also shows that the costs of other forms of civil litigation are much lower than patent litigation costs. See David M. Trubek et al., *The Cost of Ordinary Litigation*, 31 UCLA L. REV. 72, 92 (1983) (finding that the cost to litigate an average civil suit rarely exceeds \$10,000).

²⁶⁵ Paula Hannaford-Agor & Nicole L. Waters, *Estimating the Cost of Civil Litigation*, 20 COURTS STATISTICS PROJECT 1, 7 (2013), available at http://www.courtstatistics.org/~media/microsites/files/csp/data%20pdf/csph_online2.ashx, archived at <http://perma.cc/9CE-PGAY>.

²⁶⁶ Schwartz, *supra* note 263, at 348.

interpret claims. Claims define the scope of the patent and are critical for the resolution of the case. Once the court determines the scope of the patent, the likely outcome of the case becomes much clearer.²⁶⁷ Courts experienced with patent litigation often schedule Markman hearings before trial but after significant discovery. This resolves the issue of claim construction in the context of the litigated products or processes.²⁶⁸ At the same time, this means that the parties incur significant expenses even if the suit is resolved before trial. Costs of patent litigation include attorney fees, expert witness fees, travel costs and document management and production costs.²⁶⁹ And another important reason that litigation is particularly expensive is that it often requires different experts to cover the industry, the particular technologies at issue, as well as experts to cover the damages issue.²⁷⁰

These patent litigation expenses can be especially onerous for end users.²⁷¹ Unlike technological competitors, end users do not usually have patent litigation insurance that can reduce their expenses.²⁷² End users are unlikely to seek insurance coverage because most are not technological companies and therefore do not anticipate being swept into patent litigation. Furthermore, although not all end users are necessarily small entities, many are, and studies

²⁶⁷ See *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 390 (1996) (deciding that judges must perform claim construction, which involves determining the proper scope and boundaries of the patent); Vincent P. Kovalick, *Markman Hearings and Their Critical Role in U.S. Patent Litigation*, FINNEGAN (Oct. 2009), <http://www.finnegan.com/resources/articles/articledetail.aspx?news=9a8bf39b-c419-4329-9f6a-08ac0a647c7c>, archived at <http://perma.cc/C2S6-BHC9> (discussing the significance of resolving claim construction).

²⁶⁸ Kovalick, *supra* note 267.

²⁶⁹ Catherine Rajwani, *Controlling Costs in Patent Litigation*, HARBOR LAW GROUP (Nov. 2008), <http://www.harborlaw.com/publications/jcb20106a.pdf>, archived at <http://perma.cc/HHG4-9BQL>.

²⁷⁰ Levine & Littmann, *supra* note 145.

²⁷¹ Love and Yoon argue that the costs of defense are relatively similar for both parties. See Love & Yoon, *supra* note 1, at 1627 & n.81. They rely on a study finding that the monetary stakes in civil suits are highly correlated with the amount at stake, and on the AIPLA report, which reports mean litigation costs for the amount at stake. See Lee & Willging, *supra* note 264, at 772; AM. INTELLECTUAL PROP. LAW ASS'N, AIPLA REPORT OF THE ECONOMIC SURVEY I-555 to -556 (2011). While monetary stakes in litigation represent the primary cost driver, the Study also demonstrates that litigation stakes account for only sixty percent of the variation in attorney costs. Lee & Willging, *supra* note 264, at 772. The remaining forty percent are not affected by litigation stakes but by other factors. *Id.* Additionally, Lee and Willging's study focused on all civil litigation with patent cases being just a small sample of the cases included. The exorbitant cost of patent litigation including its unique *Markman* hearings and the need for technical expertise could provide a somewhat different set of results. See *id.* at 773 n.88 (mentioning intellectual property cases). Finally, even though the AIPLA statistics focus on the amount at stake, the report contains no discussion regarding whether other factors, such as the identity of the parties, were considered. See generally AM. INTELLECTUAL PROP. LAW ASS'N, AIPLA, REPORT OF THE ECONOMIC SURVEY (2013).

²⁷² See Rajwani, *supra* note 265, at 4 (mentioning patent litigation insurance as one of the top ten ways to reduce patent litigation costs).

reveal that litigation costs, whether direct or indirect, are particularly burdensome for small companies.²⁷³

C. The Fee Shifting Debate

The prevalence of fee shifting as exceptions to the American Rule has inspired a rich debate regarding the rationales for and against it. The main argument in support of the American Rule is that universal fee shifting could deter parties with novel and uncertain claims from litigation because they will fear that they will end up paying for their opponent's attorney's fees as well as their own.²⁷⁴ In addition, commentators and courts have raised several concerns in support of the American Rule. First, they have pointed out that attorneys' fees may become exorbitant if they could be shifted to the opponent.²⁷⁵ Second, they have argued that the extra time needed for hearings on attorneys' fees would constitute a serious burden on the already congested judicial system.²⁷⁶ And third, they have highlighted that lawyers may be unable to engage in effective independent advocacy when the judge before whom they argue determines their fees.²⁷⁷

At the same time, commentators and legislators have put forth six main rationales for fee shifting.²⁷⁸ All are relevant to fee shifting in patent litigation, while four of these rationales are particularly relevant for end user patent litigation, namely: inequality in party strength, the private attorney general theory, economic incentives, and the punitive function.

First, commentators raise a fairness argument to justify fee shifting. Whether the winner is a defendant who was dragged into litigation or a plaintiff who had a valid claim, their litigation expenses were a result of the loser's wrongful actions and they should be compensated.²⁷⁹ Second, commentators have noted that unless fee shifting occurs, the winning litigant will not be made financially whole. The winning litigant will be compensated only for his

²⁷³ See Bessen & Meurer, *supra* note 260, at 400.

²⁷⁴ *Fleischmann Distilling Corp.*, 386 U.S. at 718; Jane P. Mallor, *Punitive Attorneys' Fees for Abuses of the Judicial System*, 61 N.C. L. REV. 613, 618 (1983).

²⁷⁵ See, e.g., Charles T. McCormick, *Counsel Fees and Other Expenses of Litigation as an Element of Damages*, 15 MINN. L. REV. 619, 639 (1931).

²⁷⁶ See, e.g., *F.D. Rich Co. v. United States ex rel Indus. Lumber Co.*, 417 U.S. 116, 129 (1974) (explaining that considerations like time, expense, and issues of proof outweigh concerns of parties bearing the cost of attorneys' fees).

²⁷⁷ See, e.g., *id.* ("Finally, there is the possibility of a threat being posed to the principle of independent advocacy by having the earnings of the attorney flow from the pen of the judge before whom he argues.").

²⁷⁸ See *infra* notes 279–294 and accompanying text.

²⁷⁹ *Olson & Bernstein*, *supra* note 51, at 1162 ("A defendant who has been dragged into litigation . . . deserves compensation for having had to repulse an invalid claim . . . a plaintiff with a valid claim deserves [damages recognizing the legal fees] paid in defeating a recalcitrant defendant.").

injuries, but may have incurred significant expenses during litigation that he has not recouped.²⁸⁰ Third, some commentators have noted that fee shifting can serve a punitive function. High litigation expenses can be a means of deterring or punishing misconduct, such as frivolous lawsuits.²⁸¹

Fourth, the private attorney general theory justifies a fee award on the basis of public usefulness.²⁸² Litigation sometimes produces benefits beyond those reaped by the successful party. Other parties not represented in the lawsuit may benefit from the plaintiff's victory. This type of litigation advances the public interest or at least a private interest broader than that represented by the actual parties. Without fee shifting the cost to a private party may exceed any gains it may receive. Thus, potential plaintiffs may refrain from bringing socially beneficial lawsuits.²⁸³

Fifth, fee shifting can equalize the strength of the parties.²⁸⁴ One side in litigation may have superior resources, creating an inequality in power. This does not necessarily mean that a party does not have sufficient resources to hire a lawyer or that a party is impoverished. Instead, it means that the costs of hiring a lawyer may exceed the expected gain and, therefore, that party may find it uneconomical to proceed to litigation even if it has a meritorious argument.²⁸⁵ Legislatures have considered the relative strengths of parties, incorporating fee shifting provisions to govern suits against the government or suits brought by small or individual private parties.²⁸⁶ The Equal Access to Justice Act, for example, was enacted to correct the power imbalance when the federal government opposes an individual of moderate wealth or a small to moderate entity.²⁸⁷ It allows fee shifting for certain private parties who prevail in non-

²⁸⁰ See Rowe, *supra* note 49, at 657–58.

²⁸¹ See *id.* at 653, 660–61; Cubita et al., *supra* note 35, at 287 n.34.

²⁸² Rowe, *supra* note 49, at 653, 662; see Zemans, *supra* note 51, at 196–97 (discussing plaintiffs suing under the Civil Rights Act as fee shifting under the private attorney general rationale). Although the Supreme Court in *BMW of North America, Inc. v. Gore* limited the allowed ratio between actual harm awards and punitive damages awards, courts do not treat attorney's fees awards as punitive damages awards even when they are issued specifically where a party acted in bad faith. See 517 U.S. 559, 580–86 (1996) (discussing the appropriate ratio between actual harm and punitive damages awards); Mark A. Behrens et al., *Calculating Punitive Damages Ratios with Extracompensatory Attorney Fees and Judgment Interest: A Violation of the United States Supreme Court's Due Process Jurisprudence?*, 48 WAKE FOREST L. REV. 1295, 1302–04 (2013) (discussing courts' exclusion of attorney's fees in bad faith cases when calculating the ratio between actual harm damages awards and punitive damages awards).

²⁸³ Rowe, *supra* note 49, at 662.

²⁸⁴ Kesan, *supra* note 42, at 792–93.

²⁸⁵ Silver, *supra* note 35, at 875.

²⁸⁶ See Rowe, *supra* note 49, at 653, 663–65; Cubita et al., *supra* note 35, at 287 n.34. *But cf.* Zemans, *supra* note 51, at 202–03, 207 (discussing arguments that the access to justice rationale can support both the American rule and fee shifting, and noting that there is not enough empirical data).

²⁸⁷ See Lowell E. Baier, *Reforming the Equal Access to Justice Act*, 38 J. LEGIS. 1, 2 (2012).

tort civil actions and administrative proceedings against the federal government, if the government cannot show that its position was substantially justified or that there were other circumstances that make the award unjust.²⁸⁸ The legislative history of the Civil Rights Attorney's Fees Awards Act of 1976 also indicates that the purpose of the Act was to enable private citizens with few resources to hire a lawyer knowing that they could recover the costs of their lawsuit.²⁸⁹ And, as a final example, employees who usually have fewer resources than employers can recover attorney fees in minimum wage, maximum hours and discrimination litigation.²⁹⁰

Lastly, the most debated rationale concerns economic incentives. Fee shifting can encourage plaintiffs to pursue meritorious small claims and discourage plaintiffs from pursuing weak claims. Fee shifting can also expedite litigation and prevent abuse of discovery processes.²⁹¹ Additionally, a fee shifting system can prevent parties from settling when they have meritorious arguments just to avoid the costs of litigation.²⁹² There appears to be a broad consensus that a fee shifting system would reduce the number of nuisance suits and enable plaintiffs to bring some highly meritorious small lawsuits.²⁹³ Researchers, however, disagree as to whether fee shifting would increase or decrease the rate of settlement.²⁹⁴

D. The Fee Shifting Debate and Patent End User Litigation

Overall, the fee shifting rationales strongly support fee shifting in patent litigation involving end users. Although the fairness argument may be weaker in patent litigation, the inequality of power, attorney general, economic incentives and punitive function rationales make a compelling case for fee shifting where

²⁸⁸ Equal Access to Justice Act § 204(a), 28 U.S.C. § 2412(d)(1)(A) (2012); Rowe, *supra* note 49, at 664.

²⁸⁹ S. REP. No. 94-1011, at 2, reprinted in 1976 U.S.C.C.A.N. 5908, 5910.

²⁹⁰ See 29 U.S.C. §§ 206–207, 216(b) (2013); Rowe, *supra* note 49, at 664.

²⁹¹ See Olson & Bernstein, *supra* note 51, at 1162; Rowe, *supra* note 49, at 653, 665–66; Zemans, *supra* note 51, at 192.

²⁹² Rowe, *supra* note 49, at 665–66.

²⁹³ Gryphon, *supra* note 51, at 581–83. Although Gryphon notes that critics of fee shifting warn that even if fee shifting reduces the number of lawsuits filed, the cost of litigation may increase because each party no longer necessarily bears its own costs. *Id.* at 589. *But cf.* Mark S. Stein, *The English Rule with Client-to-Lawyer Risk Shifting: A Speculative Appraisal*, 71 CHI.-KENT L. REV. 603, 611–18 (1995) (arguing that while a loser pays rule would reduce frivolous claims, it would also discourage valid claims).

²⁹⁴ Gryphon, *supra* note 51, at 587 (discussing the academic debate regarding the effect of fee shifting on settlement rates). See generally Eric Talley, *Liability-Based Fee Shifting Rules and Settlement Mechanisms Under Incomplete Information*, 71 CHI.-KENT L. REV. 461 (1995) (arguing that fee shifting does not decrease the likelihood of settlements).

end users are parties in patent litigation, whether as defendants or as plaintiffs in suits for declaratory judgment for patent invalidity.

The fairness rationale, where the loser who is in the wrong should pay for the winner's costs, is weaker when the outcome of the litigation is unpredictable.²⁹⁵ It is harder to penalize the loser for dragging the winner into court when at the outset or even throughout litigation that party appeared to have had a good chance of prevailing. Patent cases are considered particularly unpredictable compared to other forms of litigation. First, knowing the relevant facts before litigation begins is challenging in patent cases. To evaluate the validity of a patent one needs to know the entire universe of relevant prior art. Defendants are likely to work hard to locate any sources of prior art for trial. Therefore, it is hard to predict the likelihood that a patent will be found invalid before extensive discovery.²⁹⁶ Second, significant uncertainty surrounds the court's interpretation of the patent claims that define the scope of the patent.²⁹⁷ Even after the district court construes the claim, the appellate court reverses the claim construction at a rate of between thirty to forty percent.²⁹⁸ Thus, from a fairness perspective, the argument for shifting is less compelling in patent cases.

At the same time, the other rationales support fee shifting in cases involving end users. First, fee shifting is particularly important when there is an imbalance of power between the parties.²⁹⁹ Many end users, such as patients or small businesses, are entities of limited resources. But, fee shifting to reduce the power imbalance between parties also applies anytime the costs of hiring a lawyer may exceed the expected gains and, therefore, that party may prefer to settle or not sue even if it has a strong case.³⁰⁰ End users, who are not in the business of manufacturing or selling a competing technology, tend to be one-time patent litigation participants. Thus, even if they have the financial resources and a meritori-

²⁹⁵ See Olson & Bernstein, *supra* note 51, at 1162 (describing the fairness rationale); Rowe, *supra* note 49, at 653–57 (same).

²⁹⁶ Schwartz, *supra* note 263, at 349.

²⁹⁷ *Id.*

²⁹⁸ See David L. Schwartz, *Practice Makes Perfect? An Empirical Study of Claim Construction Reversal Rates in Patent Cases*, 107 MICH. L. REV. 223, 240 tbl.1 (2008) (reporting that between thirty and forty percent of appealed patent cases had to be reversed, vacated, or remanded due to an error by the trial court judge in interpreting the patent claims) David L. Schwartz, *Courting Specialization: An Empirical Study of Claim Construction Comparing Patent Litigation Before Federal District Courts and the International Trade Commission*, 50 WM. & MARY L. REV. 1699, 1716 tbl.II (2009) (reporting similar reversal rates over 1996–2008 time period); see also David L. Schwartz, *Pre-Markman Reversal Rates*, 43 LOY. L.A. L. REV. 1073, 1093 fig.A (2010) (reporting similar reversal rates over 1991–2008 period). This reversal rate appears to be much higher than for other causes of action and even for other issues within patent litigation. See Ted Sichelman, *Myths of (Un)Certainty at the Federal Circuit*, 43 LOY. L.A. L. REV. 1161, 1171–73 (2010) (showing that the reversal rate for non-claim construction issues in patent litigation is eighteen percent).

²⁹⁹ See Kesan, *supra* note 42, at 792–93.

³⁰⁰ See Silver, *supra* note 35, at 875–76.

ous claim, they may find it uneconomical to invest in patent litigation. Instead they would rather refrain from using the technology altogether or settle to pay a royalty. In addition, end users are in a weakened position due to their lack of in-house technological expertise.

Plaintiffs enforcing their patents can also take advantage of the growing market for contingent fee patent litigation.³⁰¹ Since end users cannot avail themselves of this option the disparity between the parties' financial prowess grows. The availability of fee shifting could help minimize the disparity between the strength of the parties and may also have an indirect effect of encouraging lawyers to undertake contingent representation of defendants, including end users, which would further balance the playing field.

Second, under the private attorney general theory, fee shifting can encourage plaintiffs to undertake litigation that advances a public interest or at least a private interest broader than that represented by the actual parties.³⁰² End users can be parties to patent litigation either as defendants accused of patent infringement or as plaintiffs, usually alleged infringers or potentially alleged infringers, initiating litigation by seeking a declaratory judgment of patent invalidity. Currently, there are significant disincentives for bringing declaratory judgment actions. These disincentives include the expense of the litigation, lack of financial rewards for invalidating patents, and the risk of triggering countersuits of infringement.³⁰³

In addition, suits for declaratory judgments can be beneficial to many parties who are not immediately before the court. In 1971, in *Blonder-Tongue Laboratories, Inc. v. University of Illinois Foundation*, the Supreme Court held that a patentee is estopped from enforcing a patent that has been held invalid against other entities that were not parties to the original litigation.³⁰⁴ Therefore, a declaratory judgment ruling benefits other accused infringers creating a collective action problem, which results in fewer challenges than are socially optimal.³⁰⁵ For example, the lawsuit against Myriad for declaratory judgment to invalidate Myriad's breast cancer gene patents could potentially benefit patients who were not among the plaintiffs by reducing prices and increasing patients' access to

³⁰¹ See generally Schwartz, *supra* note 263 (describing the rise of contingent fee representation for plaintiffs in patent litigation).

³⁰² Rowe, *supra* note 49, at 653, 662–63.

³⁰³ La Belle, *supra* note 46, at 44.

³⁰⁴ 402 U.S. 313, 350 (1971) (holding that a patent infringer can use issue-preclusion to foreclose an infringement suit where the patent claim in question had already been declared invalid in an earlier suit).

³⁰⁵ See John R. Thomas, *Collusion and Collective Action in the Patent System: A Proposal for Patent Bounties*, 2001 U. ILL. L. REV. 305, 334 (explaining that a collective action problem is created because a potential opponent cannot appropriate the benefits of a successful charge of patent invalidity).

breast cancer genetic testing.³⁰⁶ Similarly, a successful lawsuit to invalidate a patent held by a PAE can prevent the PAE from suing other alleged infringers.³⁰⁷ These disincentives make suits for declaratory judgment relatively rare in patent litigation.³⁰⁸

Plaintiffs seeking declaratory judgments of patent invalidity are also unlikely to use another litigation vehicle that enables the representation of a broader public interest—the class action. Although class actions can resolve the litigation cost problem and provide access to judicial relief for small claims, they also involve an important strategic drawback for alleged infringers.³⁰⁹ Under *Blonder-Tongue*, a finding of patent invalidity prevents the patentee from enforcing the patent against other alleged infringers, but a finding of patent validity does not prevent another alleged infringer from challenging the patent in another proceeding.³¹⁰ Because absent class members are bound by a finding of validity, there is a disincentive for class action, due to the risk that the court will find the patent valid and all class members, whether in court or not will be bound by this holding.³¹¹

The disincentives for individual action for declaratory relief and the absence of class actions have prompted public interest organizations, such as the American Civil Liberties Union and the Public Patent Foundation, to undertake these lawsuits.³¹² Public interest organizations, however, can only take on a limited number of lawsuits. Adopting a fee shifting regime will increase the likelihood of individual defendants bringing declaratory judgment actions,

³⁰⁶ *Ass'n for Molecular Pathology v. Myriad Genetics, Inc.*, 133 S. Ct. 2107, 2111 (2013) (invalidating certain breast cancer gene patent claims that were enforced against end users). *But see* John Conley, *Undeterred by the Supreme Court, Myriad Starts Suing*, GENOMICS LAW REPORT (July 16, 2013), <http://www.genomicslawreport.com/index.php/2013/07/16/undeterred-by-the-supreme-court-myriad-starts-suing>, archived at <http://perma.cc/WGJ-8Z69> (reporting on lawsuits filed by Myriad against companies offering less expensive breast cancer genetic testing following the Supreme Court's decision).

³⁰⁷ *See, e.g.*, Complaint for Declaratory Judgment, *ForeSee Results, Inc.*, *supra* note 97, at 1 (bringing a declaratory judgment action against the PAE Lodsys); Florian Mueller, *All Four Lodsys Patents Under Invalidity Attack in Federal Court*, FOSS PATENTS (June 8, 2011), <http://www.fosspatents.com/2011/06/all-four-lodsyes-patents-under.html>, archived at <http://perma.cc/NST8-8LZW> (discussing a lawsuit for declaratory judgment against the PAE Lodsys).

³⁰⁸ *See* Moore, *supra* note 48, at 921 (finding that only fourteen percent of the patent cases filed annually were declaratory judgment actions).

³⁰⁹ *See* 1 ALBA CONTE & HERBERT NEWBERG, NEWBERG ON CLASS ACTIONS § 1:6 (4th ed. 2002) (discussing several benefits of class actions); 6 *id.* § 19:1 (stating that class actions in intellectual property are usually limited to defendant classes of alleged infringers).

³¹⁰ *See Blonder-Tongue Labs.*, 402 U.S. at 350; *see also* 6 CONTE & NEWBERG, *supra* note 309, § 19.4 (explaining the *Blonder-Tongue* holding).

³¹¹ *See* 6 CONTE & NEWBERG, *supra* note 309, § 1:3 (stating that absent class members are bound by the court's decision).

³¹² La Belle, *supra* note 46, at 45 (reporting a surge in public interest group participation in patent litigation).

which benefits go beyond the immediate case. End users may also be particularly suitable to bring declaratory judgment actions.

Third, commentators generally agree that fee shifting is likely to reduce the filing of low merit claims and prevent abuse of discovery processes. There is disagreement, however, as to whether fee shifting will increase or decrease the likelihood of settlements. PAEs initiate many of the lawsuits against end users.³¹³ They often sue customers of technological companies that manufacture and sell the allegedly infringing technology.³¹⁴ A main concern regarding PAE lawsuits against end users is that users are likely to settle even when they have meritorious claims.³¹⁵ Yet, commentators, as noted, disagree whether fee shifting is likely to reduce the likelihood that a party will settle when it has a meritorious argument. At the same time, many commentators believe that PAE lawsuits enforce weak patents and needlessly harass users.³¹⁶ Fee shifting could reduce the number of lawsuits brought by PAEs against end users because the risk would be higher for PAEs if they could end up paying the litigation expenses of thousands of defendants.³¹⁷ The economic incentives rationale then provides additional support for fee shifting in end user cases because of the prevalence of PAE lawsuits.

Finally, the pervasiveness of PAE lawsuits against end users also makes the punitive function of fee shifting relevant. Fee shifting can deter and punish misconduct in litigation that is motivated by the knowledge that high litigation costs force parties into settling. Critics of PAE litigation highlight their abusive litigation practices and impact on innovation, underscoring the need to deter PAE

³¹³ See Gryphon, *supra* note 51, at 587–89 (discussing a “deep divide” within the academic community regarding the effect of fee shifting on settlements); Olson & Bernstein, *supra* note 51, at 1164 (stating that a number of academics have been unable to determine if fee shifting affects the rate or speed of settlements); Rowe, *supra* note 49, at 666 (determining that fee shifting can have a “host of possible effects on the rate, timing, and level of settlements”).

³¹⁴ See Chien & Reines, *supra* note 1, at 8–11 (discussing PAE lawsuits of multiple customers).

³¹⁵ See Magliocca, *supra* note 59, at 1813 (discussing the preference of those threatened by PAEs to settle).

³¹⁶ See Allison et al., *supra* note 50, at 693–94 (finding that PAE suits were much less likely than non-PAE suits to result in a ruling for the patentee); Merges, *supra* note 50, at 1603–04 (discussing allegations that PAEs file suits on weak patents); Susan Decker, *Google Wins \$1 Case from Patent Owner Harassing Customers*, BLOOMBERG (Jan. 24, 2014, 3:49 PM), <http://www.bloomberg.com/news/2014-01-24/google-wins-1-case-from-patent-owner-harassing-customers.html>, archived at <http://perma.cc/736Z-BNAL> (discussing instances of technology companies defending their customers from PAEs). But see Risch, *supra* note 174, at 478–84 (debating whether PAE patents are in fact of lesser quality).

³¹⁷ See, e.g., Emily H. Chen, *Making Abusers Pay: Deterring Patent Litigation by Shifting Attorneys’ Fees*, 28 BERKELEY TECH. L.J. 351, 359 (2013) (pointing out that fee shifting would inhibit low merit patent lawsuits); Christian Helmers et al., *Is There a Patent Troll Problem in the U.K.?*, 24 FORDHAM INTELL. PROP. MEDIA & ENT. L.J. 509, 544 (2014) (arguing that the United Kingdom’s fee shifting method deters PAEs from bringing lawsuits); Kesan, *supra* note 42, at 795–97 (arguing that fee shifting can increase the costs of opportunistic patenting and enforcement of invalid patents).

conduct.³¹⁸ Fee shifting as a punitive measure appears then to be relevant at least to the subset of end user cases involving PAEs.

E. Designing Fee Shifting to Address End Users' Interests in Patent Litigation

1. Current Legislative and Judicial Activity

Presently, fee shifting in patent litigation is receiving significant attention.³¹⁹ The Supreme Court decided two patent fee shifting cases in 2014³²⁰ and Congress is considering multiple bills espousing different versions of fee shifting in patent litigation.³²¹ The PAE crisis is driving this fee shifting debate.³²² Some proposed solutions target PAEs directly, while others offer a broader fee shifting approach.

The Supreme Court's recent decisions, along with some of the bills brought before Congress, focus on facilitating fee shifting generally without targeting PAEs specifically. Section 285 of the Patent Act provides that: "[t]he court in exceptional cases may award reasonable attorney fees to the prevailing party."³²³ In 2014, in *Octane Fitness v. ICON Health & Fitness, Inc.*, the U.S. Supreme Court lowered the standard for awarding fee shifting under Section 285 for all alleged infringers.³²⁴ Similarly, the Innovation Act, which has emerged as the leading bill in Congress, amends Section 285 to provide for fee shifting without

³¹⁸ See generally, e.g., *Protecting Small Businesses and Promoting Innovation by Limiting Patent Troll Abuse: Hearing Before the S. Comm. on the Judiciary*, 103d Cong. [hereinafter *Protecting Small Businesses Hearing*] (statement of John Dwyer, President and Chief Executive Officer, New England Federal Credit Union) (describing abusive use of cease and desist letters by PAEs and suggesting several solutions); Rader et al., *supra* note 87.

³¹⁹ See, e.g., Chen, *supra* note 317, at 370–80 (discussing recent legislative activity and court decisions supporting fee shifting); Rader et al., *supra* note 87 (describing abusive patent litigation and proposing fee shifting as a solution).

³²⁰ See *Octane Fitness*, 134 S. Ct. at 1755; *Highmark, Inc. v. Allcare Health Mgmt. Sys., Inc.*, 134 S. Ct. 1744 (2014).

³²¹ See Innovation Act, H.R. 3309, 113th Cong. § 3 (2013); Patent Litigation Integrity Act, S. 1612, 113th Cong. § 201 (2013); Patent Abuse Reduction Act, S. 1013, 113th Cong. § 5 (2013); Saving High-Tech Innovators from Egregious Legal Disputes (SHIELD) Act, H.R. 845, 113th Cong. § 2(d) (2013).

³²² See, e.g., *Protecting Small Businesses Hearing*, *supra* note 318 (statement of Dana Rao, Vice President and Associate General Counsel of Intellectual Property and Litigation for Adobe Systems Incorporated) (proposing fee shifting as a solution to abusive PAE litigation).

³²³ 35 U.S.C. § 285 (2012).

³²⁴ See *Octane Fitness*, 134 S. Ct. at 1755 (“The framework established by the Federal Circuit . . . is unduly rigid, and it impermissibly encumbers the statutory grant of discretion to district courts.”). Additionally, in *Highmark*, although the case involved a PAE, the Court did not focus on the identity of the patentee but focused instead on the standard of review the Federal Circuit should apply to the grant of attorney's fees by the district court. See 134 S. Ct. at 1747–48 (holding that an appellate court should review all respects of a district court's § 285 determination for abuse of discretion).

considering the identity of the parties. The Innovation Act contains an assumption that attorney's fees will be awarded to the prevailing party, unless the court finds that the position and conduct of the non-prevailing party are substantially justified or that special circumstances make the award unjust.³²⁵

Other bills incorporate fee shifting measures that target PAEs, either directly or indirectly. Some bills focus directly on PAEs by allowing fee shifting to the prevailing party if the adverse party is a PAE.³²⁶ Other bills may not consider the party's identity in the fee shifting analysis, but impose different requirements on PAEs. For example, the proposed Patent Litigation Integrity Act allows courts to impose bond posting only on the patentee and provides that whether the patentee is a PAE should be considered in the court's bond posting decision.³²⁷

The Court's decision in *Octane Fitness* and the congressional bills aim to lower the standard for granting fee shifting in patent litigation.³²⁸ But, while the adopted and proposed changes are beneficial for end users, end users are still uniquely situated. The following discussion will focus on designing a fee shifting regime that will specifically address the unique characteristics of end users. This discussion has been largely absent from the current debate.

2. Considerations in Designing a Fee Shifting Regime

Regardless of the fee shifting regime selected, fee shifting will not motivate all end users who have meritorious non-infringement claims to proceed to litigation. Neither will the availability of fee shifting ensure that end users will regularly seek the invalidation of patents through suits for declaratory judgment. End users' stakes are often small and they may rationally prefer not to engage in litigation. At the same time, the availability of fee shifting will encourage some end users to defend their meritorious claims and is likely to increase the number of declaratory judgment suits for patent invalidity. Some end users do, in fact, have long-term interests. For example, patients of chronic or genetic diseases who rely on a specific drug would have an incentive to congregate and file a declaratory judgment suit.³²⁹ Fee shifting cannot by itself

³²⁵ See H.R. 3309 § 3.

³²⁶ The SHIELD Act defined a PAE as a party that failed to meet at least one of the following: 1) is the original inventor 2) has exploited the patent through production or sale; 3) is a university or technology transfer organization. See H.R. 845 § 2(d).

³²⁷ See Patent Litigation Integrity Act, S. 1612, 113th Cong. § 201 (2013).

³²⁸ See *id.*; *Octane Fitness*, 134 S. Ct. at 1755; H.R. 845; see also 35 U.S.C. § 285 (providing that in exceptional patent cases judge may award reasonable attorney fees to the prevailing party).

³²⁹ See, e.g., O'Brien, *supra* note 149, at 1405–06 (discussing Fabry patients who had a long-term interest in a drug that was under-produced who congregated to petition the NIH to use its march-in power to address the patented drug shortage).

place end users on equal footing with other patent litigation participants, but it can contribute to leveling the playing field.

Fee shifting comes in different forms. It can be mandatory, discretionary, awarded to any prevailing party, or awarded only to a prevailing plaintiff or prevailing defendant. The type of fee shifting employed depends on the rationale, whether it is for fairness, equalizing power between the parties, a particular incentive, or a combination of several reasons.³³⁰ The following discussion considers three factors affecting the design of fee shifting and their impact on end users.

a. *Prevailing Party or Defendant*

Fee shifting to address the needs of end users could apply to any prevailing party or only to defendants (whether parties sued for alleged infringement or parties taking preemptive measures by suing for declaratory judgment to declare patent invalidity).³³¹ Currently, Section 285 of the Patent Act provides for fee shifting to any prevailing party.³³² Allowing fee shifting to any prevailing party significantly enhances the risk that end users undertake if they pursue litigation because the court could find the end user liable for the patent owner's expenses as well as its own. End users are already risk averse due to their unequal litigation position and often prefer to settle or not pursue meritorious claims. A prevailing-party fee shifting regime further decreases the likelihood that end users will pursue litigation.

Limiting fee shifting to defendants, however, could prejudice small inventors trying to enforce their patent rights.³³³ Small inventors have lesser means. And although the availability of PTO proceedings and contingent representation gives small inventors additional tools that end users cannot avail themselves of, pro-defendant fee shifting may have a chilling effect on small inventors. These inventors may be less likely to enforce their patents if failure to win could make them liable for the opposing party's costs. Concerns regarding the economic incentives for small inventors weigh against a pro-defendant fee shifting regime.

³³⁰ See Kesan, *supra* note 42, at 789.

³³¹ See *id.* at 795–97 (proposing a pro-defendant fee shifting regime).

³³² 35 U.S.C. § 285.

³³³ See generally Christopher A. Cotropia, *The Individual Inventor Motif in the Age of the Patent Troll*, 12 YALE J.L. & TECH. 52 (2009) (discussing the state of the individual inventor in patent litigation).

b. *Mandatory or Discretionary*

Fee shifting can be either mandatory or discretionary. Currently, Section 285 of the Patent Act provides for a discretionary fee shifting regime.³³⁴ A mandatory fee shifting regime under which the court must grant fees to the prevailing party can increase certainty for end users in a pro-defendant shifting regime. Under a mandatory pro-defendant fee shifting regime an end user has a guarantee that should it prevail, its expenses will be compensated. But, because a pro-defendant regime fails to protect small inventors, it is necessary to evaluate the effects of a mandatory regime that can compensate any prevailing party.

A regime, in which an end user will be held liable for any prevailing patentee's litigation fees, involves great risk for an end user. The outcome of patent litigation is highly uncertain and is particularly unpredictable for end users who lack the technological expertise to evaluate the patent's validity and patentee's infringement arguments at the outset. A discretionary regime, on the other hand, enables a more granular investigation of the circumstances of the lawsuit and can consider the end user's status. Although the end user will not have the guarantee of a mandatory regime if she prevails, neither will she incur the risk of mandatory fee shifting to the patentee. Furthermore, a discretionary inquiry that accounts for end users' unique characteristics could encourage end users to pursue their claims in court.

c. *General Application or Special Status*

A fee shifting regime can expressly identify certain parties and accord them special status. Currently, Section 285 of the Patent Act does not grant any party special status. At the same time, several bills identify PAEs for special treatment in fee shifting decisions.³³⁵ Defining PAEs, however, has proven to be difficult. There are competing interpretations of what entities are the PAEs that abuse the patent system, hinder innovation, and therefore warrant special legal treatment.³³⁶

Identifying the end user as a party that warrants preferential treatment in the context of fee shifting is an alternative that could carry several advantages. First, the express mention of the end user in the legal framework for fee shift-

³³⁴ See 35 U.S.C. § 285 (providing that the court in exceptional cases may award reasonable attorney's fees to the prevailing party).

³³⁵ See Patent Litigation Integrity Act, S. 1612, 113th Cong. § 201 (2013); Saving High-Tech Innovators from Egregious Legal Disputes (SHIELD) Act, H.R. 845, 113th Cong. § 2(d) (2013).

³³⁶ See Christopher A. Cotropia et al., *Unpacking Patent Assertion Entities (PAEs)*, 99 MINN. L. REV. (forthcoming 2015), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2346381, archived at <http://perma.cc/3M92-EY56> (discussing the different potential entities that could be considered PAEs).

ing would carry a message that could reduce the end user's perception of risk in pursuing litigation.³³⁷ Many end users receive cease and desist letters and select to settle because they do not want to incur litigation costs. The availability of fee shifting may affect the calculus of at least some of these end users. Second, a fee shifting regime that focuses only on exposing PAEs to an increased likelihood of paying for the opposing party's fees, fails to capture the full spectrum of end user cases. While some end user cases are indeed the result of PAEs' action, others are not. Patentees, such as Myriad or Monsanto, who were involved in recent end user litigation, would not be considered PAEs under any definition.

This Article defined the end user as an entity who is not in the business of making or selling the accused technology. It is not a technology company that directly competes with the patentee. Instead, the end user utilizes the technology in its business or personal life. End user's use of the technology in business can include incorporating the accused technology as a component of a product. The end user is distinguished from the technological competitor in that he lacks the technological expertise regarding the technology, since he is not in the business of making and selling the technology itself.

There are two options for incorporating end user status into the fee shifting analysis. End user status could mandate fee shifting if the end user prevails, or it could be a factor that weighs toward fee shifting. Incorporating end user status as a factor may be the more appropriate option because it retains the necessary flexibility for borderline cases. Defining who is an end user is likely to encounter some of the same challenges encountered in defining PAEs. Moreover, some end users may be particularly innovative and change the design of a patented product, making them look more like technological competitors.³³⁸ Hinging fee shifting completely on the status of the end user may be hard to apply in certain cases. Furthermore, using the end user status as a factor in fee shifting analysis could retain the expressive advantages of fee shift-

³³⁷ See Bernstein, *supra* note 53, at 287 (discussing the expressive powers of the law); McAdams, *supra* note 53, at 397–400 (same). For further discussion of the expressive powers of the law, see generally Anderson & Pildes, *supra* note 53; Smith, *supra* note 53.

³³⁸ See ERIC VON HIPPEL, *DEMOCRATIZING INNOVATION* 70–72 (2005) (describing the innovative user); Dan Hunter & F. Gregory Lastowka, *Amateur-to-Amateur*, 46 WM. & MARY L. REV. 951, 954 (2004) (“[C]opyright’s former consumers are now the creators, producers, and disseminators of content.”). See generally William W. Fisher III, *The Implications for Law of User Innovation*, 94 MINN. L. REV. 1417 (2010) (discussing legal conflicts between user innovators and producers); Katherine J. Strandburg, *Users as Innovators: Implications for Patent Doctrine*, 79 U. COLO. L. REV. 467 (2008) (distinguishing the user innovator from the prevailing conception of the seller innovator in patent law and focusing on research tools inventions); Yochai Benkler, *Coase’s Penguin, or Linux and the Nature of the Firm*, 112 YALE L.J. 369 (2002) (describing peer production projects that many individuals cooperate together to create).

ing—sending a message to end users that litigation may carry reduced risk for them—while allowing courts to retain some discretion.

3. Application: The Many Shades of End Users

This proposal advocates retaining some of the current framework of the patent system's fee shifting regime.³³⁹ Specifically, it supports allowing any prevailing party, whether patentee or defendant, to be eligible for fee shifting. It also advocates retaining the discretionary nature of fee shifting. It does, however, propose to include end user status as a factor that weighs in favor of fee shifting when an end user is the prevailing party. The Supreme Court's decision in *Octane Fitness* to lower Section 285's "extraordinary circumstances standard," for alleged infringers benefits end users. Some of the legislative proposals would have a similar benefit for end users. But, the incorporation of end user status as a factor that weighs in favor of fee shifting, whether legislatively or judicially, would be particularly effective in sending a clear signal to end users that pursuing litigation is a legitimate option.

Although this Article defines end users broadly and lumps many types of end users together in order to highlight the breadth of the transformation in patent law practice, it proposes a granular investigation of the specific end user party during the fee shifting determination. Courts deciding whether to grant fee shifting to a prevailing party that qualifies as an end user can consider the characteristics of the specific user. Even prevailing end users can differ significantly from each other and a court can assess whether the specific user in question displays the classic characteristic of an end user. The following discussion highlights some prototypical end user examples and illustrates how they can affect the fee shifting result.

One example is the case of the user-innovator. Although most end users are not technologically sophisticated, a minority may be. Some end users are, in fact, innovators. These end users have a sophisticated understanding of the technology and often create improvements of patented devices or processes.³⁴⁰ These user-innovators may look less like the typical end user in that they have a technologically sophisticated understanding of the patented device and may also be early adopters who are aware of the technology earlier in the life of the patent. Some of these user-innovators may want to sell their improved innovation in which case they will begin looking even more like competitors. Where a user-innovator is a party in the litigation the power inequality between the

³³⁹ 35 U.S.C. § 285 (2012) (providing the patent system's current fee shifting standard).

³⁴⁰ See generally VON HIPPEL, *supra* note 338 (discussing users who are innovators); Fisher, *supra* note 338 (same); Hunter & Lastowka, *supra* note 338 (same); Strandburg, *supra* note 338 (same).

user and the patentee can be significantly reduced and, therefore, the argument for fee shifting would be weaker.

Another example involves users who incorporate a patented technology into a central function of their business. These users may not know as much about the technology as the manufacturer, but they may still have significant technological sophistication regarding the technology. For example, imagine that a patentee sued Starbucks for using its patented coffee machine in all Starbucks' cafes. Unlike wireless technology that is not central to Starbucks business, a coffee machine is. Although Starbucks is not the manufacturer or seller, it may have significant technological knowledge regarding the operation of these patented coffee machines. The user that possesses technological sophistication because a patented device is central to its business may not resemble a competitor as much as the user-innovator, but still may share fewer of the classical characteristics of the end user. In this situation the inequality between parties may also be reduced and the case for fee shifting would be weaker.

Finally, some end users represent a public interest or a broader private interest in a declaratory judgment action. For example, the patients and physicians suing Myriad sought broader access to breast cancer genetic testing.³⁴¹ Invalidation of Myriad's patent benefitted not only those who were parties to the litigation but also many others seeking more affordable breast cancer genetic tests, the ability to receive a second opinion, or to test for additional mutations.³⁴² Where end users file for declaratory judgment to invalidate a patent that affects a broader interest, the private attorney general justification weighs strongly toward fee shifting.

CONCLUSION

This Article set out to reveal a new phenomenon in patent litigation. It highlighted the growing role played by end users both at the center and in the shadows of patent litigation. The Article showed that end users have become litigants in some of the major patent cases before the Supreme Court and Federal Circuit. They are also plaintiffs suing to challenge pay-for-delay agreements between manufacturers of patented drugs and generic drug manufacturers. At the same time, PAEs are suing or threatening to sue thousands of end users for use of their allegedly patented technologies.

The Article defined end users broadly to include those using a patented technology for personal consumption or in business. End users, however, do not make or sell the technology directly. It emphasized that while the equities

³⁴¹ See Complaint, *Ass'n for Molecular Pathology*, *supra* note 6, at 3–13.

³⁴² See *Ass'n for Molecular Pathology*, 133 S. Ct. at 2111 (invalidating certain breast cancer gene patent claims).

of end user cases may differ, all end users suffer from the same procedural disadvantages because they are uniquely situated compared to other players in the patent arena. End users differ from small technological competitors because they lack an intricate understanding of the patented technology, they tend to become involved in the patent conflict relatively late in the life of the patent, and they are typically one-time participants in the patent system.

The Article demonstrated that the AIA, which aimed to catch up with the changing patent landscape, failed to predict and is largely ill-equipped to address the growing role of end users. One set of AIA reforms set up and refurbished PTO procedures to provide an efficient and less expensive forum than litigation to resolve patent disputes. End users, however, are unlikely to benefit from these procedures, primarily because they usually become involved in patent conflicts after most of these procedures are no longer available. Another AIA reform—the prior user rights defense—is also unlikely to benefit end users because they typically do not use the technology a year before the filing of the patent application, which is a requirement of the defense.

Although Congress and the Supreme Court have debated and assessed fee shifting in patent litigation, the Court's decisions and congressional debates ignore the special needs of end users. To account for the needs of end users, this Article proposed maintaining patent law's current fee shifting framework, while including the status of the end user as a special factor that would weigh toward granting fee shifting when the end user is a prevailing party.