

IP PROTECTION FOR STARTUPS: THE ROLE OF LEGISLATION IN STOPPING PATENT TROLLS AND ENCOURAGING INNOVATION

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Abstract: In the past five years, the rate of startups entering the market has drastically increased, and it continues to see an upward trend, giving rise to the phenomenon known as the “startup boom.” While the United States Patent and Trademark Office (“USPTO”) has implemented major changes to the patent system in the past decade, the agency has not been able to address the problem that is crippling the success of emerging companies: patent trolls. Various states’ legislatures have recognized this issue and enacted statutes prohibiting bad faith patent assertions as a result. This article explains the startup industry’s need for greater protection against patent trolls and the role of federal and state legislation in addressing this issue.

I. INTRODUCTION

The majority of patents approved by the United States Patent and Trademark Office (“USPTO”) belong to large corporations.¹ Patents belonging to small businesses, academic institutions, and individuals, however, are equally as significant because they contribute to the success of local economies.² Moreover, it is in the interest of corporations, academic institutions, and individual entrepreneurs to protect ingenuity by filing and obtaining patents, even if there are no plans to use the inventions.³ This practice can be financially crippling for new businesses, namely technology startups, however, because smaller entities

¹ *USPTO Releases Annual List of Top 10 Organizations Receiving Most U.S. Patents*, U.S. PAT. & TRADEMARK OFF., <https://www.uspto.gov/about-us/news-updates/uspto-releases-annual-list-top-10-organizations-receiving-most-us-patents> (last visited May 31, 2018).

² *Patent Tools and Links*, U.S. PAT. & TRADEMARK OFF., <https://www.uspto.gov/patent> (last visited May 31, 2018) (using the search for patents feature).

³ *About Us*, U.S. PAT. & TRADEMARK OFF., <https://www.uspto.gov/about-us> (last visited Jan. 26, 2018).

may not be financially equipped to pay patent licensing fees.⁴ Although the USPTO's goal is "to protect new ideas and investments in innovation and creativity," current federal patent law arguably impedes growth.⁵ The current patent model presents two major conflicts.⁶ First, the process of obtaining a patent encourages inventors to withhold scientific advancements, and second, the current patent model creates an incentive for non-practicing entities ("NPE") to apply for patents.⁷ Since NPEs are concerned with the volume of patents filed, not the quality of the patents, they create revenue by demanding licensing fees from those who actually use the patent.⁸ This practice creates a power imbalance that disadvantages entrepreneurs.⁹

Thus, because of NPEs' abuse of patents, the current patent system encourages adversarial conduct with litigation as a common outcome.¹⁰ Essentially, the valuation of the patent outweighs that of the technology because, in order to defend the patent infringement assertion, the defense must have ample financial resources.¹¹ As a result, long-standing corporations with financial resources have an advantage over new businesses because they

⁴ Steve Brachmann, *How Patent Troll Rhetoric Has Wrecked the U.S. Patent System*, IP WATCHDOG (June 4, 2014), <http://www.ipwatchdog.com/2017/06/04/patent-troll-rhetoric-wrecked-u-s-patent-system/id=83804/>.

⁵ See *About Us*, *supra* note 3 (stating that the USPTO's goals and underlying policy are "to protect new ideas and investments in innovation and creativity"); Brachmann, *supra* note 4 (describing conflicts in the current patent model).

⁶ See Brachmann, *supra* note 4 (describing conflicts in the current patent model).

⁷ See *id.* (noting that enforcement of legitimate patents is essential to preserving a thriving market).

⁸ See *id.* (explaining that quality patents fuel innovation).

⁹ See *id.* (explaining that quality patents fuel innovation).

¹⁰ See *id.* (referring to the pervasive threat of litigation).

¹¹ See *id.* (comparing the valuation of patents and the technology).

can afford litigation.¹² The majority of states have passed legislation to prevent NPEs from asserting patent infringement claims made in bad faith, but federal law has not made such strides.¹³ This is problematic because patent law is a federal question.¹⁴ In our quickly evolving, technology-dependent society, the issue is whether current patent legislation halts innovation, and if so, what role can state legislation play in reconstructing the patent system.¹⁵

II. NON-PRACTICING ENTITY OR TROLL?

An entity that has obtained a patent with no intention of putting it to use is an NPE.¹⁶ An NPE is a patent “troll” if it obtains the patent in bad faith.¹⁷ Universities are exempt from the “troll” label since the ultimate goal of their research is patenting and marketing inventions.¹⁸ Further, under 35 U.S.C § 273(c)(2), universities are not subject to the same prior commercial use of technology requirements that corporations are subject to.¹⁹ Additionally, universities and non-profits do not engage in patent litigation as frequently as

¹² See *USPTO Releases Annual List of Top 10 Organizations Receiving Most U.S. Patents*, *supra* note 1 (showing that companies with the most patents are financially stable).

¹³ *Patent Progress’s Guide to State Legislation*, PAT. PROGRESS (July 17, 2017), <https://www.patentprogress.org/patent-progress-legislation-guides/patent-progresss-guide-state-patent-legislation/>.

¹⁴ See 28 U.S.C. § 1338 (2012) (stating that “the district courts shall have original jurisdiction of any civil action arising under any Act of Congress relating to patents”).

¹⁵ Arnobio Morelix, Robert Fairlie & Inara Tareque, *Startup Activity: National Trends*, in 2017 KAUFFMAN INDEX OF STARTUP ACTIVITY 1, 10 (Ewing Marion Kauffman Foundation, 2017), <https://www.kauffman.org/kauffman-index/reporting/startup-activity>.

¹⁶ Chrystal Mancuso-Smith, Brett Johnson & Joseph G. Pia, *Patent Troll Legislation—Swinging Too Far?*, 28-APR UTAH B.J. 21, 21 (2015).

¹⁷ See *id.* (differentiating an NPE from a troll).

¹⁸ Gene Quinn, *Universities are NOT Patent Trolls*, IP WATCHDOG (June 6, 2014), <http://www.ipwatchdog.com/2014/06/06/universities-are-not-patent-trolls>.

¹⁹ 35 U.S.C. § 273(c)(2) (2012).

other NPEs.²⁰ Furthermore, courts recognize and acknowledge that the promotion of innovation through university research aligns with USPTO goals.²¹

Unlike universities, trolls have no intention to use the patent or release it into the market; rather, trolls obtain patents solely for the purpose of economically benefitting from companies who are using, or might use, the patent.²² Since trolls do not actively use their technology, they have no other involvement in the market aside from patent ownership, and they do not risk having infringement suits brought against them.²³ Trolls create revenue in either one of two ways: (1) forcing the patent user to sign a licensing agreement and pay a fee, or (2) engaging in litigation with the hope that the other party will agree to a settlement.²⁴ By definition, this behavior constitutes extortion.²⁵ For startups, a patent troll can be a financial burden that leads a company to dissolve.²⁶ Trolls seek out new businesses who are unable to afford legal fees associated with a patent infringement suit and consequently are more likely to pay a license fee.²⁷ While these fees are typically a small fraction of litigation costs, they can still have a noticeable effect on the success of a new

²⁰ PWC FORENSIC SERVICES, 2017 PATENT LITIGATION STUDY CHANGE ON THE HORIZON? 17 (2017), <https://www.pwc.com/us/en/forensic-services/publications/assets/2017-patent-litigation-study.pdf>.

²¹ *See id.* (showing that universities have the highest success rate in court).

²² *See* Mancuso-Smith, Johnson & Pia, *supra* note 16, at 21 (explaining patent troll business models).

²³ *See id.* (explaining patent troll business models).

²⁴ *See id.* (explaining patent troll business models).

²⁵ Mark A. Lemley & A. Douglas Melamed, *Missing the Forest for the Trolls*, 113 COLUM. L. REV. 2117, 2127 (2013).

²⁶ *Id.*

²⁷ *See id.* at 2128 (explaining that trolls strategically send license fee letters and agree to engage in litigation if the patent can be broadly construed).

business.²⁸ A troll will often use a startup's financial situation as leverage because the troll is aware that, although the startup's technology likely does not actually infringe the troll's patent, the startup cannot afford litigation to prove non-infringement.²⁹ Though these practices are malicious, there is controversy regarding how legislation can resolve this issue and whether state law can contribute to mitigation efforts.³⁰

III. EXISTING LEGISLATION

It is currently unclear if and when states have the authority to enact and enforce patent law because patent law is within federal jurisdiction.³¹ Patent law has been within federal jurisdiction since the United States became an independent nation.³² However, as case law and technology have evolved and societal demands have changed, states have enacted a number of laws relating to patent law, specifically addressing bad faith patent assertions.³³

²⁸ See *id.* at 2029 (implying that the outcome must be valued at more than the cost of litigation).

²⁹ See *id.* at 2028 (referencing the typical business model).

³⁰ *Id.* at 2029.

³¹ 28 U.S.C. § 1338 (2012).

³² See Mancuso-Smith, Johnson & Pia, *supra* note 16, at 23 (stating the timeframe of early patent history).

³³ See *Patent Progress's Guide to State Legislation*, *supra* note 13 (illustrating the number of states that have enacted patent related statutes).

A. Federal Law: Amendments to Deter Trolls

Federal patent law was first established in the Patent Act of 1790 as a response to inconsistent state laws relating to innovation.³⁴ Through amendments, the law has evolved, with the most recent change being the Leahy-Smith America Invents Act (“AIA”), enacted in 2011.³⁵ The AIA changed the patent system from a first-to-invent model to a first-to-file model.³⁶ This change was intended to streamline processes and create greater certainty in the industry.³⁷ Opponents of the AIA believed that only large corporations would benefit because those with financial stability are better equipped to file for a patent.³⁸ Generally, as the AIA was implemented, it provided companies with greater security, but the specific advantages for startups are not as apparent because the AIA has not resulted in equal opportunity for obtaining a patent.³⁹

The AIA greatly impacted patent law by amending multiple sections of Title 35 of the United States Code.⁴⁰ For example, the AIA extended prior user rights to all products used in manufacturing or commercial processes, whereas prior user rights were previously only granted for “method[s] of doing or conducting business.”⁴¹ These broader terms

³⁴ See Mancuso-Smith, Johnson & Pia, *supra* note 16, at 23 (detailing the history of patent law in the United States).

³⁵ Leahy-Smith America Invents Act, Pub. L. No. 112-29, 125 Stat. 284 (2011).

³⁶ *Id.* § 146(6)(o)–(p), 125 Stat. at 293.

³⁷ See *id.* § 146(6)(o)–(p), 125 Stat. at 293 (explaining how a defined scope will establish certainty for inventors).

³⁸ Dana Robert Colarulli, *The America Invents Act of 2011 What it Means for USPTO and the Challenge Ahead*, 6 (Sept. 29, 2011), https://www.uspto.gov/sites/default/files/aia_implementation/9-29-11_colaruli-presentation.pdf.

³⁹ See Leahy-Smith America Invents Act § 146(6)(p), 125 Stat. at 293 (implying that only companies with large presence or international influence will benefit).

⁴⁰ See *id.* § 146(6)(p), 125 Stat. at 284 (specifying the public law will amend Title 35).

⁴¹ 35 U.S.C. § 273(a) (2012).

provide greater certainty to all businesses involved in manufacturing and commercial processes, including start-ups, when drafting patents.⁴² However, the reality is that startups allocate fewer resources to research and development, and therefore, startups are not as well-equipped as larger business to refile each year as required by the AIA.⁴³ If a company does not pay the licensing fee, and a troll subsequently files an infringement claim, the defendant bears the burden of proof.⁴⁴ Therefore, under the AIA, the defendant must prove that the troll has acted in bad faith or has not used the patented technology within one year of the filing date of the invention, which sets a high bar.⁴⁵ If there is proof that the troll made the patent infringement claim in bad faith or that the technology is no longer in use, the defendant will likely succeed in a motion to dismiss; however, this assumes that the startup has the resources to engage in litigation in the first place.⁴⁶

Four years after enacting the AIA, the Innovation Act of the 114th Congress (H.R. 9) was introduced.⁴⁷ If enacted, this act would also amend Title 35 and further limit NPEs.⁴⁸ Changes under the Innovation Act would include requirements to submit more detailed pleadings for patent infringement claims in order to prevent trolls from asserting frivolous lawsuits.⁴⁹ The resulting benefits would be more efficient use of judicial resources and a

⁴² Leahy-Smith America Invents Act §146(6)(o)–(p), 125 Stat. at 293.

⁴³ See Colarulli, *supra* note 38, at 6 (referencing the obstacles companies may face under the changed law).

⁴⁴ See Lemley & Melamed, *supra* note 25, at 2121 (explaining the troll's position of power when threatening litigation to an innovator).

⁴⁵ See *id.* at 2122 (explaining the troll's position of power when threatening litigation to an innovator).

⁴⁶ See *id.* at 2127 (describing the business model of a troll, where one attempts to maximize profits through extortion without litigation).

⁴⁷ Innovation Act, H.R. 9, 114th Cong. (2015).

⁴⁸ *Id.*

⁴⁹ *Id.* (amending 35 U.S.C. § 281A).

larger portion of trolls being barred from bringing patent infringement claims out of speculation.⁵⁰ In the event that the pleading requirements are satisfied, and a judge hears the case, the amended 35 U.S.C. § 285 would now allow the judge to award a prevailing defendant to recover attorney fees.⁵¹ However, similar to the challenges left unaddressed by the AIA, the Innovation Act would still implicitly require that the defendant have the financial ability to engage in litigation to defend the technology in question.⁵² Because emerging companies typically are in a less financially stable position, they are less likely to be able to engage in litigation and therefore are vulnerable to patent trolls asserting bad faith infringement claims.⁵³ Despite having some assurance that legal fees will be essentially reimbursed following a successful defense, the cost of litigation still poses a major risk.⁵⁴ The Innovation Act would only truly serve as a safeguard for companies who could, with certainty, retain legal counsel and successfully defend a patent, but it would not prevent NPEs from filing or continuing to attempt to extort emerging companies.⁵⁵

B. State Law: Addressing the Problem of Trolls

Through recent amendments, federal law has been able to mitigate some harm patent trolls pose onto the startup industry; however, states have directly addressed the issue by

⁵⁰ See *id.* (implying detailed pleading requirements allow the judge to have more information upon first reading the case).

⁵¹ 35 U.S.C. § 285 (2012).

⁵² See *id.* § 285 (requiring parties to have the funds available to expense attorney fees).

⁵³ See Lemley & Melamed, *supra* note 25, at 2124 (explaining that trolls increasingly target startups for their position of financial instability).

⁵⁴ See *id.* at 2127–28 (stating that most scenarios do not escalate to litigation because defendants are “reluctant to challenge an entire portfolio of patents”).

⁵⁵ See *id.* at 2126 (analogizing the troll business model to the lottery where trolls send out a significant number of demand letters with the hope of one letter returning a large payout).

enacting preventative statutes to protect emerging companies.⁵⁶ Over the past decade, beginning with Vermont, states have passed legislation to provide startups with legal recourse against trolls.⁵⁷ Predominantly, states have enacted “bad faith assertion of patent infringement” statutes, which prohibit trolls from sending frivolous demand letters for licensing fees and threatening infringement suits.⁵⁸

Vermont sets a compelling example by dedicating the first section of its statute—title 9, section 4195—to addressing the importance of its implementation to its citizens and the state’s economy.⁵⁹ The statute emphasizes the negative impact bad faith patent infringement claims have on business owners by referring to associated financial burdens, namely licensing fees and costly patent litigation, which serve as deterrents to new companies and innovators.⁶⁰ In turn, Vermont’s economy as a whole is affected, and the actions of patent trolls ultimately undermine the state’s efforts to attract emerging companies, especially those in the technology industry.⁶¹ In order to protect the state’s

⁵⁶ See *Patent Progress’s Guide to State Legislation*, *supra* note 13 (illustrating that the majority of states have enacted laws to deter bad faith patent assertions).

⁵⁷ See *id.* (illustrating that the majority of states have enacted laws to deter bad faith patent assertions).

⁵⁸ See, e.g., VT. STAT. ANN. tit. 9, § 4195 (2017) (prohibiting trolls from sending frivolous demand letters for licensing fees and threatening infringement suits).

⁵⁹ See *id.* § 4195(a) (stating the purpose of the statute, including not “interfer[ing] with the good faith enforcement of patents or good faith patent litigation,” but also avoiding “[a]busive patent litigation, and especially the assertion of bad faith infringement claims”).

⁶⁰ See *id.* § 4195(a)(4), (6) (explaining Vermont’s economic benefits from implementing this statute).

⁶¹ See *id.* § 4195(a)(7) (explaining Vermont’s economic benefits from implementing this statute).

economy as a whole, the statute presents numerous remedies that are available to those who have been aggrieved by a patent troll.⁶²

Unlike federal patent law, the Vermont statute allows the Vermont Attorney General to take action against patent trolls by enforcing against bad faith assertions.⁶³ Crucial to being able to award a remedy, Vermont first defines what it means to be a target of a bad faith patent assertion: The aggrieved party in a bad faith patent assertion claim is a Vermont person who has received a demand letter, has been threatened with litigation, or whose customers have received demand letters.⁶⁴ To prove bad faith, the statute provides examples of valid evidence including, but not limited to, a demand letter lacking a patent number, addresses of patent owner or assignees, or factual information regarding the technology infringed upon, insufficient analysis comparing patented technology in question, and a demand letter requesting license fee payments in an unreasonably short period of time.⁶⁵ If the target is able to provide sufficient evidence of a bad faith patent assertion, the court can award a remedy.⁶⁶

The Vermont legislature is explicit in its intention to allow courts to use discretion when determining whether a bad faith patent has been asserted because sections 4197(b)(1) and 4197(c)(7) broadly permit any factor relevant to be evidence.⁶⁷ If the target meets the burden of proof, the court has the authority to award the following remedies: (1) equitable

⁶² *See id.* § 4199 (describing numerous remedies available to those who have been aggrieved by a patent troll).

⁶³ *Id.* § 4199.

⁶⁴ *See id.* § 4196(2) (defining a target in the patent troll context).

⁶⁵ *Id.* § 4197(b).

⁶⁶ *Id.* § 4199.

⁶⁷ *Id.* § 4197(b)(1), (c)(7).

relief, (2) damages, (3) costs and fees including reasonable attorney 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.⁶⁸ This Vermont legislation highlights the need for national change regarding the patent system in order to accomplish the USPTO's goals.⁶⁹

Following Vermont, thirty other states have passed legislation on bad faith patent assertions, and eight other states have introduced bills in their legislatures, meaning that the majority of states have recognized the need for action where the federal law is silent.⁷⁰ Compared to the Vermont statute, many of the other states' statutes provide similar definitions, remedies, and allow private causes of action to be brought; however, some of the statutes deviate and take a narrow stance on infringement claims.⁷¹ This variation among states is exactly the reason that patent law was intended to be federal question only.⁷² Although legislators have made strides in protecting emerging companies within their own states, federal patent law has the final authority in these cases and leaves entrepreneurs and innovators vulnerable to bad faith assertion claims.⁷³

⁶⁸ *Id.* § 4199(b).

⁶⁹ *See id.* § 4195 (explaining that there is not legal recourse for a troll's conduct in the federal courts, thus state law is needed to close the gap).

⁷⁰ *See Patent Progress's Guide to State Legislation*, *supra* note 13 (showing that majority of states have enacted legislation regarding bad faith patent assertions).

⁷¹ *See, e.g.*, VA. CODE ANN. § 59.1-215.2 (2014) (broadly defining bad faith patent assertion terms).

⁷² *See Mancuso-Smith, Johnson & Pia*, *supra* note 16, at 23 (explaining that historically, patent law was federal question to prevent conflict between states and to streamline the filing system).

⁷³ *See* U.S. CONST. art. VI, § 2 (stating that, if federal and state law conflict, federal law governs).

IV. THE ROLE OF THE JUDICIAL SYSTEM

With state legislatures beginning to incorporate patent law into state statutes, jurisdiction becomes an issue.⁷⁴ In a jurisdiction that has legislation regarding bad faith patent assertions, a party can bring a claim under that statute in state court.⁷⁵ However, because patent law is a federal question, 28 U.S.C. § 1338 governs, and thus the case can be removed to federal court.⁷⁶ The AIA specifically states that any party can remove a patent case to federal law in accordance with 28 U.S.C. § 1454.⁷⁷ Therefore, the NPE or patent troll has the ability to remove the case to federal court.⁷⁸

Another complex issue in the judicial system is that the judge can be put in the position of fact finder.⁷⁹ Under Federal Rule of Civil Procedure 26, the judge has the discretion to decide what information is permitted through discovery.⁸⁰ In the context of patent infringement cases, the judge must decide whether to admit evidence regarding both parties' technology, and therefore, the judge is required to determine what scientific findings are relevant to the case.⁸¹ Because the technologies in question are typically very complicated and arise from specialized scientific fields, a judge cannot be expected to have

⁷⁴ See *id.* art. VI, § 2 (stating that, if federal and state law conflict, federal law governs).

⁷⁵ FED. R. CIV. P. 12(b)(6) (stating that subject matter jurisdiction allows the claim to be first brought under state law).

⁷⁶ 28 U.S.C. § 1338 (2012).

⁷⁷ Leahy-Smith America Invents Act, Pub. L. No. 112-29, § 19(c), 125 Stat. 284, 332 (2011) (amending Chapter 89 of 28 U.S.C. § 1454).

⁷⁸ 28 U.S.C. § 1454 (2012).

⁷⁹ See Lemley & Melamed, *supra* note 25, at 2156 (explaining how judges and juries may be swayed due to an unfamiliarity with the scientific subject matter).

⁸⁰ FED. R. CIV. P. 26(b)(1).

⁸¹ See Lemley & Melamed, *supra* note 25, at 2156 (explaining how judges and juries may be swayed due to an unfamiliarity with the scientific subject matter).

a prior working knowledge of these topics.⁸² Therefore, in order to create a better understanding of the technology and potential patent infringement by an individual's product onto another, courts have a strong reason to admit more evidence through discovery.⁸³ Though Rule 26(c)(1)(G) prohibits trade secrets from being released through discovery, there is not a bright line rule of what this entails.⁸⁴ Furthermore, when trade secrets or sensitive information are disclosed through discovery, it is the disclosing party's responsibility to alert the court that such documents should not be referenced in court publications or the like.⁸⁵

For cases involving patent trolls and startups, there are two main discovery related issues that arise.⁸⁶ First, because startups are centered around cutting-edge technology, it is highly unlikely that any individuals other than the founders fully comprehend the science involved.⁸⁷ Therefore, in order to provide sufficient evidence to prove non-infringement, the startup may be required to disclose sensitive information that they would otherwise consider to be trade secrets.⁸⁸ Second, since trolls generate profits from sending demand letters rather than through actual the use of their patents, becoming privy to the mechanics

⁸² See *id.* (explaining how judges and juries may be swayed due to an unfamiliarity with the scientific subject matter).

⁸³ See *id.* (explaining how judges and juries may be swayed due to an unfamiliarity with the scientific subject matter).

⁸⁴ See FRCP 26(c)(1)(G) (preventing trade secrets and confidential information from being disclosed in discovery).

⁸⁵ See *Littlejohn v. BIC Corp.*, 851 F.2d 673, 685 (3rd Cir. 1988) (stating that the public has no right to access all information of a judicial record).

⁸⁶ See Lemley & Melamed, *supra* note 25, at 2156 (explaining how judges and juries may be swayed due to an unfamiliarity with the scientific subject matter).

⁸⁷ See *id.* at 2129 (claiming that trolls have no understanding of the technology but instead establish a business by creating profits through extortion).

⁸⁸ See *Littlejohn*, 851 F.2d at 685 (explaining that not all documents released to the court through discovery are to be made public information).

and science behind a startup's technology allows the troll to send demand letters to other companies in the same industry.⁸⁹ For this reason, under current patent law, the startup is placed in an incredibly vulnerable position and the troll is advantaged.⁹⁰

V. ONE START-UP, MULTIPLE LAWSUITS

A. Overview

SCVNGR, Inc. ("LevelUp") is a Massachusetts-based technology start-up company focused on mobile application development for Android and iPhone smartphones.⁹¹ While still in the early development stages, LevelUp successfully litigated two separate patent law claims relating to the mobile applications.⁹² Because Massachusetts has not yet passed legislation against bad-faith patents, the only available jurisdiction was federal court.⁹³

The following cases are anomalies with respect to how a startup typically reacts to receiving a demand letter because LevelUp was in a uniquely financially stable situation.⁹⁴ Having raised approximately twelve million dollars within one year of releasing its beta,

⁸⁹ See Lemley & Melamed, *supra* note 25, at 2177 (explaining that a troll's potential gain of learning a startup's trade secrets greatly outweighs costs of litigation).

⁹⁰ See *id.* (explaining that a troll's potential gain of learning a startup's trade secrets greatly outweighs costs of litigation).

⁹¹ SCVNGR, Inc. v. eCharge Licensing, LLC, No. 13-12418-DJC, 2014 U.S. Dist. LEXIS 135408, at *1, *27 (D. Mass. Sep. 25, 2014).

⁹² See *eCharge Licensing, LLC*, 2014 U.S. Dist. LEXIS 135408, at *1, *27 (regarding infringement of eight patents held by patent troll, eCharge); *Barron v. SCVNGR, Inc.*, No. 13-40084-TSH, 2014 U.S. Dist. LEXIS 91798, at *1, *10 (D. Mass. July 7, 2014) (regarding patent '873 held by a single individual, Barron).

⁹³ See H. 130, 190th Gen. Court, Reg. Sess. (Mass. 2017) (pending legislation regarding bad faith patent assertions).

⁹⁴ See Rip Emerson, *LevelUp Grabs \$12M From Highland, Google Ventures to Take its Mobile Payment Solution National*, TECH CRUNCH (June 7, 2012), <https://techcrunch.com/2012/06/07/levelup-raises-12m/> (noting that most startups do not receive as much investment interest from venture capitalists).

LevelUp had more options than most companies in the startup phase would, and this funding likely lead to the decision to litigate.⁹⁵ Additionally, the startup had already made its debut in the tech industry by partnering with big-name establishments like Buffalo Wild Wings and Ben and Jerry's, so it had established a positive public reputation.⁹⁶ Because the primary investors included Highland Capital, Google Ventures, and Balderton Capital, LevelUp's reputation in the industry was reinforced.⁹⁷ For this reason, LevelUp was able to address routine expenditures as well as potential future issues, including litigation.⁹⁸ Even though LevelUp was not in the same position as most startups, the two cases below illustrate the issues startups face when navigating federal patent law.⁹⁹

B. The First Case: SCVNGR, Inc. v. eCharge Licensing LLC

In 2014, LevelUp filed suit against eCharge Licensing LLC ("eCharge") to contest claims of patent infringement.¹⁰⁰ eCharge is the epitome of a patent troll because it obtains patents with no intentions to use them and aggressively seeks out other business who are, to some extent, using the patented technology.¹⁰¹ In an attempt to extort LevelUp, eCharge

⁹⁵ Peter Cohan, *Will Princeton Dropout's SCVNGR/LevelUp Revolutionize the Economy?*, FORBES (July 31, 2012), <https://www.forbes.com/sites/petercohan/2012/07/31/will-princeton-dropouts-scvngrlevelup-revolutionize-the-economy/#551485cb6505>.

⁹⁶ Emerson, *supra* note 94 (highlighting the big-name companies which have significantly funded LevelUp).

⁹⁷ *See id.* (assuming that a startup backed by large companies has a good reputation in the industry).

⁹⁸ *See id.* (inferring that a startup with twelve million dollars in investments alone has sufficient funds to defend its technologies in court).

⁹⁹ *See infra* Parts V.B–V.C (detailing two patent infringement cases involving LevelUp).

¹⁰⁰ *eCharge Licensing*, 2014 LEXIS 135408, at *1.

¹⁰¹ *See id.* at *25 (stating that eCharge is the "original patent troll").

alleged that LevelUp's mobile application used eight of eCharge's patents.¹⁰² However, among others, LevelUp stated a claim of unenforceability of eCharge's patents.¹⁰³ The court implied that there was no material question of patent infringement because eCharge "unreasonably and unexpectedly delayed in enforcing its rights under the patents."¹⁰⁴ This case raises numerous issues regarding the current law's inability to protect innovation and ingenuity.¹⁰⁵

First, eCharge is an NPE that does not use the eight patents it filed claims over.¹⁰⁶ Therefore, eCharge has the potential to unreasonably restrict technological advancement by sending demand letters, thus resulting in an imbalance of power between companies with patents and those just entering the market.¹⁰⁷ eCharge, the patent holder, still retained that advantage over LevelUp throughout litigation because LevelUp had the burden of proving non-infringement.¹⁰⁸ Though this case did not proceed through discovery, LevelUp had to place itself in a vulnerable position in order to defend its product against a party that was not even technically in the industry.¹⁰⁹ Thus, *SCVNGR, Inc. v. eCharge Licensing, LLC*

¹⁰² *Id.* at *5.

¹⁰³ *Id.* at *12.

¹⁰⁴ *Id.* at *13–*14.

¹⁰⁵ *See id.* (referring to eCharge's strategy to delay enforcing any rights under the patent to disadvantage LevelUp and thereby also wasting judicial resources in court).

¹⁰⁶ *See id.* at *25 (stating that eCharge did not dispute LevelUp's claim that the patents are not in use).

¹⁰⁷ *See id.* (inferring that innovation is slowed by trolls because innovators intending to make use of the patented technologies either have to spend time financing to pay license fees, or adjust their technologies as to not infringe on said patent).

¹⁰⁸ *See id.* at *26 (noting that the plaintiff bears the burden of proof and defendant patent holder must submit counterclaims in order to recover monetary damages).

¹⁰⁹ *See id.* at *25 ("[T]he court cannot say that the parties compete at all...").

highlights one of the ways in which the current patent system favors trolls over startups and emerging companies which contribute to the economy.¹¹⁰

Additionally, *eCharge Licensing* raises the issue of how patent litigation in a startup's early stages of development has the potential to limit the success and growth of a new company in the industry.¹¹¹ Like many patent trolls, eCharge demanded licensing fees from LevelUp within the start-up's first two years after launching.¹¹² Unlike many other companies in the startup stage of the business cycle, LevelUp was financially backed and therefore had the ability to decide between legal recourse and paying those fees.¹¹³ In choosing the former, LevelUp filed suit asserting that the eight eCharge patents infringement claims were "a frivolous attempt to extort payment from LevelUp based upon the threat of costly litigation."¹¹⁴ Ultimately, the United States District Court for the District of Massachusetts denied eCharge's motion to dismiss.¹¹⁵ As a result, LevelUp was not liable to pay eCharge patent infringement damages because the court found that eCharge had no basis to demand licensing fees.¹¹⁶

¹¹⁰ See *supra* notes 106–110 and accompanying text (explaining that trolls force innovators to expend unnecessary time and finances on patented technologies that are not even in use).

¹¹¹ See *supra* notes 59–69 and accompanying text (explaining legislation enacted in Vermont to promote innovation, and detailing the broader economic downturn resulting from permitting trolls to file bad faith patent assertions).

¹¹² See *eCharge Licensing*, 2014 LEXIS 135408, at *4–*5 (stating that the infringement claim was filed in 2013, one year after LevelUp's public launch).

¹¹³ See Emerson, *supra* note 94 (highlighting the big-name companies which have significantly funded LevelUp).

¹¹⁴ *eCharge Licensing*, 2014 LEXIS 135408, at *5.

¹¹⁵ *Id.* at *9.

¹¹⁶ See *id.* at *27 (inferring that without an infringement upon eCharge's patents, LevelUp has no reason to pay licensing fees).

Due to LevelUp's financial stability, the company was able to financially absorb the costs of litigation and prove that its technologies did not infringe on eCharge's patents.¹¹⁷ Despite the financial burden, this essentially served as a signal to the industry that LevelUp's technology was innovative, unique, and worthy of being recognized as such.¹¹⁸ *eCharge Licensing* illustrates that companies with adequate financial resources are able to successfully challenge and defend their products against patent trolls, but the case also emphasizes that a patent is symbolic to an inventor.¹¹⁹ This outcome implies that startups not in the same or similar situation of financial freedom are forced to pay licensing fees when their technology does not actually infringe upon an existing patent and therefore do not get the recognition for the societal contribution that their innovation serves.¹²⁰

While larger, more established companies can allot for litigation expenses, this is an unreasonable burden on startup companies who could better use resources in other departments, such as hiring employees.¹²¹ While it is probable that patent troll demand letters and infringement claims have no basis, startups do not have the financial security to be able to finance drawn-out litigation expenses.¹²² As a matter of policy, the current federal

¹¹⁷ See George LeVines, *As Coakley Ramps up Patent Troll Fight, LevelUp says it has spent \$1m Dealing with Claims*, BOSTON.COM (Nov. 6, 2013), <https://www.boston.com/news/innovation/2013/11/06/as-coakley-ramps-up-patent-troll-fight-levelup-says-it-has-spent-1m-dealing-with-claims> (explaining that LevelUp could have better spent funds on hiring new employees).

¹¹⁸ See *id.* (referring to LevelUp CEO's commitment to the product and decision to litigate).

¹¹⁹ See *id.* (referring to LevelUp CEO's commitment to the product and decision to litigate).

¹²⁰ See *id.* (inferring that a company would need similar funds as LevelUp (i.e., one million dollars) to defend their product against a patent troll).

¹²¹ See *id.* (referring to LevelUp CEO's statement that 20 new employees could have been hired using the funds spent on litigation).

¹²² See Brachmann, *supra* note 4 (explaining the many reasons startups are disadvantaged in patent litigation).

legislative framework was enacted to promote ingenuity and entrepreneurship; however in practice, innovators are actually generally restricted and financially burdened because of the prevalence of patent trolls.¹²³

C. The Second Case: Barron v. SCVNGR, Inc.

LevelUp was involved in another patent infringement lawsuit, again with a successful outcome.¹²⁴ In this case, Barron, an individual actor, filed a patent infringement suit regarding his U.S. Patent No. 7,499,873 (the ‘873 patent).¹²⁵ Because Barron filed the suit without first requesting licensing fees, it is possible that the claim was based on speculation of infringement of the ‘873 patent; however, given LevelUp’s rapid success and involvement of big-name investors, it is more likely that this was an attempt at extortion.¹²⁶ The choice of going directly to litigation instead of demanding a petty license fee could have been an effort to get a larger settlement from LevelUp.¹²⁷

The question in *Barron v. SCVNGR, Inc.* was whether LevelUp’s mobile app used a specific technology in relation to the “transactional terminal” of a computerized financial transaction and thus infringed the ‘873 patent.¹²⁸ LevelUp filed a motion for summary judgement claiming that there was no issue of material fact, which essentially put the judge

¹²³ See *About Us*, *supra* note 3 (referring to the promotion of innovation and creativity as the purported mission of the USPTO).

¹²⁴ *Barron*, 2014 LEXIS 91798, at *1.

¹²⁵ *Id.* at *1–*2.

¹²⁶ See *id.* (explaining the timing of the lawsuit).

¹²⁷ See Lemley & Melamed, *supra* note 25, at 2127 (stating that using such business tactics often leads to settlements).

¹²⁸ See *Barron*, 2014 LEXIS 91798, at *2 (describing the patent claims).

in the position of fact finder.¹²⁹ To argue for summary judgment, the parties had to explain their technologies and the role of the ‘873 patent to the judge.¹³⁰ Though the court determined that LevelUp provided sufficient evidence to prove that the ‘873 patent was not a component of the technology used in the mobile app, broader issues regarding the federal patent system still remain.¹³¹

Common to many patent suits, the judge in *Barron* had to decide whether the technology overlapped.¹³² This requires an understanding of complex software technology, which the judge may have been learning for the first time.¹³³ Barron claimed that LevelUp infringed the ‘873 patent regarding “Communication Through a Financial Services Network.”¹³⁴ To infringe the patent claims, however, LevelUp’s mobile application would have to apply Barron’s technology as explicitly stated in the patent claims where the mobile phone serves as the transaction terminal.¹³⁵ LevelUp bore the burden of proof and therefore had to explain to the court that its mobile app did not require the phone to be a transaction terminal.¹³⁶ Thus, LevelUp had to provide enough information for the judge to obtain a working knowledge of the technology and decide summary judgment as a matter of law.¹³⁷

¹²⁹ See *id.* at *6 (stating that “the court first determines the meaning of disputed claim terms and then compares the accused device to the claims as construed”).

¹³⁰ *Id.*

¹³¹ See *id.* at *10 (granting LevelUp’s motion for summary judgement).

¹³² See *id.* at *6 (stating that “the court first determines the meaning of disputed claim terms and then compares the accused device to the claims as construed”).

¹³³ See *supra* notes 74–90 and accompanying text (referring to the differences between the expertise of a judge and a scientist).

¹³⁴ *Barron*, 2014 LEXIS 91798, at *1–*2.

¹³⁵ See *id.* at *7–*8 (describing the analytical process that the court applies to determine whether the technology infringes on patent ‘873).

¹³⁶ See *id.* (referring to defendant LevelUp’s burden of proof and submission of supporting documents to defend the technology).

¹³⁷ See FED. R. CIV. P. 56 (stating that summary judgment is a matter of law).

While courts are fully capable of learning about new technologies and making well thought out decisions, it is a waste of judicial resources to make judges and clerks to learn the science and design behind every patent infringement claim.¹³⁸ Under the current federal patent system, courts are required to determine issues regarding highly complex technical information, simply because a patent troll has brought a frivolous claim.¹³⁹ The time and money spent teaching judges and clerks such technology serves no purpose if expended on a patent troll.¹⁴⁰ Thus, in the present case, because it is unlikely that the judge and clerks were familiar with transaction terminals, it was a waste of their time to learn the technology since Barron appears to be a patent troll.¹⁴¹

In addition to judicial resources, this is another example of a startup wasting its own limited expenses to defend its technology.¹⁴² Although LevelUp proved that its app did not infringe the '873 patent and thus was acknowledged for its ingenuity and inventiveness, LevelUp still had to pay litigation expenses.¹⁴³ Despite efforts to have Barron pay for attorney fees and costs, the United States District Court for the District of Massachusetts denied LevelUp's motion because Barron's initial suit did not meet the threshold to constitute an exceptional case on the grounds that it was not considered frivolous,

¹³⁸ See *Barron*, 2014 LEXIS 91798, at *7–*8 (describing the expert testimony required in this case).

¹³⁹ See *supra* notes 34–55 and accompanying text (describing the AIA pleading requirements).

¹⁴⁰ See *Barron*, 2014 LEXIS 91798, at *9–*10 (detailing the understanding of the technology, all resulting in a motion for summary judgment thereby dismissing the case).

¹⁴¹ See *id.* at *7–*8 (suggesting that this required expert testimony and used time that could have been sent on other cases).

¹⁴² See LeVines, *supra* note 117 (explaining the unnecessary fees associated with trial).

¹⁴³ See *Barron v. SCVNGR, Inc.*, 100 F. Supp. 3d 47, 50 (D. Mass. 2015) (denying defendant LevelUp's motion for attorney fees and costs).

unreasonable, or filed with bad motives.¹⁴⁴ While the court ultimately determined Barron's suit was reasonably asserted, the overarching reason to not award LevelUp damages was because this was the first patent suit Barron had brought.¹⁴⁵ The analysis underlying this decision is sound; however, it does not take into account the possibility that a patent owner can successfully extort businesses using demand letters and never once have to step foot in a court.¹⁴⁶ Just because Barron did not have prior patent lawsuits does not remove the possibility that he has sent demand letters or asserted a frivolous claim that simply did not escalate to trial.¹⁴⁷ While the decision will ultimately be at the judge's discretion, it appears that other factors, like the number of demand letters sent by the non-practicing entity, should be considered when awarding damages.¹⁴⁸ Therefore, in a different court, attorney fees and costs could potentially be awarded to the prevailing party.¹⁴⁹

D. LevelUp Today: Advocating Patent Law Reform

In addition to *eCharge Licensing* and *Barron*, LevelUp was involved in two other patent infringement law suits.¹⁵⁰ Seth Priebatsch, the CEO of LevelUp, reported that the

¹⁴⁴ *Id.*

¹⁴⁵ *See id.* (differentiating Barron from trolls that have a history of filing frivolous suits).

¹⁴⁶ *See* Lemley & Melamed, *supra* note 25, at 2126 (stating that one business model is to extort innovators using demand letters, thus never going to trial).

¹⁴⁷ *See id.* (stating that one business model is to extort innovators using demand letters, thus never going to trial).

¹⁴⁸ *See id.* (stating that one business model is to extort innovators using demand letters, thus never going to trial).

¹⁴⁹ *See* 35 U.S.C. § 285 (2012) (stating that the court has discretion to award attorney fees and costs).

¹⁵⁰ *See* LeVines, *supra* note 117 (quoting LevelUp's CEO on the number of lawsuits the company litigated in order to defend their technology).

startup spent over one million dollars defending against patent infringement suits.¹⁵¹ Although LevelUp had a unique position of financial stability, these costs would likely be devastating to another startup.¹⁵² Regardless of LevelUp's financial stability, Priebatsch noted that his company could have benefitted the local economy and community by hiring ten to twenty new employees, but instead had to allocate funds to litigation of patent trolls.¹⁵³

LevelUp's success is indicative of a startup's ability to thrive in today's economy; however, patent law has not been amended to reflect such changes in the market.¹⁵⁴ The AIA was passed years before LevelUp's lawsuits and identifies the lack of protection provided to similar companies.¹⁵⁵ Additionally, despite the outcomes of the lawsuits involving LevelUp, the cases described above present the issue that patent trolls initially have an advantage the parties they target.¹⁵⁶

CONCLUSION

The USPTO's goals are to encourage innovation and ingenuity; however, the current federal laws do not effectively prevent trolls from asserting bad faith patent claims, and therefore, the laws disadvantage entrepreneurs and inventors. Like LevelUp, many startups are forced to succumb to patent trolls by expending finances on licensing fees or litigation

¹⁵¹ *See id.* (referring to the amount of money spent on attorney and court fees).

¹⁵² *See id.* (inferring that most startups do not have sufficient funds to be adequately staffed and certainly do not have the finances reserved for litigation needs).

¹⁵³ *Id.*

¹⁵⁴ *See supra* notes 34–55 and accompanying text (describing the changes in patent law after the AIA, and the needs that still exist in order to protect startups and promote innovation).

¹⁵⁵ *See supra* notes 34–55 and accompanying text (describing the changes in patent law after the AIA, and the needs that still exist in order to protect startups and promote innovation).

¹⁵⁶ *See supra* notes 100–149 and accompanying text (detailing two patent infringement cases involving LevelUp).

costs from patent infringement claims instead of investing in their employees and technologies. In response, states have begun to enact legislation against bad faith patent assertions. In these jurisdictions, state legislatures have expressly provided residents with legal recourse against patent trolls, which, in effect, boosts the local economy. Despite state efforts, patent law remains a federal question, and therefore, federal law governs. For this reason, Congress must reform federal patent law to avoid undermining the strides made by state legislation and to reflect the rapid evolution of technology.