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ONLY A PAWN IN THE GAME: RETHINKING INDUCED PATENT INFRINGEMENT

W. Keith Robinson[†]

A party that causes another to infringe a patent may be liable for induced infringement. Recently, the Supreme Court and the Federal Circuit have interpreted the inducement statute in a way that may be problematic. For example, in a suit for induced patent infringement a plaintiff must show that an accused party had specific intent to cause infringement. The defendant can rebut allegations of induced infringement by showing that he had a good faith belief that he did not infringe the patent. However, a defendant's good faith belief that the patent is invalid is no longer a defense to inducement. While the accused party's actions or conduct could also be relevant, these scienter-based inquiries indicate that the law's current interpretation of inducement focuses primarily on intent.

In response, this article suggests that the current trend in induced infringement analysis places too much emphasis on the question of intent. Further, this article argues that the conduct of an accused party should remain an important influence in the induced infringement determination. Numerous papers have suggested how courts should determine the level of intent required for induced infringement. In contrast, this article asserts that many of the challenges in this area can be addressed by understanding the type of inducing conduct that patent law should discourage.

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INTRODUCTION

The next five years will usher in a paradigm shift in the Internet Age. At the beginning of this decade, the number of “connected” devices on earth outnumbered the world’s population.¹ With this new connected world will come new collaborative applications and technology that will enhance commercial industries, services and the

1. See Oladayo Bello & Sherali Zeadally, *Intelligent Device-to-Device Communication in the Internet of Things*, IEEE SYSTEMS JOURNAL 1, 1 (2014) (stating that “By 2010, the number of devices connected to the Internet rose to 12.5 billion while the world’s population increased to 6.8 billion”).

human experience.² This new “data age” will provide tremendous opportunities for innovators to change the way people go about their daily lives by integrating technology in new and innovative ways.³

Undoubtedly, some innovators will seek to use the patent system to protect their ideas. One key question is whether it will be worthwhile to obtain patents on these new interactive technologies.⁴ Several theories attempt to justify patents and explain the existence of the current U.S. patent system. For example, reward theory explains that patents are rewards to the inventor for creating her invention.⁵ Prospect theory asserts that the government grants patents to inventors so that the inventor is free to commercialize subject matter embodied in the patent disclosure.⁶ Regardless of the theory, inventors of connected device technology will most likely seek patents because they believe that they will acquire rights that are beneficial and enforceable.⁷

Patentees commercialize technologically beneficial patents or license them to entities that are better suited to commercialize the invention.⁸ Patentees may also have an expectation that they can

2. See Nick Bilton, *Can the Apple Watch Woo Traditional Watch Fans?*, N. Y. TIMES (Sept. 12, 2014), available at <http://www.nytimes.com/2014/09/12/fashion/can-the-apple-watch-woo-traditional-watch-fans.html>? (last visited Feb. 12, 2015) (reporting that 43 million wearable bands will be sold in 2015).

3. See Steve Lohr, *M.B.A. Programs Start to Follow Silicon Valley into the Data Age*, N. Y. TIMES (DEC. 26, 2014), available at <http://www.nytimes.com/2014/12/26/business/mba-programs-start-to-follow-silicon-valley-into-the-data-age.html> (explaining that M.B.A. business plan competitions often involve the use of sensor data).

4. Several legal doctrines present challenges for patentees of interactive claims. Specifically, these doctrines make it difficult for interactive patentees to successfully enforce their patents against infringers. See generally Mark Lemley, *Inducing Patent Infringement*, 39 U.C. DAVIS L. REV. 225 (2005) (discussing induced infringement and how courts decide induced infringement cases); Mark D. Janis & Timothy R. Holbrook, *Patent Law's Audience*, 97 MINN. L. REV. 72, 117 (2012) (arguing that the modern patent infringement analysis is becoming more unmanageable and complex); Timothy R. Holbrook, *The Intent Element of Induced Infringement*, 22 SANTA CLARA COMPUTER & HIGH TECH L.J. 399 (2006) (discussing the intent element for induced infringement); Ted Sichelman, *Patent Law Revisionism at the Supreme Court*, 45 LOY. U. CHI. L.J. 307 (2013-2014) (discussing the intent required for inducing infringement); see also W. Keith Robinson, *No "Direction" Home: An Alternative Approach to Joint Infringement*, 62 AM. U. L. REV. 59, 109-18 (2012) (discussing the impact of divided infringement on interactive patents).

5. See Fritz Machlup, *Study Of The Subcommittee On Patents, Trademarks, And Copyrights Of The Senate Judiciary Committee*, 85th Cong., 2d Sess., An Economic Review Of The Patent System, Study No. 15 (Comm. Print 1958).

6. See Edmund W. Kitch, *The Nature and Function of the Patent System*, 20 J.L. & ECON. 265, 266 (1977).

7. See Machlup, *supra* note 5, at 21.

8. See *id.* at 6, 74.

enforce the rights granted to them by the U.S. government.⁹ Specifically, patentees have the right to exclude others from making or using their invention.¹⁰ The law considers any performance of these actions without authorization infringement of the patent.¹¹

There are two main types of infringement. Direct infringement of a patent occurs when an entity makes, uses or performs each and every element of a patent claim.¹² The second type of infringement is indirect infringement. Indirect infringement occurs when more than one party is involved in the infringement of a patent claim.¹³

There are two variations of indirect infringement—contributory and induced. Contributory infringement generally covers situations where one party provides another with a part or component which when combined with other components infringes an apparatus claim.¹⁴ Induced infringement occurs when one party encourages or aids another to infringe a patent.¹⁵

This article focuses on induced infringement because of its relevance to patentees of interactive and connected inventions. Patentees of these emerging technologies commonly bring a cause of action under inducement instead of relying on direct infringement¹⁶ by asserting that the patent was directly infringed and that the accused party aided or abetted in the infringement.¹⁷ Specifically, a patentee

9. *Id.* at 1.

10. 35 U.S.C. § 271 (2010).

11. *Id.*

12. *See id.* at § 271(a) (“Except as otherwise provided in this title, whoever without authority makes, uses, offers to sell, or sells any patented invention, within the United States or imports into the United States any patented invention during the term of the patent therefor, infringes the patent”).

13. *See* *Cabrice Corp. of Am. v. Am. Patents Dev. Corp.*, 283 U.S. 27, 33 (1931) (stating that direct and indirect infringement are essentially torts).

14. *See* 35 U.S.C. § 271(c) (2010) (“Whoever offers to sell or sells within the United States or imports into the United States a component of a patented machine, manufacture, combination or composition, or a material or apparatus for use in practicing a patented process, constituting a material part of the invention, knowing the same to be especially made or especially adapted for use in an infringement of such patent, and not a staple article or commodity of commerce suitable for substantial noninfringing use, shall be liable as a contributory infringer”).

15. *Id.*

16. *See* 5-17 Donald S. Chisum, CHISUM ON PATENTS § 17.04 [4][f] (Matthew Bender) (“A patent owner’s ability to prevent active inducement by advertising and instruction or other activity is often critical to obtaining effective protection for a patented invention consisting of a new method of use of a known, staple product, such as a chemical compound or composition, especially a new medical or therapeutic use of a product that has an established alternative medical use”).

17. *See* *Akamai Technologies, Inc. v. Limelight Networks, Inc.*, 692 F.3d 1301 (Fed. Cir.

must show that the accused inducer performed some offensive conduct with the requisite intent.¹⁸

The law of induced patent infringement is as important as it is confusing. Legal interpretations of inducement have continued to change since the statute was enacted in 1952.¹⁹ Even the Supreme Court has acknowledged that the inducement statute is ambiguous.²⁰ Ambiguity in this area is undesirable because the technology areas in which induced infringement is more likely to occur are important to the U.S. economy. For example, patentees in these technology areas commonly operate businesses in financial services, personalized medicine and the Internet of Things.²¹

Unfortunately, recent case law in this area has added complexity and created uncertainty as to whether patentees can effectively enforce their rights in inventions that are susceptible to induced infringement.²² The main debate centers around knowledge and intent. The Supreme Court recently opined upon this issue in *Commil USA LLC v. Cisco Sys. Inc.* First, the Supreme Court clarified that liability for induced infringement requires proof that the defendant knew her induced acts infringed the asserted patent.²³ Second, the Court clarified the types of defenses that are available to an accused inducer.²⁴ Specifically, the Court held that the defendant's good faith

2012).

18. See *Global-Tech Appliances, Inc. v. SEB S.A.*, 131 S. Ct. 2060, 2065, 179 L. Ed. 2d 1167 (2011) (interpreting 35 U.S.C. § 271(b) to require intent and some affirmative act); see Lemley, *supra* note 4, at 226 (explaining that the two fundamental issues with respect to induced infringement are conduct and intent).

19. In the last two decades the interpretation of induced infringement has evolved. See *Hewlett-Packard Co. v. Bausch & Lomb Inc.*, 909 F.2d 1469 (Fed. Cir. 1990) (opining that “that proof of actual intent to cause the acts which constitute the infringement is a necessary prerequisite to finding active inducement”); *but see Manville Sales Corp. v. Paramount Sys., Inc.*, 917 F.2d 544, 553 (Fed. Cir. 1990) (stating that a plaintiff must show that a defendant possessed specific intent); *DSU Med. Corp. v. JMS Co.*, 471 F.3d 1293, 1306 (Fed. Cir. 2006) (approving of the approach taken by the Federal Circuit panel in *Manville Sales*); see also *Commil USA, LLC v. Cisco Sys., Inc.*, 135 S. Ct. 1920, 1928 (2015) (holding that a defendant's good faith belief that an asserted patent is invalid is not a defense to inducement).

20. See *id.*

21. See *infra* Part I.

22. See *Hewlett-Packard*, *supra* note 19; *Manville*, *supra* note 19; *DSU*, *supra* note 19 at 1306 (approving the approach in *Manville Sales*).

23. *Commil*, *supra* note 19. *Commil* (and the Government as *amicus curiae*) argued the accused inducer need only intend to cause the acts that led to infringement to satisfy the intent requirement. See also *Hewlett-Packard*, *supra* note 19. The opposing argument—seemingly accepted by the majority—is that the accused inducer must have specifically intended to cause the actual infringement of the patent. See *Manville*, *supra* note 19; *DSU*, *supra* note 19.

24. See *Commil*, *supra* note 19.

belief that the asserted patent is invalid is not a defense to induced infringement.²⁵

One effect of the recent interpretations of induced infringement is that it makes patents asserted under an induced infringement theory difficult to enforce.²⁶ Further, given the Supreme Court's recent activity in the patent area and its aversion to rigid Federal Circuit tests, a discussion about the current state of inducement law is very much worth having.²⁷ In sum, it is time to think differently about induced infringement.

This article suggests that the current trend in induced infringement analysis places too much emphasis on the question of intent. Further, this article argues that the conduct of an accused party should remain an important influence in the induced infringement determination. The need to recalibrate induced infringement analysis is framed by three practical considerations: (1) the interactive nature of emerging technology, (2) the need for clear legal tests and jury instructions in patent infringement cases and (3) the increasing expectations that market participants should be able to forecast whether they infringe a patent. In view of these considerations, this article proposes that the law rebalance the induced infringement inquiry by closely considering the conduct of the accused party and the relationship between the accused inducer and the direct infringer as a factor in determining infringement liability.

Several scholars have opined on the problems surrounding induced patent infringement,²⁸ but few have explored the influence of inducing conduct on induced infringement analysis in view of the connected device age and the new challenges patentees face concerning enforcement. Accordingly, this article contributes to the literature in three ways. First, it sets out a framework for thinking about the practical effects of induced infringement jurisprudence. Second, this article argues that the law should reestablish the conduct of the accused party as a significant part of any inducement determination. Third, this article suggests that the law should consider

25. *Id.*

26. *See* Sichelman, *supra* note 4, at 343 (arguing that defendants can immunize themselves against indirect infringement by obtaining opinions of counsel).

27. *See generally* KSR Int'l Co. v. Teleflex Inc., 550 U.S. 398 (2007), *Bilski v. Kappos*, 561 U.S. 593 (2010); *Octane Fitness, LLC v. ICON Health & Fitness, Inc.*, 134 S. Ct. 1749, 188 (2014).

28. *See* Lemley, *supra* note 4, at 225; Holbrook, *supra* note 4, at 399; Sichelman, *supra* note 4; Jason Rantanen, *An Objective View of Fault in Patent Infringement*, 60 AM. U. L. REV. 1575 (2011).

other ways to balance the inducement analysis including characterizing the relationship between the accused inducer and direct infringer.

Historically, induced infringement analysis appeared to be a much more balanced inquiry. Before its codification in 1952, inducement was referred to generally as indirect infringement.²⁹ The concept of indirect infringement existed to allow for a cause of action when more than one party was involved in the infringement of a patent.³⁰ In 1952, Congress codified the common law cause of action by incorporating it into the statute as contributory infringement and induced infringement.³¹ While the contours of contributory infringement were narrowly defined, one commentator has argued that induced infringement was seen by some as a catchall and therefore more broadly written.³² Unfortunately, this generality has led to confusion and uncertainty about how courts should interpret the statute.³³

The induced infringement statute states, “whoever actively induces infringement of a patent shall be liable as an infringer.”³⁴ Since its codification, the main issue with respect to induced infringement has centered on its intent requirement. One interpretation is that inducement requires the accused party to intend to cause the acts that led to infringement of the patent.³⁵ This view is seen as a less difficult standard to meet from the perspective of the plaintiff. The alternative view is that for there to be liability for induced infringement the accused party must have intended that the patent be infringed.³⁶ This standard is the prevailing view of the Federal Circuit, was upheld by the Supreme Court and is perceived as a higher threshold for plaintiffs to meet.³⁷ This doctrinal split has led to healthy and vigorous discussions among scholars concerning

29. Kathrik Kumar, *Of Deep-Fryers and (Semiconductor) Chips Why Ignorance of A Patent is No Excuse*, 40 AIPLA Q.J. 727, 738 (2012).

30. *See id.* at 729.

31. *See generally* The Patent Act of 1952, 35 U.S.C. 271(b) & (c).

32. *See Rantanen, supra* note 28, at 1596.

33. *See id.* at 1620-22.

34. 35 U.S.C. § 271(b) (2010).

35. *See Hewlett-Packard, supra* note 19.

36. DSU, *supra* note 19 (approving of the *Manville Sales* approach that an alleged inducer must be shown to have knowingly induced infringement and not merely the acts that caused infringement).

37. *See Holbrook, supra* note 4, at 405 (comparing the specific intent standard to the intent to cause acts standard); *see also* Commil, *supra* note 19 (all of the Justices agreed that inducement liability requires that the defendant know her acts were infringing).

induced infringement.³⁸

The scholarly discussion of inducement theory also includes commentary on how courts decide inducement cases. For example, inducement decisions have been explained on a sliding scale³⁹—the more egregious the conduct of the accused party, the less intent the courts require to find liability for induced infringement.⁴⁰ A visual representation of Mark Lemley’s sliding scale framework is depicted below (*see* Figure 1). Let the y-axis be the specificity of intent and the x-axis be the representation of the defendant’s conduct.



Figure 1

Despite the attempt to explain the influence of conduct in the inducement inquiry, much of the scholarly discussion regarding inducement has centered squarely on intent. Recently it was argued that the Supreme Court repeatedly subverts Congress’ standard for indirect patent infringement.⁴¹ Additionally, the “intent to cause infringement” standard was viewed as preferable over a broader rule because a broader rule would be anticompetitive and riskier in that it could subject innocent actors to liability.⁴²

38. *See* Rantanen, *supra* note 28, at 1579.

39. *See* Lemley, *supra* note 4, at 242 (arguing that forbidden acts and the level of intent should interact).

40. *Id.*

41. *See* Sichelman, *supra* note 4, at 307 (arguing that in *Global-Tech*, the Supreme Court subverted Congress’s codification of the scienter requirements for induced infringement).

42. *See* Holbrook, *supra* note 4, at 400 (arguing that anti-competitiveness concerns support a more narrow standard for intent).

The U.S. Court of Appeals for the Federal Circuit and the Supreme Court have revisited the topic of inducement several times. However, clarity in the induced infringement analysis may have become harder, not easier, to achieve. In *Global-Tech Appliances, Inc. v. SEB S.A.*, the Supreme Court held that induced infringement required knowledge that the induced acts constituted patent infringement.⁴³ The Supreme Court also expanded the meaning of intent to include willful blindness.⁴⁴ Thus, a defendant could no longer deliberately shield themselves from facts that gave rise to knowledge of the patent at issue.⁴⁵

Recently in *Commil*, by a 6-2 vote, the Supreme Court overturned the Federal Circuit's previous holding that an accused inducer's good faith belief that the asserted patent was invalid could rebut an allegation of induced infringement.⁴⁶ This is significant because the Federal Circuit had already held in an earlier case that a good faith belief of non-infringement could also be a defense to induced infringement.⁴⁷ At the same time, the Court clarified that liability for inducement requires that the defendant specifically intend to cause infringing acts.⁴⁸ While the Supreme Court's resolution of the case provides some insight, Justice Scalia's dissent implied the Court's holding would negatively impact patent litigation—specifically, that it would empower the conduct of “patent trolls.”⁴⁹

Accordingly, given Congress' recent willingness to act on patent reform, several open issues remain. First, should the law of inducement require specific intent to infringe a patent claim but not allow a good faith belief of invalidity as a defense? Second, is there an alternative context in which to think about induced infringement? Finally, given the current legal tests, can we think about induced infringement in a way that will yield clear and consistent outcomes in patent infringement cases?

Given these questions, this paper makes several observations. The current interpretation of the intent required for a finding of induced infringement threatens to make patents that rely on

43. See *Global-Tech Appliances*, *supra* note 18.

44. See *id.*

45. See *id.* at 2070-2071 (“a willfully blind defendant is one who takes deliberate actions to avoid confirming a high probability of wrongdoing”).

46. See *Commil*, *supra* note 19.

47. See *Commil USA, LLC v. Cisco Sys., Inc.*, 720 F.3d 1361, 1367-68 (Fed. Cir. 2013).

48. *Commil*, *supra* note 19.

49. See *id.* at 1932 (Justice Scalia argues that eliminating the defense of a good faith belief of invalidity is advantageous for patent trolls).

inducement as an infringement theory almost unenforceable.⁵⁰ First, according to the Federal Circuit and Supreme Court, the alleged inducer must intend to cause infringement of the patent.⁵¹ Unfortunately for a patentee, proving whether a corporation intended to aid another corporation in infringing a patent is a difficult task.⁵² Second, the defense that an alleged inducer had a good faith belief that the patent is invalid may be revived in patent legislation as a policy necessary to combat patent trolls.⁵³

Taken together, the courts' newest rulings do not seem to follow Lemley's sliding scale model. Under the current standard, it is clear that liability for induced infringement requires the defendant to have knowledge of the patent and intend to aid in acts that constitute infringement or that the defendant (1) believes that facts exist relevant to inducement and (2) the defendant deliberately avoids learning those facts.⁵⁴

The chart below is a graphical representation of the change in the inducement standard (*see* Figure 2). In sum, the inducement inquiry is shifting to a conduct independent one—a vast difference from Lemley's sliding scale formulation—and an incredibly hard standard for patentees to meet.

50. *See* Sichelman, *supra* note 4, at 343.

51. *See* DSU, *supra* note 19; *see also* Commil, *supra* note 19 (holding that inducement requires proof that the defendant knew her acts were infringing).

52. *See* Rantanen, *supra* note 28, at 1610.

53. *See* Commil, *supra* note 19, at 1932 (Justice Scalia dissenting).

54. *See* Global-Tech, *supra* note 18.

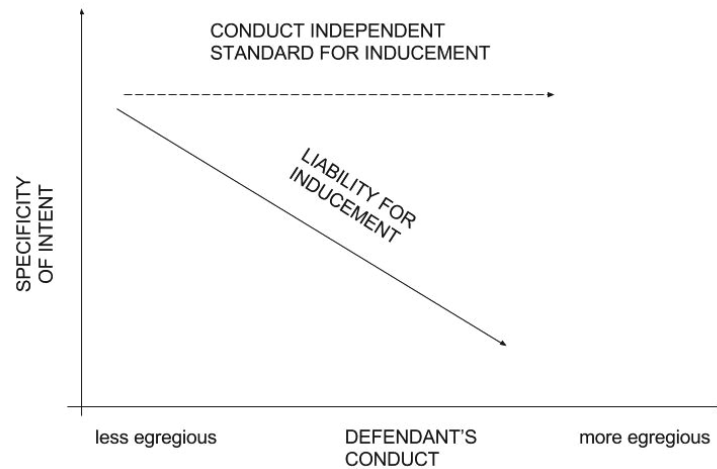


Figure 2

Three practical factors have emerged as relevant to induced patent infringement. First, the public desires a clear test that results in clear jury instructions.⁵⁵ Current jurisprudence makes it difficult for district courts to apply a clear legal test and provide juries with clear legal instructions. Second, current technology allows parties to be more interactive and collaborative which may have changed the way courts view conduct that might give rise to induced infringement.⁵⁶ Finally, the lack of clarity may diminish commercial participants' ability to forecast whether they might be susceptible to infringement liability, which in turn may hinder competition in growing technology areas.⁵⁷

In the context of the practical framework set forth above, this article makes two prescriptive proposals. First, instead of continuing to debate over the scienter required for inducement, courts and commentators should acknowledge conduct as an equally important element to the inducement inquiry. Second, the law should allow for consideration of the relationship between the parties involved in the alleged infringement—the accused inducer and direct infringer—as helpful evidence of conduct in the inducement inquiry.

55. See *infra* Part IV.A.2.; see also Commil, *supra* note 19, at 1929 (arguing in favor of eliminating the good faith belief defense in service of “orderly administration of the patent system”).

56. See *infra* Part IV.A.1.

57. See *infra* Part IV.A.3.

The fact that technology has become more collaborative fits nicely with the idea that the law should refocus its attention on the conduct of the parties and their relationship. Using conduct and the relationship between the parties as a guide helps define boundaries for inducement. The proposed balanced approach provides helpful benchmarks that induced patent infringement law desperately needs.

A detailed discussion of the issues outlined above will proceed as follows: Part I discusses several different technological innovations. How the courts interpret the law of induced patent infringement has a significant impact on patentees in these technology areas. Given that context, Part II briefly explains the origin of induced patent infringement. Part III summarizes existing viewpoints on inducement and illustrates how much of the discussion about inducement has been focused on understanding its intent requirement. Part IV consists of two sections. The first section suggests a practical framework for how judges, the legislature and policymakers should think about induced patent infringement. The second section argues that our understanding of induced patent infringement needs to be rebalanced by (1) resisting the urge to continue tinkering with the intent requirement and (2) focusing on the types of inducing conduct the law should discourage. As a part of this recalibration, a closer examination of the relationships between the accused inducer and direct infringer may also provide a way of analyzing induced infringement issues.

I. THE INNOVATION GAME AND INDUCED INFRINGEMENT

This part briefly summarizes some of the technologies that are affected by how induced patent infringement is interpreted and enforced.⁵⁸ These modern technologies did not exist in 1952 when Congress enacted the inducement statute.⁵⁹ Evidence suggests that there is a correlation between financial investment in technology and strong patent protection.⁶⁰ Accordingly, innovators in these interactive and collaborative technology areas stand to benefit from a clear inducement test that, in proper circumstances, allows them to enforce

58. Portions of Part I are adapted from my article: W. Keith Robinson, *Economic Theory, Divided Infringement and Enforcing Interactive Patents*, 67 FLA. L. REV. 1961 (2015).

59. See Josh Rychlinski, *Interactive Methods and Collaborative Performance: A New Future for Indirect Infringement*, 20 MICH. TELECOMM & TECH. L. REV. 215, 241 (2013).

60. Michael N. Rader, *Toward a Coherent Law of Inducement to Infringe: Why the Federal Circuit Should Adopt the Hewlett-Packard Standard for Intent Under § 271(b)*, 10 FED. CIR. B.J. 299, 330 (2001) (“Investment capital tends to flow away from industries in which patent protection is weakest 161 and flows instead to those industries in which it is strongest.”)

their patents against inducing third parties.

A. *The Internet of Things*

The IoT is an emerging field with numerous applications. It is a platform of objects connected via a complex network⁶¹ and has slowly grown as more smart devices become connected to the Internet.⁶² Bruce Sterling, a science fiction writer, popularized the idea of an IoT. His vision predicted that physical objects connected to the Internet would be traceable in space and time.⁶³ In 2010, for the first time in history, the number of connected devices outnumbered the number of humans.⁶⁴ In 2015, it was estimated that there was 25 billion connected devices as compared to only 7.2 billion people on the planet.⁶⁵ Technologies such as WiFi are allowing all these devices to be connected and share information.⁶⁶ Accordingly, Sterling's vision is close to becoming a reality.

Several IoT technology stakeholders exist. They include, but are not limited to, integrated circuit manufacturers, manufacturers of sensing equipment, network providers, system integrators, service providers in addition to customers and users of IoT services.⁶⁷ What makes this platform appealing to technology stakeholders is its potential to facilitate human interaction with smart devices such as wearable devices.⁶⁸

Generally, the IoT is defined as an “infrastructure of networked physical objects.”⁶⁹ This is a paradigm shift from the Internet Age technology.⁷⁰ Particularly, instead of simply facilitating human interaction, the IoT allows devices to interact with the physical environment, gather information from that environment and share it

61. Gerd Kortuem et al., *Smart Objects as Building Blocks for the Internet of Things*, IEEE INTERNET COMPUTING 44, 44 (2010).

62. See Bello & Zeadally, *supra* note 1.

63. Kortuem et al., *supra* note 61, at 48.

64. Bello & Zeadally, *supra* note 1 (stating that “By 2010, the number of devices connected to the Internet rose to 12.5 billion while the world’s population increased to 6.8 billion”).

65. *Id.*

66. *Id.*

67. Peng-fei Fan & Guang-zhao Zhou, *Analysis of the Business Model Innovation of the Technology of Internet of Things in Postal Logistics*, IEEE INTERNET COMPUTING 532, 532 (2011).

68. Kortuem et al., *supra* note 61, at 51.

69. *Id.* at 44.

70. Bello & Zeadally, *supra* note 1 (“Akin to how humans are the users of the Internet, devices (things) are the users of the IoT.”).

with other devices, people or environments.⁷¹ Technologies and equipment, in addition to the Internet, that provide the platform for the IoT includes smart devices, information processing equipment and device sensing equipment.⁷²

Smart objects, devices with sensing, processing and communication abilities, are the backbone of the IoT.⁷³ Smart objects can be used in nanotechnology, electromechanical systems or digital electronics.⁷⁴ These smart objects are connected via network systems that have both short and long-range capabilities.⁷⁵ Data captured by smart objects can be transmitted via the network and may also be stored using cloud computing applications.⁷⁶

The typical application of IoT technology requires smart objects to collect data and transmit that data to other devices or a central analysis object.⁷⁷ The smart objects are governed by policies that allow them to collaborate with other smart objects or humans.⁷⁸ Areas in which IoT technology could be deployed are almost limitless—transportation, finance, and health care are just a few examples.⁷⁹

Because of its possible application to many daily activities, the IoT is a tremendous growth area for innovation. New and innovative routing protocols are needed to allow smart objects to communicate in real-time.⁸⁰ Improvements need to be made in device-to-device communication.⁸¹ Further, there is an opportunity to create business models and business methods that will make use of the IoT platform in new and innovative ways.⁸² In sum, with the proliferation of connected devices, the IoT will affect every person in every walk of

71. *Id.*

72. Fan & Zhou, *supra* note 67 (“The Internet of Things which bases on the Internet, uses a variety of information sensing identification device and information processing equipment, such as RFID, GPS, GIS, JIT, EDI, and other devices to combine with the Internet to form an extensive network in order to achieve information and intelligence for Entity.”).

73. Kortuem et al., *supra* note 61, at 44 (examples of smart objects include smart phones, smart watches, tablets, thermostats, and vehicles).

74. *See* Bello & Zeadally, *supra* note 1.

75. *Id.* at 2

76. *Id.* at 2

77. *Id.* at 6.

78. *Id.*

79. Fan & Zhou, *supra* note 67, at 533.

80. Bello & Zeadally, *supra* note 1.

81. *Id.* at 3.

82. Fan & Zhou, *supra* note 67, at 536-37 (explaining that business models are needed to maximize the potential of the IoT in China).

life.⁸³

Stakeholders in IoT technology will most likely seek patents for their inventions.⁸⁴ Accordingly, induced infringement may be of primary concern to patentees because of the interactive and collaborative nature of IoT. However, the current interpretation of induced infringement makes it unclear to what extent IoT multi-participant patent claims could be enforced.

B. Personalized Medicine

Similar to the effect on IoT inventions, courts' induced infringement interpretation can have an impact on personalized medicine inventions. Personalized medicine is a relatively new field and includes a large number of small companies.⁸⁵ The stakeholders in personalized medicine technology include pharmaceutical, biotech and genetic companies, institutions and organizations. These groups are involved in the development of anything from therapeutic healthcare products to agricultural applications.⁸⁶

The field of personalized medicine relies on diagnostic tests.⁸⁷ Medical professionals use these tests to obtain information about a patient's molecular and genetic markers.⁸⁸ These markers reveal the risk of disease, the presence or absence of a disease, and what a patient's response will be to certain drug therapies.⁸⁹ Using this information, healthcare providers can provide patient-specific

83. *Id.* at 532.

84. Gene Quinn, *The Race to Dominate the Internet of Things*, IPWATCHDOG, <http://www.ipwatchdog.com/2015/02/15/the-race-to-dominate-the-internet-of-things/id=54698> (last visited Feb. 15, 2015).

85. See Corrected Brief of Amicus Curiae Myriad Genetics, Inc. in Support of Neither Party at vii Akamai Techs., Inc. v. Limelight Networks, Inc., 692 F.3d 1301 (Fed. Cir. 2012) (en banc) (per curiam), cert. granted, 134 S. Ct. 895 (U.S. Jan. 10 2014) (No.12-786) (2009-1372) 2011 WL 3281836; Amicus Curiae Brief of Biotechnology Industry Organization in Support of Neither Party at 1 Akamai Techs., Inc. v. Limelight Networks, Inc., 692 F.3d 1301 (Fed. Cir. 2012) (en banc) (per curiam), cert. granted, 134 S. Ct. 895 (U.S. Jan. 10 2014) (No.12-786) (2009-1372) 2011 WL 3101890.

86. Amicus Curiae Brief of Biotechnology Industry Organization in Support of Neither Party at 1 Akamai Techs., Inc. v. Limelight Networks, Inc., 692 F.3d 1301 (Fed. Cir. 2012) (en banc) (per curiam), cert. granted, 134 S. Ct. 895 (U.S. Jan. 10 2014) (No.12-786) (2009-1372) 2011 WL 3101890.

87. Corrected Brief of Amicus Curiae Myriad Genetics, Inc. in Support of Neither Party at 4 Akamai Techs., Inc. v. Limelight Networks, Inc., 692 F.3d 1301 (Fed. Cir. 2012) (en banc) (per curiam), cert. granted, 134 S. Ct. 895 (U.S. Jan. 10 2014) (No.12-786) (2009-1372) 2011 WL 3281836.

88. *Id.*

89. *Id.*

preventive care and treatment regimens that reduce healthcare costs.⁹⁰

To provide these personalized services, the healthcare industry has pushed to become more efficient and in doing so has developed interactive systems and methods.⁹¹ For example, it may be more efficient for one entity to perform the diagnostic testing and another entity to correlate a detected marker with a disease or drug treatment.⁹² Further, methods for treatment or drug delivery may require the participation of multiple healthcare providers and patients.⁹³

Infringement under §271(b) is of particular interest to personalized medicine because “[t]he steps of biotechnology method patents are often capable of being practiced by separate entities.”⁹⁴ Further, it is extremely time consuming and costly to develop personalized medicine applications.⁹⁵ Generally, this large investment of time and money can only be protected by claims covering the diagnostic and correlation processes of a personalized medicine product.⁹⁶ Personalized medicine stakeholders continue to develop novel and interactive methods for diagnosing and treating medical conditions.⁹⁷ Accordingly, an interpretation of induced infringement that is not sensitive to the personalized medicine industry could devalue several patents and reduce the incentive to invest in expensive and time-consuming research.⁹⁸

C. Software and the Internet

The Internet created a unique set of challenges with respect to patents. In addition to creating a way in which millions of people could communicate, it also created an environment where users, by themselves or in conjunction with companies, could infringe a

90. *Id.* at 6 (the *Prolans*® test diagnoses a prostate tumor and correlates that diagnostic information with a patient to help healthcare providers decide how to treat prostate cancer).

91. Brief of Amicus Curiae Pharmaceutical Research and Manufacturers of America on Rehearing En Banc in Support of Neither Party at 5 *Akamai Techs., Inc. v. Limelight Networks, Inc.*, 692 F.3d 1301 (Fed. Cir. 2012) (en banc) (per curiam), cert. granted, 134 S. Ct. 895 (U.S. Jan. 10 2014) (No.12-786) (2010-1291) 2011 WL 3101831.

92. Myriad Genetics, *supra* note 87, at vii.

93. Biotechnology Industry, *supra* note 86, at 8.

94. *Id.* (citing Kling, *Diagnosis or Drug? Will Pharmaceutical Companies or Diagnostics Manufacturers Earn More from Personalized Medicine?*, 8 EMBO REP. 903 (2007)).

95. Myriad Genetics, *supra* note 87, at 8-9.

96. *Id.* at 1-2.

97. Pharmaceutical Research, *supra* note 91, at 2.

98. *Id.* at 3.

patent.⁹⁹ Indirect infringement is seen as the only way to fairly enforce Internet Age patents because it allows enforcement of interactive patents without imposing liability on innocent actors.¹⁰⁰

Another challenge for patent holders of inventions related to the Internet is that they most likely involve software. Software developers can be found liable for inducement if their customers use their programs in a way that directly infringes a patent.¹⁰¹ Accordingly, developers “must be aware that their sales, marketing, or advertising activities must not promote, or encourage their customers to use the product in an infringing process, lest they be found to be inducing infringers.”¹⁰²

Internet Age inventions can be characterized as inventions that make use of the Internet and its associated technologies. Most of these Internet applications necessitate the participation of multiple participants. Some specific applications of Internet Age technology include wireless technology¹⁰³, Internet retail¹⁰⁴, and financial services.¹⁰⁵ These industries have exploded in the last decade. Internet retail use continues to grow in the U.S. with approximately 192 million users visiting 13 retail sites per month.¹⁰⁶ The financial services industry provides banking services to consumers¹⁰⁷ who may buy or sell goods using an Internet retailer.¹⁰⁸ Financial services work globally to facilitate an estimated 10,000 transactions per second quickly and in a secure manner.¹⁰⁹

Growth in demand for financial services and Internet retail has been driven by the innovation and explosive growth in the wireless

99. See Rychlinski, *supra* note 59, at 225.

100. *Id.*

101. See Erwin Basinski, *Some Comments on Contributory and Induced Patent Infringement: Implications for Software Developers*, 81 J. PAT. & TRADEMARK OFF. SOC’Y 777 (1999).

102. *Id.* at 786-87.

103. Brief of Ctia—the Wireless Association® and MetroPCS Wireless, Inc. at 2 *McKesson Techs. Inc. v. Epic Systems Corp.*, 2011 WL 4071472.

104. Amici Curiae Internet Retailers’ Brief in Support of Defendant/Cross-Appellant’s En Banc Response Brief at 2, *Akamai Techs., Inc. v. Limelight Networks, Inc.*, 692 F.3d 1301 (Fed. Cir. 2012) (Nos. 2009-1372, 2009-1380, 2009-1416, 2009-1417) 2011 WL 3796786.

105. Brief of Amicus Curiae the Financial Services Roundtable in Support of Limelight Networks, Inc. and Affirmance at 3, *Akamai Techs., Inc. v. Limelight Networks, Inc.*, 692 F.3d 1301 (Fed. Cir. 2012) (Nos. 2009-1372, 2009-1380, 2009-1416, 2009-1417) 2011 WL 7730148.

106. *Id.* at 6.

107. *Id.*

108. Internet Retailers, *supra* note 104.

109. Financial Services Roundtable, *supra* note 105, at 4.

industry.¹¹⁰ The most mobile Internet users live in the U.S.¹¹¹ “Apps,” or applications that run on smart mobile devices have also contributed to the growth of the wireless industry. The revenue generated from mobile app sales was projected to increase 190% and surpass 15.1 billion dollars in 2011.¹¹²

Accordingly, the global economy has become dependent upon this interconnected system of wireless devices, Internet storefronts and financial services.¹¹³ Different companies and different systems must interact to provide consumers with services that they have come to expect.¹¹⁴ For example, a credit card transaction can involve six or more participants.¹¹⁵ Therefore, different companies in different technology areas may partner to provide connected web services.¹¹⁶ Partnering is more efficient for these companies and allows them to specialize, which can result in higher quality service.¹¹⁷

Due in part to the innovative partnerships taking place in this area, Internet Age companies are targets of an increasing number of patent infringement lawsuits.¹¹⁸ For example, wireless carriers may be sued based on methods that make use of their network.¹¹⁹ Internet retailers are also sued for patent infringement “based in part on the activities of their customers in visiting their websites.”¹²⁰ These lawsuits commonly rely on a theory of induced infringement. Accordingly, due to the interactive nature of Internet Age technology, the issue of induced infringement is of deep concern to Internet Age industry companies. The next section discusses induced infringement

110. Ctia, *supra* note 103, at 3 (“Advances in wireless technology have enabled explosive innovation in the last decade. Ten years ago, consumers used cell phones almost exclusively to make voice calls. Five years later, they were texting, sharing pictures, and surfing the Internet.”).

111. *Id.* at 5 (stating that 234 million or more Americans use mobile devices).

112. *Id.* at 4.

113. Financial Services Roundtable, *supra* note 105, at 4.

114. Ctia, *supra* note 103, at 3.

115. Financial Services Roundtable, *supra* note 105.

116. Ctia, *supra* note 103, at 5 (“A good example is Sprint’s partnership with Google and others to launch the Google Wallet app earlier this spring. This app provides a ‘wave and pay’ service through which consumers can pay at stores by simply waving their phones over a scanner. The phones use a near field communications (‘NFC’) chip to communicate with the scanner. The service involved not only Google, but also Samsung (which incorporated the NFC chip in the phone), credit powerhouses Citi and MasterCard, merchant processing provider First Data, and Sprint to provide the necessary network connection.”).

117. *Id.*

118. Financial Services Roundtable, *supra* note 105, at 12.

119. Ctia, *supra* note 103, at 6.

120. Internet Retailers, *supra* note 104.

and details the debate about how courts should apply the law.

II. MOVING THE PAWN—INDIRECT INFRINGEMENT

This part provides an explanation of induced patent infringement. It begins with a brief discussion of the historical development of inducement. In 1952, Congress defined how a patent could be indirectly infringed by enacting sections 35 U.S.C. § 271 (b) and (c). Both sections (b) and (c) codified pre-1952 case law concerning indirect infringement.¹²¹ In the last two decades, the Federal Circuit and Supreme Court have attempted to clarify the law of induced patent infringement.

A. Indirect Infringement

To understand indirect infringement, it is helpful to understand what constitutes direct infringement. Direct infringement is defined under 35 U.S.C. § 271(a) as “whoever without authority makes, uses, offers to sell, or sells any patented invention, within the United States or imports into the United States any patented invention during the term of the patent therefor, infringes the patent.” Direct infringement is determined by first properly construing the asserted patent claims and then comparing the claims to the accused process or device.¹²² If the accused process literally meets each and every claim limitation or its substantial equivalent then the claim is directly infringed.¹²³

Direct infringement is a strict liability tort. Accordingly, the motives of the direct infringer—whether she made a mistake, lacked knowledge of the patent, etc.—are irrelevant to the determination of liability.¹²⁴ Because of the strict liability imposed by direct infringement, one commentator has warned against judicially expanding the concept of direct infringement to cover other conduct that is not considered direct infringement.¹²⁵

Instead, the law evaluates other activity that may be infringing

121. See CHISUM, *supra* note 16, at § 17.04[3].

122. See Rader, *supra* note 60, at 302.

123. See *id.* at 303 (“Literal infringement requires that the accused device or process meet each and every limitation in the patent claim. If the accused device or process meets all but one of the limitations in the claim, there is no infringement”).

124. Kumar, *supra* note 29, at 733; See also Brief for the United States as Amicus Curiae Supporting Petitioner at 11, *Commil USA, LLC v. Cisco Sys. Inc.*, 135 S. Ct. 1920 (2015) (No. 13-896) 2015 WL 349827 (“Under Section 271(a), a ‘direct infringer’s knowledge of intent is irrelevant’ to liability. *Global-Tech Appliances, Inc. v. SEB S.A.*, 131 S. Ct. 2060, 2065 n.2 (2011).”).

125. See Rychlinski, *supra* note 59, at 229.

under an indirect infringement theory.¹²⁶ “Indirect infringement has long been understood as the principle of joint tortfeasance applied to the enforcement of patent rights.”¹²⁷ These joint tortfeasors can include those who supply components that contribute to the creation of an infringing device or those who encourage another to directly infringe a patent.¹²⁸

An important right conferred with a patent is the capability of enforcing the patent against indirect infringers.¹²⁹ The purpose of indirect infringement as a cause of action “is to provide a remedy for patent holders when it is impossible or inefficient for them to sue direct infringers, and to deter parties from engaging in behavior that may result in the infringement of a patent.”¹³⁰ For example, in some cases the direct infringer is a purchaser or user who is judgment proof or a future consumer.¹³¹ Therefore, it is economically and commercially infeasible for the patent owner to sue this type of consumer for direct infringement.¹³² However, the party who encouraged or aided in the direct infringement may be more culpable than the end consumer and direct infringer.¹³³

Because of the nature of a cause of action under indirect infringement, certain scienter standards must be met by the indirect infringer to support a finding of liability. The scienter standard codified in the statute is based on historical precedent.¹³⁴ While ambiguous on its face, the Supreme Court has held that liability under both 271(b)¹³⁵ and (c)¹³⁶ require that the accused direct infringer have

126. A cause of action for indirect infringement is set forth in 35 U.S.C. § 271(b) and (c).

127. See Kumar, *supra* note 29, at 729.

128. See Rader, *supra* note 60, at 299; see Sichelman, *supra* note 4, at 321 (“The Patent Act of 1952 codified the historical precedents in sections 271(b) and 271(c)”); see also Basinski, *supra* note 101, at 778 (explaining that section 271 was created to clarify patent misuse).

129. See Rader, *supra* note 60, at 300.

130. See Rantanen, *supra* note 28, at 1591; see also Lemley, *supra* note 4, at 228 (“The goal of secondary liability is to give patent owners effective protection in circumstances in which the actual infringer either is not the truly responsible party or is impractical to sue.”).

131. Odin B. Roberts, *Contributory Infringement of Patent Rights*, 12 HARV. L. REV. 35, 39 (1898).

132. See Rader, *supra* note 60, at 306.

133. See Lemley, *supra* note 4, at 226.

134. See Sichelman, *supra* note 4, at 309 (“courts have read both indirect infringement provisions as including scienter thresholds”).

135. Whoever actively induces infringement of a patent shall be liable as an infringer. 35 U.S.C. § 271(b).

136. Whoever offers to sell or sells within the United States or imports into the United States a component of a patented machine, manufacture, combination or composition, or a material or apparatus for use in practicing a patented process, constituting a material part of the

had knowledge of the patent.¹³⁷ Further, commentators and the Supreme Court have characterized inducement as having an even greater scienter requirement than contributory infringement because liability under section 271(b) also requires that the alleged inducer have intended to cause the infringement.¹³⁸

As mentioned above, the law characterizes indirectly infringing activities as either inducement or contributory infringement.¹³⁹ Contributory infringement generally concerns selling or providing a component that is then used to infringe a patent.¹⁴⁰ To provide context and contrast for this article's discussion of inducement, the subsection below briefly discusses contributory infringement.

B. Contributory Infringement

Contributory infringement is defined in 35 U.S.C. § 271(c). In contrast to the inducement statute, 35 U.S.C. § 271(c) defines the conduct that could subject an alleged contributory infringer to liability in detail. For example, the statute specifies that the selling or importation of a component of a patented item or for use in a patented process is contributory infringement if the component constitutes a material part of the invention and is not a staple article of commerce.¹⁴¹ Further, the alleged infringer is required to know that the component was especially made or adapted for use in infringing the asserted patent.¹⁴²

The concept of contributory infringement was fleshed out at common law well before it was codified in the 1952 patent act. In *Wallace v. Holmes*, a court held, for the first time, that a defendant could be liable for infringement by supplying a component for use in an infringing device.¹⁴³ The patent at issue covered a 19th century lamp which included a burner and a chimney. The defendants only made and sold the burner, which had no other use than to be

invention, knowing the same to be especially made or especially adapted for use in an infringement of such patent, and not a staple article or commodity of commerce suitable for substantial noninfringing use, shall be liable as a contributory infringer. 35 U.S.C. § 271(c).

137. See Sichelman, *supra* note 4, at 309.

138. See *id.* at 341; see also Commil, *supra* note 19 (clarifying that liability for inducement requires proof that the defendant knew her acts infringed the asserted patent).

139. See *id.* at 309 (“Contributory infringement and inducement of infringement fall under the general rubric known as ‘indirect infringement.’”).

140. See Lemley, *supra* note 4, at 227.

141. See 35 U.S.C. § 271(c).

142. *Id.*

143. See generally *Wallace v. Holmes*, 29 F. Cas. 74 (C.C.D. Conn. 1871).

combined with a chimney.¹⁴⁴ Customers purchased the burner and combined it with a chimney, the combination of which infringed the asserted patent.¹⁴⁵

While the court stated that simply selling the burner was not infringement, it nevertheless held the defendants liable for aiding and abetting infringement of the patent.¹⁴⁶ One reason the defendants were found to be liable was because they had the intent to make the burner so that it would be combined with a component supplied by consumers.¹⁴⁷ However, as one commentator has argued it is questionable whether the court in *Wallace* also required knowledge of the patent.¹⁴⁸

Later courts have fleshed out the scienter requirements for contributory infringement. Liability for contributory infringement now requires an examination of the alleged contributory infringer's knowledge and intent.¹⁴⁹ In *Aro Mfg. Co. v. Convertible Top Replacement Co., Aro II*, the Supreme Court determined that for there to be liability for contributory infringement, the defendant must have known about the patent and by their actions, intended to infringe the patent.¹⁵⁰ That is, the defendant had to have had the intent to cause the actual infringement.¹⁵¹

While contributory infringement is designed as an alternative way in which a patentee can enforce their patent rights, the concept of contributory infringement does present some interesting challenges. Most of the technology that is the subject of complex Internet Age patents had yet be conceived when both *Wallace* and later in *Aro II* occurred.¹⁵² Further, Internet Age technology did not exist in the

144. See *id.* at 79; see also Rader, *supra* note 60, at 305 (“Contributory infringement was Congress’s response to the problem of *Wallace v. Holmes*, in which the intent of the defendant to infringe is manifest from the fact that the product sold has no substantial non-infringing uses.”).

145. See *Wallace*, *supra* note 143, at 79.

146. See *id.*; see Rantanen, *supra* note 28, at 1593.

147. See *Wallace*, *supra* note 143; Roberts, *supra* note 131, at 37.

148. See Sichelman, *supra* note 4, at 313 (“Although the *Wallace* court’s test might casually be read to require knowledge of the patent, the court held that scienter turned on the ‘certain knowledge that such burners are to be used, as they can only be used, by the addition of a chimney.’”).

149. *DSU*, *supra* note 19 (“[I]nducement requires that the alleged infringer knowingly induced infringement and possessed specific intent to encourage another’s infringement.”).

150. See *Aro Mfg. Co. v. Convertible Top Replacement Co.*, 377 U.S. 476, 525 (1964); see Rychlinski, *supra* note 59, 221.

151. See *Holbrook*, *supra* note 4, at 408.

152. See Rychlinski, *supra* note 59.

1950s when Congress wrote the statute. Thus, as one commentator has argued, the statute seems “ill-equipped” to handle modern day technologies.¹⁵³

In contrast to contributory infringement, induced infringement is much broader. It encompasses any behavior where one party encourages or assists another to directly infringe a patent.¹⁵⁴ However, as discussed in the next section, that breadth has led to difficulty in interpreting its requirements.

C. Induced Infringement

Theoretically, any conduct that is not captured by contributory infringement that was actionable before 1952 is now covered by inducement under 35 U.S.C. § 271(b).¹⁵⁵ Induced infringement imposes liability on an actor who causes another to directly infringe a patent.¹⁵⁶ Examples of inducement can include providing advice or instructions that assists in direct infringement, repairing infringing devices or otherwise controlling another’s infringing activities.¹⁵⁷ The plaintiff must show (1) that the induced conduct constitutes direct infringement and (2) that the defendant had the requisite intent.¹⁵⁸ The requisite intent includes a showing that the defendant had knowledge of the patent or was willfully blind to its existence and intended to cause the infringement of the patent.¹⁵⁹

The primary purpose of inducement is to provide a mechanism for a patent holder to enforce her patent against third parties that the law has deemed should be liable for causing infringement of the asserted patent.¹⁶⁰ The broad language of the inducement statute even has the power to impose liability on the seller of a component with substantially non-infringing uses.¹⁶¹ That is, inducement can be

153. *Id.*

154. See Sichelman, *supra* note 4, at 308.

155. *Section 271(b) of the Patent Act of 1952: Confusion Codified*, 66 YALE L.J. 132, 139 (1956-1957) (hereinafter “Confusion Codified”); see Rantanen, *supra* note 28, at 1598 (explaining that 271(b) is open-ended language that covers various activities).

156. See Lemley, *supra* note 4, at 228 (defining induce as causing a person to do something he would not have done otherwise); Kumar, *supra* note 29, at 748 (“In 1952, the term ‘induce’ meant ‘[t]o lead on; to influence; to prevail on; to move by persuasion or influence.’ In the context of the Patent Act, the adverb ‘actively’ suggests ‘the inducement must involve the taking of affirmative steps to bring about the desired result.’”).

157. *Confusion Codified*, *supra* note 155; see Rantanen, *supra* note 28, at 1598.

158. See Rader, *supra* note 60, at 308.

159. See Global-Tech, *supra* note 18.

160. See Rader, *supra* note 60, at 306-07.

161. See Rader, *supra* note 60, at 305.

viewed as a “catchall” provision that captures activities that contributory infringement does not.¹⁶² Further, inducement allows a plaintiff to recover against someone other than direct infringers that may be difficult to sue and judgment proof.¹⁶³

It is well settled that liability for inducement cannot be imposed without a finding of direct infringement.¹⁶⁴ Thus, inducement involves two actors—an inducer and a direct infringer.¹⁶⁵ For example, in *Luten v. Town of Lee* the court stated that direct infringement must have occurred for there to be inducement.¹⁶⁶ In that case, there was no finding of inducement because actual direct infringement did not occur.¹⁶⁷ One commentator has concluded that inducement is hard to prove because a plaintiff must show that direct infringement occurred and in addition, must show that the defendant had the requisite intent and knowledge of the patent.¹⁶⁸

Although the language of the inducement statute is considerably shorter than that of contributory infringement, several difficult questions about how the law should interpret § 271(b) exist.¹⁶⁹

162. See Rantanen, *supra* note 28, at 1596.

163. See Holbrook, *supra* note 4, at 400.

164. See, e.g., DSU, *supra* note 19, at 1303 (“[T]he patentee always has the burden to show direct infringement for each instance of indirect infringement.”). See CHISUM, *supra* note 16, at § 17.04[1] (“In *Limelight Networks, Inc. v. Akamai* (2014), the Supreme Court confirmed that a person may not “be liable for inducing infringement of a patent under 35 U. S. C. § 271(b) when no one has directly infringed the patent under § 271(a) or any other statutory provision; liability for inducement under Section 271(b) depends on a showing that the conduct being induced constitutes direct infringement”); Charles Miller, *Some Views on the Law of Patent Infringement by Inducement*, 53 J. PAT. OFF. SOC’Y 86, 102 (1971) (“Liability under 35 U.S.C. 271(b) requires the existence of direct infringement by another party which is actionable under 35 U.S.C. 271(a)”).

165. Basinski, *supra* note 101, at 778.

166. See *Luten v. Town of Lee*, 206 F. 904 (D. Mass. 1913); see also Miller, *supra* note 164, at 104; see also Basinski, *supra* note 101, at 778 (“It is important to understand that, without “direct infringement of the patent claims there can be neither contributory infringement . . . nor inducement of infringement.”).

167. See Miller, *supra* note 164, at 103 (explaining that direct infringement, existing or threatened, is a prerequisite to a finding of induced infringement).

168. See Gary N. Frischling, Miriam Bitton, *Grokking Grokster: Has the Supreme Court Changed Inducement Under Patent Law?*, 34 AIPLA Q.J. 265, 273 (Summer, 2006); see also *Confusion Codified*, *supra* note 155 at 140 (“the patentee suing under paragraph (b) must prove that defendant’s conduct actually culminated in a direct infringement by a third party, and that defendant intended this result. Even with this guide, however, it will often be difficult, particularly with reference to paragraph (b), to determine whether defendant’s conduct violates the statute.”).

169. See Lemley, *supra* note 4, at 226 (“despite the venerable nature of inducement in patent law, the actual requirements for inducement liability have remained something of a mystery.”).

Section 271(b) is ambiguous and thus has been interpreted both broadly and narrowly.¹⁷⁰ These varying interpretations are an attempt to balance the idea of deterring infringing conduct against the use of patents to stifle competition.¹⁷¹

Specifically, there continues to be some debate about what the law requires regarding the intent and knowledge of the inducer.¹⁷² These issues go to a broader question of how involved the law requires an inducer to be in the infringement of the asserted patent.¹⁷³ The Supreme Court has held that both inducement and contributory infringement require that the defendant have knowledge of the asserted patent.¹⁷⁴ Further, a plaintiff must show that the defendant possessed specific intent to encourage infringement.¹⁷⁵ Part of that difficulty has been that in some instances the law requires an inquiry into the state of mind of a corporation.¹⁷⁶

D. Knowledge of the Patent and Induced Infringement

In order to succeed in a cause of action for induced infringement a plaintiff must show that the defendant knew about the asserted patent.¹⁷⁷ In *Aro II*, a contributory infringement case, the Supreme Court stated that liability for contributory infringement required the defendant to have knowledge of the patent.¹⁷⁸ Later in *Global-Tech*, an inducement case, the Supreme Court stated that since contributory infringement and inducement have the same origin, the same knowledge requirement must also apply to inducement.¹⁷⁹ One policy rationale for the knowledge requirement is that it limits liability to a specific set of defendants—thus, allowing some limited enforcement of the patent without stifling competition in a particular industry.¹⁸⁰

Proponents of the knowledge requirement have found historical support for the proposition in pre-1952 case law and the legislative

170. Confusion Codified, *supra* note 155, at 138; *see also* Rychlinski, *supra* note, 59 at 220 (“§ 271(b) has been under attack since its very enactment. Some wrote that the section is merely a nebulous statute which will create difficulties with deciding which activities violate the statute. Others believed that it would ‘produce new interpretative problems.’”).

171. *See* Rantanen, *supra* note 28, at 1591.

172. *See* Lemley, *supra* note 4, at 226.

173. *See id.* at 231.

174. *See* *Global-Tech*, *supra* note 18; *see also* Rychlinski, *supra* note 59, at 222.

175. *See* Holbrook, *supra* note 4, at 1578.

176. *See* Rantanen, *supra* note 28, at 1610.

177. *See* *Global-Tech*, *supra* note 18, at 2068.

178. *See* *Aro Mfg.*, *supra* note 150.

179. *See* *Global-Tech*, *supra* note 18, at 2067.

180. Kumar, *supra* note 29, at 730.

history of the 1952 act.¹⁸¹ *A.B. Dick* is one of the earliest cases that indicates that the defendant must have had knowledge of the patent in order to be liable for indirect infringement.¹⁸² One rationale for this view is that it would relieve the pressure placed on manufacturers and purchasers of unpatented components.¹⁸³ In other words, they would not be liable for infringement unless they had knowledge of an asserted patent. Donald Chisum also endorses the knowledge requirement and argues that pre-1952 cases required a showing of knowledge and intent—especially in cases that today would be considered inducement cases.¹⁸⁴

Despite the Supreme Court's interpretation of the statute as requiring knowledge of the patent, several commentators have argued that there are crucial disadvantages. One commentator has argued that there are a number of alleged infringers that have no knowledge of the asserted patent at the beginning of the lawsuit.¹⁸⁵ Further, the inquiry into what an infringer—an individual or a corporation—knew could be too complicated an undertaking for a court.¹⁸⁶

There is also some historical support for the argument that the scienter requirement for section 271(b) should not require knowledge of the patent.¹⁸⁷ Specifically, pre-1952 cases did not require a showing of knowledge of the patent for a finding of indirect infringement.¹⁸⁸ For example, one commentator interprets *Wallace v. Holmes* as not requiring knowledge of the patent.¹⁸⁹ Instead, he argues that the only knowledge required of the defendant by the *Wallace* court was the specific intent that the burners could be used with chimneys.¹⁹⁰

Professor Sichelman noted that several cases that cite the *Wallace* decision do not require the alleged defendant to have had

181. See *id.* at 735-41, 750-55.

182. See Sichelman, *supra* note 4, at 319; see also Kumar, *supra* note 29 (explaining that the court's statement makes knowledge a sufficient condition to find liability but not a necessary condition).

183. See Sichelman, *supra* note 4, at 329.

184. See CHISUM, *supra* note 16, at §17.04[1].

185. See Sichelman, *supra* note 4, at 310.

186. See Kumar, *supra* note 29, at 743 (proposing an objective standard for the mental state inquiry in order to determine inducement liability).

187. For a lengthy discussion see Sichelman, *supra* note 4.

188. See Sichelman, *supra* note 4, at 322; Kumar, *supra* note 29, at 730 (“But careful analysis of eighty years of precedent prior to the 1952 Act suggests courts did not require knowledge of the infringed patent to prove liability.”)

189. See Sichelman, *supra* note 4, at 313.

190. See *id.* at 313-314.

knowledge of the patent.¹⁹¹ Further, another article that is cited in the *Global-Tech* case also emphasized that in many 19th century cases, knowledge of the patent was not relevant.¹⁹² Sichelman also argued that there is no support in the legislative history of the 1952 act for the requirement that there must be knowledge of the patent under 271(b) and (c).¹⁹³

In further support of the argument that Congress did not intend to import a knowledge requirement into the statute, the testimony of then Judge Giles Rich is often cited.¹⁹⁴ Judge Rich stated that to knowingly sell a component of a patented machine did not mean that the seller had to know the machine itself was patented.¹⁹⁵

There are some benefits to interpreting 271 (b) as not requiring knowledge.¹⁹⁶ One commentator has argued that Congress did not intend for ignorance of a patent to excuse alleged infringers from liability.¹⁹⁷ Published patents are publicly available and therefore provide constructive notice of the patented invention.¹⁹⁸ Further, requiring knowledge of the patent makes inducement harder to prove and thus, those patents susceptible to induced infringement harder to enforce.¹⁹⁹ This higher bar for patent enforcement may in turn discourage corporations from investing in patent technologies particularly susceptible to induced infringement.²⁰⁰

III. CONFLICTING INTERPRETATIONS OF INTENT

In its *Commil* decision, the Supreme Court clarified that in addition to knowledge of the patent, liability for inducement required proof that the defendant knew her acts constituted infringement of the asserted patent.²⁰¹ Prior to this decision, there was an ongoing debate about the level of intent required to prove induced infringement. Specifically, whether an alleged inducer must (1) have intent to cause the acts that lead to infringement or (2) have intent to cause

191. *See id.* at 315.

192. *See id.* at 316.

193. *See id.* at 321.

194. *See, e.g.,* Sichelman, *supra* note 4, at 322.

195. *See id.* at 327.

196. For a lengthy discussion *see generally* Sichelman, *supra* note 4.

197. *See* Kumar, *supra* note 29, at 731.

198. *See id.* at 753.

199. *See id.* at 756.

200. *Id.*

201. *See* *Commil*, *supra* note 19 (clarifying that liability for inducement requires proof that the defendant knew her acts infringed the asserted patent).

infringement. While settled at the judicial level, these views along with the question of whether a good faith belief that a patent is invalid should be a defense to induced infringement could gain new life in patent reform proposals or future legal challenges. For that reason, this part analyzes the various views concerning the intent requirement for induced infringement. Further, it suggests that the current trend in induced infringement analysis places too much emphasis on the question of intent.

A. Intent Generally

One of the key requirements that sets indirect infringement apart from direct infringement is that liability for indirect infringement has a scienter requirement.²⁰² The intent of the third party infringer is a key element in a cause of action under both contributory infringement and inducement, because absent intent, the conduct itself would not be actionable.²⁰³ Sections 271(b) and (c) codify pre-1952 case law with respect to the requisite intent.²⁰⁴ Section 271(c) implies an alleged contributory infringer's intent by specifying that a subject component must not have any substantial non-infringing use—concluding that the only reason for selling such a component would be for use in an infringing product.²⁰⁵ Similarly, evidence of intent is a required element of any claim under inducement.²⁰⁶

Historically, intent was evidenced by the conduct or actions of the alleged indirect infringer.²⁰⁷ For example, in *Thomas-Houston Electric Co. v. Kelsey Electric Railway Specialty Co.*, the court identified the defendant's "willingness to sell to people it knew might be infringing and even those who might or might not be" as sufficient evidence of intent.²⁰⁸ Similarly, in *Wallace*, the defendant's actions—manufacturing a burner only for use with a user supplied chimney—were intentional and thus exposed the defendant to liability.²⁰⁹

The first Supreme Court case after 1952 to address inducement

202. *See, id.*

203. Roberts, *supra* note 131, at 37 ("The infringement of patent rights is a tort; here there is an instance where the intent of a factor makes an act which in itself is innocent, a tort.").

204. *See* Rader, *supra* note 60, at 312.

205. *Id.*

206. *See id.*

207. *See* Lemley, *supra* note 4, at 227.

208. *See* Lemley, *supra* note 4, at 236; *see also* Thomson-Houston Elec. Co. v. Kelsey Elec. Ry. Specialty Co., 75 F. 1005 (2d Cir. 1896).

209. *See* Wallace, *supra* note 143.

under 271(b) was *Global-Tech*.²¹⁰ In this case, the Federal Circuit had previously held that induced infringement required that the alleged infringer have knowledge of the patent and know that his actions would induce infringement.²¹¹ On appeal, the question presented to the Supreme Court was whether an inducer must “know that the induced acts constitute patent infringement.”²¹²

The Supreme Court clarified that knowledge of the patent that was infringed or willful blindness of that fact was required for a showing of inducement.²¹³ The knowledge requirement already existed for 271(c), thus the Court reasoned it was logical that the same *mens rea* requirement also be applicable to 271(b) since both provisions were derived from similar common law.²¹⁴

Several commentators have criticized the Supreme Court’s holding concerning the knowledge requirement for inducement.²¹⁵ One commentator argues that the Court misread the 1952 Patent Act.²¹⁶ Specifically, it is argued that there is no evidence that Congress intended to modify the *mens rea* requirement for indirect infringement from what it was before 1952.²¹⁷ A further argument is that the *Global-Tech* test is so strict as to make inducement an incredibly high bar to meet.²¹⁸

Despite its attempt to clarify the knowledge requirement, the *Global-Tech* court left unresolved the question of what degree of intent is required for inducement liability.²¹⁹ Specifically, the Court stated only that some intent was required.²²⁰ However, in *Global-Tech*, the Supreme Court did not “clearly resolve whether the defendant must additionally possess actual knowledge that the induced conduct constitutes infringement.”²²¹ One commentator has asserted that the holding in *Global-Tech* created a rule where a court

210. See *Global-Tech*, *supra* note 18.

211. *Id.*

212. *See id.*

213. *See id.*

214. See Sichelman, *supra* note 4, at 339; See Rychlinski, *supra* note 59, at 222 (“[T]he Supreme Court concluded in 2011 that § 271(b) imposes the same *mens rea* requirement as § 271(c).”); see also CHISUM, *supra* note 16, at 17.04[2].

215. See, e.g., Sichelman, *supra* note 4, at 307.

216. See Sichelman, *supra* note 4, at 331.

217. *See id.* at 340.

218. *See id.* at 310, 343.

219. See United States, *supra* note 124, at 9-10 (explaining that resolving the *Global-Tech* case did not require the Court to decide between two views of 271(b)).

220. *See id.* at 2; *Global-Tech*, *supra* note 18, at 2065, 2068.

221. See United States, *supra* note 124, at 9.

must weigh evidence regarding the intent of the alleged inducer without providing any benchmarks to make such a determination.²²²

Accordingly, several commentators have called for the judiciary to clarify the intent requirement.²²³ The text of the statute is silent on intent.²²⁴ Further, some commentators believe that the Federal Circuit has failed to clarify what type of intent is required for a finding of inducement under 271(b).²²⁵

The issue is whether section 271(b) requires the alleged infringer to generally intend to induce the acts that led to infringement or to specifically intend to induce the infringement itself.²²⁶ Another way to state the latter test is to ask whether the defendant knew and intended for the induced party to infringe the asserted patent.²²⁷ The Federal Circuit generated the initial controversy by issuing two opinions that used two different standards for assessing the type of intent required for inducement liability.²²⁸ Supposedly, this controversy was addressed in a subsequent Federal Circuit opinion.²²⁹ In *DSU*, the Federal Circuit sitting *en banc* held that liability under 271(b) required a showing of specific intent to cause infringement.²³⁰ However, even after the *DSU* decision, commentators have called for further revision of the intent requirement in the name of clarity.²³¹

One place commentators have looked to for clarity is the Supreme Court. The resolution of the issues in *Global-Tech* did not require the Supreme Court to address what type of intent is required under 271(b).²³² In response, the Court's decision in *Commil*—at the suggestion of the Solicitor General²³³—makes clear that liability for inducement requires (1) knowledge of the patent and (2) knowledge

222. See Frischling et al., *supra* note 168, at 284.

223. See Rader, *supra* note 60, at 300.

224. See *id.* at 311.

225. See *id.* at 300; At one point even the Federal Circuit itself acknowledged there was a lack of clarity. *Insituform Technologies, Inc. v. Cat Contracting, Inc.*, 385 F.3d 1360, 1378 (Fed. Cir. 2004).

226. See Holbrook, *supra* note 4, at 404; Tal Kedem, *Secondary Liability for Actively Inducing Patent Infringement: Which Intentions Pave the Road*, 48 WM. & MARY L. REV. 1465, 1466 (2007).

227. See Kedem, *supra* note 226, at 1469.

228. See *id.* at 1466.

229. See *DSU*, *supra* note 19, at 1293.

230. See *id.* at 1306.

231. See CHISUM, *supra* note 16, at § 17.04[2].

232. *Id.*; See United States, *supra* note 124, at 11.

233. See United States, *supra* note 124, at 20.

that the induced acts infringe the asserted patent.²³⁴ At the time of this writing, it is too early to understand what, if any impact, this clarification of the law will have. To place the Court's findings into context, the next two sections explain the arguments on both sides of the debate.

B. Intent to Cause the Acts that Cause Infringement

A popular, although seemingly incorrect view of inducement is that only some form of general intent should be required to satisfy section 271(b). Under this view, the question is: did the defendant intend to induce the acts that caused infringement?²³⁵ In contrast, the opposing "specific" intent view is that liability under § 271(b) requires that the defendant intended to infringe the asserted patent.²³⁶ This section summarizes the former, general intent approach.

There is historical support for the general intent view. One commentator has argued that court decisions before the 1952 Patent Act adhered to the general intent standard because they did not require that the defendant have knowledge of the patent.²³⁷ The only showing that was required with respect to intent was that the alleged defendant intended to cause the acts of the third party that led to infringement of the patent.²³⁸ This interpretation is further supported by the common law of torts which did not require an indirect tortfeasor to know that the actions she caused to happen were themselves unlawful.²³⁹

One of the most recent cases that seemed to support the general intent interpretation was *Hewlett-Packard Co. v. Bausch & Lomb, Inc.*²⁴⁰ HP was the assignee of the LaBarre patent, which was directed to a two-dimensional plotter that moved paper using grit-covered wheels.²⁴¹ Houston Instruments, a division of Bausch & Lomb (B&L),

234. See Commil, *supra* note 19 (rejecting Commil and the Government's argument and holding that liability for inducement requires proof that the defendant knew her acts infringed the asserted patent).

235. See Rader, *supra* note 60, at 322.

236. See *id.*

237. Sichelman, *supra* note 4, at 310.

238. See *id.* at 315; see also Rantanen, *supra* note 28, at 1597 ("Thus, 'intent' in the context of inducement primarily meant intent to engage in the underlying acts, as opposed to fault with respect to whether or not the conduct infringed a patent.")

239. See Sichelman, *supra* note 4, at 317.

240. Hewlett-Packard, *supra* note 19, at 1466-67.

241. *Id.*

sold plotters with grit-covered wheels.²⁴² B&L agreed to sell Houston Instruments to Ametek. As a part of the agreement B&L indemnified Ametek against liability for infringing the LaBarre patent.²⁴³ HP sued B&L, asserting that B&L induced Ametek to infringe the LaBarre patent by agreeing to indemnify Ametek.²⁴⁴

One issue before the Federal Circuit was to identify the type of knowledge and intent necessary under § 271(b).²⁴⁵ In response, the Federal Circuit held that under inducement, intent required “proof of actual intent to cause the acts which constitute the infringement.”²⁴⁶ In other words, a showing of intent only required a showing that the defendant aided in the performance of the infringing acts even if the defendant did not know of the patent or believe that those acts would infringe the patent.²⁴⁷ One commentator has characterized this standard as a very low bar.²⁴⁸

Despite that fact, the Federal Circuit found that B&L did not induce Ametek to infringe the LaBarre patent. The court held that B&L’s act of entering into an indemnity agreement with Ametek was not active inducement.²⁴⁹ Accordingly, the conduct in question—entering into an indemnity agreement—was not evidence of the requisite intent required to cause acts that led to infringement.²⁵⁰ Instead, the court stated that entering into the indemnity agreement was simply evidence that B&L was interested in getting a deal done with Ametek.²⁵¹

The HP case has had a tremendous influence on the conversation regarding inducement and intent. One asserted advantage of the general intent test articulated in HP is that potential defendants could not shield themselves from liability by obtaining a non-infringement opinion.²⁵² This would simplify the analysis because the good faith

242. *See id.*

243. *Id.*

244. *Id.*

245. *See id.* at 1469.

246. *Id.*

247. *See* Rader, *supra* note 60, at 314; Lemley, *supra* note 4, at 238.

248. *See* Lemley, *supra* note 4, at 238.

249. *See* Hewlett-Packard, *supra* note 19, at 1469-70.

250. *See id.*

251. *See id.*

252. *See* Rader, *supra* note 60, at 314 (“Under the Hewlett-Packard standard, if a court later determines that such use of the device does infringe that patent, the company could be found liable for inducement to infringe despite the opinion of counsel because the company intended to cause its customers to undertake the infringing acts.”). A second advantage is that the general intent standard clearly delineates between infringement and willful infringement. *See*

belief of the alleged inducer concerning whether they infringed the patent would not be relevant.²⁵³ In turn, this would strengthen patentees' ability to enforce their patents.

Conversely, one commentator argues that the general intent standard would only increase competition and maintain or increase the number of invalid patents that exist.²⁵⁴ It may also unduly broaden the net within which potential infringers could be ensnared.²⁵⁵ To counteract the view that patentees would be able to enforce their patents more easily under a general intent standard, another commentator has recommended that concerned parties seek declaratory judgments to reduce their chances of inducing another to infringe the patent.²⁵⁶ These concerns and others have led some, including the Federal Circuit and the Supreme Court to endorse a stricter "specific intent" view, which is discussed in detail below.

C. Specific Intent to Cause Infringement

The specific intent standard operates in stark contrast to the general intent standard described in the previous subsection. The specific intent standard states that inducement under 35 U.S.C. § 271(b) requires a showing that the alleged infringer intended to induce infringement of the patent instead of just intending to cause the infringing acts.²⁵⁷ This standard is interpreted as narrower than the general intent standard and is considered the appropriate standard by several commentators, the Federal Circuit and most recently, the Supreme Court.²⁵⁸

There is some historical justification for the specific intent standard. Both sections 271(b) and (c) were written to codify the law regarding indirect infringement. In *Aro II*, the Supreme Court held that section 271(c) required the alleged infringer to know that "the combination for which his component was especially designed was both patented and infringing."²⁵⁹ Section 271(c) has been interpreted as focusing on actual infringement.²⁶⁰ In turn, one commentator has argued that section 271(b) should also be focused on inducing actual

Holbrook, *supra* note 4, at 405.

253. See Holbrook, *supra* note 4, at 405.

254. See *id.* at 409.

255. See *id.* at 405.

256. See Kumar, *supra* note 29, at 743.

257. See Holbrook, *supra* note 4, at 408; Lemley, *supra* note 4, at 245.

258. See Holbrook, *supra* note 4, at 408; see also Commil, *supra* note 19.

259. See *Afr Mfg.*, *supra* note 150.

260. See Holbrook, *supra* note 4, at 401-02.

infringement and not just acts that cause infringement.²⁶¹

The Federal Circuit used the specific intent approach in deciding *Manville Sales Corp. v. Paramount Sys., Inc.*²⁶² Specifically, the court stated that an alleged inducer must have knowingly induced the infringement.²⁶³ Manville was the assignee of a patent related to a luminaire assembly for a light fixture that made it easier to access and maintain the luminaires.²⁶⁴ Paramount made a similar assembly after receiving a drawing of Manville's patented device from Butterworth, who had been given the drawing by DiSimone.²⁶⁵ The district court held that DiSimone and Butterworth induced Paramount to infringe the patent. The defendants appealed to the Federal Circuit.

The Federal Circuit stated that in order to succeed on an inducement claim, Manville had to show that the defendant intended to infringe the patent. That is, that DiSimone and Butterworth knew or should have known that providing the drawing would induce Paramount to actually infringe the patent.²⁶⁶ Accordingly, the Federal Circuit reversed the district court's findings of inducement because the defendants were not aware of the patent until after the lawsuit was filed, and they obtained an opinion of counsel indicating that they did not infringe the patent.²⁶⁷ In sum, the court found that there was insufficient evidence that either party intended to cause Paramount to infringe the Manville patent.²⁶⁸

Several commentators have endorsed the *Manville* standard. Specifically, Professor Holbrook argues that the standard encourages competition.²⁶⁹ For example, a business would not be discouraged from entering into a market where their competitor owned a patent if the business had received an opinion that it did not infringe the patent.²⁷⁰

Despite this valid argument, the specific intent standard applied in the *Manville* decision also received a negative reaction for several reasons. First, the outcome has led some to believe that an opinion of counsel would shield alleged defendants from all induced

261. See *id.* at 408.

262. See *Manville*, *supra* note 19.

263. See *id.* at 547-548.

264. See *id.*

265. *Id.*

266. See *id.* at 553-554.

267. See *id.*

268. See *id.*

269. See Holbrook, *supra* note 4, at 408-09.

270. See *id.* at 408.

infringement claims.²⁷¹ In turn, this would make infringement suits that rely on an induced infringement theory virtually unwinnable against a defendant that could obtain a non-infringement opinion.²⁷² Accordingly, one commentator has argued that the specific intent standard encourages opportunistic behavior, discourages settlement and should be less favored than the general intent standard articulated in *Hewlett-Packard*.²⁷³

Second, the *Manville* decision seemed to contradict the Federal Circuit's earlier decision in *Hewlett-Packard*.²⁷⁴ Consequently, district courts applied either standard with mixed results.²⁷⁵

In response to the split within the Federal Circuit, the Federal Circuit's *DSU* decision asserted that section 271(b) requires a defendant have specific intent to induce the infringing acts. The decision was significant for two reasons. First, it distinguished between the different standards articulated in *Manville* and *Hewlett-Packard*. Second, the Federal Circuit decided *DSU* after the Supreme Court's decision in *Global-Tech*, which failed to address the requisite intent required under section 271(b). Specifically, the Federal Circuit, sitting *en banc*, stated that inducement required evidence that the alleged inducer had knowledge of the patent and knew that the induced conduct would infringe the patent.²⁷⁶

Recently, in *Commil*, the Supreme Court weighed in on the requisite intent required for inducement liability. The Court stated that inducement under *Global-Tech* "requires proof the defendant knew the acts were infringing."²⁷⁷ Under this specific intent standard, the belief of the alleged inducer is a central inquiry.²⁷⁸ There are examples of cases where the requisite specific intent was held to be lacking because the defendant did not believe its actions or products infringed the asserted patent.²⁷⁹

Accordingly, the debate regarding intent is part of a broader discussion about how the law should balance the rights of a patent

271. See Rader, *supra* note 60, at 324.

272. See *id.* at 330.

273. See *id.* at 332-333.

274. See *id.* at 315-316 ("[T]he *Manville Sales* opinion has created a great deal of confusion as to what the correct standard ought to be for intent under § 271(b).).

275. See *id.* at 320-321.

276. See *DSU*, *supra* note 19.

277. See *Commil*, *supra* note 19 (clarifying that liability for inducement requires proof that the defendant knew her acts infringed the asserted patent).

278. See Holbrook, *supra* note 4, at 405.

279. See CHISUM, *supra* note 16, at § 17.04[2].

owner with society's interest in not being subject to a monopoly by weak patents. The *Hewlett-Packard* approach is likely to ensnare a broader range of actors.²⁸⁰ Further, under the general intent standard, a defendant could not rely on an incorrect non-infringement opinion as a defense to inducement.²⁸¹ In contrast, a non-infringement opinion under the specific intent standard "provides a safe harbor for those who believe their acts are not infringing, although this harbor only protects against past damages and not prospective relief."²⁸²

Interestingly, courts have identified specific inducing conduct as evidence of the intent required to find induced infringement.²⁸³ For example, designing an infringing product and providing instructions to a third party for making or using an infringing product have been identified as conduct that evidence an intent to induce infringement.²⁸⁴ Another example of conduct that evidences specific intent can be found in *Water Technologies Corp. v. Calco, Ltd.*²⁸⁵ There, the defendant aided the direct infringer in making the infringing product and created instructions for the customer on how to use the product.²⁸⁶ Thus, refocusing the induced infringement analysis to also acknowledge and examine inducing conduct seems to be a way to include additional benchmarks in the inducement inquiry without continuing to tinker with the interpretation of intent.

D. Alternative Interpretations of Intent

In response to the debate regarding the requisite intent required under section 271(b), scholars and commentators have proposed a number of ways of understanding and solving the problem. This subsection summarizes some of those concerns. It also highlights the fact that a greater understanding of the conduct required to satisfy section 271(b) has been generally absent from the discussion.

There are several commentators who believe that the specific intent standard endorsed by the Supreme Court in *Commil* and articulated by the Federal Circuit in *Manville* and *DSU* is the correct

280. See Holbrook, *supra* note 4, at 405.

281. See Rader, *supra* note 60, at 321.

282. See Holbrook, *supra* note 4, at 407; See Rader, *supra* note 60, at 324 ("In fact, *Manville Sales* has at least 'led to wide speculation that an opinion of counsel may avoid liability for inducement of infringement.').

283. See Lemley, *supra* note 4, at 227.

284. See Rader, *supra* note 60, at 313; See Lemley, *supra* note 4, at 227.

285. See *Water Technologies Corp. v. Calco, Ltd.*, 850 F.2d 660 (Fed. Cir. 1988).

286. *Id.*

standard.²⁸⁷ Professor Holbrook has argued that the proper standard is one that requires the inducer to have specific intent to aid in the infringement of the asserted patent.²⁸⁸ In his essay, Professor Holbrook also addresses a primary argument against the specific intent standard, which is that defendants will use opinions of counsel to negate evidence of specific intent. Holbrook argues that the exercise of obtaining non-infringement or invalidity opinions is pro-competitive.²⁸⁹ Further, opinions are generally used to assess risk and not as a pre-emptive measure to avoid inducement liability.²⁹⁰ Accordingly, Professor Holbrook concludes that specific intent is the proper standard and that a good faith belief of non-infringement or invalidity are appropriate defenses to inducement.²⁹¹

One commentator views the two intent standards as not at odds, but instead on a continuum.²⁹² On that continuum, a showing of intent to cause the acts that led to infringement is a prerequisite to a finding that a defendant specifically intended to induce infringement.²⁹³ Under this formulation, for liability to attach, the plaintiff must ultimately present evidence of specific intent. The author argues that this explains the decision in *Manville*.²⁹⁴ There, DiSimone and Butterworth generally intended that the infringing device be manufactured, however, the Federal Circuit found that they did not specifically intend to infringe the patent.²⁹⁵

In contrast, Professor Sichelman has argued that the *Global-Tech* decision was wrongly decided and purposefully obfuscates case law that came before 1952.²⁹⁶ Specifically, the Court erred in interpreting § 271(b) as requiring knowledge of the patent.²⁹⁷ In support of this

287. See Kedem, *supra* note 226, at 1495 (“The *Manville* standard should be and, in fact, already is the proper scienter standard for active inducement under § 271(b); proper interpretation of the Federal Circuit’s holdings in *Hewlett-Packard* and *Manville*, particularly in light of the Federal Circuit’s rules on stare decisis, shows that concern about a ‘split’ is unfounded.”).

288. See Holbrook, *supra* note 4, at 400.

289. See *id.* at 411.

290. See *id.*

291. See *id.* at 408-412.

292. See Kedem, *supra* note 226, at 1467.

293. See *id.* at 1479-1480 (“*Manville*, then, is far from *Hewlett-Packard*’s Manichaeian opposite, and is more properly understood as continuing the active inducement scienter analysis that was not required of the court in *Hewlett-Packard*.”).

294. See *id.*

295. See *Manville*, *supra* note 19.

296. See Sichelman, *supra* note 4, at 310, 336.

297. See *id.* at 340.

assertion, Sichelman notes that before *Global-Tech*, the Supreme Court had never required “knowledge by the aider and abettor that he was assisting in the breach of a legal duty.”²⁹⁸ Sichelman argues that requiring knowledge of the patent under 271(b) makes inducement too difficult to prove.²⁹⁹ Further, he asserts that opinions of counsel too easily immunize potential defendants from liability.³⁰⁰

Professor Mark Lemley has argued that district courts decide inducement cases using a sliding scale approach. That is, “a more specific intent to infringe is required to find liability if the defendant’s conduct is less egregious.”³⁰¹ Conversely, the more egregious a defendant’s conduct, the less intent should be required for a finding of liability.³⁰² Lemley describes the desired result of his approach as follows:

Only those who intend at least the physical acts that constitute infringement will be liable; neither those who merely know of infringement without intending to encourage it nor those who idly suggest a course of action without any desire that it actually occur will be held liable under the law.³⁰³

Accordingly, Lemley’s sliding scale approach at least acknowledges that conduct can play a role in induced infringement analysis. However, the Federal Circuit seems to disfavor a “sliding scale” approach where intent is a consideration.³⁰⁴ Further, in the wake of *DSU*, *Global-Tech* and *Commil*, any inquiry into the conduct of the accused inducer has received less attention.

Miller has suggested that the best way to understand section 271(b) is in how it interacts with section 271(c). In particular, Miller argues that viewing sections 271(b) and (c) as overlapping reconciles many of the court decisions that interpret what is required to show intent differently.³⁰⁵ Miller argues that inducement cases are decided based in part on whether the alleged inducer was the proximate cause of the direct infringement.³⁰⁶ In sum, Miller’s approach to inducement

298. *See id.* at 310.

299. *See id.* at 343.

300. *Id.*

301. *See* Lemley, *supra* note 4, at 242.

302. *See id.*

303. *See id.* at 244.

304. *See* *Therasense, Inc. v. Becton-Dickson, Inc.* 649 F.3d 1276 (Fed. Cir. 2011) (en banc) (explaining that a district court should not use a sliding scale approach in an equitable conduct determination where evidence of (1) intent and (2) materiality are both required).

305. *See* Miller, *supra* note 164, at 97.

306. *See id.* at 103.

requires “[k]nowledge that direct infringement can occur and intent that it will occur.”³⁰⁷

In response to varying views, several commentators have suggested that the induced infringement analysis shift to a more objective standard.³⁰⁸ The goal of an objectiveness approach is to eliminate the need to inquire about what an alleged inducer intended to do or whether they should have predicted that infringement would occur.³⁰⁹ Further, opinions of counsel would not shield defendants under an objective or strict liability standard because liability would be based on whether it would have been obvious that there was a high risk that the inducer’s conduct would result in the patent being infringed.³¹⁰ Accordingly, the lower the risk of infringement, the less likely an accused inducer would be found liable for inducement.³¹¹

In sum, there are numerous ways in which commentators have framed the debate regarding section 271(b). Most of the debate has centered squarely on what type of intent is required to impose liability on an alleged inducer. Stakeholders in this area of the law have largely ignored or forgotten the conduct inquiry.

E. The Changing Environment

This section briefly describes the current state of induced infringement analysis. The current scienter requirement for inducement specifies the alleged inducer must have had knowledge of the patent or been willfully blind to its existence, and specifically intended to induce acts that he knew would infringe the asserted patent.³¹²

Because of these requirements, a number of defenses were

307. *See id.* at 98.

308. *See, e.g.,* Rantanen, *supra* note 28, at 1581.

309. *See* Kumar, *supra* note 29, at 742; Rantanen, *supra* note 28, at 1610 (“The first problem with attempting to use mental state concepts in the context of patent infringement is the difficulty-and perhaps impossibility-associated with ascertaining the mental state of a corporation.”).

310. *See* Kumar, *supra* note 29, at 744; Rantanen, *supra* note 28, at 1581.

311. *See* Rantanen, *supra* note 28, at 1624 (“Copying a patented product, for example, is a high-risk activity. Hiring employees who worked on a competitor’s product might similarly be a high-risk activity. In contrast, independently developing technology and verifying through infringement analyses that that technology is unrelated to any of a competitor’s patents would be a low risk activity.”).

312. *See* DSU, *supra* note 19; *see also* Rantanen, *supra* note 28, at 1601 (“The Federal Circuit’s en banc resolution of the conflict between the Hewlett-Packard and Manville lines in DSU can be seen as recognition of this multi-element approach. In DSU, the Federal Circuit concluded that inducement requires both intent to cause the infringing acts and some degree of knowledge that those acts infringe.”).

believed to be available to potential induced infringers. One that was particularly controversial was that if the alleged inducer has a good faith belief that the patent was invalid or not infringed then he cannot be liable for induced infringement.³¹³ The reason why this strategy was so controversial is that it manifested itself in the form of opinions of counsel. Specifically, opponents of this defense feared that an invalidity opinion could be used as evidence that an alleged inducer had a good faith belief that an asserted patent was invalid.³¹⁴

The issues raised in the *Commil* case are examples of the controversies that have been created by the confusion surrounding the type of intent required for liability under § 271(b). *Commil*'s patent is directed to a method for implementing wireless networks.³¹⁵ *Commil* sued Cisco, alleging that Cisco directly infringed its patent and that Cisco induced its customers to also infringe *Commil*'s patent.³¹⁶ In response, Cisco submitted evidence that it had a good faith belief that the patent was invalid and thus lacked the requisite intent to induce infringement.³¹⁷

The main issue before the Federal Circuit was whether Cisco possessed the requisite intent for a finding of inducement, given that it believed the *Commil* patent was invalid.³¹⁸ In a previous decision, the Federal Circuit held that a good faith belief of non-infringement was a defense to inducement.³¹⁹ In the court's view, there was no meaningful difference between using non-infringement and invalidity as a defense.³²⁰ Accordingly, the court held that evidence that the accused infringer had a good faith belief that the asserted patent was invalid could negate the requisite intent required for inducement liability.³²¹ The court seemed to indicate that despite a valid defense, a good faith belief in invalidity could be overcome, but it is unclear how or under what circumstances.³²²

In May of 2015, the Supreme Court determined (6-2) that the Federal Circuit "erred in holding that a person who knowingly induces another to engage in infringing conduct may avoid liability

313. See *Miller*, *supra* note 164, at 130.

314. *Kedem*, *supra* note 226, at 1492; See *Kumar*, *supra* note 29, at 744.

315. See U.S. Patent No. 6,430,395 (filed Feb. 16, 2001).

316. See *Commil*, *supra* note 47, at 1364.

317. See *id.*

318. See *id.* at 1365.

319. See *id.* at 1368.

320. See *id.*

321. See *id.*

322. See *id.*

under Section 271(b) by demonstrating that it had a good-faith belief that the infringed patent was invalid.³²³ Writing for the Majority, Justice Kennedy stated that infringement and validity were separate issues in a patent infringement context.³²⁴ Further, the majority reasoned that since patents are presumed valid, a defense based on a belief that a patent was valid would undermine that presumption.³²⁵ Kennedy concluded that accused infringers would find the good faith belief in invalidity defense too easy to assert and referenced (1) several other ways an accused infringer could show a patent was invalid and (2) ways in which district courts could discourage frivolous lawsuits.³²⁶ The implication here is that it is relatively easy to find an attorney who, for a fee, would make plausible arguments that any patent was invalid.

In opposition, Justice Scalia, joined by Chief Justice Roberts, argued in favor of a good faith belief of invalidity as a defense to inducement.³²⁷ Justice Scalia's primary point was that the defense should be allowed since it is impossible to infringe an invalid patent.³²⁸ Further, in what was reportedly the Supreme Court's first mention of the word "patent troll," the dissent argued that eliminating good faith belief of invalidity as a defense to induced infringement empowered patent trolls.³²⁹ Thus, for proponents of the good faith belief of invalidity defense, the Court's dissent provides some policy rationale to renew the debate over § 271(b)'s scienter, judicially or legislatively, as part of a larger battle to combat so-called patent trolls and frivolous patent litigation.

Unfortunately, the debate between the majority and dissent in the *Commil* decision fails to move the conversation about inducement forward in any meaningful way. Instead of a closer examination of the conduct of the accused inducer, the discussion is fixated on what the accused inducer believed.³³⁰ Accordingly, the *Commil* opinion is yet

323. See United States, *supra* note 124, at 6 ; see also *Commil*, *supra* note 19.

324. See *Commil*, *supra* note 19.

325. *Id.* at 1929.

326. See *id.* at 1929, 1930-31 (listing ways a defendant can obtain a ruling that a patent is invalid; explaining that district courts have legal tools and the responsibility to dissuade frivolous lawsuits).

327. See *id.* at 1931.

328. *Id.* (arguing that infringement cannot exist without a valid patent and a successful assertion of the defense in question merely avoids liability—it does not invalidate the patent).

329. *Id.*

330. *Id.* (suggesting that if an accused inducer knew of a patent and knew that the patentee believed the accused caused activities that infringed the patent then the accused inducer should be liable for induced infringement).

another example of the shift toward a conduct independent view of inducement.

As illustrated above, a great deal of the debate about inducement has focused solely on what an accused inducer must know and intend. The next part argues for a recalibration of the induced infringement analysis. Specifically, a close examination of the conduct of an accused inducer should remain important in determining inducement liability. Many of the challenges in this area can be addressed by understanding the type of conduct the law of inducement is designed to discourage. A greater awareness of inducing conduct may alleviate the need to continue to complicate the scienter requirement for induced infringement and lead to a clearer application of the law.

IV. RETHINKING INDUCED INFRINGEMENT

This part expands on the argument that the conduct of an accused party should remain an important influence in induced infringement analysis. Debates about the requisite knowledge and intent required for liability dominate the induced infringement discussion. Courts and commentators seem likely to continue to debate and further complicate the current understanding of the scienter requirement for inducement. However, induced patent infringement cannot be completely understood and used effectively without acknowledging the offending conduct of the accused party. The following section outlines a practical framework for rethinking induced patent infringement.

A. A Practical Framework for Change

This section posits that there are three primary reasons why induced infringement and the issues explored in this article are important. First, interactive patents, and the commercial embodiments of those inventions, are becoming increasingly important as interactive technology as the IoT becomes a reality. Further, there is a need for legal clarity that will provide better guidance to district courts and lead to clearer jury instructions. Finally, legal clarity will enhance the ability of patentees and commercial participants' to forecast whether a patent is infringed. In turn, this may foster competition in emerging technology areas.

1. The Internet and Interactive Technologies

The Internet has presented a unique set of challenges for the patent system. The Internet created an environment where computer

related methods flourished. It also created an environment where those methods could be infringed by many different actors.³³¹ In turn, many patentees must rely on indirect infringement to enforce their inventions since the direct infringers are judgment proof end users and/or customers.³³²

Patentees in this area may be frustrated, however, because the indirect infringement statutes seem to be ill-equipped to deal with Internet Age inventions.³³³ Specifically, sections 271(b) and 271(c) were written during a time where the focus of the courts and Congress was on component-based inventions.³³⁴ The Internet did not exist in 1952. Further, method claims have evolved a great deal since 1952 to include software and Internet related applications. For example, software developers may be liable for inducement if they encourage their customers to use their non-infringing software in a larger system that infringes a patent.³³⁵

In addition, owners of interactive patents are more likely to rely on an inducement theory to enforce their rights. For example, in the biomedical context,

“[a] patent owner’s ability to prevent active inducement by advertising and instruction or other activity is often critical to obtaining effective protection for a patented invention consisting of a new method of use of a known, staple product, such as a chemical compound or composition, especially a new medical or therapeutic use of a product that has an established alternative medical use.”³³⁶

Complicating the test for inducement or interpreting § 271(b) in a way that makes it more difficult for a patentee to assert induced infringement could have negative consequences on interactive technologies. Specifically, weak patent protection in this area could discourage investors from investing in start-ups and companies developing interactive technology.³³⁷ Conversely, overly broad protection for patents could have anti-competitive effects.

331. See Rychlinski, *supra* note 59, at 225.

332. *Id.*

333. See Brief of Amicus Curiae Electronic Frontier Foundation in Support of Defendant at 1, *Akamai Techs., Inc. v. Limelight Networks, Inc.*, 692 F.3d 1301 (Fed. Cir. 2012) (Nos. 2009-1372, 2009-1380, 2009-1416, 2009-1417), 2011 WL 3796789. (“Opening up third parties to that unacceptable risk could have drastic effects on innovation and experimentation.”)

334. See Rychlinski, *supra* note 59 (“The modern method patents of today were not envisaged by the Aro Court, by the drafters of the 1952 Act, nor by the court confronting infringing lamp and chimney manufacturers in *Wallace*.”).

335. See Basinski, *supra* note 101, at 777.

336. See CHISUM, *supra* note 16, at § 17.04 [4][f].

337. See Rader, *supra* note 60.

Accordingly, any interpretation of induced infringement must be careful to strike a balance between these two economic concerns. In striking that balance, it is also important that the law be as clear as possible.

2. The Desire for Clear Legal Rules

The patent system includes a number of stakeholders, including patentees, competing businesses, lawyers and the courts. A clear and uniform understanding of the law regarding patent infringement benefits each of these stakeholders in unique ways.³³⁸ In turn, the patent system can achieve a proper balance between protecting patentable inventions and promoting healthy competition.

Patentees have a strong interest in establishing clarity with respect to induced infringement. A clear understanding of inducement would give patentees a better idea of the scope of enforcement of the patent.³³⁹ Will the patentee have to rely on inducement theory to enforce their patent? If so, what evidence is sufficient to assert a reasonably strong claim? What defenses will the accused infringer assert? In addition, the answer to all these questions provides the patentee with insight regarding the licensing value of its patents.³⁴⁰

In turn, corporations that may be potential licensees benefit from a solid understanding of the scope of patented inventions that may be susceptible to induced infringement. One commentator has argued that due to the recent confusion regarding inducement, officers of companies lack the clarity to direct their corporations in this area.³⁴¹ This lack of clarity could discourage companies from investing in new inventions they might not be able to protect or entering into a market because they do not know how to avoid induced infringement.³⁴²

If the law is not clear, it also makes it difficult for legal counsel to advise a company as to how to avoid inducing infringement. To accomplish this goal successfully, patent counsel have an interest in

338. *See id.* at 327 (“[P]atent lawyers, inventors, and technology corporations . . . must be able to base their research and development, and their patent decisions, on well-established rules.”).

339. *See Kedem, supra* note 226, at 1478.

340. *See id.*

341. *See id.* at 1467.

342. *See id.*; *See Rychlinski, supra* note 59, at 216 (“A key tension in indirect infringement cases-and cases of software in-direct infringement, in particular-is how best to ‘[confine] the protection of the law exclusively to the invention or discovery covered by the patent grant.’”).

understanding the legal effect of their opinions.³⁴³ Further, litigators have an interest in knowing what defenses to patent infringement are readily available to their client.

In addition to lawyers, the courts would benefit from a clearer understanding of inducement. The *Commil* case is a recent example of an instance where the district court's understanding of the law led it to provide the jury with incorrect jury instructions. There, the district court instructed the jury that Cisco could be found liable for induced infringement if Cisco "intended to cause the acts that constitute direct infringement," had knowledge of the patent and "knew or should have known that its actions would induce actual infringement."³⁴⁴ On appeal, the Federal Circuit stated that the jury instruction was incorrect. The Federal Circuit found fault with the part of the instruction that allowed for liability if Cisco "should have known that its actions would induce actual infringement."³⁴⁵ In the court's view, the instructions were inconsistent with the Supreme Court's decision in *Global-Tech*.³⁴⁶ Instead, the Federal Circuit stated that induced infringement required "knowledge that the induced acts constitute patent infringement."³⁴⁷

In sum, there is still a need for clarity with respect to the law of induced infringement. An issue closely related to legal clarity is briefly discussed below.

3. The Ability to Assess Risk

Forecasting refers to the ability of an entity or individual to assess the risk of infringing a patent.³⁴⁸ Forecasting manifests itself, for example, in opinions of counsel, indemnification agreements and in decisions to file declaratory judgment actions. With respect to a competitor's patent, a company may seek an opinion of counsel that it does not infringe or that the competitor's patent is invalid before entering into that commercial market.³⁴⁹ In some cases, a company may file a declaratory judgment action to determine a patent's scope and validity in anticipation of entering into a market.³⁵⁰ Finally, in

343. See *Kedem*, *supra* note 226, at 1478.

344. See *Commil*, *supra* note 47, at 1365-66.

345. *Id.*

346. *Id.*

347. *Id.*

348. See *Holbrook*, *supra* note 4, at 411.

349. See *id.* at 408 (describing seeking opinions of counsel as pro-competitive).

350. See *Kumar*, *supra* note 29, at 743 (arguing that "expanding inducement liability to include those who merely intend to induce the infringing acts would not chill competition

various types of business dealings, it may be wise for an entity to seek an indemnity agreement to protect itself from the expense that comes with patent infringement lawsuits.

The lack of clarity regarding the requirements for inducement liability and the defenses that are available to effectively negate a claim for inducement negatively affect an entity's forecasting ability. For example, is an opinion of counsel sufficient evidence of a good faith belief of non-infringement and invalidity?³⁵¹ If so, how is this good faith belief related to the intent required for inducement liability?³⁵²

The answer to these questions depends on the intent standard that is applied. For example, the belief of a defendant is irrelevant if the intent required is "to cause the acts which constitute infringement."³⁵³ In contrast, if the intent required is to specifically intend to induce infringement of the patent, then what the defendant believes is relevant.³⁵⁴ Consequently, if the defendant has forecasted correctly that the patent is not infringed they will escape liability, however, if the defendant has a good faith belief that the patent is invalid, that belief alone will not be enough to escape liability.³⁵⁵

In brief, lack of clarity regarding the scienter requirement for induced infringement diminishes parties' ability to predict whether a patent is likely infringed under an inducement theory. Tinkering further with the intent prong may do more harm than good.³⁵⁶ Instead, balancing questions about the intent of an accused party with an inquiry into her conduct may provide an easier path to determining what behavior the patent system should discourage versus what is permissible.

B. Identifying Offending Conduct and Relationships

As set forth above, the debate surrounding inducement has been dominated by a conversation about the intent required to impose

because potential market entrants can seek declaratory judgments to reduce the risk of inducement liability").

351. See Miller, *supra* note 164, at 130.

352. See Kedem, *supra* note 226, at 1492 (arguing that "although soliciting opinions from counsel may serve as evidence of intent to avoid infringement, it cannot mask or counteract evidence of actual knowledge of or intent to induce infringement").

353. See Holbrook, *supra* note 4, at 405.

354. See *id.*

355. See *id.* at 406; see also Commil, *supra* note 19.

356. See Holbrook, *supra* note 4, at 399 (referring to "the important and uncertain role of intent in assessing infringement" resulting from the existing case law).

inducement liability. The extensive focus on intent by courts and scholars has led to little consensus or confidence in any one comprehensive solution or well established rule. This is problematic for each stakeholder of the patent system because it hinders their abilities to make business decisions and assess risk.³⁵⁷ Accordingly, this section first calls for using the conduct of the accused inducer as an important benchmark in an inducement determination, and then suggests that another helpful insight concerning inducement liability might exist in the relationship between the accused inducer and the direct infringer.

1. The Conduct of the Accused Inducer

This subsection discusses the type of conduct other than basic commercial activity that may lead to a finding of inducement liability. Courts generally do not characterize basic commercial activity by itself as conduct that would lead to inducement liability under §271 (b). This type of commercial conduct includes activities such as ordering or purchasing an infringing product and selling or marketing a staple component.³⁵⁸ However, a workable inducement standard cannot ignore conduct that decreases incentives for inventors to apply for and enforce their patents.³⁵⁹

First, providing instructions to a third party that assists or encourages that third party to directly infringe a patent has been characterized as a physical element of inducement.³⁶⁰ The Supreme Court has endorsed the act of instructing another party on how to infringe as a “paradigm for infringing inducement.”³⁶¹ An accused inducer can be shown to have provided such instructions in various ways, including methods such as advertising or through product labels.³⁶² *Chiuminatta Concrete Concepts, Inc. v. Cardinal Industries, Inc.* is an example of a case where an accused inducer’s advertising provided instructions on how to infringe a patent.³⁶³ Specifically, the defendant sold a concrete saw and advertised that the saw could be used by the buyer in a way that would infringe a method claim that covered a process for cutting concrete at a specific time during the

357. See Rader, *supra* note 60, at 327.

358. See CHISUM, *supra* note 16, at § 17.04 [4][e]-[f].

359. See Lemley, *supra* note 4, at 232.

360. See Rantanen, *supra* note 28, at 1598.

361. See *Metro-Goldwyn-Mayer Studios Inc. v. Grokster, Ltd.*, 545 U.S. 913 (2005).

362. See CHISUM, *supra* note 16, at § 17.04 [4][f].

363. See *id.*

hardening of the concrete.³⁶⁴

Second, designing an infringing apparatus or system has also been characterized as inducement.³⁶⁵ Presumably, the direct infringer uses the design to infringe the asserted patent. Case law seems to indicate that the accused inducer does not have to create the entire infringing design. For example, in *Baut v. Pethick Construction Co.* three parties (an architect, a general contractor, and a subcontractor) contributed to the design of a stain glass window that infringed the plaintiff's patent.³⁶⁶

Finally, a broad range of activities such as encouraging, advocating, suggesting or assisting a direct infringer to infringe a patent have been held as conduct sufficient to impose inducement liability under § 271(b). Even before the Patent Act of 1952, these types of activities have historically been associated with inducement.³⁶⁷ These activities commonly accompany other non-infringing activities of the accused inducer such as selling a component with non-infringing uses.³⁶⁸ A representative example of these activities include “[l]easing machinery which is to be used in illegally practicing a patent, furnishing expert advice on the construction of infringing machinery, and ordering from one manufacturer goods which can be produced only by the patented process of a third party.”³⁶⁹

In sum, a large amount of affirmative acts can cause inducement.³⁷⁰ This paper acknowledges that in some cases it is difficult to ascertain whether particular conduct is relevant under § 271(b).³⁷¹ However, understanding the requisite intent is no less daunting. For example, in many cases it will be difficult to assess the intent of a corporation.³⁷²

The discussion above suggests that there are at least three

364. *See id.*

365. *See id.* at § 17.04 [4][d].

366. *Baut v. Pethick Constr. Co.*, 262 F.Supp. 350 (M.D. Pa. 1966).

367. *See Frischling et al.*, *supra* note 168, at 276; *Basinski*, *supra* note 101, at 778.

368. *See Frischling et al.*, *supra* note 168, at 276.

369. *Confusion Codified*, *supra* note 155, at 139.

370. *See CHISUM*, *supra* note 16, at § 17.04 [4] (“In *Tegal Corp. v. Tokyo Electron Co.*, Ltd. (2001), the Federal Circuit noted that liability under Section 271(b) requires some type of affirmative action inducing infringement. In *Global-Tech Appliances, Inc. v. SEB S.A.* (2011), the Supreme Court noted that the adverb ‘actively’ in Section 271(b) suggested, in view of its dictionary definition, that ‘the inducement must involve the taking of affirmative steps to bring about the desired result.’”).

371. *Confusion Codified*, *supra* note 155, at 140.

372. *See Rantanen*, *supra* note 28, at 1610.

categories of conduct that may explain a finding of inducement under §271(b). Rather than focusing solely on questions about the intent of the accused inducer, a closer examination of whether the conduct of the accused infringer is offensive in nature in conjunction with some intent inquiry could lead to a clearer understanding of inducement liability.

2. The Accused Inducer and Direct Infringer

In addition to focusing on conduct, in some instances the relationship between the accused inducer and direct infringer may be helpful in determining whether there should be a finding of induced infringement. In joint or divided infringement cases—a doctrine closely related to inducement—one of the key inquiries concerns the relationship between the alleged infringing parties: specifically, whether one party directed or controlled the actions of the other party.³⁷³ A similar inquiry into the relationship between the parties in an inducement context could also be helpful in inducement determinations.

The relationship between an accused infringer and a direct infringer is an indication of how entangled the parties are. Professor Rantenen’s objective fault formulation states that the closer and stronger the relationship between the parties, the higher the risk that the requisite intent for inducement exists.³⁷⁴ There is some case law to support this idea. In *Tegal Corp. v. Tokyo Electron Co., Ltd.* (2001), for example, no evidence was presented that the defendant directed or controlled the direct infringer or its management.³⁷⁵ The court found that the defendant did not induce another to infringe.³⁷⁶ Accordingly, there seems to be a foundation for closer examination of the relationship between the parties.

However, this article stops short of recommending that an inquiry into the relationship between the accused inducer and direct infringer should be determinative of induced infringement. Too much emphasis on relationships would frustrate common commercial arrangements such as a buyer/seller or customer/provider relationship. In these types of relationships, indemnity agreements for patent

373. See *BMC Res., Inc. v. Paymentech, L.P.*, 498 F.3d 1373, 1381 (Fed. Cir. 2007), *overruled by* *Akamai Technologies, Inc. v. Limelight Networks, Inc.*, 692 F.3d 1301 (Fed. Cir. 2012).

374. See Rantanen, *supra* note 28, at 1622-1623.

375. See CHISUM, *supra* note 16, at § 17.04 [4].

376. See *id.*

infringement liability are commonplace. The law does not view these types of standard indemnity agreements as establishing active inducement.³⁷⁷ For example, in *Hewlett-Packard Co.* the Federal Circuit held that the accused inducer's agreement to indemnify the buyer for patent infringement did not amount to inducement.³⁷⁸ For these reasons, this article suggests only that the type of relationship between the parties provides a useful context for further examination of the conduct and intent of an accused party.

In sum, thinking about what types of relationships commonly coincide with inducement can be useful. However, evidence of a relationship between two parties is not determinative. Accordingly, it is best to think about the type of relationship that exists between an accused inducer and the direct infringer as a useful clue in an inducement liability determination. Considering conduct in conjunction with the relationship between the parties may provide a simpler way to think about inducement liability in view of the challenges posed by interactive patents, the need for clearer legal rules and the pressure on parties to forecast patent infringement.

3. A Path Forward

Recent discussions about how the inducement statute should be interpreted have largely focused on the question of intent.³⁷⁹ This narrow focus has not led to greater legal clarity. In response, this paper calls for a shift in the discussion. Specifically, a greater understanding of the conduct that subjects an accused infringer to inducement liability would provide more clarity in inducement determinations. The contributory infringement statute is substantially easier to understand and apply because the infringing conduct is included in the language of the statute.³⁸⁰ Although section 271(b) is intentionally broader, years of common law before and after the 1952 Patent Act do provide some indication of the type of inducing conduct that patent law should discourage.³⁸¹

Given the discussion about conduct and the relationship between the accused inducer and the direct infringer above, it may be possible to reach the correct outcome in many inducement cases without fixating on the type of intent the accused inducer must have. Further,

377. See *id.* at § 17.04 [4][b].

378. See CHISUM, *supra* note 16, at § 17.04 [4].

379. See *supra* Part III.

380. See 35 U.S.C. § 271(c).

381. See *supra* part III.

refocusing the inducement inquiry on conduct may help solve some of the challenges posed by patents that are likely to be enforced under § 271(b).

For example, interactive inventions are the type of inventions that rely more heavily on induced infringement for enforcement.³⁸² A more balanced inquiry that includes a close consideration of the accused inducer's conduct may provide patentees with a more reasonable path to enforcement.

By their nature, Internet inventions will involve interaction between more than one party. The inducement analysis should not solely focus on what each party intended; instead, it should also consider the conduct of the parties involved. Did one party provide the other with instructions that resulted in infringement? Was there evidence of encouragement or assistance that led to infringement? Further, what type of relationship did the parties have? Was it an arm's-length transaction or was one party directing or controlling the actions of another? All of these considerations should be taken into account in addition to questions about the intent of the accused infringer.

Further, in some instances, it may be easier to identify and understand evidence related to the conduct of the accused infringer than what the accused infringer intended. If there is a better understanding of the types of conduct that are associated with inducement liability, patentees can provide better evidence, defendants can rebut arguments without always having to rely on opinions of counsel, and courts can provide clearer jury instructions. Certain relationships may be viewed as strong signals of inducement. Professor Lemley's sliding scale formulation aligns with this sentiment because it calls for a lesser showing of intent the more the accused inducer is entangled with the defendant.³⁸³

Finally, the forecasting problem appears easier to solve when one carefully considers the offensive conduct of the parties. For example, a party seeking to avoid induced infringement liability should not engage in activities such as providing instructions, encouraging or assisting in actions that can lead to direct infringement. Identifying relationships that are likely to indicate inducement liability could also be helpful to companies in crafting indemnification agreements.³⁸⁴ In sum, legal clarity benefits

382. See Rychlinski, *supra* note 59, at 225.

383. See Holbrook, *supra* note 4, at 411.

384. See Bernard Chao, *The Case for Contribution in Patent Law*, 80 U. CIN. L. REV. 97,

stakeholders in these emerging technologies by making it easier to assess infringement risk and make better business decisions.

CONCLUSION

Much of the debate regarding induced infringement focuses on the type of intent an accused party must possess. While important, this conversation continues to inject complexity into induced infringement analysis. Further, the overemphasis on the intent requirement has led to less conversation about the type of conduct that induces infringement. In response, this article proposes that the law rebalance the induced infringement inquiry by closely considering (1) the conduct of the accused party and (2) the relationship between the accused inducer and the direct infringer as a factor in determining infringement liability.

Recognizing conduct and the relationships between the parties as an important influence in induced infringement analysis may help solve several challenges. Specifically, determining what conduct the patent system wants to discourage could provide more legal clarity. That clarity will assist patentees and market participants in better understanding the risk of liability with respect to induced infringement. Finally, a better understanding of induced infringement will also benefit innovators in emerging technology areas that commonly rely on induced infringement as a way of enforcing their patents.