

UCLA Journal of Law & Technology

MINIMIZING THE COSTS OF PATENT TROLLING

Vincent R. Johnson

TABLE OF CONTENTS

- I. INTRODUCTION 1
- II. THE PERCEIVED THREAT 2
 - A. The Basic Problem 2
 - B. Terminology 4
 - C. The Costs of Patent Trolling 4
- III. THE NATURE OF THE CHALLENGE 6
 - A. Systemic Versus Targeted Reform 6
 - B. Focus on Non-Practicing Entities 8
- IV. WHY PATENT TROLLING OCCURS 12
 - A. Lax Granting Practices 13
 - B. Obstacles to Evaluation of Claims 13
 - C. The Uncertain Right to Injunctive Relief 15
 - D. Antitrust Restraints 16
- V. OBSTACLES TO A SOLUTION 17
 - A. Lack of Empirical Information 17
 - B. Vested Interests and Political Inertia 19
- VI. REDUCING COSTS THROUGH SUNSHINE 21
 - A. Civil Liability for Deceptive Nondisclosure 22
 - 1. Tort Actions for Damages 22
 - 2. Frivolous Litigation Sanctions 23
 - 3. A New Cause of Action 26
 - B. Registration and Reporting Requirements 30
 - 1. Who Must Register? 30
 - 2. What Must Be Reported? 32
 - 3. How Will Compliance Be Enforced? 34
- VII. CONCLUSION 35

Minimizing the Costs of Patent Trolling

*Vincent R. Johnson**

I. INTRODUCTION

It is widely argued that patent trolling is a serious legal problem that needs to be addressed, at least in the United States, where the practice is most prevalent.¹ This paper argues that disclosure requirements and periodic reporting standards have important roles to play in minimizing the costs of patent trolling. This is true for two reasons. First, the targets of trolling often lack basic information that is relevant to their evaluation of the claims against them. To that extent, targets are handicapped in protecting their own interests via litigation, licensing, or other means. Second, policymakers know too little about specialized patent assertion entities and their impact on innovation and technology. This dearth of information needlessly hampers the formulation of legislative solutions to the perceived abuses that result from trolling.

Part II describes patent trolling and its estimated costs to society. Part III discusses the nature of possible reforms. Part IV considers deficiencies in patent law that make the legal system vulnerable to trolling. Part V addresses obstacles that constrain reform efforts. Part VI explores two legal options for minimizing the costs of patent trolling: (1) expanded civil liability

* Professor of law, St. Mary's University, San Antonio, Texas (vjohnson@stmarytx.edu). J.D. University of Notre Dame; LL.M., Yale University; LL.M. candidate, London School of Economics and Political Science (LSE). The author gratefully acknowledges the insights that he gained into this topic in Dr. Sivaramjani Thambisetty's course on Innovation, Technology, and Patent Law in the LSE Executive LL.M. Programme. Four law students at St. Mary's University helped with the preparation of this article: Melinda Uriegas, Luis Medina, Olivia Mallery, and Theresa Clarke.

¹ See Christian Helmers et al., *Is There a Patent Troll Problem in the U.K.?*, 24 FORDHAM INTELL. PROP. MEDIA & ENT. L.J. 509, 510-15 (2014) ("Conventional wisdom states that 'patent trolls' . . . are a uniquely American phenomenon. . . . [L]awsuits involving NPEs are indeed rare in the U.K., but hardly non-existent.").

for deceptive nondisclosure and (2) new registration and reporting requirements similar to those often imposed on lobbyists. Part VII offers a final assessment.

II. THE PERCEIVED THREAT

A. The Basic Problem

Although the terminology varies,² “patent trolling” generally refers to infringement allegations made by a person who holds, but does not work, the patent in question.³ The maker of the allegations is often referred to as a “troll” because the maker seeks to ensnare, with threats of liability, others who have strayed into the uncertain thickets of patent law.⁴ Trolls, it is said, often deliberately wait⁵ until producers have made expensive and difficult-to-change investments in new technologies that are purportedly (and presumably unexpectedly) covered by a patent.⁶ This is the point when a cease and desist letter arrives.⁷

² Anna Mayergoyz, *Lessons from Europe on How to Tame U.S. Patent Trolls*, 42 CORNELL INT’L L.J. 241, 245 (2009) (“Most frequently, [‘patent troll’] refers to an entity that threatens an infringement suit against product-manufacturing companies *without using or having the potential to use* the patent itself.”) (emphasis added).

³ See *Cascades Computer Innovation LLC v. RPX Corp.*, No. 12-CV-01143 YGR, 2013 WL 316023, at *1 (N.D. Cal. Jan. 24, 2013) (defining a “patent troll” as “an entity that ‘enforces patent rights against accused infringers in an attempt to collect licensing fees, but does not manufacture products or supply services based upon the patents in question’”); *Overstock.com, Inc. v. Furnace Brook, LLC*, 420 F. Supp. 2d 1217, 1218 (D. Utah 2005), *aff’d* 191 F. App’x 959 (Fed. Cir. 2006) (“A patent troll is somebody who tries to make a lot of money off a patent that they are not practicing and have no intention of practicing and . . . [have] never practiced.”) (alteration in original) (quoting Elizabeth D. Ferrill, Comment, *Patent Investment Trusts: Let’s Build a PIT to Catch the Patent Trolls*, 6 N.C. J.L. & TECH. 367, 367 (2005) (internal quotation marks omitted)).

⁴ See Tom Ewing & Robin Feldman, *The Giants Among Us*, 2012 STAN. TECH. L. REV. 1, 1 (2012) (“[A] reference to the children’s tale of the three billy goats who must pay a toll to the troll waiting under the bridge if they wish to pass.”); 151 Cong. Rec. 11,986 (daily ed. June 8, 2005) (statement of Rep. Howard L. Berman) (“The patent troll . . . steps out of the shadows and demands that the alleged infringer pay a significant licensing fee to avoid an infringement suit”).

⁵ DAVID I. BAINBRIDGE, *INTELLECTUAL PROPERTY* 397 (9th ed. 2012) (describing patent trolling as the practice of “obtaining the grant of a patent and then sitting on it, waiting for an unsuspecting third party to make something or do something which might fall within the scope of the patent” and then “threatening patent litigation unless a license is taken out”).

⁶ See Stefania Fusco, *Markets and Patent Enforcement: A Comparative Investigation of Non-Practicing Entities in the United States and Europe*, 20 MICH. TELECOMM. & TECH. L. REV. 439, 444 (2014) (“irreversible investments”).

⁷ *Id.* at 444.

Regardless of the merits of an infringement claim, the “targets” of trolling often reluctantly purchase licenses allowing them to use allegedly infringed technologies.⁸ Doing so is usually much less expensive⁹ than the considerable costs of redesigning products to use alternative technologies,¹⁰ defending a patent infringement claim,¹¹ or seeking a declaratory judgment of non-infringement.¹² In litigation, defense expenses can sometimes run into the hundreds of thousands¹³ or millions of dollars.¹⁴ Buying a license also allows targets to avoid the substantial risks of being found liable for patent infringement in courtrooms where there are many unpredictable legal and factual variables. Licensing fees are often considered “excessive” in relation “to the contribution of the asserted patents to the allegedly infringed product[s].”¹⁵ Yet, there may be no other good alternative to licensing if, as is often the case, the “manufacturer has already invested the sunk costs of bringing a product to market.”¹⁶

⁸ See Gerard N. Magliocca, *Blackberries and Barnyards: Patent Trolls and the Perils of Innovation*, 82 NOTRE DAME L. REV. 1809, 1813 (2007) (“[M]ost of these cases never get to court. So long as there is significant uncertainty about whether an infringement suit will succeed, defendants will tend to settle.”).

⁹ Joel B. Carter, *Responding to a Patent Troll’s Threats*, 48 ARK. LAW., Summer 2013, 30 (explaining that the licensing royalty is often “much less than the alleged infringer would pay defending a claim”).

¹⁰ See Fusco, *supra* note 6, at 444 (“very high switching costs”).

¹¹ See BAINBRIDGE, *supra* note 5, at 397 (“notoriously expensive”).

¹² Under American law, a declaratory judgment may be obtained in a patent infringement suit if there is real adversity between the parties. See *Hewlett-Packard Co. v. Acceleron LLC*, 587 F.3d 1358, 1364 (Fed. Cir. 2009) (permitting action). However, “a communication from a patent owner to another party, merely identifying its patent and the other party’s product line, without more, cannot establish adverse legal interests between the parties, let alone the existence of a ‘definite and concrete’ dispute.” *Id.* at 1362 (quoting *MedImmune, Inc. v. Genentech, Inc.*, 549 U.S. 118, 127 (2007)). Thus, federal courts often lack jurisdiction to adjudicate declaratory judgment claims against patent trolls that send demand letters from other states. See *Overstock.com, Inc. v. Furnace Brook, LLC*, 420 F. Supp. 2d 1217, 1218-21 (D. Utah 2005), *aff’d* 191 F. App’x 959 (Fed. Cir. 2006).

¹³ See Assemb. 2462, 216th Leg., 1st Ann. Sess. § 1(f) (N.J. 2014) (“[P]atent litigation . . . may cost hundreds of thousands of dollars or more.”); see also Michael Booth, *N.J. Lawmakers Push Bill Aiming to Curtail Patent Trolls*, N.J.L.J. (Oct. 3, 2014), <http://www.njlawjournal.com/id=1202672354924/NJ-Lawmakers-Push-Bill-Aiming-To-Curtail-Patent-Trolls> (indicating that the Assembly Commerce and Economic Development Committee “unanimously recommended passage of a bipartisan bill, A-2462”).

¹⁴ See Helmers, *supra* note 1, at 512 n.4 (citing AM. INTELLECTUAL PROP. LAW ASS’N, REPORT OF THE ECONOMIC SURVEY 2011 at I-155-56) (“[T]he median cost of defending a U.S. patent case is about \$2.5 million.”).

¹⁵ Christian Helmers & Luke McDonagh, *Trolls at the High Court?*, LSE LAW, SOCIETY, AND ECONOMY WORKING PAPERS, Sept. 23, 2012, at 2, available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2154958.

¹⁶ See *id.*

B. Terminology

The term “patent troll” is inevitably pejorative and, in certain cases, unfair. Thus, the use of the term is sometimes prohibited in litigation as unduly prejudicial¹⁷ and neutral labels such as “non-practicing entity” (NPE) or “patent assertion entity” (PAE) are preferred.¹⁸ Nevertheless, references to “trolls” and “trolling” persist in scholarly literature, probably because they are convenient ways of signaling complex concepts.¹⁹ These terms occasionally appear in court opinions, but those occurrences are comparatively rare.

C. The Costs of Patent Trolling

Patent trolling is now big business and the alleged costs to the public are staggering. A recent estimate indicates that “trolls cost society approximately \$30 billion per year and have cost a total of \$500 billion over the past twenty years.”²⁰ Other studies place the costs higher.²¹ There is little evidence that the payouts secured by trolls via licensing and other settlements are reinvested into research or development of new technology.²² Thus, trolling appears to do little to promote innovation, and instead makes existing products and services more expensive by increasing the costs for producers.

¹⁷ See *DNT, LLC v. Sprint Spectrum, LP*, No. 3:09CV21, 2010 WL 582164, at *4 (E.D. Va. Feb. 12, 2010) (granting plaintiff’s motion to preclude the use of the term “patent troll” because “the prejudicial impact outweighs any probative value”).

¹⁸ *HTC Corp. v. Tech. Properties Ltd.*, No. 5:08-CV-00882-PSG, 2013 WL 4782598, *4 (N.D. Cal. Sept. 6, 2013).

¹⁹ See Fusco, *supra* note 6, at 440-41 (referring variously to “trolls” and “non-practicing entities”).

²⁰ Mark A. Lemley & A. Douglas Melamed, *Missing the Forest for the Trolls*, 113 COLUM. L. REV. 2117, 2119 (2013) (citation omitted).

²¹ James Bessen, Jennifer Ford & Michael J. Meurer, *The Private and Social Costs of Patent Trolls*, REGULATION, Winter 2011-2012, at 26, 35 (“[D]efendants have lost over half a trillion dollars in wealth—over \$83 billion per year during recent years.”).

²² See, e.g., *Overstock.com, Inc., v. Furnace Brook, LLC*, 420 F. Supp. 2d 1217, 1222 (D. Utah 2005), *aff’d* 191 F. App’x 959 (Fed. Cir. 2006) (“[Patentee, an alleged patent troll,] made no efforts to practice its patent or otherwise enhance the technology”).

Patent trolling is regarded as a serious problem, particularly in the “pharmaceutical and biotech industries,”²³ and other high tech sectors.²⁴ In the United States, “PricewaterhouseCoopers estimates that about 67 percent of all patent infringement cases nationwide are filed by patent trolls.”²⁵ More than 100,000 American companies may have been threatened with patent infringement in 2013 alone.²⁶ Threats of infringement are used to target not only large²⁷ and small producers of goods and services, but also “the end users of products, including many small businesses.”²⁸ The costs associated with patent trolling in the United States are said to have “increased fourfold in the past decade.”²⁹ However, some scholars believe that cost estimates have been exaggerated.³⁰

One ominous recent development is the emergence of patent mass aggregators,³¹ secretive entities that hold vast portfolios and sometimes engage in trolling activities.³² This type of trolling may be the shape of the future. In that world, trolling might become even more

²³ Booth, *supra* note 13.

²⁴ See James Bessen & Michael J. Meurer, *The Direct Costs from NPE Disputes*, 99 CORNELL L. REV. 387, 388 (2014) (“NPE litigation imposes substantial direct costs on high-tech innovators with little apparent offsetting benefit to inventors or innovators . . .”).

²⁵ Booth, *supra* note 13; *but see* Helmers, *supra* note 1, at 525 (“studies have estimated that NPEs were responsible for roughly 25% of U.S. patent suits” between 2000 and 2010).

²⁶ Assemb. 2462, 216th Leg., 1st Ann. Sess. § 1(c) (N.J. 2014).

²⁷ See, e.g., *Overstock.com*, 420 F. Supp. 2d at 1218 (noting that patentee, an alleged patent troll, “purchased its patent at a bankruptcy auction . . . and, without any apparent attempts to practice it, . . . sent infringement letters to, among others, Williams-Sonoma, Inc.; Sharper Image Corporation; Gap, Inc.; Spiegel, Inc.; Eddie Bauer, Inc.; L.L. Bean, Inc.; and Ann Taylor Stores Corporation . . . [some of which] apparently led to license agreements”).

²⁸ N.J. Assemb. 2462 § 1(d).

²⁹ Carter, *supra* note 9, at 30; *see also* Bessen & Meurer, *supra* note 24, at 408 (“Aggregate direct costs of NPE patent assertions grew rapidly from about \$7 billion in 2005 to \$29 billion in 2011.”).

³⁰ David L. Schwartz & Jay P. Kesan, *Analyzing the Role of Non-Practicing Entities in the Patent System*, 99 CORNELL L. REV. 425, 455 (2014) (“Bessen and Meurer’s study provides some new data for discussion . . . [but] should be viewed sceptically . . . and . . . is likely to be substantially overstated.”).

³¹ See Ewing & Feldman, *supra* note 4, at 1 (“In a few short years, a handful of entities have amassed vast treasuries of patents on an unprecedented scale . . . [as many as] 30,000-60,000 patents worldwide . . .”).

³² See *id.* at 15 (“Acacia Research Corporation . . . the first modern mass aggregator . . . has been among the most litigious of the non-practicing entities.”).

common than it is today, carried out by ever-larger entities that levy a “tax on current production,”³³ sapping the energy and resources that are vital to innovation.

It is not difficult to see that trolling poses a threat to the efficacy of the current international regime under which, via the GATT³⁴ and its TRIPS accord,³⁵ patent law is used to catalyze innovation through the development of new technologies across the globe.³⁶ The amounts that are paid to settle trolling claims are “no longer available to invest, produce new products, expand, or hire new workers.”³⁷ Threats of litigation by patent assertion entities are commonly viewed as “a disruptive force with respect to product market competition and innovation.”³⁸

III. THE NATURE OF THE CHALLENGE

A. Systemic Versus Targeted Reform

The outpouring of complaints about trolling is so great as to call into question fundamental aspects of patent law.³⁹ Thus, it would be fair to ask, as some have, whether serious mistakes were made in structuring governmental incentives for innovation as transferrable

³³ *Id.* at 41; *see id.* at 25 (“[M]ass aggregation activities . . . [may] act as a multiplier for the worst aspects of the present system . . .”).

³⁴ *See* Marrakesh Agreement Establishing the World Trade Organization annex 1A: General Agreement on Tariffs and Trade 1994, Apr. 15, 1994, 33 I.L.M. 1153, 1867 U.N.T.S. 187.

³⁵ *See* Marrakesh Agreement Establishing the World Trade Organization annex 1C: Agreement on Trade-Related Aspects of Intellectual Property Rights, Jan. 1, 1995, 33 I.L.M. 1200, 1869 U.N.T.S. 299 (“The protection and enforcement of intellectual property rights should contribute to the promotion of technological innovation . . .”).

³⁶ Margaret Chon, *Intellectual Property and the Development Divide*, 27 *CARDOZO L. REV.* 2821, 2824-25 (2006) (discussing “intellectual property globalization” and impact of patent law on “innovation and economic growth”).

³⁷ Assemb. 2462, 216th Leg., 1st Ann. Sess. § 1(i) (N.J. 2014).

³⁸ Christian Helmers & Luke McDonagh, *Patent Litigation in the UK 2* (London Sch. of Econ. & Political Sci., LSE Law, Society and Econ. Working Paper No. 12/2012, 2012), *available at* <http://ssrn.com/abstract=2154939>.

³⁹ *See* Bessen & Meurer, *supra* note 24, at 421 (“The rapid growth and high cost of NPE litigation documented here should set off an alarm, warning policymakers that the patent system still needs significant reform to make it a truly effective system for promoting innovation.”).

property rights,⁴⁰ endowing patents with a presumption of validity,⁴¹ imposing strict liability for infringement,⁴² and awarding patents for fragmentary improvements in technical processes.⁴³

Perhaps governments, rather than granting limited term monopolies in the form of patent rights, would do better to pay inventors of important technologies a fixed sum reward⁴⁴ or to abandon the idea of incentives entirely.⁴⁵ Perhaps patent applicants should be held to more exacting standards.⁴⁶ Perhaps holders alleging infringement should be required to prove that their patents are valid⁴⁷ and that alleged infringers acted culpably in violating their rights. Perhaps patent holders suing in United States federal courts should be required to prove that they are involved in an industry or post a bond to “compensate the defendant for attorney’s fees in the event of a favorable result for the defendant.”⁴⁸ These and other suggestions for fundamental reform have been made by thoughtful writers.

⁴⁰ See Lemley & Melamed, *supra* note 20, at 2122 (“Patents can be bought and sold, and they can be enforced by whichever party owns them at the time.” (citation omitted)).

⁴¹ “Under § 282 of the Patent Act of 1952, ‘[a] patent shall be presumed valid’ and ‘[t]he burden of establishing invalidity of a patent or any claim thereof shall rest on the party asserting such invalidity.’” *Microsoft Corp. v. i4i Ltd. P’ship*, 131 S. Ct. 2238, 2242 (2011) (alterations in original) (proceeding to hold holding that invalidity must be proved by clear and convincing evidence).

⁴² See Magliocca, *supra* note 8, at 1815 (“[P]atent law holds a defendant liable for infringement even if it does not know that an item is patented . . . [and] actually imposes strict liability.”).

⁴³ See Lemley & Melamed, *supra* note 20, at 2121 (“[M]any of the problems associated with trolls are in fact problems that stem from the disaggregation of complementary patents (patents that cover technologies used together in the same products) into too many different hands.”); *id.* at 2147-48 (“Google’s chief legal officer estimated . . . that a smartphone uses technologies claimed by 250,000 different patents . . .”).

⁴⁴ See William Fisher, *Theories of Intellectual Property*, in *NEW ESSAYS IN THE LEGAL AND POLITICAL THEORY OF PROPERTY* 168, 181 (Stephen R. Munzer ed., 2001) (discussing the option of paying innovators a sum out of tax revenues); Fritz Machlup & Edith Penrose, *The Patent Controversy in the Nineteenth Century*, 10 J. ECON. HIST. 1, 19 (1950) (“[O]ne might . . . reject patent privileges and support a system of cash prizes or bonuses paid to meritorious inventors.”).

⁴⁵ See Eric E. Johnson, *Intellectual Property and the Incentive Fallacy*, 39 FLA. STATE U. L. REV. 623, 644 (2012) (“[T]he destructive effect of extrinsic incentives on innovation and creativity is well established.”).

⁴⁶ See Lemley & Melamed, *supra* note 20, at 2152 (discussing raising “the bar to patentability”).

⁴⁷ *But see Taurus IP, LLC v. DaimlerChrysler Corp.*, 726 F.3d 1306, 1322 (Fed. Cir. 2013) (“After an accused infringer has put forth a *prima facie* case of invalidity, the burden of production shifts to the patent owner . . . [but the] ultimate burden of proving invalidity by clear and convincing evidence—*i.e.*, the burden of persuasion—however, remains with the accused infringer.”) (emphasis added and omitted).

⁴⁸ Tina M. Nguyen, *Lowering the Fare: Reducing the Patent Troll’s Ability to Tax the Patent System*, 22 FED. CIR. B.J. 101, 125 (2012).

However, many critics of patent trolling have argued not for a fundamental restructuring of patent law, but for responses more closely targeted to the problem of patent trolling.⁴⁹ They have focused on identifying and impeding the villains who purportedly are responsible for the present crisis. Their goal is to make it more difficult for the bad actors to profit from patent trolling.

B. Focus on Non-Practicing Entities

There is a broad consensus, not without dissent,⁵⁰ that the culprit in this developing legal crisis is a particular type of non-practicing entity—the kind of NPE that specializes in patent assertion. A non-practicing entity is a person (legal or human) that seeks to enforce patent rights it is not exercising as part of research or production processes. Thus, the status of the patent holder as “non-practicing” is defined by reference to what the holder does. If the patent in question is not being practiced, the holder is a non-practicing entity with respect to the rights at issue. This is true even if the holder might be regarded as a practicing entity with respect to other patents.

There are different types of NPEs,⁵¹ and while some stir great objections, others escape opprobrium.⁵² Inventors,⁵³ educational institutions, and businesses that produce other goods and

⁴⁹ Cf. Colleen V. Chien, *Reforming Software Patents*, 50 HOUS. L. REV. 325, 326 (2012) (“[H]istory teaches away from broad based legislative reform and towards narrowly tailored incremental reform with lessons for today.”).

⁵⁰ See Schwartz & Kesan, *supra* note 30, at 427-28 (“[T]he debate should focus on the merits of the lawsuits or the actions of the parties in the litigation, or both, and not on the parties’ identities.”) (emphasis omitted).

⁵¹ Chien, *supra* note 49, at 351 (“Trolls also come in different types. Although all of them . . . use patents primarily for litigation and licensing rather than to support technology transfer and commercialization, they do so in different ways.”).

⁵² See *Cascades Computer Innovation LLC v. RPX Corp.*, No. 12-CV-01143 YGR, 2013 WL 316023, at *1 n.3 (N.D. Cal. Jan. 24, 2013) (“Not all NPEs are referred to as ‘patent trolls.’ For example, research universities may develop patented technology but not practice the patents”).

⁵³ Nguyen, *supra* note 48, at 105 (“[A] significant difference between the licensing inventor and the patent troll . . . [is] intent to bring the patent to market.”).

services are all NPEs when they assert patent rights that they hold but do not practice. Yet these persons are usually not condemned as trolls.⁵⁴

A clear taxonomy of NPEs would be useful, but in truth, writers employ a range of terminology.⁵⁵ Thus, while there is some degree of agreement as to the relevant types of NPEs, the labels for those categories vary.⁵⁶

Some NPEs produce essentially no products or services, except in connection with the buying and selling of patent rights and related litigation. What is distinctive about these NPEs is that they specialize in patent assertion. This is their primary line of endeavor. Their “only business . . . is to monetize their patents.”⁵⁷ It is this type of NPE that is widely criticized by scholars, legislators, practicing lawyers, and news reporters.⁵⁸ This is the category of NPE that Mark A. Lemley and A. Douglas Melamed had in mind when they described patent trolls as “patent owners whose *primary business* is collecting money from others that allegedly infringe their patents.”⁵⁹ This variety of NPE might have been called a “Specialized NPE” (to distinguish it from NPEs that do not specialize in patent assertion) or a “Primary NPE” (to indicate that patent assertion is its primary business). However, most authorities simply call the persons in this category “NPEs,” even though there are other kinds of NPEs.⁶⁰ Thus, the NPE label belongs to this subcategory (specialized NPEs) in the same way that, in common usage, the term

⁵⁴ Cf. Schwartz & Kesan, *supra* note 30, at 453-54 (“Congress is currently considering . . . the Saving High-tech Innovators from Egregious Legal Disputes, or ‘SHIELD,’ Act . . . [which is] intended to cover only patent trolls . . . [and] excludes from its reach practicing entities, individual inventors, and universities.”).

⁵⁵ See Fusco, *supra* note 6, at 443 (“Within the context of patent law, scholars, practitioners and policy makers have offered several definitions of ‘NPE.’”); Carter, *supra* note 9, at 30 (discussing “inside patent trolls, heat seeking patent trolls, and trolling patent trolls”); see also Helmers & McDonagh, *supra* note 15, at 2 (“no single definition of ‘PAE’ [patent assertion entity]”).

⁵⁶ See Schwartz & Kesan, *supra* note 30, at 429 (“[T]here is no uniformly accepted definition of who is an NPE or patent troll.”).

⁵⁷ Lemley & Melamed, *supra* note 20, at 2129.

⁵⁸ See Helmers & McDonagh, *supra* note 15, at 2 (“unprecedented media scrutiny”).

⁵⁹ Lemley & Melamed, *supra* note 20, at 2118 (emphasis added).

⁶⁰ See, e.g., Fusco, *supra* note 6, at 443 (restricting her definition of “NPE” to exclude “universities or other research institutions that . . . could also be considered NPEs”).

“American” refers to the United States, even though there are other countries in North, Central, and South America.

When there is reason to refer to other kinds of NPEs—inventors,⁶¹ educational institutions, and producers of other goods and services—that do not specialize in patent assertion, the relevant facts will be clearly pointed out. Companies that produce products sometimes have an “inside” patent troll⁶² whose job it is to enforce the company’s non-practiced patents against competitors.⁶³ This type of infringement vigilance is more likely to be viewed as legitimate competition than as an abuse of the legal system, even though a 2006 study showed that one-sixth of all European patents are used “to ‘block’ competitors from engaging in research surrounding the protected patent.”⁶⁴ Some scholars argue that “patent assertions by practicing entities can create just as many problems as assertions by patent trolls.”⁶⁵

Occasionally, writers refer to NPEs as “pure NPEs”⁶⁶ in an effort to point out that these entities specialize in patent assertion. However, this label seems too gentle. Specialized NPEs often employ aggressive⁶⁷ or opportunistic⁶⁸ tactics. In addition to deception,⁶⁹ these tactics sometimes include: “threatening to sue thousands of companies at once, without specific

⁶¹ See *LML Holdings, Inc. v. Pac. Coast Distrib. Inc.*, No. 11–CV–06173, 2012 WL 2994017, *1 n.2 (N.D. Cal. July 20, 2012) (“the classic definition of a non-practicing entity, or patent troll, does not envision an entity which the patent inventors themselves wholly own.”).

⁶² See Carter, *supra* note 9, at 30-31 (differentiating between inside patent trolls, heat seeking patent trolls, and trolling patent trolls and explaining that defensive strategies should vary according to the nature of the troll).

⁶³ See Helmers & McDonagh, *supra* note 15, at 6 (describing a producing entity’s use of a patent assertion entity “to attack the producing companies’ direct competitors . . .”).

⁶⁴ See Helmers & McDonagh, *supra* note 15, at 3.

⁶⁵ Lemley & Melamed, *supra* note 20, at 2120; see also *id.* at 2137-38 (discussing “patent privateers—product-producing companies that spin off patents or ally with trolls to target other firms with lawsuits”).

⁶⁶ See, e.g., Schwartz & Kesan, *supra* note 30, at 454.

⁶⁷ See, e.g., *Overstock.com, Inc. v. Furnace Brook, LLC*, 420 F. Supp. 2d 1217, 1218 (D. Utah 2005), *aff’d* 191 F. App’x 959 (Fed. Cir. 2006) (discussing intimidation tactics used by alleged patent troll).

⁶⁸ See *Chrimar Sys., Inc. v. Foundry Networks, Inc.*, 976 F. Supp. 2d 918, 926 (E.D. Mich. 2013) (“opportunistic”).

⁶⁹ See *Highmark, Inc. v. Allcare Health Mgmt. Sys., Inc.*, 706 F. Supp. 2d 713, 727 n.5 (N.D. Tex. 2010) (“Allcare used a survey with a stated purpose of identifying leaders in the medical-information-processing industry as a ruse to identify potential targets for licensing demands . . . and . . . engaged in questionable and, at times, deceitful conduct.”).

evidence of infringement against any of them; creating shell companies that make it difficult for defendants to know who is suing them; and asserting that their patents cover inventions not imagined at the time they were granted.”⁷⁰

Some NPEs are large enterprises.⁷¹ However, others are “small operations whose only apparent asset is a patent and whose only apparent business is sending demand letters to potential infringers in order to secure licensing fees.”⁷² “NPEs acquire their patents from many sources, including small companies, large companies, bankrupt companies, start-ups, solo inventors, hospitals, universities and even the government.”⁷³

NPEs argue that they play an important role in “level[ing] the playing field between individual inventors and large multinational corporations with vast resources, by providing financial and other assistance to make patent licensing or litigation a more equal contest.”⁷⁴ However, well-informed critics respond that “there is *no evidence* . . . to support the common assertions from patent lawyers that NPEs help small inventors.”⁷⁵ Thus, “recent scholarship pours scorn on the supposed ‘positive’ effects of PAE activities.”⁷⁶

According to critics, NPEs are simply dedicated to extracting rent from producers based on alleged infringement of their patent rights.⁷⁷ It is argued that NPEs contribute little to the

⁷⁰ Assemb. 2462, 216th Leg., 1st Ann. Sess. § 1(b) (N.J. 2014).

⁷¹ See Ewing & Feldman, *supra* note 4, at 15 (discussing a mass aggregator).

⁷² Overstock.com, 420 F. Supp. 2d at 1222; see also InternetAd Sys., LLC v. Opodo Ltd., 481 F. Supp. 2d 596, 601 (N.D. Tex. 2007) (discussing the term “patent troll”); see also Nguyen, *supra* note 48, at 106 (discussing an NPE run out of a lawyer’s home that produces nothing).

⁷³ Fusco, *supra* note 6, at 443–44.

⁷⁴ Cascades Computer Innovation LLC v. RPX Corp., No. 12-CV-01143 YGR, 2013 WL 316023, at *1 (N.D. Cal. Jan. 24, 2013); see also Carter, *supra* note 9, at 30 (noting that patent trolls can “enhance the ability of inventors to police their patents”).

⁷⁵ Bessen & Meurer, *supra* note 24, at 412 (emphasis added); see also Lemley & Melamed, *supra* note 20, at 2125 (“[T]here is little evidence that trolls significantly increase rewards to inventors.”).

⁷⁶ See Helmers & McDonagh, *supra* note 15, at 6.

⁷⁷ Cf. eBay Inc. v. MercExchange, 547 U.S. 388, 396 (2006) (Kennedy, J., concurring) (“An industry . . . primarily for obtaining licensing fees”).

welfare of society,⁷⁸ but instead benefit at the expense of both producers and the persons who use their products.⁷⁹ It was to this type of entity that a New Jersey state legislator was referring when he asserted that “[p]atent trolls offer no economic value and stand counter to the spirit of American ingenuity and threaten the vitality of our innovation-based economy.”⁸⁰

IV. WHY PATENT TROLLING OCCURS

Many factors contribute to the effectiveness of the various NPE business models.⁸¹ As suggested above, threats of infringement litigation are made more credible and potent by the current legal rules that treat patents as presumptively valid and impose strict liability for infringement. The same is true of the systemic realities that generally ensure that patent litigation is prolonged, complex and exceedingly expensive. “Troll behavior . . . is fueled by a patent system that lacks a cost-effective method of quickly resolving validity and infringement questions.”⁸²

Four factors that have contributed to the growth of patent trolling bear special mention: (1) lax granting practices; (2) obstacles to evaluating claims; (3) uncertainties related to injunctive relief; and (4) antitrust restraints on anti-trolling collective action.

⁷⁸ See Christopher A. Cotropia, *The Individual Inventor Motif in the Age of the Patent Troll*, 12 YALE J.L. & TECH. 52, 62 (2009–10) (“Patent trolls tax innovation by extracting licensing revenue without giving back anything in return.”).

⁷⁹ See Lemley & Melamed, *supra* note 20, at 2124 (“There is widespread belief that trolls impose greater costs on technology users and society as a whole . . . and that they provide little social benefit Other reports suggest that patent trolls inhibit innovation at the firms they sue.”).

⁸⁰ See Booth, *supra* note 13 (quoting New Jersey Assemblyman Troy Singleton) (internal quotation marks omitted).

⁸¹ See Lemley & Melamed, *supra* note 20, at 2126–27 (differentiating between the methods of “lottery-ticket” trolls, “bottom-feeder” trolls, and “patent aggregators”).

⁸² Ewing & Feldman, *supra* note 4, at 41.

A. Lax Granting Practices

In many instances, the practices that lead to the granting of patents are devoid of rigor.⁸³ For example, the United States Patent and Trademark Office “has been notoriously lax in granting patents on even small advances in the [IT] industry.”⁸⁴ This means that not only is the validity of patents often doubtful, but there is an almost endless supply of dubious patents for NPEs to acquire and assert.⁸⁵ Moreover, vague patents increase the uncertainties for targets defending infringement claims and make it more likely that they will settle with NPEs regardless of the merits.⁸⁶

B. Obstacles to Evaluation of Claims

The vagueness of many patents⁸⁷ enables NPEs to assert claims of infringement that are difficult for targets to evaluate or disprove.⁸⁸ This is particularly true of business methods patents,⁸⁹ which are notoriously vague, as well as software patents, which pose their own special problems.⁹⁰ Overly broad patents are particularly valuable to NPEs because they allow NPEs “to cast a wider net when threatening potentially infringing industries.”⁹¹

⁸³ BAINBRIDGE, *supra* note 5, at 397.

⁸⁴ Lemley & Melamed, *supra* note 20, at 2148.

⁸⁵ See Ewing & Feldman, *supra* note 4, at 41 (“A copious supply of patents that are only lightly tested at the time of the grant enhances the problem.”); Magliocca, *supra* note 8, at 1826-27 (explaining that patent examiners are a “traditional scapegoat” and that “anti-troll forces . . . [claim] that the Patent Office issues far too many low quality patents.”).

⁸⁶ See Magliocca, *supra* note 8, at 1827 (“A defendant in an infringement suit based on an unclear patent . . . faces even more risk of defeat.”).

⁸⁷ See Helmers & McDonagh, *supra* note 15, at 6 (patents that cover software and business methods “have been shown to often have fuzzy boundaries”).

⁸⁸ Ewing & Feldman, *supra* note 4, at 24 (“Given the difficulty of translating the abstract language of a patent from one context to another, the lack of predictability in patent decisions, and other uncertainties in patent law, it is difficult to tell whether a particular patent claim will be upheld and whether a particular product will be found to infringe a given claim.”).

⁸⁹ See BAINBRIDGE, *supra* note 5, at 398 (business methods patents are often “vague and of suspect validity”).

⁹⁰ See Scott Graham, *Federal Circuit Puts Added Squeeze on Software Patents*, NAT’L L.J., Nov. 14, 2014 (opining that “the universe of eligible software patents clearly is shrinking” in the U.S.); see also Assemb. 2462, 216th Leg., 1st Ann. Sess. § II (N.J. 2014) (declaring that Patent Assertion Entities “take advantage of uncertainty about the scope or validity of patent claims, especially in software-related patents because of the relative novelty of the

The problems posed by vagueness and over-breadth are compounded by the obstacles to investigation. “[N]o simple search can ensure that a technology is not already patented,”⁹² and “it is easy to overlook a dormant patent.”⁹³ Thus, even diligent efforts to ensure compliance with the law may be frustrated by systemic complexity. In many cases, there are simply too many patents⁹⁴ and too many variables that must be taken into account.⁹⁵ In some fast-moving fields, backlogged patent applications make it impossible to do a complete search. In the IT industry, for example, “firms commonly invent technologies that are claimed by previously filed patent applications that have not yet resulted in issued patents and often have not yet even been published.”⁹⁶

The evaluation of infringement claims becomes even more difficult when patent aggregators allege that a target has infringed multiple patents.⁹⁷ In that case, to avoid buying a license, a target must be able to confidently predict that it will not be held liable for infringing any of the patents at issue.

technology and because it has been difficult to separate the ‘function’ of the software from the ‘means’ by which that function is accomplished”).

⁹¹ Mayergoyz, *supra* note 2, at 246.

⁹² Magliocca, *supra* note 8, at 1815.

⁹³ *Id.* at 1817.

⁹⁴ See Lemley & Melamed, *supra* note 20, at 2148 (“too many patents in the IT space”); *id.* at 2149 (noting the “endless parade of patents granted on every new idea”).

⁹⁵ Ewing & Feldman, *supra* note 4, at 24 (“With the millions of active patents on record, each of which may have dozens or even hundreds of claims, combined with the difficulty of knowing how they will be interpreted, it is impossible to know with certainty that one’s product will not infringe someone else’s patent claims.”).

⁹⁶ Lemley & Melamed, *supra* note 20, at 2148; *id.* (“Simultaneous invention and inadvertent infringement are . . . ubiquitous.”).

⁹⁷ See *id.* at 2153 (“[T]he aggregation of large numbers of patents in the hands of a single entity overwhelms alleged infringers.”).

C. The Uncertain Right to Injunctive Relief

Prior to the United States Supreme Court's decision in *eBay Inc. v. MercExchange, L.L.C.*,⁹⁸ many assumed that patent holders were normally entitled to injunctive relief in cases of infringement. This fact placed NPEs in a strong position to sell technology licenses to producers of allegedly infringing products. The risk of an adverse finding in litigation meant not merely liability for damages, but the likely issuance of a court order that would close down an entire product line until it could be re-designed to avoid the patented technology.⁹⁹ Ultimately, the Supreme Court held:

[T]he decision whether to grant or deny injunctive relief rests within the equitable discretion of the district courts, and that such discretion must be exercised consistent with traditional principles of equity, in patent disputes no less than in other cases governed by such standards.¹⁰⁰

The *eBay* ruling weakened the hand of NPEs, but it did not decisively strengthen the hand of targets. Under the usual four-part test for injunctive relief,¹⁰¹ considerable uncertainty remains as to whether an injunction will be granted if an NPE prevails in litigation. Since *eBay*, more requests for injunctive relief have been granted than denied, but only about 26% of requests for injunctive relief by NPEs have been granted.¹⁰²

The important point is that few producers of goods and services can afford to assume the substantial risk that an entire product line will be shut down if a court, after considering a four-

⁹⁸ *eBay Inc. v. MercExchange*, 547 U.S. 388 (2006).

⁹⁹ *See id.* at 396 (Kennedy, J., concurring) (“[T]he potentially serious sanctions arising from its violation can be employed as a bargaining tool to charge exorbitant fees to companies that seek to buy licenses to practice the patent.”).

¹⁰⁰ *Id.* at 394.

¹⁰¹ *Id.* at 391 (“A plaintiff must demonstrate: (1) that it has suffered an irreparable injury; (2) that remedies available at law, such as monetary damages, are inadequate to compensate for that injury; (3) that, considering the balance of hardships between the plaintiff and defendant, a remedy in equity is warranted; and (4) that the public interest would not be disserved by a permanent injunction.”).

¹⁰² *See* Colleen V. Chien & Mark A. Lemley, *Patent Holdup, the ITC, and the Public Interest*, STANFORD PUBLIC LAW WORKING PAPER NO. 2022168 (July 2, 2012), fig. 1, available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2022168.

part test and a multitude of relevant facts, decides to grant injunctive relief.¹⁰³ This risk is quite real,¹⁰⁴ and like other litigation risks, it “correlates to an increase in the defendant’s willingness to settle.”¹⁰⁵ Thus, the uncertainty of injunctive relief still makes an important contribution to the effectiveness of NPE business models.

D. Antitrust Restraints

The best answer to trolling by NPEs might be self-help on the part of targets who could “better use industry organizations and collective action”¹⁰⁶ to defend their own interests. Since claims of infringement are often made by NPEs against hundreds of companies, those targets can, and sometimes do, band together to share information¹⁰⁷ and otherwise resist NPE pressures to purchase unwanted licenses. This is precisely what the makers of phones and tablets using the Android operating system did to protect their interests by means of an entity called RPX. As explained by a United States district court,

RPX itself is an NPE, but . . . it is a defensive patent aggregator or “anti-troll,” formed to protect its members from NPEs, like Plaintiff, who file infringement claims. RPX frequently acts as an intermediary for its members for purposes of acquiring patents and negotiating licenses on behalf of its more than 110 members. According to the Complaint, RPX effectively discourages its members from dealing independently with patent owners. RPX believes that by making individual inventors, patent

¹⁰³ See Magliocca, *supra* note 8, at 1814 (noting that patent infringement plaintiffs can “shut down production of an entire product line, which gives them powerful leverage in settlement negotiations”).

¹⁰⁴ *But see* Lemley & Melamed, *supra* note 20, at 2142 (claiming that, after *eBay*, trolls rarely are able to “use the threat of injunctions to extract favourable settlements from alleged infringers” because “they almost never satisfy the *eBay* criteria”).

¹⁰⁵ Nguyen, *supra* note 48, at 120; *see also* Helmers & McDonagh, *supra* note 15, at 5 (“the mere possibility . . . [that an injunction may be granted] may encourage the producing company to enter into a licence agreement . . .”).

¹⁰⁶ Chien, *supra* note 49, at 326.

¹⁰⁷ *See* Fusco, *supra* note 6, at 450 (discussing “PatentFreedom, an organization that gathers and analyzes data about NPE activity, and provides that data to its subscribers” in Europe (footnote omitted)).

owners and NPEs negotiate through RPX, its members are able to acquire patent rights at “wholesale” royalty rates.¹⁰⁸

Such types of collective action must not run afoul of applicable antitrust laws. Trolling targets with monopsony¹⁰⁹ power have been sued for violation of United States federal laws and forced to defend their conduct.¹¹⁰ Even if there has been no violation of antitrust restrictions, defending against such allegations is expensive. Such ancillary litigation adds another layer of legal complexity to the struggle to deal with NPE infringement claims. The risk of antitrust liability makes collective self-help by targets less probable. To that extent, trolling claims are more likely to succeed.

V. OBSTACLES TO A SOLUTION

A. Lack of Empirical Information

One of the greatest obstacles to minimizing the costs of patent trolling is the lack of relevant empirical information, both in the United States and in Europe.¹¹¹ While intuition and opinion abound, facts are in short supply.¹¹² The absence of reliable facts impedes reform efforts, and that in turn permits NPE patent assertions to grow at an alarming pace.¹¹³

¹⁰⁸ *Cascades Computer Innovation LLC v. RPX Corp.*, No. 12-CV-01143 YGR, 2013 WL 316023, at *2 (N.D. Cal. Jan. 24, 2013) (citations omitted).

¹⁰⁹ “Monopsony” is “[a] market situation in which one buyer controls the market.” BLACK’S LAW DICTIONARY (9th ed. 2009).

¹¹⁰ *See Cascades*, 2013 WL 316023, at *1 (dismissing federal antitrust claims but granting the plaintiff leave to amend).

¹¹¹ *See Helmers*, *supra* note 1, at 513 (noting “[t]he lack of data on Europe’s experience with trolls”); *id.* at 515 (“[R]elevant empirical evidence is in short supply.”).

¹¹² *See id.* at 546 (“Comparisons of the European and American experiences with NPEs have so far been long on anecdote and short on data”).

¹¹³ *See Ewing & Feldman*, *supra* note 4, at 41 (“As long as insufficient information, uncertainty, and high transaction costs reign, troll activity will continue to flourish.”).

There is “little evidence on the overall economic impact” of NPE litigation.¹¹⁴ More fundamentally, “[e]ven the question of whether NPE activity is in fact harming innovation has not been conclusively answered.”¹¹⁵ According to Professor Gerard N. Magliocca, “[t]he only thing that both sides might agree upon is that there is no real evidence about the impact that trolls are having on technology investment, which makes drawing policy conclusions in this area especially hazardous.”¹¹⁶ Thus, it has been argued that policy makers “need better data on the merits of NPE patent cases, settlement amounts in those cases, the length of time NPE cases last, and the amount of attorneys’ fees paid by defendants and NPEs to get a true picture of what the reality is.”¹¹⁷

Patent trolling is seemingly much less of a problem in Europe than in the United States.¹¹⁸ However, it is difficult to explain the cause of this disparity. A recent article identified seven differences between the American and European legal systems that might explain why infringement claims by non-practicing entities are so much more common in the United States, including: (1) the greater availability of injunctive relief; (2) higher damage awards in American courts; (3) the absence of a single jurisdiction for patent litigation in Europe;¹¹⁹ (4) more readily available funding for NPE activity in the United States; (5) difficulties of obtaining business methods and financial methods patents in Europe; (6) general differences related to culture; and

¹¹⁴ See Helmers & McDonagh, *supra* note 15, at 7.

¹¹⁵ See Fusco, *supra* note 6, at 440.

¹¹⁶ Magliocca, *supra* note 8, at 1810-11.

¹¹⁷ Schwartz & Kesan, *supra* note 30, at 449.

¹¹⁸ See Fusco, *supra* note 6, at 442 (“Patent trolls are, in fact, active in European countries—albeit at a lower level . . .”).

¹¹⁹ *But cf.* Helmers, *supra* note 1, at 514 (footnote omitted) (“In 2013, twenty-five EU member nations (including the U.K.) agreed to found a Unified Patent Court. If ultimately implemented, the court will allow some European patent owners—those who hold a ‘unitary patent’—to litigate continent-wide infringement allegations in a single court rather than seeking redress in each individual country . . .”).

(7) “the size of the targeted market.”¹²⁰ Still, Professor Stefania Fusco, the author of the study, concluded that “much more investigation is necessary” before it can be said that the United States should adopt reforms to make its law or legal system more similar to Europe’s,¹²¹ such as by enacting fee-shifting rules.¹²² Fusco found that rather than offering compelling evidence of the key role of legal differences, “[t]he data suggests that markets with high revenue producing companies operating in certain industries [is what] attract[s] trolls.”¹²³

B. Vested Interests and Political Inertia

Two other obstacles to minimizing the costs of patent trolling through legal reform are vested interests and inertia. “[A]ny proposal affecting substantive rights is a nonstarter because most patentees are not susceptible to holdups”¹²⁴ by NPEs. Therefore, many persons with vested interests in the patent system are unwilling to consider fundamental changes to a regime from which they currently benefit.

In addition, significant changes to United States patent law are unlikely to occur because of the politics in Washington, D.C.¹²⁵ For a long time now, the two major parties have been unwilling to work together to effectively tackle a whole range of important issues. Moreover, it is rarely the case that the two houses of Congress and the presidency are controlled by the same party and animated by the same vision. John Holub, the president of the New Jersey Retail Merchants Association, a lobbying group, was reported as stating that “the odds of getting

¹²⁰ See Fusco, *supra* note 6, at 453-58.

¹²¹ See *id.* at 440.

¹²² *But see* Helmers, *supra* note 1, at 516 (“Our findings tend to suggest, instead, that attorney’s fee awards are a key factor in the scarcity of NPE activities in Europe”).

¹²³ See Fusco, *supra* note 6, at 461.

¹²⁴ Magliocca, *supra* note 8, at 1834.

¹²⁵ See Mayergoyz, *supra* note 2, at 253-54 (discussing attempted federal legislative reforms).

anything through Congress currently are ‘slim and none.’¹²⁶ But perhaps the situation is not that bleak. The America Invents Act of 2011¹²⁷ made a minor change related to trolling by ending the practice that allowed NPEs to join unrelated defendants in the same suit.¹²⁸ However, it may be the case that legislative solutions are more likely to come from state capitols than from Washington, D.C.

The unwillingness of vested interests to change the current rules of patent law is reinforced by vague hopes that the system will naturally right itself.¹²⁹ For example, it is possible that the recent emergence of the patent mass aggregators—what some have described as “an entirely different beast”¹³⁰—might reduce the costs of trolling if such entities buy up patents that might otherwise be acquired by traditional NPEs as fodder for infringement claims. This kind of “anti-troll activity may explain why some of the largest market incumbent technology companies are listed as early investors and participants in mass aggregators.”¹³¹ However, at this early juncture, it is still unclear whether the mass aggregators, which often operate with the utmost secrecy, will mitigate or exacerbate the costs of trolling. Professor Robin Feldman and Tom Ewing warn that the mass aggregation of patent rights has its own risks, and that the dangers posed by such new entities—which often use hundreds of shell entities and acquire thousands of patents—may outweigh the benefits.¹³²

¹²⁶ Booth, *supra* note 13 (quoting Holub).

¹²⁷ LEAHY-SMITH AMERICA INVENTS ACT, Pub. L. No. 112-29, 125 Stat. 284 (2011) (codified in scattered sections of 35 U.S.C.).

¹²⁸ See Tracie L. Bryant, *The America Invents Act: Slaying Trolls, Limiting Joinder*, 25 HARV. J.L. & TECH. 687, 689 (2012) (“[D]efendants can only be joined if (1) the parties are alleged to be jointly or severally liable or the defendants’ alleged infringements arose out of the same transaction or occurrence, and (2) there are common questions of fact.”).

¹²⁹ Cf. Robert P. Merges, *A New Dynamism in the Public Domain*, 71 U. CHI. L. REV. 183, 184 (2004) (discussing “a partial self-correcting impulse in the IP system”).

¹³⁰ Ewing & Feldman, *supra* note 4, at 1.

¹³¹ *Id.* at 23.

¹³² *Id.*

VI. REDUCING COSTS THROUGH SUNSHINE

As presently configured, patent law allows NPEs—persons with no particular interest in scientific discovery or invention—to benefit from rules that were intended to spur scientific advancement in the useful arts and the development of innovative technology.¹³³ It is particularly frustrating that NPEs seem to enjoy an unmerited windfall, but also operate with so little transparency that it is difficult for targets and policy makers to chart an intelligent course in response to NPE infringement allegations.

“In order for companies . . . to be able to respond promptly and efficiently to patent infringement assertions against them, it is necessary that they receive specific information regarding how their product, service, or technology may have infringed the patent at issue”¹³⁴ However, informational deficiencies sometimes include such basic facts as the real identity of the patent owner,¹³⁵ the challenges that have been raised to the validity of the patent in question, and the identities of the persons to whom the technology has already been licensed.¹³⁶ Targets often lack information about the NPE’s business methods and history of success or failure in asserting the patent. Because of confidentiality provisions used in licensing transactions,¹³⁷ relevant information may be virtually impossible to obtain.¹³⁸ These problems exist in both the United States and abroad. Thus, Professors Christian Helmers, Brian Love, and Luke McDonagh, in their discussion of trolling in the United Kingdom, have noted that NPEs

¹³³ See U.S. CONST. art. I, § 8, cl. 8 (granting Congress the power “[t]o promote the Progress of Science and useful Arts by securing for limited Times, to . . . Inventors the exclusive Right to their . . . Discoveries”).

¹³⁴ Assemb. 2462, 216th Leg. 1st Ann. Sess. § 1(g) (N.J. 2014).

¹³⁵ See Carter, *supra* note 9, at 30-31 (discussing trolls that “hide their true identities” and strategies for gathering information).

¹³⁶ This last factor bears on the value of a license. See Lemley & Melamed, *supra* note 20, at 2137 (“[T]he amount a buyer will pay for a patent depends in part on the extent to which the patent is licensed to others.”).

¹³⁷ Cf. Ewing & Feldman, *supra* note 4, at 3 (“[L]icensing transactions and interactions are protected by strict nondisclosure agreements . . .”).

¹³⁸ *Id.* at 3-5 (discussing patent mass aggregators).

have a tactical advantage because they “can and do obscure patent ownership before filing suit.”¹³⁹

Of course, these kinds of obstacles are not insurmountable. Legal systems often create disclosure obligations and impose liability for failure to comply. The following sections consider how the legal system might be restructured to reduce the costs of trolling by exposing NPE practices to “sunshine.” The first section deals with civil liability for nondisclosure of material information. The second section considers how a registration and reporting regime for NPEs might be established.

A. Civil Liability for Deceptive Nondisclosure

Theoretically, the costs associated with trolling might be reduced if NPEs were held responsible for frivolous litigation. However, to date, such sanctions typically have not been effective. A lawyer specializing in United States intellectual property law recently opined, “[p]atent trolls who bring frivolous claims are rarely punished and their numbers are on the rise.”¹⁴⁰ As presently configured, the law governing tort actions in the United States for damages and judicial sanctions for frivolous litigation does little to deter or redress patent trolling. However, legislative changes could create more effective sanctions to better address these issues.

1. Tort Actions for Damages

Tort actions that are designed to redress misuse of the legal system generally require proof that legal proceedings have terminated in favor of the party seeking redress and impose

¹³⁹ Helmers, *supra* note 1, at 543.

¹⁴⁰ Carter, *supra* note 9, at 30.

other formidable requirements. This is true in both the United States¹⁴¹ and Britain.¹⁴² However, in most patent trolling disputes, litigation is never filed by the troll, let alone resolved in favor of the target. Moreover, when suits are filed, they are usually resolved by agreement. One study of 138 patent suits filed in the United States by NPEs found that “roughly 90%” settled.¹⁴³ Typically, the target of the infringement claim purchases an unwanted license to avoid the costs and risks of litigation. This type of settlement precludes any ruling on the merits in the underlying dispute. Focused on getting back to business, a target that purchased a license is unlikely to initiate subsequent ancillary litigation to prove that it can recover for losses related to the now-resolved infringement claim. Any such claim would encounter serious obstacles. Under the terms of the settlement of the underlying matter, the target is likely to have relinquished its rights to seek judicial redress. In addition, legal rules typically protect persons (presumably including NPEs) from tort liability related to the bona fide exercise or assertion of legal rights. Such actions are normally immunized from liability by absolute or qualified privileges.¹⁴⁴

2. Frivolous Litigation Sanctions

Judges often have the power to impose sanctions on parties that engage in frivolous litigation. United States patent law provides that a “court in exceptional cases may award

¹⁴¹ See RESTATEMENT (SECOND) OF TORTS § 674 (1977) (“One who takes an active part in the initiation, continuation or procurement of civil proceedings against another is subject to liability to the other for wrongful civil proceedings if

(a) he acts without probable cause, and primarily for a purpose other than that of securing the proper adjudication of the claim in which the proceedings are based, and (b) except when they are *ex parte*, the proceedings have terminated in favor of the person against whom they are brought.” (emphasis added)).

¹⁴² See BAINBRIDGE, *supra* note 5, at 559 (In the United Kingdom, “entitlement to relief [in a groundless threats action] is subject to the claimant showing that the patent is invalid in a relevant respect and, even then, relief is not available if the defendant shows that, at the time of making the threats [of infringement proceedings], he did not know and had no reason to suspect that the patent was invalid in that respect. . .”).

¹⁴³ Helmers, *supra* note 1, at 545.

¹⁴⁴ See, e.g., *Tex. Beef Cattle Co. v. Green*, 921 S.W.2d 203, 211 (Tex. 1996) (recognizing an unqualified privilege to exercise a legal right and a qualified privilege to assert a colorable legal right in good faith).

reasonable attorney fees to the prevailing party.”¹⁴⁵ In addition, under Rule 11 of the Federal Rules of Civil Procedure,¹⁴⁶ a court may impose sanctions if a “complaint is ‘legally or factually “baseless” from an objective perspective’ and . . . the attorney failed to conduct a ‘reasonable and competent inquiry’ before filing the complaint.”¹⁴⁷ Still, these types of penalties do not play any role in the vast majority of trolling disputes where litigation is never filed.¹⁴⁸ In such cases, there is nothing pending before a court that could be the object of judicial scrutiny.

If a patent infringement action has been filed, courts sometimes award sanctions under the above-mentioned provisions.¹⁴⁹ In one notable ruling arising from an infringement suit filed by an NPE, the Federal Circuit affirmed an award against the NPE for “\$489,150.48 in attorney fees and costs pursuant to § 285 and \$141,984.70 in sanctions for . . . violation of Rule 11.”¹⁵⁰ In explaining its ruling, the court wrote in relevant part:

Eon-Net argues that it is not improper for a patentee to vigorously enforce its patent rights or offer standard licensing terms, and Eon-Net is correct. But the appetite for licensing revenue cannot overpower a litigant’s and its counsel’s obligation to file cases reasonably based in law and fact and to litigate those cases in good faith. Here, the district court did not clearly err when it found that Eon-Net filed an objectively baseless infringement action against Flagstar and brought that action in bad faith, specifically to extract a nuisance value settlement by exploiting the high cost imposed on Flagstar to defend against Eon-Net’s baseless claims. It also appears that in filing this case, Zimmerman merely

¹⁴⁵ 35 U.S.C.A. § 285 (2014).

¹⁴⁶ See Fed. R. Civ. P. 11 (2014).

¹⁴⁷ Eon-Net LP v. Flagstar Bancorp, 653 F.3d 1314, 1328 (Fed. Cir. 2011).

¹⁴⁸ See, e.g., Chien, *supra* note 49, at 382 (“According to one account, troll E-Data Corporation sued forty-three companies but offered licenses to at least 25,000 others.”).

¹⁴⁹ See, e.g., Colida v. Sanyo N. Am. Corp., No. 04-1287, 2004 WL 2853034, at *1 (Fed. Cir. Dec. 2, 2004) (limiting the award to “double costs” and declining to award attorneys’ fees). *But see* Chrimar Sys., Inc. v. Foundry Networks, Inc., 976 F. Supp. 2d 918, 927 (E.D. Mich. 2013) (declining to assess attorney’s fees against an alleged “patent troll”); see also Highmark Inc. v. Allcare Health Mgmt. Sys., Inc., 134 S. Ct. 1744, 1749 (2014) (holding that “an appellate court should apply an abuse-of-discretion standard in reviewing all aspects of a district court’s determination” that a patent infringement case is exceptional and warrants an award of attorney’s fees to the prevailing party).

¹⁵⁰ Eon-Net, 653 F.3d at 1317.

followed the direction of his client, Medina, who Zimmerman characterized at oral argument as “difficult to control.” But an attorney, in addition to his obligation to his client, also has an obligation to the court and should not blindly follow the client’s interests if not supported by law and facts. In these circumstances, coupled with the district court’s supported findings regarding Eon-Net’s litigation misconduct, we conclude that the district court did not clearly err in its exceptional case finding

. . . . Eon-Net has [also] failed to meet its high burden to show that the district court abused its discretion in imposing Rule 11 sanctions.¹⁵¹

However, judges are “mindful of the possibility that awarding damages and costs could have an undue chilling effect on the behavior of later litigants.”¹⁵² Thus, many judges are reluctant to award costs or expenses to a target that defeats an infringement claim. This is true even in cases of alleged patent trolling.¹⁵³ “[I]n the U.S., . . . patentees who fail to prove their claims only wind up paying their opponents’ attorney’s fees about two percent of the time.”¹⁵⁴

Interestingly, the fact that other targets of trolling purchased licenses from an NPE is sometimes regarded as a reason why a target who declines a license and prevails in litigation should be denied compensation for the attorney’s fees incurred in fighting the infringement claim.¹⁵⁵ The other licenses are treated as evidence of the plausibility of the NPE’s allegations of infringement. This line of reasoning is suspect because the targets that purchased licenses may have done so for reasons entirely unrelated to the merits of the infringement claims against them.

¹⁵¹ *Id.* at 1328-29.

¹⁵² *Colida*, 2004 WL 2853034, at *1.

¹⁵³ *See, e.g.*, *IP Innovation, L.L.C. v. Ecollege.com*, 156 F. App’x. 317, 324 (Fed. Cir. 2005) (finding that the alleged patent troll’s theories were not implausible); *see also Colida*, 2004 WL 2853034, at *2 (Newman, J., dissenting) (finding the record insufficient to justify departure from the American Rule that each party bears its costs and attorneys’ fees).

¹⁵⁴ Helmers, *supra* note 1, at 540-41 (footnote omitted).

¹⁵⁵ *See IP Innovation*, 156 F. App’x. at 324 (“[F]ive companies with products similar to the defendant’s products took a license to the patented technology, which inferentially supports IP Innovation’s argument that it had reasonable grounds upon which to initially bring suit against Docent.”).

3. A New Cause of Action

Mindful of the fact that the ordinary rules of tort law, patent law, and civil procedure do little to deter and penalize patent trolling, American lawmakers have begun to craft legislation that would make it easier for judges to hold patent trolls accountable for abusive practices. For example, in New Jersey, a committee of the state General Assembly has unanimously recommended passage of a bill that would allow a court to award a wide range of relief to a party that is the victim of a bad faith assertion of patent infringement. That bill articulates a list of considerations that a court could take into account in determining whether the holder of patent rights acted in bad faith. According to the bill:

A court may consider the following factors as evidence that a person has made a bad faith assertion of patent infringement:

(1) The demand letter does not contain the following information: (a) the patent number; (b) the name and address of the patent owner or owners and assignee or assignees, if any; and (c) factual allegations concerning the specific areas in which the target's products, services, and technology infringe the patent or are covered by the claims in the patent.

(2) Prior to sending the demand letter, the person fails to conduct an analysis comparing the claims in the patent to the target's products, services, and technology, or such an analysis was done but does not identify specific areas in which the products, services, and technology are covered by the claims in the patent.

(3) The demand letter lacks the information described in this subsection, the target requests the information, and the person fails to provide the information within a reasonable period of time.

(4) The demand letter demands payment of a license fee or response within an unreasonably short period of time.

(5) The person offers to license the patent for an amount that is not based on a reasonable estimate of the value of the license.

(6) The claim or assertion of patent infringement is meritless, and the person knew, or should have known, that the claim or assertion is meritless.

(7) The claim or assertion of patent infringement is deceptive.

(8) The person or its subsidiaries or affiliates have previously filed or threatened to file one or more lawsuits based on the same or similar claim of patent infringement and: (a) those threats or lawsuits lacked the information described in this subsection; or (b) the person attempted to enforce the claim of patent infringement in litigation and a court found the claim to be meritless.

(9) Any other factor the court finds relevant.¹⁵⁶

The bill also contains a list of factors that may be considered evidence that patent infringement *was not* asserted in bad faith. Some of those considerations include the patent assertion entity's status as an inventor of the patent,¹⁵⁷ an institution of higher education,¹⁵⁸ or a person who made a "substantial investment in the use of the patent or in the production or sale of a product or items covered by the patent."¹⁵⁹ These provisions tend to protect from liability NPEs who do not specialize in asserting patent claims.

Importantly, the New Jersey bill would provide remedies to trolling targets *regardless of whether litigation was filed against them*. Those remedies include: "(1) equitable relief; (2) damages; (3) costs and fees, including reasonable attorney's fees; and (4) exemplary damages in an amount equal to \$50,000 or three times the total of damages, costs, and fees, whichever is greater."¹⁶⁰ Thus, the proposed law would greatly expand the liability of NPEs for damages and

¹⁵⁶ Assemb. 2462, 216th Leg., 1st Ann. Sess. § 3(b) (N.J. 2014).

¹⁵⁷ *Id.* at § 3(c)(5)(a).

¹⁵⁸ *Id.* at § 3(c)(5)(b).

¹⁵⁹ *Id.* at § 3(c)(4).

¹⁶⁰ *Id.* at § 5(b).

attorney's fees,¹⁶¹ as well as enhance the power of the courts to sanction frivolous patent infringement allegations.

Such legislation would make an important contribution toward deterring abusive trolling practices. The legislation would be particularly useful in addressing the weakest claims of patent infringement. Those are the claims that an NPE is least likely to pursue through litigation¹⁶² and thus are beyond the reach of traditional tort remedies and frivolous litigation sanctions. In contrast, the New Jersey bill broadly defines “targets” to include not only those who have been sued for infringement, but also those who have received a demand for payment that has been made in writing.¹⁶³ The bill allows all such targets to commence an action in state Superior Court seeking the full range of remedies that the law provides.¹⁶⁴

The New Jersey bill would create a new cause of action under state law. The rigid requirements of a traditional cause of action for misuse of legal procedures would be replaced by a flexible inquiry into whether or not an NPE acted in bad faith. Under this new cause of action, it would not be essential for the target to prove that the NPE acted without probable cause or that

¹⁶¹ See *Taurus IP, LLC v. DaimlerChrysler Corp.*, 726 F.3d 1306, 1326-27 (Fed. Cir. 2013) (Under ordinary principles governing American patent infringement litigation, “[a]bsent misconduct in litigation or in securing the patent, a case may be found exceptional . . . [and attorney fees are awarded] only if (1) the litigation is brought in subjective bad faith, and (2) the litigation is objectively baseless . . . To be objectively baseless, the patentee’s assertions—whether manifested in its infringement allegations or its claim construction positions—‘must be such that no reasonable litigant could reasonably expect success on the merits’”) (quoting *Dominant Semiconductors Sdn. Bhd. v. OSRAM GmbH*, 524 F.3d 1254, 1260 (Fed. Cir. 2008)).

¹⁶² See *Carter*, *supra* note 9, at 30 (“[T]rolling patent trolls . . . know the patents they assert would probably be invalidated if they risked litigation and that they would have a hard time proving infringement and are therefore unlikely to file a complaint.”).

¹⁶³ Assemb. 2462, 216th Leg., 1st Ann. Sess. § 2 (N.J. 2014) (“‘Target’ means a person: a. who has received a demand letter or against whom an assertion or allegation of patent infringement has been made; b. who has been threatened with litigation or against whom a lawsuit has been filed alleging patent infringement; or c. whose customers have received a demand letter asserting that the person’s product, service, or technology has infringed a patent.”).

¹⁶⁴ *Id.* § 5(b).

infringement litigation terminated in favor of the target.¹⁶⁵ Instead, whether the infringement claim had merit would be only one of many factors that a court could take into account.

A cause of action framed in terms of good faith is appropriate because, according to numerous patent-trolling critics, many NPEs act irresponsibly by asserting rights under patents that are of dubious validity or applicability. This “apparent indifference to patent quality has . . . spurred criticism of trolls, particularly the patent aggregators.”¹⁶⁶ In other words, many NPEs are perceived to be acting in bad faith.

By focusing judicial attention on whether particular information has been disclosed, the new cause of action would be akin to common law and statutory causes of action that impose tort liability for misrepresentation.¹⁶⁷ Unlike other anti-trolling legislative proposals, the New Jersey bill is not limited to redressing problems in select sectors of the economy, such as computer hardware and software.¹⁶⁸ Moreover, the bill would create both a path to civil liability and incentives for NPEs to disclose information that would assist targets in evaluating the merits of infringement claims and in deciding whether¹⁶⁹ and how to respond.

¹⁶⁵ See RESTATEMENT (SECOND) OF TORTS § 674 (1977) (imposing those requirements in an action for misuse of civil procedures).

¹⁶⁶ Lemley & Melamed, *supra* note 20, at 2128.

¹⁶⁷ See, e.g., CAL. CIV. CODE § 1102.1 (2000) (requiring certain sellers of real estate to make disclosures with regard to a wide range of matters related to the property, e.g., the presence of asbestos, radon gas, flooding problems, nuisance neighbors, nearby munitions, or tree diseases, and the prior occurrence of deaths on the property).

¹⁶⁸ See Bradford L. Smith, *Technology and Intellectual Property: Out of Sync or Hope for the Future?*, 23 FORDHAM INTELL. PROP. MEDIA & ENT. L.J. 619, 640 (2013) (“the SHIELD Act . . . would have required the plaintiff in an unsuccessful computer hardware or software patent infringement lawsuit to pay the defendant’s legal costs if the plaintiff ‘did not have a reasonable likelihood of succeeding.’”).

¹⁶⁹ See Carter, *supra* note 9, at 31 (maintaining that the best strategy for dealing with certain kinds of trolls is to do nothing, or perhaps obtain “a patentability opinion or an infringement analysis” to shield from the remote prospect of a finding of willful infringement).

B. Registration and Reporting Requirements

Civil liability for nondisclosure of information pertinent to infringement claims could be supplemented by a mandatory registration and reporting regime for NPEs similar to the obligations now imposed on lobbyists by United States federal law,¹⁷⁰ many state laws¹⁷¹ and some major municipal laws.¹⁷² The goals of such a regime would be to force large NPEs to operate more transparently. This would enable policy makers and scholars to more effectively scrutinize the operation of such entities.¹⁷³ It would also assist the targets of trolling in responding to infringement allegations. At present, “laws provide limited opportunities for identifying and tracking activity in . . . [the patent monetization] market and many opportunities for hiding [it].”¹⁷⁴ Yet scholars argue that “it is important to learn and understand as much as possible about the way NPEs function.”¹⁷⁵

The structure of a registration and reporting regime would be dictated by the answers to three key questions: who must register, what must be reported, and how compliance will be enforced. Inasmuch as there are no NPE reporting regimes now in place that could be used as sources of guidance as to what is politically feasible and useful, legislators will need to exercise good judgment in answering the above questions.

1. Who Must Register?

It is useful to remember that when a reporting regime imposes obligations too broadly, the regime is both difficult to enact and controversial in operation. Moreover, an excessively

¹⁷⁰ See Lobbying Disclosure Act of 1995, 2 U.S.C.A. §§ 1601-12 (2005).

¹⁷¹ See generally WILLIAM H. MINOR & KAREN A. REGAN, FEDERAL, IN LOBBYING, PACS, AND CAMPAIGN FINANCE: 50 STATE HANDBOOK (Peter C. Christianson et al. eds., 2003).

¹⁷² See, e.g., SAN ANTONIO, TEX., THE CITY OF SAN ANTONIO ETHICS CODE §§ 2-62-71 (2013).

¹⁷³ Cf. Ewing & Feldman, *supra* note 4, at 37 (“If society wishes to impose regulation on the market for patent monetization, regulators will need a method of monitoring behavior.”).

¹⁷⁴ *Id.*

¹⁷⁵ Fusco, *supra* note 6, at 449.

broad reporting scheme may produce so much information that it does little to clarify public understanding of a problem. Consequently, for practical reasons, minor NPEs should be exempted from registration and reporting. Whether an NPE qualifies as “major” or “minor” will need to be determined by reference to clear standards such as the amount of licensing revenues, the number of patents, or the volume of demand letters sent during a particular period of time—or some combination of such factors.

Similarly, it would make sense to exempt from registration and reporting the types of NPEs which generally cause little concern. This might include NPEs which are inventors of the patented technology at issue, educational institutions, or investors who inject a certain amount of money into research and development activities in a given period. Coupling a broad definition of NPEs with specific exemptions and exceptions will minimize legislative drafting problems; otherwise it may be “extremely difficult to definitely state that a certain entity is a PAE”¹⁷⁶ which is required to register.

Even if a decision has been made to focus on “major players” and a threshold for registration and reporting has been set, it will be necessary to anticipate the complexities posed by NPE business practices that often involve multiple entities. An NPE may be a subsidiary of a parent corporation, have its own subsidiaries or “special purpose entities,”¹⁷⁷ or rely on third parties to perform tasks related to patent assertion.¹⁷⁸ “Sophisticated trolls sue using shell companies created for the specific purpose of shielding their investors from liability and

¹⁷⁶ See Helmers & McDonagh, *supra* note 15, at 10.

¹⁷⁷ See Fusco, *supra* note 6, at 455 (discussing IPCom, a “special purpose entity” created by Bosch in Germany to enforce its portfolio of patents and shield it from counterclaims”).

¹⁷⁸ Cf. Ewing & Feldman, *supra* note 4, at 13 (discussing a patent mass aggregator that “us[ed] third-party proxies to litigate infringement claims against companies who appear[ed] to be likely licensing targets for large portions of [its] portfolio”).

scrutiny.”¹⁷⁹ Moreover, new business models are “emerging frequently.”¹⁸⁰ An effective law will have to anticipate these complexities in order to make clear who is subject to the reporting obligations and to ensure that the information that is gathered is not so fragmented as to be useless or misleading.

Government ethics laws often require disclosure of the identities of controlling persons and business partners,¹⁸¹ and sometimes grant exemptions from registration and reporting to certain persons if relevant information is reported by a related person. These types of laws can be used as models for structuring an NPE registration and reporting regime.¹⁸²

2. What Must Be Reported?

The most difficult questions in writing an NPE reporting law are likely to deal with the issue of what must be reported and how the reporting will be organized. Presumably, the goal is to produce information that is pertinent, clear, and useful.

The laws imposing registration and reporting requirements on lobbyists often seek to “follow the money” by tracking expenditures and revenues related to lobbying activities.¹⁸³ The idea is that the dark side of lobbying can be exposed, and mitigated by public scrutiny and condemnation (if the potentially corrupting influence of money on public policy decisions can be tracked). It might be possible to employ a similar “follow-the-money” approach to the

¹⁷⁹ Chien, *supra* note 49, at 382.

¹⁸⁰ See Helmers & McDonagh, *supra* note 15, at 7.

¹⁸¹ See SAN ANTONIO, TEX., THE CITY OF SAN ANTONIO ETHICS CODE §§ 2-59(a) (2013) (requiring disclosures by persons doing business with the city); see also Ewing & Feldman, *supra* note 4, at 38-40 (discussing court rules requiring disclosures of ownership for purposes of facilitating judicial compliance with disqualification rules); *but see id.* at 40 (“Outside the disclosure requirements designed for judicial recusal, entities have considerable ability to camouflage their ownership. Most states offer corporate forms that allow companies to shield the identity of their owners, typically in the context of a limited liability company . . . format.”).

¹⁸² See generally Vincent R. Johnson, *Ethics in Government at the Local Level*, 36 SETON HALL L. REV. 715, 751-54 (2006) (discussing disclosure requirements).

¹⁸³ “Disclosure regimes endeavor to expose to public scrutiny the identity of persons seeking to influence official decisions and how much money is being spent on their efforts.” Vincent R. Johnson, *Regulating Lobbyists: Law, Ethics, and Public Policy*, 16 CORNELL J.L. & PUB. POL’Y 1, 49 (2006) (citation omitted).

regulation of NPEs. Documentation of the revenues and expenditures of major NPEs, including payments to inventors and expenditures on advancement of innovation and technology, would shed light on whether NPEs enjoy windfall profits that should be taxed or forfeited, in part, to the state.¹⁸⁴ Such options should be considered because part of the solution to the trolling problem is finding ways to make “trolling a less lucrative endeavor in the first instance.”¹⁸⁵

In a press release, “Acacia Research Group, perhaps the largest publicly traded NPE, reported that in 2011, it paid more in royalties to inventors than it did to the contingent-fee attorneys who enforced their patents in litigation.”¹⁸⁶ If true, this type of information is potentially useful. However, such data should be reported in a manner that is open to public scrutiny and backed by penalties for deception.

Another option is to require public filing of all demand letters and similar communications asserting patent claims. Like the copies of letters that many lawyers in the United States are required to file if they have engaged in targeted client solicitation,¹⁸⁷ such filings will enable administrators and third parties to review whether an NPE has made misleading statements to the targets of patent assertion activities. That deception is a serious problem is evidenced by the fact that the Federal Trade Commission and the attorney generals of Nebraska and Vermont have all recently initiated actions accusing NPEs of deceptive tactics.¹⁸⁸

¹⁸⁴ Many states have adopted forfeiture laws to prevent recipients of punitive damages from receiving unmerited windfalls. *See, e.g.*, 735 ILL. COMP. STAT. ANN. 5/2-1207 (2014); *see generally* Vincent R. Johnson, *Punitive Damages, Chinese Tort Law, and the American Experience*, 9 FRONTIERS OF LAW IN CHINA 321, 347–48 (2014) (discussing American forfeiture laws).

¹⁸⁵ Ewing & Feldman, *supra* note 4, at 41.

¹⁸⁶ Schwartz & Kesan, *supra* note 30, at 449.

¹⁸⁷ TEX. DISCIPLINARY RULES OF PROF’L CONDUCT R. 7.07(a) (1995) (“[A] lawyer shall file with the Advertising Review Committee . . . (1) a copy of the written, audio, audio-visual, digital, or other electronic solicitation communication being sent or to be sent to one or more prospective clients for the purpose of obtaining professional employment . . .”).

¹⁸⁸ Jenna Greene, *FTC Slaps Texas Firm, Lawyers in First Action Against Patent ‘Trolls’*, NAT’L L.J., Nov. 6, 2014, <http://www.nationallawjournal.com/id=1202675705016/FTC-Slaps-Texas-Firm-Lawyers-In-First-Action-Against-Patent-Trolls?slreturn=20150120235615> (indicating that the Vermont action is still pending, the Nebraska action

Documentation would also permit verification of an NPE's compliance with any disclosure obligations imposed by the registration and reporting regime. Disclosures might include: the identity of the owner of the patent (as opposed to merely who is doing the negotiations or will receive funds from licensing);¹⁸⁹ information about past, pending, or impending judicial proceedings related to the patent;¹⁹⁰ the names and contact information of other persons who have been targeted with similar infringement allegations; the minimum period that an offer to license is open for acceptance; and the identities of persons to whom the technology has previously been licensed. These disclosures are imperative because reliable “[e]mpirical research . . . requires sufficient past data to evaluate.”¹⁹¹

It is widely reported that the abusive nature of patent trolling is reflected in a mode of operation that combines dubious patent assertions with low cost licensing demands. However, there is “little firm empirical evidence supporting this scenario.”¹⁹² An examination of the information disclosed by demand letters that must be publicly filed could provide the data that policy makers need¹⁹³ in deciding how to address this alleged problem.

3. How Will Compliance Be Enforced?

An effective registration and reporting regime must be backed by an administrative staff able to enforce and ensure compliance with its provisions. The registration fees imposed on NPEs who are required to register should be set at a level sufficient to cover these costs.

resulted in a declaratory judgment for the NPE on free speech grounds, and that the FTC action was settled under terms whereby the NPE and its outside counsel will be subject to fines up to \$16,000 per letter for future deceptive communications with targets).

¹⁸⁹ See Ewing & Feldman, *supra* note 4, at 40 (explaining why, for litigation purposes, “any company targeted by a mass aggregator . . . should pay careful attention to who actually owns the patents . . .”).

¹⁹⁰ See Nguyen, *supra* note 48, at 106-07 (discussing a case involving pending re-examination proceedings).

¹⁹¹ Schwartz & Kesan, *supra* note 30, at 450.

¹⁹² *Id.* at 451.

¹⁹³ See *id.* at 451 (“Better data on this point is needed.”).

There must be an appropriate range of sanctions. These would include fines up to a maximum amount per day for noncompliance with registration and reporting obligations. Criminal sanctions would be appropriate in cases involving intentional violation of the provisions of the registration and reporting regime.

To be optimally effective, a registration and reporting regime should allow public scrutiny of reported information because third parties can play a useful role in “alerting regulators to potential problems.”¹⁹⁴ Consequently, reported information should promptly be made available on the Internet. This would increase chances that third parties will identify actual or perceived discrepancies in the reported information. Therefore, a regime should include a process for receiving and investigating complaints and prosecuting violations of the law’s requirements.

VII. CONCLUSION

NPEs presently are allowed to operate with too little transparency and legal accountability. The adoption of legal reforms that require NPEs to reveal pertinent information to infringement claim targets or to file public reports will be an important step toward piercing the darkness¹⁹⁵ that presently surrounds patent trolling and increases its costs. Gathering reliable data is “critical”¹⁹⁶ both to patent litigation and to reform of the patent system.

Legal reforms built around disclosure and reporting have the potential to minimize the costs of patent trolling by assisting targets in evaluating infringement claims made by NPEs and by revealing facts that will help lawmakers to more effectively formulate sound public policy.

¹⁹⁴ Cf. Ewing & Feldman, *supra* note 4, at 37.

¹⁹⁵ See Helmers & McDonagh, *supra* note 15, at 7 (“dubious transparency”).

¹⁹⁶ See Schwartz & Kesan, *supra* note 30, at 455.

Such reforms are politically feasible. Lawmakers unwilling to commit to broader legislative changes are often willing to vote to impose disclosure and reporting requirements. Moreover, such requirements could be adopted at the state level and be patterned on existing rules that require disclosure of information by lobbyists and impose certain substantive limitations on their activities.

The great advantage of a registration and reporting regime for NPEs is that it can gather information that is needed by lawmakers for the formulation of sound public policy and by trolling targets for the evaluation of the merits of infringement claims. However, such a regime can only achieve these goals if it is carefully designed and adequately resourced and only if the information gathered is clear, pertinent, and subject to public scrutiny. Creating such a system is difficult,¹⁹⁷ but doing so could make a valuable contribution to reducing the costs of patent trolling.

¹⁹⁷ Cf. Magliocca, *supra* note 8, at 1834-35 (“Finding a test that separates trolls, who are presumably identified by their bad faith, from firms with genuine interests or grievances is challenging to say the least. Any troll can seek to avoid that pernicious label by taking on some valid licensing or research work to confuse the issue.”).