TEXAS INTELLECTUAL PROPERTY LAW JOURNAL

INTELLECTUAL PROPERTY LAW SECTION OF THE STATE BAR OF TEXAS THE UNIVERSITY OF TEXAS SCHOOL OF LAW

RAMIFICATIONS OF JOINT INFRINGEMENT THEORY ON EMERGING TECHNOLOGY PATENTS W. Keith Robinson

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> > STATE BAR SECTION NEWS

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The Journal would also like to congratulate several of its staff editors for their outstanding contributions to this issue: Colin Walsh, Ashley Edison, Adam Smoot, and Patrick Doll. In addition, the Journal would like to congratulate Laura Higbie as the best Articles Editor for this issue.

Finally, the Journal would like to congratulate several of its members for exceptional service throughout Volume 18, Katy Hutchinson and James Quigley as Outstanding Staff Editors, and Chris Borniger as Board Member of the Year. Both of these staff editors worked hard on each individual issue and always produced their best work for the Journal. Without the help of Chris Borniger in dedicating himself to Volume 18, the Journal would not have been able to put forth its best work, and he is to be congratulated for it.

TEXAS INTELLECTUAL PROPERTY LAW JOURNAL

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Ramifications of Joint Infringement Theory on Emerging Technology Patents

W. Keith Robinson*

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I. Introduction

Wireless technology was introduced in the 1980s and has rapidly evolved in the last thirty years.¹ Since wireless applications use free space as the medium to transmit information, the application of wireless technology is far-reaching.² It can involve "voice, data, video and multimedia applications and services."³ For example, wireless technology can be used in microwave TV transmissions, cellular telephone services, HDTV, Digital Audio Broadcasting (DAB), and a host of other technologies.⁴

In the near future, wireless technologies will facilitate even greater social network participation between people and devices.⁵ Users will be able to wirelessly build their own computer system on the fly and seamlessly share data from one device to another.⁶ For instance, you will be able to wirelessly edit videos stored in your camcorder using your laptop and then show the videos on a friend's TV.⁷ One developing technology that will make this possible is Dynamic Composable Computing (DCC).⁸ DCC allows Mobile Internet Devices (MIDs) to connect wirelessly to nearby monitors, speakers, keyboards and other components.⁹ This

³ *Id.*

⁴ *Id*.

⁵ See id. (noting a set of user-centered services that are desired for the future).

⁶ See Anna Bogdanowicz, *Dynamic Sharing*, 33 THE INSTITUTE 9 (2009), *available at* http://www.ieee.org/portal/cms_docs_tionline/tisep09.pdf (last visited Feb. 17, 2010).

⁷ Id.

⁸ See *id.* (stating that DCC will work like Bluetooth technology, which queries devices in nearby areas to connect to).

⁹ Id.

¹ See Dazheng Wang, Patent Pool: A Solution to the Problem of TD-SCDMA's Commercialization, 2008 INT'L SEMINAR ON FUTURE BIOMED. INFO. ENG'G 304, 304 (discussing the evolution of wireless telephone technology).

² See Liliana Díaz Olavarrieta & Alfredo Aparicio Nava, Wireless Communications: A Bird's Eye View of an Emerging Technology, 2004 INT'L SYMPOSIUM ON COMMS. & INFO. TECHS. 541, 541.

wireless connection compensates for the drawbacks of mobile devices such as small screens, small keyboards, or poor speakers by allowing a mobile device access to better hardware.¹⁰

DCC could be commercially available in five years,¹¹ and its development relies on advances in several areas with significant patent activity.¹² For example, new consumer electronics that exploit DCC will be created.¹³ The component needed to implement DCC will either be built into every device or made available as a software download.¹⁴ Improvement in processor technology will allow greater interoperability between MIDs, desktops, and other devices.¹⁵ At the same time, advanced wireless communication standards will wirelessly connect major system components of a computer architecture.¹⁶ Finally, technologists will have to develop new security or implement existing technology to prevent unauthorized access to data in these complex systems.¹⁷ A theme that is consistent across all these technologies is that these advances facilitate interaction between multiple components and multiple parties.

Recent developments in patent law will affect how patents directed to wireless technologies such as DCC are written and enforced.¹⁸ For example, to succeed in an action for infringement, a patent holder must present evidence that a single

¹⁰ Id.

- ¹² See Wang, supra note 1, at 304 ("Patents are becoming so important that almost all companies want to obtain their competitive advantages by implementing their patent strategies in the wireless telecoms industry.").
- ¹³ See Bogdanowicz, supra note 6, at 9.
- ¹⁴ See Bogdanowicz, supra note 6, at 9.
- ¹⁵ See Bogdanowicz, supra note 6, at 9.
- ¹⁶ See Bogdanowicz, supra note 6, at 9.
- ¹⁷ Bogdanowicz, *supra* note 6, at 9 (emphasizing the approaches that Intel's developers may take in ensuring that connections into the component devices is secure such as password-enabled access and near-field communications).
- ¹⁸ See Joshua P. Larsen, Liability for Divided Performance of Process Claims After BMC Resources, Inc. v. Paymentech, L.P., 19 DEPAUL J. ART, TECH. & INTELL. PROP. L. 41, 43 (2008) (noting that the Federal Circuit's recent interpretation of Section 271 may restrict liability for direct infringement "to situations where one 'mastermind' entity exercises 'control or direction' over the infringement").

¹¹ *Id.* (noting that Intel, which already has a prototype, indicated that DCC could be commercially available in approximately five years).

infringer manufactured, used, or performed all the elements in a claim.¹⁹ What happens when a patentee presents a court with asserted method claims that require performance by multiple parties?²⁰ One theory that the patentee may assert is that the claims are infringed under a theory of joint infringement.²¹

Two cases decided by the U.S. Court of Appeals for the Federal Circuit articulate the standards for joint infringement. In *BMC Resources, Inc. v. Paymentech, L.P.*, the court ruled that to find liability in situations where steps of a method claim are performed by multiple parties, the entire method must be performed at the control or direction of the alleged direct infringer—the mastermind.²² Approximately one year later, in *Muniauction, Inc. v. Thomson Corp.*, the Federal Circuit clarified that "the control or direction standard is satisfied in situations where the law would traditionally hold the accused direct infringer vicariously liable for the acts committed by another party that are required to complete performance of a claimed method."²³

District courts have attempted to apply the holdings of *BMC Resources* and *Muniauction* in the two years following the Federal Circuit's decisions. In deciding their cases, district courts have focused on how the asserted claims are drafted and the relationships between the accused infringer and third parties.²⁴ Absent significant evidence of how an accused infringer controlled third parties, patent holders have found it difficult to support claims of infringement under a joint infringement theory.²⁵ Further, courts have suggested that carefully drafted claims directed to a

²³ Muniauction, Inc. v. Thomson Corp., 532 F.3d 1318, 1330 (Fed. Cir. 2008) (citing *BMC Res.*, 498 F.3d at 1379), *cert. denied*, 129 S. Ct. 1585 (2009).

²⁴ See discussion infra Parts III, IV.

²⁵ See discussion infra Part III.A–B.

¹⁹ See BMC Res., Inc. v. Paymentech, L.P., 498 F.3d 1373, 1380 (Fed. Cir. 2007) ("Infringement requires, as it always has, a showing that a defendant has practiced each and every element of the claimed invention." (citing Warner-Jenkinson Co. v. Hilton Davis Chem. Co., 520 U.S. 17, 40 (2007))).

²⁰ Emtel, Inc. v. LipidLabs, Inc., 583 F. Supp. 2d 811, 828 (S.D. Tex. 2008) ("In *BMC Resources*, decided in 2007, and *Muniauction*, decided in 2008, the Federal Circuit put to rest the suggestion in some prior cases that multiple parties acting independently to perform all the claimed steps of a method patent could directly infringe that patent.").

²¹ Courts sometimes refer to joint infringement as "divided infringement." See BMC Res., 498 F.3d at 1380.

²² See BMC Res., 498 F.3d at 1380-81 (explaining that "it would be unfair indeed for the mastermind in such situations to escape liability").

single actor would eliminate the need for patent holders to rely solely on joint infringement theory.²⁶

Section II of this article discusses the Federal Circuit's view of joint infringement theory as articulated in its two most recent opinions. Section III analyzes how district courts have applied the Federal Circuit's holdings in *BMC Resources* and *Muniauction*. In addition, it highlights evidence that may be favorable to a successful assertion of infringement under a theory of joint infringement. Finally, Section IV examines how claims can be drafted to avoid reliance on joint infringement theory during litigation.

II. Background

A. BMC Resources: Clarification of the Joint Infringement Standard

In *BMC Resources*, the Federal Circuit determined the proper standard for joint infringement liability by multiple parties of a single claim.²⁷ Specifically, the court "clarified the proper standard for whether a method claim is directly infringed by the combined actions of multiple parties."²⁸

The plaintiff, BMC Resources, Inc. (BMC), was the assignee of U.S. Patent Nos. 5,715,298 (the '298 patent) and 5,870,456 (the '456 patent).²⁹ Collectively, BMC's patents disclosed a method requiring the combined action of several participants.³⁰ The Federal Circuit summarized BMC's system as follows:

These patents claim a method for processing debit transactions without a personal identification number (PIN). The patented invention provides an interface between a standard touch-tone telephone and a debit card network. On this interface, a customer may perform real-time bill payment transactions with only a telephone keypad. The invention includes an interactive voice response unit (IVR) that prompts the caller to enter an access code, account number, debit card number, and payment amount. This information, in turn, passes to a debit net-

²⁶ See discussion infra Part IV.B.

²⁷ BMC Res., 498 F.3d at 1378.

²⁸ Id. at 1378–80; Muniauction, 532 F.3d at 1329 (citing BMC Res., 498 F.3d at 1380).

²⁹ BMC Res., 498 F.3d at 1375; U.S. Patent No. 5,870,456 (filed Oct. 7, 1997); U.S. Patent No. 5,715,298 (filed Jan. 22, 1997).

³⁰ See BMC Res., 498 F.3d at 1375 (stating that BMC's patents featured the combined actions of several participants including the payee's agent, a remote payment network, and the financial institution that issued the card).

work and on to a banking or financial institution. Each of these entities participates in approving and carrying out the transaction.³¹

The defendant, Paymentech L.P. (Paymentech), provided financial transaction processing.³² Paymentech received payment information from its clients—merchants who collected the payment information from its customers.³³ Paymentech routed the information to a participating debit network that then forwarded the information to an affiliated financial institution.³⁴ The financial institution was tasked with authorizing or declining the transaction and sending status information back to Paymentech via the debit network.³⁵

BMC demanded that Paymentech obtain a license to use its patented technology upon learning that BMC planned to provide its financial processing services to BMC's clients.³⁶ In response, Paymentech refused and subsequently filed suit in federal district court seeking a declaration of non-infringement of the BMC patents.³⁷ BMC counterclaimed and alleged that Paymentech directly infringed claim 7 of the '456 patent and claim 2 of the '298 patent.³⁸ Both parties filed summary judgment motions relating to the infringement.³⁹

Both of the claims asserted by BMC are method claims.⁴⁰ Claim 7 of the '456 patent depends on claim $6.^{41}$ Claims 6 and 7 are reproduced below:

6. A method of paying bills using a telecommunications network line connectable to at least one remote payment card network via a payee's agent's system wherein a caller begins session using a telecommunications network line to initi-

³¹ *Id.*

³⁵ Id.

³⁶ BMC Res., Inc. v. Paymentech, L.P., 498 F.3d 1373, 1376 (Fed. Cir. 2007).

- ³⁷ Id.
- ³⁸ Id.
- ³⁹ Id.
- ⁴⁰ *Id.* at 1376–77.
- ⁴¹ *Id.* at 1377.

³² Id. at 1375-76 (describing Paymentech's sequence in processing PIN-less debit bill payment transactions).

³³ *Id.* at 1375.

³⁴ *Id.* at 1376.

ate a spontaneous payment transaction to payee, the method comprising the steps of:

prompting the caller to enter a payment number from one or more choices of credit or debit forms of payment;

prompting the caller to enter a payment amount for the payment transaction;

accessing a remote payment network associated with the entered payment number, the accessed remote payment network determining, during the session, whether sufficient available credit or funds exist in an account associated with the payment number to complete the payment transaction, and upon a determination that sufficient available credit or funds exist in the associated account, charging the entered payment amount against the account with the entered payment number, adding the entered payment amount to an account associated with the entered account number, and storing the account number, payment number and payment amount in a transaction file of the system.

7. The method of claim 6 wherein said payment is a PIN-less credit or debit card number. 42

Claim 2 of the '298 patent depends on claim 1.⁴³ Both claims 1 and 2 are reproduced below:

1. A method of paying bills using a telephone connectable to at least one remote payment card network via a payee's agent's system, wherein a caller places a call using said telephone to initiate a spontaneous payment transaction that does not require pre-registration, to a payee, the method comprising the steps of:

prompting the caller to enter an account number using the telephone, the account number identifying an account of a payor with the payee in connection with the payment transaction;

responsive to entry of an account number, determining whether the entered account number is valid;

prompting the caller to enter a payment number using the telephone, the payment number being selected at the discretion of the caller from any one of a number of credit or debit forms of payment;

responsive to entry of the payment, determining whether the entered payment number is valid;

prompting the caller to enter a payment amount for the payment transaction using the telephone;

⁴² BMC Res., Inc. v. Paymentech, L.P., 498 F.3d 1373, 1376–77 (Fed. Cir. 2007); U.S. Patent No. 5,870,456 (filed Oct. 7, 1997).

⁴³ *BMC Res.*, 498 F.3d at 1377.

responsive to a determination that a payment amount has been entered and further responsive to a determination that the entered account number and payment number are valid, and during the call;

accessing a remote payment network associated with the entered payment number, the accessed remote payment network determining, during the call, the account associated with the entered payment number to complete the payment transaction; accessing a remote payment network associated with the entered payment number, the accessed remote payment network determining, during the call, whether sufficient available credit or funds exist in an account associated with the entered payment number to complete the payment transaction;

responsive to a determination that sufficient available credit or funds exist in the associated account, charging the entered payment amount against the account associated with the entered payment number, adding the entered payment amount to an account associated with the entered account number, informing the caller that the payment transaction has been authorized, and storing the account number, payment number and payment amount in a transaction log file of the system during the call; and

responsive to determination that sufficient available credit or funds do not exist in the associated account, informing the caller during the call that the current payment transaction has been declined and terminating the current payment transaction.

2. The method of claim 1 wherein said payment number is a debit card number.⁴⁴

Paymentech asserted that it did not infringe the claims because "it did not perform all of the steps of the patented method by itself or in coordination with its customers and financial institutions."⁴⁵ In response, BMC argued that the Federal Circuit's decision in *On Demand Machine Corp. v. Ingram Industries, Inc.* modified the adequate standards controlling joint infringement by multiple parties.⁴⁶ Specifically, BMC argued that under *On Demand*, a plaintiff must meet a "participation and combined action" standard to establish the connection required to prove joint infringement.⁴⁷ BMC concluded that Paymentech infringed the asserted claims under this standard.⁴⁸

⁴⁴ *Id.*; U.S. Patent No. 5,715,298 (filed Jan. 22, 1997).

⁴⁵ *BMC Res.*, 498 F.3d at 1378.

⁴⁶ *Id.* (citing On Demand Mach. Corp. v. Ingram Indus., Inc., 442 F.3d 1331 (Fed. Cir. 2006)).

⁴⁷ *Id.* at 1380.

⁴⁸ *Id.* at 1378.

The U.S. District Court for the Northern District of Texas disagreed with BMC that *On Demand* controlled, stating that BMC relied on language that was dicta.⁴⁹ After reviewing other district court decisions and finding no law on point from the Federal Circuit, the district court concluded that Paymentech would infringe the claims only "if the record showed that it directed or controlled the behavior of the financial institutions that performed those claimed method steps that Paymentech [itself] did not perform."⁵⁰ In addition, the magistrate judge recommended summary judgment after determining that Paymentech did not infringe, either by itself or in connection with other entities, BMC's patents.⁵¹ Accordingly, having determined that the record did not contain any evidence of direction or control, the district court granted Paymentech's motion for summary judgment.⁵²

BMC appealed the district court's decision to the Federal Circuit.⁵³ The Federal Circuit also rejected BMC's argument that *On Demand* changed precedent regarding joint infringement.⁵⁴ In *On Demand*, the Federal Circuit stated that it found no flaw with the district court's jury instructions as a statement of law.⁵⁵ The jury instruction was as follows:

It is not necessary for the acts that constitute infringement to be performed by one person or entity. When infringement results from the participation and combined action(s) of more than one person or entity, they are all joint infringers and jointly liable for patent infringement. Infringement of a patented process or method cannot be avoided by having another perform one step of the process or method. Where the infringement is the result of the *participation and combined action(s)* of one or more persons or entities, they are joint infringers and are jointly liable for the infringement.⁵⁶

Based on its interpretation of the jury instruction and the subsequent Federal Circuit's conclusion that it had no flaw, BMC argued that the Federal Circuit

- ⁵² *Id.* at 1378.
- ⁵³ *Id.* at 1375.
- ⁵⁴ See id. at 1380.
- ⁵⁵ On Demand, 442 F.3d at 1344–45; BMC Res., 498 F.3d at 1380 (citation omitted).
- ⁵⁶ On Demand, 442 F.3d at 1344–45; BMC Res., 498 F.3d at 1379 (emphasis added) (citation omitted).

⁴⁹ Id. (noting the district court's determination that On Demand did not alter the traditional standard applied to infringement by multiple parties).

⁵⁰ *Id*.

⁵¹ BMC Res., Inc. v. Paymentech, L.P., 498 F.3d 1373, 1377–78 (Fed. Cir. 2007).

adopted a "'participation and combined action' standard as the type of 'connection' a plaintiff must show to prove joint infringement."⁵⁷ However, the Federal Circuit noted that its opinion in *On Demand* did not analyze the issues related to joint infringement.⁵⁸ Thus, the Federal Circuit concluded that *On Demand* did not change Federal Circuit precedent regarding joint infringement and that BMC's interpretation went beyond settled law.⁵⁹

Having rebutted BMC's argument, the Federal Circuit began its analysis by stating the traditional rule that to prevail under direct infringement, the plaintiff must prove that a single party performed or used each element or step of the patented invention.⁶⁰ Thus, liability for infringement exists when a party "make[s], use, sell, or offer to sell the entire patented invention."⁶¹ The court pointed out that indirect liability is the normal recourse under the law when a defendant, who is not a direct infringer, encourages or is a participant in infringement.⁶² However, even liability under indirect infringement requires an initial finding that at least one party among all the accused actors has committed direct infringement.⁶³

The Federal Circuit also noted that other courts that dealt with joint infringement refused to find liability against a party that did not direct or control every step of the patented process.⁶⁴ Further, the court addressed the appearance of a loophole to escape liability if one party had a third party carry out one or more steps of a claim.⁶⁵ The court explained that in such circumstances, "the law imposes vicarious liability on a party for the acts of another in circumstances showing that the liable

⁶¹ *Id*.

⁶⁴ Id. at 1380 (citations omitted).

⁵⁷ See BMC Res., 498 F.3d at 1380.

⁵⁸ See id. (emphasizing the district court's proper interpretation that just because the Federal Circuit in On Demand found no flaw on the jury instruction, that doesn't indicate a wholesale adoption of the instruction).

⁵⁹ Id.

⁶⁰ *Id.* at 1380 (citing Warner-Jenkinson Co. v. Hilton Davis Chem. Co., 520 U.S. 17, 40 (2007)).

⁶² Id. at 1379 (citing Dynacore Holdings Corp. v. U.S. Philips Corp., 363 F.3d 1263, 1272 (Fed. Cir. 2004)).

⁶³ BMC Res., Inc. v. Paymentech, L.P., 498 F.3d 1373, 1379 (Fed. Cir. 2007).

⁶⁵ *Id.* at 1379 (citation omitted).

party controlled the conduct of the acting party."⁶⁶ Accordingly, a defendant in a patent infringement claim could not escape liability merely by having another party carry out a step or a series of steps on its behalf.⁶⁷ In such instances, the party in control would be held liable⁶⁸ "It would be unfair indeed for the mastermind in such situations to escape liability," the court stated.⁶⁹

Applying the control or direction standard to the facts, the court concluded that Paymentech did not infringe BMC's patents.⁷⁰ BMC's evidence that Paymentech also provided data to debit networks, absent evidence that Paymentech also provided instructions or directions for the use of the data, was inadequate to create a genuine issue of material fact whether Paymentech controlled or directed the activity of the debit networks.⁷¹ Moreover, the court found that evidence of direction or control between Paymentech and the financial institutions are scarcer since the lower court did not even find evidence of a contractual relationship.⁷² Thus, without sufficient evidence that Paymentech either directed or controlled both the financial institutions and the debit networks, the Federal Circuit concluded that "Paymentech did not perform or cause to be performed each and every element of the claims."⁷³

The Federal Circuit acknowledged that in some circumstances, parties may avoid infringement under the control or direction standard by entering into armslength transactions.⁷⁴ However, it warned that expanding the rules governing direct infringement to cover the independent conduct of multiple actors would defeat the

⁶⁸ *Id.* at 1381.

⁷⁰ Id.

⁷¹ Id. at 1381-82. BMC argued that "that instructions or directions can be inferred from the provision of these data, or that the data themselves provide instructions or directions." Id. However, the court found that this inference is insufficient in the absence of evidence supporting either theory. Id.

 72 Id. at 1382 (pointing to the evidence in front of the district court and the magistrate judge).

⁶⁶ Id at 1379 (citing Engle v. Dinehart, No. 99-10087, 2000 WL 554942 (N.D. Tex. Apr. 19, 2000) (unpublished opinion)).

⁶⁷ Id.

⁶⁹ BMC Res., Inc. v. Paymentech, L.P., 498 F.3d 1373, 1381 (Fed. Cir. 2007).

⁷³ Id.

⁷⁴ BMC Res., Inc. v. Paymentech, L.P., 498 F.3d 1373, 1382 (Fed. Cir. 2007).

statutory scheme underlying indirect infringement.⁷⁵ It also added that these concerns could be addressed by proper claim drafting.⁷⁶

The Federal Circuit observed that BMC's claims had a defect by having four different parties perform different acts within one claim.⁷⁷ Acknowledging BMC's own difficulty with this claim format, the court nevertheless refused to "unilaterally restructure the claim or the standards for joint infringement to remedy [BMC's] ill-conceived claims."⁷⁸

B. Muniauction: The Multi-Party Spectrum Defined

Approximately one year later in *Muniauction*, the Federal Circuit was presented with another case in which a patentee, Muniauction, Inc., claimed that the defendant, Thomson, infringed the patentee's patents under the joint infringement theory.⁷⁹ The patent at issue in *Muniauction*, U.S. Patent No. 6,161,099, was directed to conducting an auction of financial instruments over a network (e.g., the internet) using a web browser.⁸⁰ The system described in the patent allowed bidders to submit bids using a conventional web browser.⁸¹ The accused process, owned by Thomson, allowed users to issue bids over the Internet using a web browser.⁸²

⁷⁵ Id. ("Direct infringement is a strict-liability offense, but it is limited to those who practice each and every element of the claimed invention. By contrast, indirect liability requires evidence of 'specific intent' to induce infringement. Another form of indirect infringement, contributory infringement under § 271(c), also requires a mens rea (knowledge) and is limited to sales of components or materials without substantial noninfringing uses. Under BMC's proposed approach, a patentee would rarely, if ever, need to bring a claim for indirect infringement.")

⁷⁶ Id. (providing that a plaintiff can structure a claim by focusing on one entity. It added that BMC's claim, could have referred to a single entity instead of having four different parties perform parts of a claim).

⁷⁷ Id.

⁷⁸ *Id.* at 1381 (citing Sage Prods. Inc. v. Devon Indus. Inc., 126 F.3d 1420, 1425 (Fed. Cir. 1997)).

 ⁷⁹ See Muniauction, Inc. v. Thomson Corp., 532 F.3d 1318, 1328 (Fed. Cir. 2008), cert. denied, 129 S. Ct. 1585 (2009).

⁸⁰ See id. at 1321–22.

⁸¹ *Id.* at 1322 ("[T]he '099 patent provides an 'integrated system on a single server' that allows issuers to run the auction and bidders to prepare and submit bids using a conventional web browser, without the use of other separate software.").

⁸² *Id.* at 1323.

Thomson moved for a judgment as a matter of law after a jury found that it willfully infringed the claims of the asserted patent.⁸³ The district court denied the motion, and Thomson appealed to the Federal Circuit.⁸⁴ On appeal, Muniauction continued to argue that Thomson infringed the claims based solely on a theory of joint infringement.⁸⁵ Since both parties agreed that no single party performed every step of the asserted claims, the issue before the Federal Circuit was whether the action of the bidder and auctioneer could be combined to give rise to a finding of direct infringement by the auctioneer.⁸⁶

The Federal Circuit's decision in *BMC Resources* was rendered while *Muni-auction* was on appeal.⁸⁷ Summarizing *BMC Resources*, the *Muniauction* court described a multiparty spectrum for direct infringement.⁸⁸ At one end of the spectrum, "where the actions of multiple parties combine to perform every step of a claimed method, the claim is directly infringed only if one party exercises 'control or direction' over the entire process such that every step is attributable to the controlling party, i.e., the 'mastermind.'"⁸⁹ At the other end of the spectrum, the Federal Circuit stated, "mere 'arms-length cooperation' would not give rise to direct infringement by any party."⁹⁰ Given this spectrum, the *Muniauction* court concluded that one situation in which the control or direction standard would be satisfied is where the accused infringer is held vicariously liable for the acts of another party.⁹¹

Thus, in applying the *BMC Resources* standard, the Federal Circuit examined the facts to determine whether Thomson sufficiently controlled or directed other

- ⁸⁶ *Id.* at 1328–29.
- ⁸⁷ *Id.* at 1323. *See* discussion *infra* Part II.A.
- ⁸⁸ Id. at 1329 (citing BMC Res., Inc. v. Paymentech, L.P., 498 F.3d 1373, 1380–81 (Fed. Cir. 2007)).
- ⁸⁹ Muniauction, Inc. v. Thomson Corp., 532 F.3d 1318, 1329 (Fed. Cir. 2008) (citing *BMC Res.*, 498 F.3d at 1371), *cert. denied*, 129 S. Ct. 1585 (2009).

⁹⁰ Id.

⁸³ Id. The jury imposed over \$38 million in damages for Thomson's willful infringement. Id.

⁸⁴ Muniauction, Inc. v. Thomson Corp., 532 F.3d 1318, 1323 (Fed. Cir. 2008), *cert. denied*, 129 S. Ct. 1585 (2009). The district court also increased the damages to over \$76 million plus interest and issued a permanent injunction. *Id.*

⁸⁵ *Id.* at 1328.

⁹¹ *Id.* at 1330 (citing *BMC Res.*, 498 F.3d at 1379).

parties such that it could be said that Thomson performed every step of the asserted claims.⁹² The court found the fact that Thomson controlled access to its system and instructed bidders on its use was insufficient to incur liability for direct infringement.⁹³ Thus, Thomson did not perform every step of the method claims, nor did it have another party perform the steps on its behalf.⁹⁴ Accordingly, the court concluded that Thomson did not infringe the asserted claims.⁹⁵

C. Summary

In sum, the decisions in *BMC Resources* and *Muniauction* articulated a standard for finding joint infringement of a single method by multiple parties. *BMC Resources* held that in situations where steps of a method claim are performed by multiple parties, the entire method must be performed at the control or direction of the alleged direct infringer.⁹⁶ The *Muniauction* decision reinforced that "the control or direction standard is satisfied in situations where the law would traditionally hold the accused direct infringer vicariously liable for the acts committed by another party that are required to complete performance of a claimed method."⁹⁷

Two years later, district courts have faced several challenges in applying the framework set forth in *BMC Resources* and *Muniauction*. For example, even after *Muniauction*, one court remarked that the "Federal Circuit did not explain with any specificity what it meant by 'direction or control."⁹⁸

III. Guideposts along the multi-party spectrum: How courts have applied *BMC Resources* and *Muniauction*

The primary challenge courts have encountered is evaluating the relationships between alleged joint infringers. The *Muniauction* court explained the existence of

⁹² See id. at 1329–30.

⁹³ See id. at 1330.

⁹⁴ *Id.* at 1330.

⁹⁵ Muniauction, Inc. v. Thomson Corp., 532 F.3d 1318, 1330 (Fed. Cir. 2008), cert. denied, 129 S. Ct. 1585 (2009).

⁹⁶ See BMC Res., Inc. v. Paymentech, L.P., 498 F.3d 1373, 1380–81 (Fed. Cir. 2007).

⁹⁷ Muniauction, 532 F.3d at 1330 (citing BMC Res., 498 F.3d at 1379).

⁹⁸ Global Patent Holdings, LLC v. Panthers BRHC LLC, 586 F. Supp. 2d 1331, 1334 (S.D. Fla. 2008), aff'd, 318 F. App'x 908 (Fed. Cir. 2009).

a spectrum of multiparty relationships.⁹⁹ However, placing parties in the spectrum, by looking at their relationship with each other, proved to be challenging.

In addition, the technology involved in subsequent joint infringement cases ranged from wireless applications to distributed software systems.¹⁰⁰ Thus, courts have had to apply the holdings of *BMC Resources* and *Muniauction* to various factual scenarios involving both method and apparatus claims.¹⁰¹ Guidance can be obtained, however, by examining district courts' analysis as to where certain fact patterns lie along the multiparty spectrum between arms-length negotiation and vicarious liability.

A. Evidence of Mere Guidance or Instruction is Insufficient Evidence of Direction or Control

The results in *BMC Resources* and *Muniauction* indicate that providing data to another party or controlling access to a system and providing instructions for using that system do not support an inference adequate to show direction or control.¹⁰² In *Global Patent Holdings*, after summarizing *BMC Resources* and *Muniauction*, the U.S. District Court for the Southern District of Florida concluded that the Federal Circuit did not intend for evidence of "mere guidance or instruction in how to conduct some of the steps of a method patent" to satisfy the direction or control standard.¹⁰³ Instead, the district court reiterated that a finding of joint infringement is warranted under this standard if a third party performs "the steps of the patented process by virtue of a contractual obligation or other relationship that gives rise to vicarious liability."¹⁰⁴

 ⁹⁹ Muniauction, 532 F.3d at 1329 (citing BMC Res., Inc. v. Paymentech, L.P., 498 F.3d 1373, 1380–81 (Fed. Cir. 2007)); Emtel, Inc. v. LipidLabs, Inc., 583 F. Supp. 2d 811, 829 (S.D. Tex. 2008). See also discussion infra Part II.B.

¹⁰⁰ See, e.g., Global Patent Holdings, 586 F. Supp. 2d at 1332 n.1 (involving a method patent for downloading data from a remote server); Am. Patent Dev. Corp. v. Movielink, LLC, 637 F. Supp. 2d 224, 236–37 (D. Del. 2009) (involving patents for video-on-demand programming).

¹⁰¹ See, e.g., Rowe Int'l Corp, v. Ecast, Inc. 586 F. Supp. 2d 924 (N.D. Ill. 2008) (involving an apparatus claim); *Global Patent Holdings*, 586 F. Supp. 2d at 1332 n.1 (involving a method claim).

 ¹⁰² See supra notes 71, 93 and accompanying text; see also Emtel, 583 F. Supp. 2d at 831 (citing BMC Res., Inc. v. Paymentech, L.P., 498 F.3d 1373, 1381 (Fed. Cir. 2007)); Muniauction, 532 F.3d at 1329.

¹⁰³ Global Patent Holdings, 586 F. Supp. 2d at 1335.

¹⁰⁴ Id.

The patent at issue concerned a method for downloading data from a remote server.¹⁰⁵ The plaintiff, Global Patent Holdings (Global), alleged that the defendant, Panthers BRHC (Panthers), infringed Global's patent through the joint action of Panthers and home users of Panthers' website (i.e., the Boca Resort website).¹⁰⁶ The Boca Resort website supplied computer programs that were executed on the users' computers.¹⁰⁷ Global asserted that the website controlled and directed the operation of the programs on the users' computers.¹⁰⁸ Specifically, Global argued that the asserted claim's method step of "identifying a query via a data input means and inputting said query to remote query and data retrieval means" was controlled by the defendant's website even though it was executed on a user's computer.¹⁰⁹ Panthers responded that under the standard set forth in *BMC Resources*, Global had not alleged that Panthers exercised sufficient direction or control of the third party infringers.¹¹⁰

After briefly examining the holdings in *BMC Resources* and *Muniauction*, the district court explained that a finding of joint infringement under *BMC Resources* is unwarranted absent evidence that the third party is required to perform steps of the patented process through a contractual obligation or some other relationship establishing vicarious liability.¹¹¹ With this understanding, the court noted that there were no facts presented that a remote user was contractually obligated to visit the defendant's website or that the remote users were Global's agents and visited the website in the scope of their agency.¹¹² Observing that the claimed method did not begin until a remote user visited the defendant's website and absent a showing that the users were somehow required to visit the website, the district court found that

¹¹¹ *Id.* at 1335.

¹¹² Id.

¹⁰⁵ Id. at 1332 n.1.

¹⁰⁶ *Id.* at 1333.

¹⁰⁷ Id.

¹⁰⁸ Id.

¹⁰⁹ Global Patent Holdings, LLC v. Panthers BRHC LLC, 586 F. Supp. 2d 1331, 1332 n.1, 1333 (S.D. Fla. 2008), *aff'd*, 318 F. App'x 908 (Fed. Cir. 2009). More specifically, "plaintiff allege[d] that step (a) of claim 17 of the '341 patent is controlled by Defendant, even though it is executed by a remote user's computer, because the remote user's computer 'runs Javascript programs and renders html-based web page material which have been supplied to the user's computer by Boca Resort's website." *Id.*

¹¹⁰ *Id.* at 1333.

the defendant's conduct was not sufficient to establish direction or control.¹¹³ The district court also concluded that the defendant did not exercise sufficient control by putting software on user computers to allow users to begin the process.¹¹⁴

Thus, the *Global Patent Holdings* court made clear that evidence that a defendant provided guidance or instruction to a third party is probably not sufficient to support a claim of joint infringement.¹¹⁵ One court has applied *Global Patent Holdings* by finding that "[g]iving instructions or prompts to the third party in its performance of the steps necessary to complete infringement, or facilitating or arranging for the third-party's involvement in the alleged infringement, are not sufficient" evidence of direction or control.¹¹⁶

Another important aspect of *Global Patent Holdings* is the court's indication that evidence of a contractual obligation between a defendant and third party could lead to a finding of joint infringement.¹¹⁷ The court did not elaborate on the type of contractual obligation that would be sufficient.¹¹⁸ However, another recent district court decision has specifically examined whether a contractual obligation was sufficient to support a finding of joint infringement.¹¹⁹

B. Evidence of a Contract Between Two Parties, by Itself, is Insufficient for a Finding of Direction or Control

BMC Resources suggested that the existence of a contractual relationship between the accused infringer and the third party performing other steps of a patented method was a significant consideration in determining whether the accused infringer exercised direction or control.¹²⁰ The decision in *Akamai Techs, Inc. v.*

¹¹⁴ Id.

¹²⁰ BMC Res., Inc. v. Paymentech, L.P., 498 F.3d 1373, 1382 (Fed. Cir. 2007). See also Akamai Techs, 614 F. Supp. 2d at. at 117–18; supra note 80 and accompanying text.

¹¹³ Id.

¹¹⁵ Global Patent Holdings, LLC v. Panthers BRHC LLC, 586 F. Supp. 2d 1331, 1335 (S.D. Fla. 2008) (emphasizing that merely putting Javascript applications on the user's computer for the process to begin is insufficient to meet the *BMC Resources* standard, absent additional showing of some form of relationship that establishes vicarious liability between the defendant and the third party), *aff'd*, 318 F. App'x 908 (Fed. Cir. 2009).

¹¹⁶ Emtel, Inc. v. LipidLabs, Inc., 583 F. Supp. 2d 811, 834 (S.D. Tex. 2008).

¹¹⁷ Global Patent Holdings, 586 F. Supp. 2d at 1335.

¹¹⁸ Id.

¹¹⁹ See Akamai Techs, Inc. v. Limelight Networks, Inc., 614 F. Supp. 2d 90, 118 (D. Mass. 2009).

Limelight Networks, Inc., elaborated on this issue by examining whether a contract between a customer and content provider was sufficient to support a finding of joint infringement.¹²¹

In *Akamai*, the U.S. District Court for the District of Massachusetts first addressed whether a finding of vicarious liability was necessary to fulfill *BMC Resources*' control or direction standard.¹²² The court found that if evidence of vicarious liability were required for a finding of joint infringement, then an entity could escape liability just by hiring an independent contractor to execute one or more steps of a patented method.¹²³ Acknowledging that *BMC Resources* stated that one could not avoid liability simply by contracting out steps of a claimed process to another party, the court concluded that lack of evidence of vicarious liability would not preclude joint infringement.¹²⁴ Although a finding of vicarious liability is not necessary, the court explained that *Muniauction* required more than evidence of a mere "contractual agreement to pay for a defendant's services and instructions or directions on how to use those services" to satisfy the direction or control standard.¹²⁵

Turning to *Akamai*'s facts, the court observed that the defendant, Limelight Networks, Inc. (Limelight), had an agreement with its customers to provide a service (page objects from its network) in exchange for financial consideration.¹²⁶ However, the customer had to perform a step of the asserted method claim in order to obtain the services Limelight offered.¹²⁷ The court further noted that the customer's performance of this step is not a contractual obligation and may be performed whether they subscribed to Limelight's services or not.¹²⁸ Accordingly, the court found that the elements of direct infringement were not met since the type of

¹²⁸ Id. at 122.

¹²¹ See Akamai Techs, 614 F. Supp. 2d at 116–23.

¹²² See id. at 119–20.

¹²³ *Id.* at 120 (citing Graham v. Malone Freight Lines, Inc., 314 F.3d 7, 15 (1st Cir. 1999) ("Employers are generally not liable for the negligent acts of the independent contractors they hire.")).

¹²⁴ Id. (citing BMC Res., 498 F.3d at 1381).

¹²⁵ ·*Id.* at 121.

¹²⁶ Id.

¹²⁷ Akamai Techs, Inc. v. Limelight Networks, Inc., 614 F. Supp. 2d 90, 121 (D. Mass. 2009) (comparing the facts with the defendant in *Muniaction* and concluding that in both cases "the customer must perform a step of the patented method in order to obtain the offered service").

contract for services between Akamai and its customers did not establish direction or control.¹²⁹

In *Gammino v. Cellco Partnership*, the U.S. District Court for the Eastern District of Pennsylvania reached a similar result.¹³⁰ There was evidence of a contract between the defendants and service providers.¹³¹ However, evidence of a contract by itself was not enough for the court to find that the defendants directed or controlled the actions of the service providers.¹³²

In addition to the findings in *Akamai* and *Gammino*, one commentator has noted that it is unlikely that courts will find evidence of direction or control between a company and its customers in most circumstances.¹³³ Thus, under *BMC Resources*, a "contract for services [alone probably] does not give rise to direction or control, even if the customer must perform one or more steps of the patented process in order to receive the benefits of those services."¹³⁴ Instead, even where a contract exists, courts have indicated that evidence that the accused party (i.e., the mastermind) directed or controlled how a third party performed the steps of a method claim is required.¹³⁵

C. Evidence of "Continuing Control" May be Sufficient to Support an Infringement Claim

The control or direction standard may be satisfied in cases where there exists a "contractual agency relationship between the 'mastermind' and the third party

¹³¹ *Id.* The defendant purchased telephone service along with international call blocking from various local providers. *Id.*

¹³² *Id.* at 398–99.

¹²⁹ See id.

¹³⁰ Gammino v. Cellco P'ship, 527 F. Supp. 2d 395 (E.D. Pa. 2007). In the *Gammino* case, however, the defendant was the purchaser of the service (international call blocking), which the plaintiff claimed infringed its patent. *Id.* at 397.

¹³³ See Larsen, supra note 18, at 58–59 ("If liability should be imposed upon entities who seek to reap the commercial benefit of another's patented process and avoid liability simply by exploiting the technicalities of infringement jurisprudence, an approach broader than the 'control or direction' standard of *BMC v. Paymentech* is needed.").

¹³⁴ See Akamai Techs, Inc. v. Limelight Networks, Inc., 614 F. Supp. 2d 90, 121 (D. Mass. 2009).

 ¹³⁵ See, e.g., Emtel, Inc. v. LipidLabs, Inc., 583 F. Supp. 2d 811, 833 (S.D. Tex. 2008); Gammino, 527 F. Supp. 2d 395; Akamai, 614 F. Supp. 2d 90;

performing some of the steps necessary to show infringement."¹³⁶ In a recent decision, the court in *American Patent Development* found that evidence of software running on a third-party system being continuously controlled by an accused infringer may be sufficient to support a claim for infringement under a joint infringement theory.¹³⁷

American Patent Development Corporation (APDC) asserted that Movielink infringed claims 1 and 2 of U.S. Patent No. 5,400,402 ('402 patent).¹³⁸ The '402 patent pertained to systems for controlling the use of video-on-demand programming.¹³⁹ Specifically, it "relates to a system for limiting the use of a downloaded video program purchased by a customer [where] a 'central station' transmits a 'video product' to a customer at a 'user site.'"¹⁴⁰ The claims at issue were directed to methods that would restrict the customer's access to video programming once particular viewing limits were reached.¹⁴¹ Claim 1 of the '402 patent reads:

1. A method for providing a video product from a central station to a user site, comprising the steps of:

transmitting from said central station to said user site a digital data stream comprising said video product, and data establishing a limit for authorized viewing of said video product;

storing said video product at said user site;

decoding said data establishing a limit for authorized viewing of said video product;

storing a result of said decoding step;

blocking access to said video product stored at said user site if said limit for authorized viewing is exceeded. $^{\rm 142}$

APDC alleged that the Movielink Manager software performed the steps of "decoding," "storing" and "blocking access" recited in the asserted claims.¹⁴³ APDC ex-

¹⁴⁰ Am. Patent Dev. Corp. v. Movielink, LLC, 637 F. Supp. 2d 224, 227 (D. Del. 2009).

¹³⁶ *Emtel*, 583 F. Supp. 2d at 835.

¹³⁷ See Am. Patent Dev. Corp. v. Movielink, LLC, 637 F. Supp. 2d 224, 236–37 (D. Del. 2009).

¹³⁸ *Id.* at 227.

¹³⁹ Id. at 226. See also U.S. Patent No. 5,400,402 (filed June 7, 1993).

¹⁴¹ Id.

¹⁴² U.S. Patent No. 5,400,402 (filed June 7, 1993).

plained that to use Movielink's service, a customer must have the Movielink Manager software installed on her computer.¹⁴⁴ The customer then uses the software to download a requested video from servers controlled by Movielink.¹⁴⁵ The software then works with Microsoft Digital Rights Management application to determine whether the user has permission to view the downloaded video.¹⁴⁶ If it determines that the user did not have permission then the video product is deleted and the memory, where the video was previously stored, is wiped.¹⁴⁷

The court articulated that the central issue was whether "the Movielink Manager software running on customers' computers can be, as APDC contends, considered part of a 'unitary' Movielink system that is controlled or directed by a Movielink 'mastermind.'"¹⁴⁸ APDC pointed to evidence that Movielink retained control over the Movielink Manager software that ran on user computers.¹⁴⁹ For instance, Movielink's documentation indicated that the Movielink Manager software was integrated with its server software referred to as the Web Commerce Application.¹⁵⁰ Further, APDC noted that Movielink, through its software, had the capacity to revoke customer licenses.¹⁵¹

Movielink, relying on the decision in *Global Patent Holdings*, argued that it is not liable under a joint infringement theory because it did not perform all the steps recited in claim $1.^{152}$ Specifically, Movielink asserted that some steps of claim 1

¹⁴⁶ Id.

- ¹⁴⁹ Am. Patent Dev. Corp. v. Movielink, LLC, 637 F. Supp. 2d 224, 236–37 (D. Del. 2009) (noting that APDC has pointed to sufficient evidence to survive summary judgment).
- ¹⁵⁰ Id. at 237 ("[T]he Movielink Manager software is repeatedly depicted in Movielink documents as being part of an integrated Movielink system made up of a number of highly interrelated components.").
- ¹⁵¹ See id. (finding the testimony of Movielink's former Vice President of Web Engineering and Operation compelling).

¹⁴³ Am. Patent Dev., 637 F. Supp. 2d at 236.

¹⁴⁴ *Id.* at 227.

¹⁴⁵ *Id.* at 228.

¹⁴⁷ Id.

¹⁴⁸ *Id.* at 236.

¹⁵² *Id.* at 235–36.

were performed by a user on the user's computer.¹⁵³ Movielink added that it did not control the user computer or the software running on the user's computer.¹⁵⁴

The court distinguished these facts from those in *Global Patent Holdings*, where the first step of a claim being asserted required the specific action of a remote computer user.¹⁵⁵ Examining the claims at issue, the court observed that unlike the asserted claims in *Global Patent Holdings*, none of the steps in claim 1 must be performed by a "remote computer user."¹⁵⁶ Instead, the court characterized the asserted claim 1 as merely requiring the operation of components at a "central station" and a "user site."¹⁵⁷

Further, the court found that the evidence presented by APDC that Movielink maintained control over the Movielink Manager software was sufficient to survive summary judgment.¹⁵⁸ Although part of the Movielink software ran on a customer computer, the court concluded that there was a genuine issue of material fact as to whether Movielink exercised continuing control over the software.¹⁵⁹ Similarly, as discussed below, courts have found that a fact issue exists concerning joint in-fringement when presented with evidence that the alleged infringer exercised specific control over the actions of third parties.

D. Evidence that an Alleged Infringer Caused Third Parties to Perform in Accordance with Specific Instructions and Requirements May Be Sufficient to Support a Joint Infringement Claim

In *Emtel, Inc. v. LipidLabs Inc.*, the U.S. District Court for the Southern District of Texas concluded, after a lengthy analysis of other district court decisions analyzing *BMC Resources* and *Muniauction*, that "to raise a fact issue as to direct

¹⁵⁴ Id.

¹⁵⁶ Id.

¹⁵⁷ Id.

¹⁵⁸ Id.

¹⁵⁹ *Id.* at 237.

¹⁵³ *Id.* at 235.

¹⁵⁵ Am. Patent Dev. Corp. v. Movielink, LLC, 637 F. Supp. 2d 224, 236 (D. Del. 2009) (citing Global Patent Holdings, LLC v. Panthers BRHC LLC, 586 F. Supp. 2d 1331, 1335 (S.D. Fla. 2008) ("Plaintiff conceded that the patented method does not begin until a computer user visits Defendant's website. If no person ever visited Defendant's website, then Plaintiff's patent would never be infringed. The initial step of the '341 patent calls for action on the part of the remote computer user.")).

infringement under the direction-or-control standard, the alleged infringer must cause third parties to perform steps of the claimed method in accordance with specific instructions and requirements."¹⁶⁰ In reaching this conclusion, the district court relied in part on the facts presented in *Rowe International Corp. v. Ecast, Inc.*¹⁶¹

In *Rowe*, the U.S. District Court for the Northern District of Illinois held that there was sufficient evidence for a reasonable jury to conclude that third-party defendants were under the direction and control of Ecast, Inc. in the manufacturing of jukebox hardware.¹⁶² The plaintiffs, Rowe International Corp. and Arachnid, Inc., claimed that Ecast, Rock-Ola Manufacturing Corp., and View Interactive Entertainment Corp. infringed six patents owned by Arachnid and licensed to Rowe.¹⁶³ Each of the asserted patents was directed to computer jukeboxes and computer jukebox networks.¹⁶⁴ Unlike *BMC Resources* and *Muniauction*, the claims at issue in *Rowe* involved apparatus claims.¹⁶⁵ For example, among other claims Rowe asserted, claim 1 of U.S. Patent No. 6,397,189 is a patent for an improved computer jukebox comprising a communication interface, a data storage unit, a display, selection keys, and several other component parts.¹⁶⁶

The plaintiffs moved for summary judgment on the infringement claims.¹⁶⁷ In response, defendants argued that none of them directly infringed the patents.¹⁶⁸ Specifically, the defendants asserted that because Rock-Ola and View Interactive made only the jukebox components and Ecast provided only the memory component and the network, while the operators of the jukeboxes put the system together,

- ¹⁶² Rowe, 586 F. Supp. 2d at 933; Emtel, 583 F. Supp. 2d at 834.
- ¹⁶³ *Rowe*, 586 F. Supp. 2d at 929.
- ¹⁶⁴ *Id.* at 930.
- ¹⁶⁵ Id. at 930; BMC Res., Inc. v. Paymentech, L.P., 498 F.3d 1373, 1375 (Fed. Cir. 2007) (involving method patents); Muniauction, Inc. v. Thomson Corp., 532 F.3d 1318, 1321 (Fed. Cir. 2008) (involving method patents), *cert. denied*, 129 S. Ct. 1585 (2009). *See also supra* notes 30–41 and accompanying text.

¹⁶⁷ *Rowe*, 586 F. Supp. 2d at 929.

¹⁶⁸ *Id.* at 930.

¹⁶⁰ Emtel, Inc. v. LipidLabs, Inc., 583 F. Supp. 2d 811, 834 (S.D. Tex. 2008).

¹⁶¹ Id. See also Rowe Int'l Corp, v. Ecast, Inc. 586 F. Supp. 2d 924, 933 (N.D. III. 2008).

¹⁶⁶ U.S. Patent No. 6,397,189 (filed May 12, 1998); Rowe, 586 F. Supp. 2d at 941.

none of them alone directly infringed the asserted claims.¹⁶⁹ In Ecast's view, Ecast, Rock-Ola and View Interactive were partners.¹⁷⁰

The district court, however, found that "[d]efendants [were] not entitled to denial of plaintiffs' summary judgment motion on the ground that no one of them directly infringe[d] the asserted patents."¹⁷¹ In reaching this conclusion, the court pointed to several indications of direction and control that Ecast exercised over Rock-Ola and View Interactive.¹⁷² For instance, the court found that Rock-Ola and View Interactive had manufacturing and distribution contracts with Ecast.¹⁷³ Pursuant to these contracts, Rock-Ola and View Interactive specifically manufactured jukeboxes made for the Ecast network service.¹⁷⁴ Ecast's own promotional materials reflected a system that included a wide area network consisting of consumer entertainment jukebox units (supplied by Rock-Ola and View Interactive) and a data center (operated by Ecast).¹⁷⁵

Moreover, Ecast provided Rock-Ola and View Interactive with designs related to the jukebox that would make Ecast's software network more successful.¹⁷⁶ In one example of this reference designs, Ecast informed Rock-Ola and View Interactive that its software was written to communicate with a specific type of hardware device (an Elo Intellitouch Serial Controller) and that Ecast would need to approve any changes from this specification.¹⁷⁷

The court also observed that there was no suggestion that Rock-Ola or View Interactive independently manufactured jukeboxes for the Ecast system.¹⁷⁸ Further, the court noted that View Interactive was required to obtain permission to manufac-

¹⁷¹ *Id.* at 931.

¹⁷⁴ *Id.* The court also noted that Rock-Ola and View Interactive were not independently producing jukeboxes that would work with Ecast. *Id.*

¹⁶⁹ *Id.* at 930–31.

¹⁷⁰ *Id.* at 933.

¹⁷² *Id.* at 932–33.

¹⁷³ Rowe Int'l Corp, v. Ecast, Inc. 586 F. Supp. 2d 924, 933 (N.D. Ill. 2008).

¹⁷⁵ *Id.* at 931.

¹⁷⁶ *Id.* at 933.

¹⁷⁷ Id.

¹⁷⁸ Rowe Int'l Corp, v. Ecast, Inc. 586 F. Supp. 2d 924, 933 (N.D. III. 2008).

ture jukeboxes for the Ecast network pursuant to its contract.¹⁷⁹ In sum, the court concluded that Ecast contracted out to Rock-Ola and View Interactive the manufacture of the jukebox hardware, an element in the asserted apparatus claims.¹⁸⁰ Accordingly, because the court found that there was evidence that Ecast caused Rock-Ola and View Interactive to manufacture a computer jukebox in accordance with specific instructions and requirements, Ecast's denial of plaintiff's summary judgment for lack of direct infringement failed.¹⁸¹

Similarly, in *TGIP, Inc. v. AT&T Corp.*, the U.S. District Court for the Eastern District of Texas held that there was sufficient evidence that the accused infringer controlled or directed the work of third parties to preclude judgment as a matter of law.¹⁸² In that case, TGIP, Inc. claimed that AT&T infringed two patents related to prepaid calling cards.¹⁸³ AT&T renewed motions for judgment as a matter of law based on several grounds after the jury found for TGIP.¹⁸⁴ Among others, AT&T asserted that the record could not sustain TGIP's claim for infringement under a joint infringement theory.¹⁸⁵

The first patent at issue, U.S. Patent No. 5,511,114 ('114 Patent), related to a "prepaid calling card system having a remote terminal to provide on-site activation and re-charging of calling cards."¹⁸⁶ The four components of the system included a plurality of calling cards, a host computer, a plurality of on-site activation terminals, and a call processor.¹⁸⁷ The "data terminals were remote from the host computer . . . [while the] call processor was controlled by the host computer for connecting one or more customers to the telephone network using the authorized calling cards."¹⁸⁸ The second patent, U.S. Patent No. 5,721,768 ('768 Patent), was directed to an alternative embodiment that allowed a user to activate or recharge a

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¹⁷⁹ Id. 180 Id. ¹⁸¹ Id. 182 TGIP, Inc. v. AT&T Corp., 527 F. Supp. 2d 561, 578 (E.D. Tex. 2007). 183 Id. at 567. 184 Id. 185 Id. ¹⁸⁶ Id. at 568. See also U.S. Patent No. 5,511,114 (filed June 6, 1994). 187 TGIP, 527 F. Supp. 2d at 568. ¹⁸⁸ Id.

prepaid card account at a user activation terminal.¹⁸⁹ "The activation terminals [were] connected to a main processor, which include[d] a host computer responsible for management and processing of the system through a purchasing network."¹⁹⁰

Claim 1 of the '114 patent is representative of the asserted claims:

1. A pre-paid calling card system to enable customers to purchase calling cards at predetermined locations and to use such calling cards to access a telephone network having at least one telephone, comprising:

a plurality of calling cards, each of said calling cards having a security number associated therewith that must be entered at a telephone to obtain access to the telephone network;

a host computer including at least one input port and a database for storing security numbers;

at least one data terminal located at a predetermined location remote from the host computer and connectable to the input port for associating, at the host computer, an amount of call authorization to a security number of a ceiling card using data transmitted between the data terminal and the host computer during one or more charging transactions, the means for associating of the data terminal including:

means for entering the security number;

means, operative during any initial transaction and any recharge transaction, for entering any monetary amount corresponding to the amount of call authorization;

means for connecting to the host computer to transfer the security number and the call authorization amount; and

means responsive to the transfer for receiving a verification message from the host computer authorizing receipt of the monetary amount to thereby associate at the host computer the call authorization amount to the security number, wherein the calling card does not store the call authorization amount; and

wherein the database includes a record for each calling card security number having a call authorization amount associated therewith, the record including a balance; and

a call processor running on the host computer and responsive to entry of the security number for enabling the customer to access the telephone network using the telephone, the call processor using the balance in the record associated with the

¹⁹⁰ *TGIP*, 527 F. Supp. 2d at 569.

¹⁸⁹ *Id.* at 568–69; U.S. Patent No. 5,721,768 (filed Nov. 18, 1996).

security number for monitoring call progress and terminating the customer's access to the telephone network when the balance is exhausted.¹⁹¹

TGIP's witnesses stated that AT&T's system operated with three components: calling cards, data terminals, and a host computer.¹⁹² The calling card is swiped through a magnetic card reader or data terminal.¹⁹³ The data terminal receives information from the card and sends a request to the host computer.¹⁹⁴ Upon receipt of the request, the host computer checks to see "whether the card control number is allowable, whether the card has not expired, and whether the card is eligible for activation."¹⁹⁵

AT&T contended that third-party systems that were not under its direction or control performed essential steps necessary for joint infringement.¹⁹⁶ It pointed to activation platforms provided by West Interactive and A.P.T. and data terminals provided by retailers.¹⁹⁷ AT&T moved for judgment as a matter of law on the ground that there was no evidence of infringement.¹⁹⁸ Applying *BMC Resources*, the court denied the motion.¹⁹⁹ Specifically, the court pointed to testimony by AT&T's corporate representative that West Interactive acted on its behalf.²⁰⁰ Further, there was evidence that AT&T provided specifications to retailers for sending activation messages in a certain format defined by requirements in AT&T's technical plan.²⁰¹ Accordingly, the district court found sufficient evidence that AT&T controlled or directed the work of third parties, which supported its denial of AT&T's motion for judgment as a matter of law.²⁰²

- ¹⁹⁵ Id.
- ¹⁹⁶ *Id.* at 577.
- ¹⁹⁷ *Id.* at 577.

¹⁹⁹ *Id.* at 577–78 (discussing the Federal Circuit's decision in *BMC Resources* and applying it to the facts of the case).

²⁰² Id.

¹⁹¹ U.S. Patent No. 5,511,114 (filed June 6, 1994).

¹⁹² *TGIP*, 527 F. Supp. 2d at 571.

¹⁹³ Id.

¹⁹⁴ Id.

¹⁹⁸ TGIP, Inc. v. AT&T Corp., 527 F. Supp. 2d 561, 567 (E.D. Tex. 2007).

²⁰⁰ *Id.* at 578.

²⁰¹ Id.

E. Summary

Based on the cases decided since *BMC Resources* and *Muniauction*, parties asserting infringement under a theory of joint infringement will not succeed by relying solely on evidence indicating that multiple alleged infringers took part in some form of arms-length cooperation.²⁰³ At least one court has found that evidence of mere guidance or instruction by an accused infringer is not sufficient for a finding of direction or control under *BMC Resources*.²⁰⁴ Further, evidence of a contract between two parties (a company and its customer) is, by itself, not sufficient for a finding of direction or control.²⁰⁵

A finding of vicarious liability lies on the opposite side of the multiparty spectrum.²⁰⁶ However, courts have observed that lack of evidence of vicarious liability does not end the inquiry whether there may be joint infringement.²⁰⁷ For example, evidence that an alleged infringer exercised continuing control in a distributed system may be sufficient to support a claim for infringement based on a joint infringement theory.²⁰⁸ Further, evidence that an alleged infringer caused third parties to perform in accordance with specific instructions and requirements may be sufficient to support a claim under a joint infringement theory.²⁰⁹

Identifying successful joint infringement fact patterns can be useful. However, courts have identified claim-drafting issues that, if remedied, would have prevented a patentee from relying solely on a joint infringement theory.²¹⁰ Thus, while the claim-drafting principles endorsed in *BMC Resources* may be well known, it is

- ²⁰⁸ See Am. Patent Dev. Corp. v. Movielink, LLC, 637 F. Supp. 2d 224, 236–37 (D. Del. 2009).
- ²⁰⁹ See Emtel, Inc. v. LipidLabs, Inc., 583 F. Supp. 2d 811, 828 (S.D. Tex. 2008); Rowe Int'l Corp, v. Ecast, Inc. 586 F. Supp. 2d 924, 933 (N.D. Ill. 2008).
- ²¹⁰ See BMC Res., Inc. v. Paymentech, L.P., 498 F.3d 1373, 1381 (Fed. Cir. 2007) ("A patentee can usually structure a claim to capture infringement by a single party." (citing Mark A. Lemley et al., *Divided Infringement Claims*, 33 AIPLA Q.J. 225, 272–75 (2005))).

 ²⁰³ See Muniauction, Inc. v. Thomson Corp., 532 F.3d 1318, 1329 (Fed. Cir. 2008), cert. denied, 129 S. Ct. 1585 (2009).

 ²⁰⁴ See, e.g., Global Patent Holdings, LLC v. Panthers BRHC LLC, 586 F. Supp. 2d 1331, 1335 (S.D. Fla. 2008), aff'd, 318 F. App'x 908 (Fed. Cir. 2009).

²⁰⁵ See Akamai Techs, Inc. v. Limelight Networks, Inc., 614 F. Supp. 2d 90, 121 (D. Mass. 2009).

²⁰⁶ See Muniauction, 532 F.3d at 1330.

²⁰⁷ See Akamai, 614 F. Supp. 2d at 120.

important to examine how courts have interpreted claim language in a joint infringement context in order to determine the proper way to structure a claim.²¹¹

IV. The Impact of Joint Infringement Theory on Claim Drafting

In *BMC Resources*, the Federal Circuit stated that "concerns over a party avoiding infringement by arms-length cooperation can usually be offset by proper claim drafting."²¹² The Federal Circuit also said that it "will not unilaterally restructure claim[s] or the standards for joint infringement to remedy ill-conceived claims."²¹³ Accordingly, it is imperative that a patent holder draft and assert well-crafted claims sufficient to support a finding of infringement against a single party.

Patent holders have struggled with proving infringement of a method claim having multiple parties that perform different acts.²¹⁴ However, a patent holder can avoid having to rely solely on a joint infringement theory by carefully drafting and asserting claims "to capture infringement by a single party."²¹⁵ The Federal Circuit has observed that this can be done in most cases simply by asserting claims that feature "references to a single party's supplying or receiving each element of the claimed process."²¹⁶

A. Claims Requiring a User to Interact with Another Entity Have Been Problematic for Patent Holders

In cases where joint infringement is asserted, claims that require the action of third parties triggers a detailed inquiry into the relationship between the accused infringer and the third party.²¹⁷ For example, in *Global Patent Holdings*, Global conceded that the initial step of the asserted patent claim called for action by a remote

²¹³ Id.

²¹⁵ BMC Res., 498 F.3d at 1381.

²¹⁶ See id.

²¹¹ See id. (noting the flaw in BMC's claim drafting by "hav[ing] four different parties perform different acts within one claim").

²¹² Id.

²¹⁴ See, e.g., BMC Res., 498 F.3d 1373; Muniauction, Inc. v. Thomson Corp., 532 F.3d 1318 (Fed. Cir. 2008), cert. denied, 129 S. Ct. 1585 (2009).

 ²¹⁷ See, e.g., Emtel, Inc. v. LipidLabs, Inc., 583 F. Supp. 2d 811 (S.D. Tex. 2008); Rowe Int'l Corp, v. Ecast, Inc. 586 F. Supp. 2d 924, 933 (N.D. Ill. 2008); Rowe Int'l Corp, v. Ecast, Inc. 586 F. Supp. 2d 924 (N.D. Ill. 2008); Global Patent Holdings, LLC v. Panthers BRHC LLC, 586 F. Supp. 2d 1331 (S.D. Fla. 2008), aff'd, 318 F. App'x 908 (Fed. Cir. 2009).

computer user.²¹⁸ A website server was also required to complete the claimed method.²¹⁹ The court assessed the relationship between the remote computer user and the website server to determine whether the defendant's website exercised direction or control over the remote computer user.²²⁰

Global did not allege that the remote computer users were contractually bound to visit the defendant's website.²²¹ Nor did Global allege that the remote computer users were the defendant's agents visiting the website within the scope of their agency.²²² Thus, the court concluded that the remote computer users were not under the direction or control of the defendant's website.²²³ Accordingly, the remote computer users and the defendant's website were not joint infringers.²²⁴

Similarly, the asserted method claims in *Emtel* required a physician to diagnose a medical condition or aid in treating a medical condition.²²⁵ Emtel's method claims were directed to providing medical care to patients in remote locations through the use of videoconferencing equipment.²²⁶ The medical activities of a physician made up only a few steps in the method claims.²²⁷ Claim 1 of the asserted U.S. Patent No. 7,129,970 reads:

1. A business method for delivery of medical services utilizing a system including a plurality of satellite medical care facilities, at least one physician disposed at a central medical video-conferencing station, and a first patient and a first

²²¹ Id.

²²² Id.

²²³ Id.

²²⁴ Id.

²²⁶ *Id.* at 825.

²²⁷ See id.

²¹⁸ Global Patent Holdings, 586 F. Supp. 2d at 1335. The first step of claim 1 of U.S. Patent No. 5,253,341 is "identifying a query via a data input means and inputting said query to remote query and data retrieval means." *Id.* at 1332 n.1; *See also* U.S. Patent No. 5,253,341 (filed Apr. 11, 1991).

²¹⁹ Global Patent Holdings, 586 F. Supp. 2d at 1335.

²²⁰ Id. (noting the plaintiff's allegation that the defendant controlled the remote user by putting Javascript program on the user's computer).

²²⁵ Emtel, Inc. v. LipidLabs, Inc., 583 F. Supp. 2d 811, 815–17 (S.D. Tex. 2008) (discussing asserted claims 1 and 4).

medical care giver disposed in a first of said plurality of satellite medical care facilities, the method comprising the steps of:

(a) establishing a video-conferencing communications system among said medical video-conferencing station and said plurality of satellite medical care facilities;

(b) selecting said first of said plurality of satellite medical care facilities to actively receive video and audio communication from said physician;

(c) controlling a video-conferencing system of said first of said plurality of satellite medical care facilities to control a video image received at said central medical video-conferencing station from said first of said plurality of satellite medical care facilities;

(d) diagnosing a medical condition of said first patient at said first of said plurality of satellite medical care facilities by said physician from said central medical video-conferencing station;

(e) providing instructions via said video-conferencing system to said first medical caregiver by said physician to treat said first patient at said first of said plurality of satellite medical facilities;

(f) selecting a second of said plurality of satellite medical care facilities to actively receive video and audio communication from said physician;

(g) displaying an image of a second patient disposed at said second of said plurality of satellite emergency care facilities at said central medical videoconferencing station;

(h) controlling a video-conferencing system of said second of said plurality of satellite medical care facilities to control said image received at said central medical video-conferencing station from said second of said plurality of satellite medical care facilities;

(i) diagnosing a medical condition of said second patient by said physician from said central medical videoconferencing station; and

(j) providing instructions via said video-conferencing system to a second medical caregiver disposed at said second of said plurality of satellite medical care facilities by said physician to treat said second patient generally contemporaneously with said steps of diagnosing said medical condition of said first patient and providing instructions to said first medical caregiver.²²⁸

The defendants provided "telemedicine support services."²²⁹ Specifically, they entered into contracts with physicians or physician groups and remote medical care

²²⁸ Id. at 815–16. See also U.S. Patent No. 7,129,970 (filed Mar. 25, 2003).

²²⁹ *Emtel*, 583 F. Supp. 2d at 817.

facilities to provide outsourced videoconferencing services.²³⁰ Under these contracts, the physicians agreed to work as independent contractors to provide diagnostic and treatment services.²³¹ The defendant's videoconferencing equipment provided the remote medical care facilities access to the physicians.²³² This allowed the physicians to respond to requests from the remote medical care facilities.²³³

The court analyzed whether, under these contracts, the defendants exercised control or direction over the physicians in performing the required medical steps of the claimed method.²³⁴ In examining this issue, the court focused on whether the defendants would be vicariously liable for the physician's actions.²³⁵ The court explained that "a contracting party is not vicariously liable for the actions of an independent contractor unless that party controls the details of the independent contractor's work to such an extent that the contractor cannot perform the work as he chooses."²³⁶

While acknowledging that the relationship between the accused infringer and physicians was stronger than the relationships at issue in *BMC Resources* and *Muniauction*, the court did not find vicarious liability.²³⁷ Instead, the court characterized their contractual relationship as "set[ting] some basic parameters for the physicians."²³⁸ The defendants were not involved in how the physicians performed the required diagnoses and treatment, which were required steps of the claimed method.²³⁹ Accordingly, the court determined that there was insufficient evidence

²³³ Id.

²³⁹ Id.

²³⁰ Id.

²³¹ Id.

²³² Id.

²³⁴ See id. at 835 ("The parties [disputed] whether these contracts establish direction or control by the movants over the physicians' performance of the steps of the claimed method of using videoconferencing in diagnosing remote patients, instructing on treating remote patients, and aiding in treating remote patients.").

²³⁵ Emtel, Inc. v. LipidLabs, Inc., 583 F. Supp. 2d 811, 835 (S.D. Tex. 2008).

²³⁶ Id. at 837 (citing Indian Harbor Ins. Co. v. Valley Forge Ins. Group, 535 F.3d 359, 364–65 (5th Cir. 2008)).

²³⁷ *Id.* at 837–38.

²³⁸ *Id.* at 838.

to establish that the defendants directed or controlled the physicians in their performance of the claimed method steps.²⁴⁰

In its opinion, the court explained how the asserted claims could have been rewritten to capture infringement of a single party.²⁴¹ The claims could have been rewritten to focus on the videoconferencing system provider "supplying or receiving each element of the claimed process' rather than referring to different parties performing different acts within one claim."²⁴² The court stated that such changes would have avoided divided infringement while preserving the method being claimed.²⁴³ While patent holders are encouraged to focus their claims on a single party, one decision, discussed below, has indicated that focus on a single entity is not compromised by referring to third parties in the claims.

B. Claims that Assume the Existence of Third Parties May Capture Infringement by a Single Actor

Claims that assume the existence of external elements have been found to capture infringement by a single party.²⁴⁴ In *Level 3 Communications, LLC v. Limelight Networks, Inc.*, the U.S. District Court for the Eastern District of Virginia found that an asserted claim was written to capture single-party infringement.²⁴⁵ Claim 8 of U.S. Patent No. 6,654,807 recited:

8. A method, in a system which includes (a) a repeater server network including a plurality of repeater servers, (b) a plurality of subscribers to the repeater server network, the plurality of subscribers being entities that publish information via one or more origin servers, and in which the origin servers are distinct from the plurality of repeater servers, and in which at least some of the plurality of re-

²⁴² Id. Specifically, the plaintiff's claims "could be rewritten to refer to the telemedicine videoconferencing system provider receiving in a central medical videoconferencing station a physician's diagnosis of a medical condition of a patient in a satellite medical care facility, transmitting that diagnosis to the satellite medical care facility, receiving instructions provided by the physician to treat a patient at the satellite facility; and transmitting those instructions to the satellite medical facility." Id.

²⁴³ Id.

²⁴⁵ Id.

²⁴⁰ *Id.* at 839–40. The court also emphasized that there was insufficient evidence that the physicians directed or controlled the defendants. *Id.* at 840.

²⁴¹ Emtel, Inc. v. LipidLabs, Inc., 583 F. Supp. 2d 811, 840 (S.D. Tex. 2008).

²⁴⁴ See Level 3 Comme'ns, LLC v. Limelight Networks, Inc., 630 F. Supp. 2d 654, 659–60 (E.D. Va. 2008).

peater servers replicate some or all of the information available on at least some of the origin servers, (c) a repeater selector mechanism constructed and adapted to identify, for a particular client request, an appropriate repeater server from the plurality of repeater servers, and (d) a subscriber verifying mechanism constructed and adapted to verify whether an entity is any one of the plurality of subscribers to the repeater server network, method comprising:

obtaining a client request for information by a repeater server of the plurality of repeater servers forming the repeater server network, the repeater server being identified by the repeater selector mechanism, wherein the client request is for a resource which is embedded in another document; determining, using at least the subscriber verifying mechanism and based, at least in part, on a name by which the repeater server was addressed, whether the requested information is from any one of the plurality of entities that publish information to the repeater server network; and when the client request is determined to be for information from one of the plurality of entities that publish information to the repeater server network, serving the requested information from the repeater server as identified by the repeater selector mechanism.²⁴⁶

Although the preamble of claim 8 "assumes the existence of external elements such as origin servers, clients, client requests, and subscriber content," the court noted that the steps of the method claim did not appear to involve actions by multiple parties.²⁴⁷ The court reached this conclusion by emphasizing that these elements did not play any role in any particular steps in any of the methods.²⁴⁸ Accordingly, the court found that infringement of the claim entailed the steps of a single party.²⁴⁹

C. Claim Amendments May Shift Focus from a Single Actor

In *FotoMedia Technologies, LLC v. AOL, LLC*, the U.S. District Court for the Eastern District of Texas evaluated whether a claim amendment changed a claim that required a step to be performed by a server to a claim that required a user to perform the step.²⁵⁰ During patent prosecution, the asserted claim was amended to

²⁴⁶ U.S. Patent No. 6,654,807 (filed Dec. 6, 2001).

²⁴⁷ Level 3 Commc 'ns, 630 F. Supp. 2d at 659.

²⁴⁸ Id. at 659–60. For instance, in responding to the defendant's argument that it did not direct or control its subscribers, the court emphasized that the subscribers were only passive elements of the claims' methods. Id. at 660. It also pointed to the plaintiff's argument that it would be able to prove infringement without referencing actions by the subscribers. Id.

²⁴⁹ *Id.* at 659.

²⁵⁰ FotoMedia Techs., LLC v. AOL, LLC, No. 2:07-CV-255, 2009 U.S. Dist. LEXIS 62542 at *25–28 (E.D. Tex. July 29, 2009).

distinguish it from a reference cited by the examiner.²⁵¹ The limitation "receiving image data" was amended to read:

[R]eceiving image data embodying an electronic image, the image data transferred under control of the user at the sending computer, the image data residing in the sending computer or an image source separate from and in communication with the sending computer.²⁵²

The examiner's explanation in the Notice of Allowability stated that "'[n]one of the prior art of record [taught] the image data residing in the sending and transferred under control of the user at the sending computer."²⁵³ Accordingly, the defendants argued that the amended "receiving" limitation must be read as requiring that a user issue a command to send the image data.²⁵⁴ FotoMedia responded that the claims were not amended to require a transfer step performed by a user.²⁵⁵

Citing *BMC Resources*, the court acknowledged that claim drafting allows a patentee to structure a claim to capture infringement by a single party or multiple parties.²⁵⁶ The court initially observed that the amended claim was drafted from the server's perspective, not the sender's.²⁵⁷ Therefore, it construed the claim limitation "receiving image data" as "receiving by the server, image data."²⁵⁸ Accordingly, the court agreed with the plaintiff that the amendment did not require a user to perform a step of the claimed method.²⁵⁹ While this finding was favorable to the patentee, it illustrates the importance of proper claim drafting at the patent prosecution stage. Care must be taken when amending claims during prosecution to ensure that claims originally structured to capture a single party are not amended to require multiple parties.

²⁵¹ *Id.* at *25–26.

²⁵² Id. at *26; U.S. Patent No. 6,018,774 (filed July 3, 1991).

²⁵³ FotoMedia, 2009 U.S. Dist. LEXIS 62542, at *26.

²⁵⁴ Id.

²⁵⁵ Id. at 27. FotoMedia argued that the amendment was only made to "identify the source of the image." Id.

²⁵⁶ Id. at *27–28 (citing BMC Res., Inc. v. Paymentech, L.P., 498 F.3d 1373, 1381 (Fed. Cir. 2007)).

²⁵⁷ *Id.* at *28.

 ²⁵⁸ FotoMedia Techs., LLC v. AOL, LLC, No. 2:07-CV-255, 2009 U.S. Dist. LEXIS 62542 at *28 (E.D. Tex. July 29, 2009).

²⁵⁹ See id.

V. Conclusion

Advancements in technology are ushering in a new era where previously incompatible devices and components will interact with each other to form complex systems.²⁶⁰ Innovators are racing to patent such technologies and enforce them in the marketplace. However, patent holders must understand that direct infringement requires a single party "to perform or use each and every step or element of a claimed method or product."²⁶¹ Where an asserted claim requires multiple actors, the theory of joint infringement provides an avenue for enforcement.²⁶² However, absent significant evidence concerning the relationship between multiple actors, patent holders have found it difficult to support claims of infringement under a joint infringement theory.

In brief, very specific evidence of the accused party exercising direction or control over a third party must be present for a claim of joint infringement to survive summary judgment. Evidence of a contract between two parties (e.g., a company and its customer) is probably not sufficient.²⁶³ However, evidence that the alleged infringer exercised continuing control over third party components in a distributed system may be sufficient.²⁶⁴ In addition, evidence that an alleged infringer caused third parties to perform steps of a claimed method in accordance with specific instructions and requirements may also be sufficient.²⁶⁵ Accordingly, patentees should give careful thought to whether sufficient evidence exists prior to asserting joint infringement.

A patentee can avoid relying solely on a claim of joint infringement by drafting and asserting claims directed toward a single entity.²⁶⁶ Claims in which a user is required to interact with another system or component have been problematic for patent holders.²⁶⁷ However, at least one court has observed that even claims that

- ²⁶⁴ See Am. Patent Dev. Corp. v. Movielink, LLC, 637 F. Supp. 2d 224, 233 (D. Del. 2009).
- ²⁶⁵ See Rowe Int'l Corp, v. Ecast, Inc. 586 F. Supp. 2d 924, 932–33 (N.D. Ill. 2008).
- ²⁶⁶ See BMC Res., 498 F.3d at 1381.
- ²⁶⁷ See Emtel, Inc. v. LipidLabs, Inc., 583 F. Supp. 2d 811 (S.D. Tex. 2008).

²⁶⁰ See, e.g., Bogdanowicz, supra note 6, at 9 (discussing the future innovations attributed to DCC technology).

²⁶¹ BMC Res., Inc. v. Paymentech, L.P., 498 F.3d 1373, 1378 (Fed. Cir. 2007).

²⁶² Id.

²⁶³ See Akamai Techs, Inc. v. Limelight Networks, Inc., 614 F. Supp. 2d 90, 122–23 (D. Mass. 2009).

assume the existence of other entities may still cover just a single actor.²⁶⁸ Finally, patentees must be cautious when amending claims during prosecution to keep the focus of the claims on a single actor.²⁶⁹

²⁶⁸ See Level 3 Commc'ns, LLC v. Limelight Networks, Inc., 630 F. Supp. 2d 654, 660 (E.D. Va. 2008).

²⁶⁹ See FotoMedia Techs., LLC v. AOL, LLC, No. 2:07-CV-255, 2009 U.S. Dist. LEXIS 62542 at *25-28 (E.D. Tex. July 29, 2009).

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Differential Patent Terms and the Commercial Capacity of Innovation

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Lecturer, Faculty of Law, Tel Aviv University. This article was written while I was a Cegla Fellow. My sincere thanks go to the Cegla Center for Interdisciplinary Research of the Law, Tel Aviv University. My thanks to Hanoch Dagan, Ariel Porat Michael Birnhack and Barak Atiram for their remarks and comments. Also, my thanks to Amit Itay, my research assistant, for his research input during the initial stages of this project and for reviewing the final draft of this research.

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"There is nothing magical about the length of a seventeen-or twenty-year term. Congress clearly has the power to change the term to any limited period of time, and alternatively could structure the patent term so that different types of patented subject matter had different patent lengths."**

During the past four decades much has been written, both in legal and economic literature, about the elements that should determine the scope of patent protection. While one segment of that research advances the view that patent rights (the patent breadth), in and of themselves are sufficient for attaining the optimal degree of socially-desirable patent protection, the other segment contends that the patent term (length) needs to be factored in. My research taps into this debate and emphasizes the need to discontinue the use of a single patent term for all types of patents. Specifically, I propose using a differential patent term, in which duration is contingent on the type of innovation and its underlying technology. Here, I resort to, among other things, the Strasbourg Agreement Concerning the International Patent Classification, a system of classification that can contribute towards applying the patent length factor in an efficient and relatively cheap manner.

I. Introduction: The Patent's Length-Breadth Dichotomy

While the quest for bolstering innovation lies at the heart of patent law, the content of that innovation and how it needs to be protected is not wholly defined. This is largely due to the fact that the patent system affects not only the patent holder but also consumers and other prospective innovators who seek to incorporate existing patented technology into their respective inventions. Each of those three interest groups articulates a distinct case for (or against) strict patent protection and presents a self-motivated perspective as to how and to what extent innovation should be protected. Thus, any attempt to optimize the scope of patent protection would need to involve a continuous balancing act between those three interest

^{**} Frank Partnoy, Finance and Patent Length 9 (Univ. San Diego Sch. of L., Law & Econ. Research Paper No. 19, 2001), available at http://ssrn.com/abstract=285144.

groups. Such a balancing act would typically involve adjusting the scope of patent rights and offsetting their impact by applying limitations (exceptions) prescribed by conventional patent law. An additional although less obvious factor that can be invoked in this context relates to the actual duration of the patent term.

In effect, this research is set against the backdrop of a decades-old debate in legal and economic literature, relating to the elements that should determine the extent of patent protection. Specifically, this debate relates to the length-breadth dichotomy, a central feature of patent discourse.¹

Traditionally, the scope of the patent right, or what is also referred to as the patent breadth, has been deemed to be the sole balancing element within the patent protection mechanism. This approach views the patent breadth as a "better instrument than length to encourage socially optimal timing."² It has been downplayed by Gilbert and Shapiro, suggesting that the patent term should be the main focus of patent protection.³ In their view, infinite but very narrow patents would allow investors to recoup their respective research and development expenditures, which, in turn would minimize dead-weight losses.⁴ But in between these two polar approaches rests the intermediate position focusing on the "effective" patent life.⁵ Here, both breadth and length can be utilized.⁶

My research comprises two layers: a "surface" and a "core." First, at the surface, I offer reasons as to why the patent breadth lacks the sufficient degree of flexibility to optimize patent protection. Following this, at the core of this research, I take stock of what economists teach us about their quest to achieve the optimal

¹ For an overview of the various research projects and the diverging results that have resulted therefrom, *see* Tuomas Takalo, *On the Optimal Patent Policy*, 14 FINNISH ECON. PAPERS 33, 33–35 (2001).

² Joshua S. Gans & Stephen P. King, *Patent Length and the Timing of Innovative Activity*, 55 J. INDUS. ECON. 772, 772 (2007).

³ See Richard Gilbert & Carl Shapiro, *Optimal Patent Length and Breadth*, 21 RAND J. ECON. 106, 111 (1990).

⁴ *Id.* at 107.

⁵ See Ted O'Donoghue, Suzanne Scotchmer & Jacques-François Thisse, Patent Breadth, Patent Life, and the Pace of Technological Progress, 7 J. ECON. & MGMT. STRATEGY 1, 1 (1998); Donald J. Wright, Optimal Patent Breadth and Length with Costly Imitation, 17 INT'L J. INDUS. ORG. 419, 432 (1999).

⁶ See Vincenzo Denicolò, Patent Races and Optimal Patent Breadth and Length, 44 J. INDUS. ECON. 249, 263 (1996) (submitting that "there is no presumption that either infinite or minimum patent length is most likely to be optimal").

degree of protection. I also highlight the arbitrary nature and legal history of the twenty-year patent term and demonstrate why, both conceptually and practically, patent length should be formulated in a more flexible manner. Following all of this, I present my case for a new model that incorporates the patent length. To this end, I formulate a sophisticated yet workable model that is intended to navigate the Trade-Related Aspects of Intellectual Property Rights Agreement (TRIPS)-induced conventional patent régime closer to this optimum. In effect, my proposed model challenges the conventional wisdom relating to the patent term and proposes a workable tool that factors in the patent length element. I achieve this by building on an existing tool of classification, namely the Strasbourg Agreement Concerning the International Patent Classification.

II. The Surface: Insufficiency of the Patent Breadth in Attaining Optimal Patent Protection

Before tackling the core of this research—the method to create a patent term that is technology-dependent—one would need to challenge the sufficiency of the conventional patent term. Specifically, the question here would be whether the patent breadth constitutes a sufficient tool for singlehandedly achieving a social equilibrium, which I refer to as Optimal Patent Protection (OPP). The OPP is attained at a point wherein the level of patent protection still provides ample incentive for continued research and development (R&D) by the patentee while not excluding innovative newcomers or hampering consumers' access to innovation. In this regard, Abrams provides a clear definition of the optimal patent term: "[the] point at which the marginal benefit from increased innovation is exactly offset by the marginal cost of the deadweight loss created by the patent right."⁷

The argument for the sufficiency of the patent breadth states that patent law is in fact not uniform in application but only in concept, and that although patent law is "technology-neutral in theory, it is technology-specific in application."⁸ In accordance with this view, the optimal balance within the patent system can be achieved using tools that already exist within the patent breadth and which form an integral part of patent law. Merges and Nelson suggest that the scope of patent rights—the patent breadth—is the better tool *vis-à-vis* duration for creating reform

⁷ David S. Abrams, Did TRIPS Spur Innovation? An Analysis of Patent Duration and Incentives to Innovate, 157 U. PA. L. REV. 1613, 1615 (2009).

⁸ Dan L. Burk & Mark A. Lemley, Policy Levers in Patent Law, 89 VA. L. REV. 1575, 1577 (2003).

because it is under the courts' control.⁹ In other words, the patent breadth rules (and exceptions) allow the courts to apply their judicial discretion and interpret the rules as they deem fit.¹⁰

If one were to accept this view (i.e., that the patent breadth would suffice), then one would be tempted to discard the patent length while relying on existing legal tools in the form of "policy levers" that are deemed to be sufficiently responsive to the needs of specific industries.¹¹ Conversely, if this argument is refuted, as I argue it should be, then the patent length would need to be added into the mix.

A. Conventional Tools of the Patent Breadth

Granted, there are legal tools that provide some room for maneuverability within the existing patent system and can potentially edge that system closer towards optimal patent protection.¹² Those tools include compulsory licensing, experimental use, and inventing around the patent, as well as humanitarian-motivated notions of social responsibility. This section is devoted to illuminating those tools, assessing them, and ultimately rebutting their alleged sufficiency.

⁹ See Robert P. Merges & Richard R. Nelson, On the Complex Economics of Patent Scope, 90 COLUM. L. REV. 839, 840–41 (1990).

¹⁰ Courts can influence results by applying the substantive rules in the law as well as the exceptions in law. See generally Edward R. Gold, The Reach of Patent Law and Institutional Competence, 1 U. OTTAWA L. & TECH. J. 263, 267–71 (2003–04). Gold contends that the "marginalization of ethical and distributional concerns in patent discourse has been exacerbated by three (dubious) claims that courts, tribunals and legal commentators have offered to justify the judicial assumption of jurisdiction over patent eligibility for new classes of innovation: 1. that the determination of patent eligibility is merely a technical question of statutory interpretation; 2. that patenting is morally neutral; and 3. that the expansion of the patent regime is necessary for the development of technology-based industries. . . . To guarantee a more just use of technology, we must ensure that our patent laws both create and reflect desired social outcomes as determined by enlightened and competent eligibility over new classes of innovation, the judiciary lacks both the capacity and the competency to make such determinations." Edward R. Gold, Abstract, The Reach of Patent Law and Institutional Competence (Aug. 4, 2005), http://srn.com/abstract=764746.

¹¹ Burk & Lemley, *supra* note 8, at 1579.

¹² There are additional tools that are external to patent law that can also mitigate the monopoly right that patent law secures. The most significant of these is antitrust law. For more on the relationship between antitrust and intellectual property, *see* Louis Kaplow, *The Patent–Antitrust Intersection: A Reappraisal*, 97 HARV. L. REV. 1813 (1984); *see also* Christina Bohannan & Herbert Hovenkamp, *IP and Antitrust: Reformation and Harm* 70 (Univ. Iowa Legal Studies Research Paper No. 09-16, 2009) *available at* http://ssrn.com/abstract=1377382 (discussing a situation involving a Pareto improvement).

1. Compulsory Licensing

The compulsory licensing mechanism imposes on the patent holder an obligation to license the use of his patent to others in those cases in which he does not use his patent or uses it too narrowly. This mechanism is now recognized by the TRIPS agreement.¹³ On the macro level, compulsory licensing can help developing countries maximize access to essential medicines while minimizing undesirable side effects that might occur otherwise, such as costly expenditures or foreign aid, to which a political price tag is usually attached.¹⁴ It also provides a way for combating patent trolls.¹⁵ As such, the compulsory licensing mechanism is deemed to play a "positive role" by way of easing the "static inefficiency" that is associated with high-cost firms being granted licenses.¹⁶ When faced with the prospect of invoking a compulsory license, the relevant patent holder is inclined to react in a "welfare-enhancing way" by lowering the output price that is intended to create a disincentive for other market players who may be contemplating applying for a compulsory license.¹⁷ As such, this tool has been deemed to contribute to optimizing patent protection.¹⁸

Notwithstanding the importance of compulsory licensing, however, its application has been narrowly construed. Specifically, its application has been most

See Alan O. Sykes, TRIPs, Pharmaceuticals, Developing Countries, and the Doha "Solution" 16–24 (Univ. Chicago Law & Econ., Olin Working Paper No. 140, 2002), available at http://ssrn.com/abstract=300834 (discussing the benefits of compulsory pharmaceutical licensing); Hans H. Lidgard & Jeffery Atik, Facilitating Compulsory Licensing Under TRIPS in Response to the AIDS Crisis in Developing Countries 16–17 (Loyola Law School (Los Angeles) Legal Studies Paper No. 2005-18, 2005), available at http://ssrn.com/abstract=794228(discussing compulsory licensing in the context of the AIDS crisis).

¹⁵ "Patent troll" is a term used to describe patent holders who, at least roughly speaking, seek profit through licensing, rather than providing products or services themselves. See John M. Golden, Patent Trolls and Patent Remedies, 85 TEX. L. REV. 2111, 2155–58 (2007). For more on patent trolls, see Robert E. Thomas, Vanquishing Copyright Pirates and Patent Trolls: The Divergent Evolution of Copyright and Patent Laws, 43 AM. BUS. L.J. 689, 733–38 (2006) (discussing the impact of patent trolls on patent reform).

¹⁶ Franco Cugno & Elisabetta Ottoz, Static Efficiency of Compulsory Licensing: Quantity vs. Price Competition 1 (June 9, 2006), *available at* http://ssrn.com/abstract=907452.

¹⁷ *Id.* at 9.

¹³ Agreement on Trade-Related Aspects of Intellectual Property Rights, Apr. 15, 1994, Marrakesh Agreement Establishing the World Trade Organization, Annex 1C, 33 I.L.M. 1125, 1209–10 [hereinafter TRIPs].

¹⁸ See Pankaj Tandon, Optimal Patents with Compulsory Licensing, 90 J. POL. ECON. 470, 470 (1982) (discussing compulsory licensing as a means of finding "optimal" scope of protection).

prevalent in the ongoing debate relating to access to patented medicines.¹⁹ Furthermore, the compulsory licensing tool is most relevant when a patent is not being utilized by its owner.²⁰ As such, this tool is much less useful when a patent is actually being used by its holder, as it is in the majority of cases.²¹ Thus, the scope of this important tool is limited and is insufficient to offset the legally induced power harnessed in the patent breadth. It is worth noting that the linkage between the compulsory license tool and the flow of technology from the patent holder to market competitors has not been established and remains in contention.²² Moreover, the impact of compulsory licenses on innovation is further restrained by the threat of withholding foreign direct investment (FDI) to the granting nation. Research has demonstrated how FDI-related threats adversely influence developing countries' strategies pertaining to the granting of compulsory licenses.²³ As such, the compulsory licensing mechanism, notwithstanding its expansive adoption within TRIPS-compliant patent laws, cannot ensure the effective diffusion of technology.²⁴

²³ Bird & Cahoy, *supra* note 22, at 300.

¹⁹ See Colleen Chien, Cheap Drugs at What Price to Innovation: Does the Compulsory Licensing of Pharmaceuticals Hurt Innovation?, 18 BERKELEY TECH. L.J. 853, 865–70 (2003); Amir H. Khoury, The "Public Health" of the Conventional International Patent Régime & the Ethics of "Ethicals": Access to Patented Medicines, 26 CARDOZO ARTS & ENT. L.J. 25, 37–40 (2008) (arguing for and against compulsory licensing in the pharmaceutical context).

²⁰ Troy L. Gwartney, Note, Harmonizing the Exclusionary Rights of Patents with Compulsory Licensing, 50 WM. & MARY L. REV. 1395, 1415–16 (2008).

²¹ See Adam McBeth, When Nobody Comes to the Party: Why Have No States Used the WTO Scheme for Compulsory Licensing of Essential Medicines?, 3 N.Z. Y.B. Int'l L. 69, 90–96 (2006), available at http://ssrn.com/abstract=1076082.

²² See Gail E. Evans, Strategic Patent Licensing for Public Research Organizations: Deploying Restriction and Reservation Clauses to Promote Medical R&D in Developing Countries 34 AM. J.L. & MED. 175, 185 (2008); see also Jeffery Atik & Hans H. Lidgard, Embracing Price Discrimination: TRIPS and the Suppression of Parallel Trade in Pharmaceuticals, 27 U. PA. J. INT'L ECON. L. 1043, 1044 (2006); Robert Bird, and Daniel R. Cahoy, The Impact of Compulsory Licensing on Foreign Direct Investment: A Collective Bargaining Approach, 45 AM. BUS. L.J. 283, 300 (2008).

²⁴ Bird & Cahoy, *supra* note 22, at 300; *see also* Michael W. Nicholson, Intellectual Property Rights and International Technology Diffusion 4–17 (March 2002) (paper prepared for "Responding to Globalization" Conference at Boulder, CO), *available at* http://colorado.edu/IBS/PEC/gadconf/ papers/nicholson.pdf; NUNO PIRES DE CARVALHO, THE TRIPS REGIME OF PATENT RIGHTS 153, 317 (2d ed. 2005).

In light of those constraints, the compulsory licensing tool appears to have remained a "welfare" exception in conventional patent law and not one that can facilitate access to innovation by competitors or consumers.²⁵ For this mechanism to be effective, it needs to be part of a larger scheme and be coupled with "external social and political conditions."²⁶ But in its present form, the compulsory licensing tool cannot itself secure the optimal level of patent protection.²⁷

2. Experimental Use

The second mechanism that needs to be assessed is referred to as the experimental use exception. This exception allows for the use of patented information to facilitate pure research without fear of ensuing patent infringement claims.²⁸ Typically, this exception covers limited cases such as building experimental machines or using test data that has been submitted to national administrative bodies such as the Federal Drug Administration (FDA) in the United States.²⁹ Indeed, for a quarter of a century now, United States law has recognized the experimental use exception.³⁰ It is worth noting that in the U.S., 35 U.S.C. § 271(e) (also known as the "safe harbor" clause), which sanctions experimental use, has been interpreted in-

²⁷ See Tandon, supra note 18, at 470–71 (suggesting improvements to the compulsory licensing regime that will move protection toward optimal levels).

²⁸ Rebecca S. Eisenberg, Patents and the Progress of Science: Exclusive Rights and Experimental Use, 56 U. CHI. L. REV. 1017, 1018–19 (1989); see also Alan Devlin, Restricting Experimental Use, 32 HARV. J.L. & PUB. POL'Y 599, 601 (2009); Ted Hagelin, Abstract, The Experimental Use Exemption to Patent Infringement: Information on Ice, Competition on Hold (Syracuse Univ. Coll. of Law, 2005), available at http://ssrn.com/abstract_id=776865 ("The Court of Appeals for the Federal Circuit has nearly eliminated the common law experimental use exemption to patent infringement under which patent subject matter can be used for research purposes. In doing so, the court has retarded innovation, competition and consumer welfare.").

²⁹ See Eisenberg, *supra* note 28, at 1018 n.6, 1019 n.8.

³⁰ That recognition is manifested by 35 U.S.C. § 271(e) of the Patent Act and was subsequently enacted as part of the Drug Price Competition and Patent Term Restoration Act of 1984. See 35 U.S.C. § 271(e) (2000); Drug Price Competition and Patent Term Restoration Act of 1984, Pub. L. No.98-417, 98 Stat. 1585 (codified at 21 U.S.C. § 355 and 35 U.S.C. § 156, 271).

²⁵ See Lidgard & Atik, supra note 14, at 16–17; Robert C. Bird, Can Compulsory Licensing Improve Access to Essential Medicines? 2 (Mar. 11, 2008), available at http://ssrn.com/abstract=1124035; see also McBeth, supra note 21, at 76.

²⁶ Bird, *supra* note 25, at 3 ("The challenge for poor governments is not whether to issue a compulsory license at all. Rather, the challenge is how poor governments can issue compulsory licenses that both maximize drug access and avoid unwanted side-effects.").

creasingly broadly.³¹ This is deemed to have been "most favorable to parties who were utilizing the patented discoveries of others to perform research directed towards attaining approval by the Food and Drug Administration for pharmaceutical products prior to the expiry of the patents."³² Notwithstanding its attributes, this exception is hindered by two hurdles. First, its application is limited to a narrow segment of technology, and second, it entails a social cost in that it creates a disincentive to the parties that "expended time and resources to perform the initial development work to obtain these patents."³³ In this regard, Jahn warns that this state of affairs may ultimately prompt innovators to relocate their research activities beyond the relevant jurisdiction—where there may be more favorable rules that protect their innovation and test data.³⁴

3. Inventing Around the Patent

Generally, it is possible to identify two cases that can bring about the effective termination of a patent.³⁵ The first and obvious case involves the actual expiry of the patent term.³⁶ The other case involves the introduction of another (noninfringing) patent that effectively neutralizes the commercial value of the first pat-

³¹ Merck KGaA v. Integra Lifesciences I, Ltd., 545 U.S. 193, 205–06 (2005) (holding that:

Basic scientific research on a particular compound, performed without the intent to develop a particular drug or a reasonable belief that the compound will cause the sort of physiological effect the researcher intends to induce, is surely not 'reasonably related to the development and submission of information' to the FDA. It does not follow from this, however, that $\S 271(e)(1)$'s exemption from infringement categorically excludes either (1) experimentation on drugs that are not ultimately the subject of an FDA submission or (2) use of patented compounds in experiments that are not ultimately submitted to the FDA. Under certain conditions, we think the exemption is sufficiently broad to protect the use of patented compounds in both situations");

See also Bradley J. Olson, The Supreme Court's Merck KGaA v. Integra Lifesciences I, LTD. Opinion extends the Exemption from Infringement under Section 271(e)(1) to Biotechnology "Research Tools," 3 J. INT'L BIOTECHNOLOGY L. 16, 16, 19 (2006), available at http://dicksteinshapiro.com/olsonb/ (follow "Publications" hyperlink; then follow the article's hyperlink located in one of the "2006" entries in the table).

- ³² Richard Jahn, Comment, *Experimental Use Exceptions: Changes in Research Tool Patent Protection in the United States and a Comparison to Japan*, 30 DEL. J. CORP. L. 925, 925 (2005).
- ³³ See id.

³⁶ *Id.*

³⁴ Id.

³⁵ Ted O'Donoghue, Suzanne Scotchmer & Jacques-François Thisse, *Patent Breadth, Patent Life, and the Pace of Technological Progress*, 7 J. ECON. MGMT. STRATEGY 1, 1 (1998).

ent.³⁷ While in the first case the end of the patent term is deemed to be inevitable, in the second case another market competitor will attempt to reduce the original scope of the patent breadth to gain a foothold in the market and curb the market control granted to the holder of the original patent.³⁸ The latter tactic is referred to as "inventing around the patent."³⁹ This tactic builds on the fact that the patent application and claims therein leave ample room for attaining the "technological benefits of the patent without duplicating the particular steps constituting it and thus without infringement."⁴⁰ This is possible because disclosure of the steps that lead to re-creating the invention are sufficiently detailed to enable those knowledgeable in the relevant technology to produce a product that is similar to those covered by the patent while circumventing the patent claims of the original patentee.⁴¹

This exception, however, is not likely to sufficiently facilitate the proliferation of knowledge or innovation or attain optimal patent protection. An innovator concerned about the prospect of someone else inventing around his patent might opt for the legal protection provided through trade secrecy mechanisms, in which case no disclosure is required.⁴² Such conduct, however, is likely to come at the detriment of society because it detracts from the benefits of the patent system, which encourages full disclosure of an invention in return for a right of sole use for a limited time.⁴³ Furthermore, because of the potential of inventing around the pat-

⁴⁰ WILLIAM M. LANDES & RICHARD A. POSNER, THE ECONOMIC STRUCTURE OF INTELLECTUAL PROPERTY LAW 295 (2003).

⁴¹ See generally McDaniel, supra note 39 (discussing how inventing around can be accomplished).

³⁷ See id.

³⁸ Id. O'Donoghue et al. draw a distinction between two different types of patent breadth, namely "lagging" and "leading" breadth. Id. at 1, 3. Lagging breadth protects against imitating, inferior products, while leading breadth protects against competition from higher quality products. Id.

³⁹ Stephen C. Glazier, Inventing Around Your Competitors' Patents, MANAGING INTELL. PROP., July– Aug. 1995, at 10; Christine A. McDaniel, Inventing Around and Impacts on Modes of Entry in Japan: A Cross-Country Analysis of U.S. Affiliate Sales and Licensing 1–2 (U.S. Int'l Trade Comm'n, Working Paper No. 99-11-A, 1999), available at http://ssrn.com/abstract=198753.

⁴² See 1 Melvin V. Jager, TRADE SECRETS LAW § 3:40 ("The disclosure of the trade secret information in an issued patent terminates the trade secret"). It is unclear, however, whether such conduct can benefit the innovator because his "secret" innovation is liable to be discovered (or rather uncovered) through reverse engineering. See John M. Golden, Principles for Patent Remedies, 88 TEX. L. REV. 505, 552–23 (2010).

⁴³ See Bonito Boats, Inc. v. Thunder Craft Boats, Inc., 489 U.S. 141, 150–51 (1989) ("The federal patent system . . . embodies a carefully crafted bargain for encouraging the creation and disclosure

ent, over time, patent attorneys have become much more conscious about drafting patent claims that are exceedingly difficult to sidestep.⁴⁴ In fact, this state of affairs is likely to induce patentees to simultaneously engage in barricading their invention by employing numerous tactics, such as filing numerous patents and drafting patents with very broad claims. In that case, the innovator would be expending far too many resources on securing patent protection, thus raising the overall cost of the relevant technology. Consequently, prospective competitors are expected to encounter greater difficulty and to invest increasing resources in their endeavor to invent around existing patents. They are also at greater risk of facing patent infringement lawsuits that will probably entail the imposition of sanctions against them. Additional constraints also apply on the macro level, wherein the inventing around process may adversely impact FDIs.⁴⁵ Lastly, it is important to bear in mind that in some cases the original patentee is entitled to legal protection regardless of the way the new product has been reached.⁴⁶ Evidently, the nature of protection in those cases neutralizes the possibility of invoking the "inventing around" tool.⁴⁷

The aggregate effect of all of these ultimately nullifies the significance of this mechanism. Thus, in light of the risks and potential costs associated with this tactic, its contribution towards the optimization of patent protection is highly doubtful, or, at best, negligible.

4. Humanitarian-Motivated Social Obligations

In addition to the above-mentioned tools, it is possible to identify another one that, although not part of formal patent legislation, is applied in response to press-

of new, useful, and nonobvious advances in technology and design in return for the exclusive right to practice the invention for a period of years.").

⁴⁴ David J. Brennan, The Evolution of English Patent Claims as Property Definers, 4 INTELL. PROP. Q. 361, 397–99 (2005), available at http://ssrn.com/abstract=938634; John M. Golden, Construing Patent Claims According to Their "Interpretive Community:" A Call for an Attorney-Plus-Artisan Perspective, 21 HARV. J.L. & TECH. 321, 376 n.268 (2008).

⁴⁵ McDaniel, *supra* note 39, at 1.

⁴⁶ See Stephen M. Maurer & Suzanne Scotchmer, The Independent Invention Defence in Intellectual Property, 69 ECONOMICA 535, 535 (2002) (discussing protection despite independent invention); Richard J. Gilbert and David M. Newbery, Preemptive Patenting and the Persistence of Monopoly, 72 AM. ECON. REV. 514, 514 (1982).

⁴⁷ For more on the effects of process patents, *see* Aaron S. Kesselheim & Michelle M. Mello, *Medical Process Patents—Monopolizing the Delivery of Health Care*, 355 New ENG. J. MED. 2036, 2036–40 (2006).

ing social needs or humanitarian concerns. This exception is based on the view that property rights are not absolute in that they can (and should be) offset by other social interests and on the conviction that there is a need to incorporate social responsibility into the concept of property-in other words, that property entails social responsibility.⁴⁸ By applying this concept to the patent context, one could argue that patent protection cannot be focused only on an innovator's patent rights and that other social interests need to be considered. Indeed, this exclusion pits the need to maintain innovation against the "here and now" needs of the collective. This clash is especially relevant to the debate regarding access to patented medicines. In that debate, various attempts have been made to counteract the impact of patent rights by invoking concepts of social obligation and compassion.⁴⁹ In line with this concept of property, various attempts have been made to facilitate the entry of generic versions of pharmaceutical products into the market.⁵⁰ In the United States, the Drug Price Competition and Patent Term Restoration Act of 1984, informally known as the Hatch-Waxman Act, has lowered the barrier to entry for generic drug firms.⁵¹ It established a process by which prospective marketers of generic drugs can file Abbreviated New Drug Applications (ANDAs) for the purpose of attaining FDA approval for the generic version of the patented active ingredient.⁵² In effect,

⁵⁰ Patricia M. Danzon & Adrian Towse, Theory and Implementation of Differential Pricing for Pharmaceuticals, in INTERNATIONAL PUBLIC GOODS AND TRANSFER OF TECHNOLOGY UNDER A GLOBALIZED INTELLECTUAL PROPERTY RÉGIME 425, 426 (Keith E. Maskus & Jerome H. Reichman eds., 2005).

⁵¹ See Drug Price Competition and Patent Term Restoration Act of 1984, Pub. L. No. 98-417, 98 Stat. 1585 (codified at 21 U.S.C. § 355 and 35 U.S.C. §§ 156, 271); Henry Grabowski & John Vernon, Longer Patents for Increased Generic Competition in the U.S.: The Waxman-Hatch Act After One Decade, 10 PHARMACOECON. 110, 110 (1996), available at http://ssrn.com/ abstract=536322; Henry Grabowski & John Vernon, Longer Patents for Lower Imitation Barriers: The 1984 Drug Act, 76 AM. ECON. REV. 195, 195 (1986); Richard A. Epstein & Bruce N. Kuhlik, Navigating the Anticommons for Pharmaceutical Patents: Steady the Course on Hatch-Waxman 2 (Univ. Chicago Law, Olin Law & Econ. Working Paper No. 209, 2004), available at http://ssrn.com/abstract=536322.

⁴⁸ See generally Hanoch Dagan, The Social Responsibility of Ownership, 92 CORNELL L. REV. 1255, 1259–61 (2007) (providing an in-depth analysis of the interrelationship between property and social responsibility).

⁴⁹ Khoury, supra note 19, at 41–42; see also Andrew Beckerman-Rodau, Patent Law—Balancing Profit Maximization and Public Access to Technology, 4 COLUM. SCI. & TECH. L. REV. 1, 3–4 (2002); Bryan C. Mercurio, TRIPs, Patents, and Access to Life-Saving Drugs in the Developing World, 8 MARQ. INTELL. PROP. L. REV. 211, 214 (2004).

⁵² Darren S. Tucker, FDA Citizen Petitions: A New Means of Delaying Generic Entry?, 20 ANTITRUST HEALTH CARE CHRON. 10, 10 (2006); Ankur N. Patel, Comment, Delayed Access to

the Act creates a 180-day exclusivity period to companies that are the first-to-file an ANDA against holders of patents.⁵³ But, given its focus, this exception has a limited coverage as well.

B. Conclusions about the Patent Breadth

From all of the above, it appears that the existing tools that patent law provides do, in fact, reflect an unequivocal unease with the conventional patent system. These exceptions seem to have been formulated with the intent to vent some of the pressures that transpire from the conventional patent system. Indeed, these tools profess the recognition that the strength of patent protection has led to an overreaching effect of the patent system and indirectly created a disincentive to innovate. In this regard, Gallini warns that "[i]n an environment of cumulative innovation, patents can undermine protection on the very inventions they seek to protect."⁵⁴ This environment is manifested in various forms, namely a diminished motivation to engage in research activity; overinvestment in substitute inventions; reduced incentives to develop improvements; and the shift from basic research to applied research.⁵⁵ Ironically, then, the same system that has been created to promote innovation has become a hurdle to attaining it. That is why it appears that, by applying these exceptions, the regulators have not remained completely indifferent to the potentially adverse impact of stringent patent protection on competition and on society as a whole.

The exceptions surveyed constitute an attempt to recalibrate the conventional patent system to optimize the benefits that it generates for all parties concerned. Using these exceptions, regulators have attempted to maintain a balance between the competing interests within the patent (innovation) domain. Yet, as I have demonstrated, each of these measures falls short of attaining this balance. Furthermore, the aggregate effect of these exceptions also fails to meet the minimum threshold needed to optimize the level of patent protection and innovation. These exceptions are not sufficiently responsive to social needs; they appear to perceive the patent system from a purely economic perspective. In addition, they are case-sensitive

⁵⁵ ALAN GUTTERMAN, INNOVATION AND COMPETITION POLICY 38–40 (1997).

Generic Medicine: A Comment on the Hatch-Waxman Act and the "Approval Bottleneck," 78 FORDHAM L. REV. 1075, 1082–83 (2009).

⁵³ Thomas Chen, Note, Authorized Generics: A Prescription for Hatch-Waxman Reform, 93 VA. L. REV. 459, 465–66 (2007).

⁵⁴ Nancy T. Gallini, The Economics of Patents: Lessons from Recent U.S. Patent Reform, 16 J. ECON. PERSP. 131, 150 (2002).

and narrow in that they do not apply to all patentable subject matter. What's more, these exceptions do not apply to all patents as part of the law, but are contingent on specific circumstances and courts' discretion. Notably, all of these exceptions relate to the breadth (scope) of the patent right rather than to the length of the patent term. Indeed, these exceptions effectively overlook the patent length and ignore its untapped potential as a tool for balancing between pure patent (property) rights and other social interests. This deficiency arguably stems from a misconception that patent protection constitutes a zero-sum game in which either the patent holder or his competitors will prevail. To my mind, given the legitimate interests of all those concerned, such an approach is highly problematic because all of the stakeholders-who are involved in the patent game-possess valid interests that need to be considered. Optimal patent protection is the aggregate vector of all of the interests that are involved. Thus, despite their undeniable contribution, these tools have a limited caliber and cannot by themselves achieve the fine-tuning required in moving towards attaining the optimal degree of patent protection. As such, those tools cannot substitute the role of the patent length when seeking to optimize patent protection.

If the patent system is to reach an optimum, it simply cannot continue to ignore the interests of one party for the benefit of another. Indeed, the issue here goes to the core of patents as a type of social construct. While on their face patent rights are viewed as a deliberate attempt to create a monopoly for the benefit of the innovator, there are those who question the merits of this type of "exclusionary" property.⁵⁶ In this regard, Son warns against unrestrained patent rights that might transcend the legitimate exploitation of the legally acquired monopoly.⁵⁷ To create a balance between the patent holder and his customers, Son advocates limiting the patent rights based on rationales relating to the public interest.⁵⁸ Dagan views property as an institution that manifests many "inclusive" traits.⁵⁹ In his view,

⁵⁶ See, e.g., Hanoch Dagan, Property and the Public Domain, 18 YALE J.L. & HUM. 84, 84–85 (2006); Hanoch Dagan, & Michael Heller, Conflicts in Property, 6 THEORETICAL INQUIRIES IN L. 37, 37 (2005); Seungwoo Son, Selective Refusals to Sell Patented Goods: The Relationship Between Patent Rights and Antitrust Law, U. ILL. J.L. TECH. & POL'Y 109, 117 (2002); Hanoch Dagan, Exclusion and Inclusion in Property 29–30 (June 7, 2009), available at http://ssrn.com/abstract=1416580 [hereinafter Dagan, Exclusion and Inclusion].

⁵⁷ Son, *supra* note 56, at 117.

⁵⁸ Son, *supra* note 56, at 151.

⁵⁹ See generally Dagan, Exclusion and Inclusion, supra note 56.

"[p]roperty turns out to be about both exclusion and inclusion."⁶⁰ Furthermore, he observes that "[i]n their different domains, the right to exclude and the right to entry can peacefully cohabit under the heterogeneous, though not formless, umbrella of property."⁶¹ By similar measure, patent law cannot and should not be viewed from the narrow context of exclusion.⁶² Inclusion of social interests should be an integral part of patent protection. The scope of patent protection should be determined based on the overall inclusionary goals for which purpose the patent concept was originally conceived.

Henry has attempted to alleviate the unease generated by the strength that is granted to innovators by proposing a "runner up" patent mechanism.⁶³ In this proposed mechanism, a subsequent inventor is allowed to share in the original patent if he files for a patent on his related discovery or invention within a predetermined period after the first patent.⁶⁴ Although Henry appears to be well aware of the potential reduction in research-related incentives, he is adamant that such losses will be offset by the social benefits his proposed model provides.⁶⁵ The value of Henry's proposal in the context of my research lies in his view that the patent breadth cannot function alone and that monopoly rights created by patent law cannot block out other socially desirable interests.⁶⁶ Indeed, given the nature of the interests involved in patent discourse, patent law should not fixate on the private domain and overlook the other interests that pertain to it, namely, those in the public domain. But in my view the picture is even more complex. Indeed, the public domain relates to two competing subgroups, namely, other prospective innovators and society at large. While the first group seeks to base its own inventions on existing patented technology, the second group seeks to use that technology while enduring a minimal burden of rent (royalties or license fees). Thus, the scope of the patent grant needs to achieve a balance between various competing, socially-desirable interests. This is not an easy task because while the residents of the public domain

⁶⁵ *Id.* at 9.

⁶⁶ See id. at 2.

⁶⁰ Dagan, *Exclusion and Inclusion, supra* note 56, at 31.

⁶¹ Dagan, Exclusion and Inclusion, supra note 56, at 31.

⁶² See Adam Mossoff, Exclusion and Exclusive Use in Patent Law, 22 HARV. J.L. & TECH. 321, 325–26 (2009).

⁶³ Emeric Henry, Runner-up Patents: Is Monopoly Inevitable? 1 (Apr. 19, 2007), available at http://ssrn.com/abstract=922316.

⁶⁴ Id. at 2.

are likely to push for an exceedingly lenient patent system, the private-domain entities would most likely threaten to halt all innovation if the rent and control factors are not adequately secured or are structured to their detriment.

In this context, Gallini is rather skeptical of the conventional patent system's ability to achieve the balance between patent protection and other interests. This skepticism is well demonstrated by her observation that "we can no longer rely on the simple tradeoff—that patents stimulate innovative activity."⁶⁷ She predicts that "[a]s new technologies emerge, so will patent, legal and antitrust rules that govern the granting, enforcement and exercise of intellectual property protection."⁶⁸

This section highlighted the inherent faults within the conventional patent system—particularly the weakness of the patent breadth. Given that the patent breadth is unable to secure these inclusionary elements, it appears there is a need to resort to the other element in patent protection—the patent term. Consequently, the core of this research is intended to create a mechanism, the task of which is to compensate for the weakness of the patent breadth. Thus, my proposed mechanism involves a more versatile patent system vis-à-vis the patent term that is granted to patentees.

III. The Core: Shifting to a System of Differential Patent Terms

Because the tools within the parameters of the patent breadth fall short of singlehandedly attaining optimal patent protection, it becomes clear that the patent length can no longer be sidelined or sidestepped. Thus, the challenge in this context centers on devising a patent length rule that would be helpful and feasible to implement.

A. Misgivings of the Conventional Twenty-Year Patent Term

Until now, the patent term has largely been applied in a unitary manner. Specifically, the rule of thumb has been a twenty-year patent term for all types of patents.⁶⁹ Thus, before embarking on any ambitious project involving the adoption of a differential patent term, the first order of business would be to assess the generally accepted twenty-year patent term and see whether it holds up in view of the

⁶⁷ Gallini, *supra* note 54, at 150.

⁶⁸ Gallini, *supra* note 54, at 150.

⁶⁹ Mark A. Lemley, An Empirical Study of the Twenty-Year Patent Term, 22 AIPLA Q.J. 369, 375– 76 (1994); Frank Partnoy, Finance and Patent Length 6 (Univ. San Diego Sch. of L., Law & Econ. Research Paper No. 19, 2001), available at http://ssrn.com/abstract=285144 (2001).

well-established rationales underlying the patent system. This paper establishes that it does not.

1. Origins of the Twenty-Year Patent Term

The legal history of patent law suggests that the first rule prescribing a formal patent limited in time can be traced back to the Republic of Florence in 1421, when patent terms were set at ten years.⁷⁰ In 1624, English law prescribed a fourteen-year patent term.⁷¹ Research indicates that both of these terms existed absent a defined vision as to the proper length of the patent term.⁷² Interestingly, in precolonial America, the patent term was set in some territories in accordance with the value of the innovator's contribution.⁷³ Accordingly, the patent term fluctuated from as short as seven years to a duration equivalent to the life of the inventor.⁷⁴ In time, the U.S. Congress adopted a fourteen-year term in the first Patent Act, in 1790.⁷⁵ In 1861, the patent term was set in the United States at seventeen years, and in 1994 the patent term was extended to twenty years.⁷⁶

Nothing in research provides a convincing account of why such a "limited time" of twenty years is better than an eighteen-year patent term or more justified than a twenty-two-year patent term. On the contrary, the legal history of the twenty-year patent term shows that it is more a result of an arbitrary rule than a cal-

⁷¹ Statute of Monopolies, 1623, 21 Jac. I, c.3.

- ⁷² See Partnoy, supra note 69 at 6–7 (offering a historical explanation for the fourteen-year patent term, suggesting it might be associated with the length of an apprenticeship in England at the time (seven years), and that the inventor was deemed to need two apprentices to devise a patent, hence the 14-year patent term).
- ⁷³ Partnoy, *supra* note 69, at 8.
- ⁷⁴ Partnoy, *supra* note 69, at 8.
- ⁷⁵ Tyler T. Ochoa & Mark Rose, *The Anti-Monopoly Origins of the Patent and Copyright Clause*, 84 J. PAT. & TRADEMARK OFF. SOC'Y 909, 928 (2002).
- ⁷⁶ Partnoy, supra note 69, at 9. For more on the legal history of the protection of patents and copyrights in the United States, see Edward C. Walterscheid, To Promote the Progress of Science and Useful Arts: The Anatomy of a Congressional Power, 43 IDEA 1 (2002), and see also Edward C. Walterscheid, The Remarkable—And Irrational—Disparity Between the Patent Term and the Copyright Term, 83 J. PAT. & TRADEMARK OFF. SOC'Y 233 (2001). For an expansive survey of the legal history of the patent term, see Eric E. Johnson, Calibrating Patent Lifetimes, 22 SANTA CLARA COMPUTER & HIGH TECH. L.J. 269, 283, 290–92 (2006).

⁷⁰ TERENCE KEALEY, THE ECONOMIC LAWS OF SCIENTIFIC RESEARCH 42 (1996).

culated term that is founded on solid rationales.⁷⁷ Partnoy observes that "the patent term has not evolved in response to changes in any discernable set of variables, or even in any evident pattern."⁷⁸ Consequently, Partnoy considers the conventional patent term to be "more historical accident than efficient evolution."⁷⁹

Even more so, the twenty-year patent term has become standard practice in the overwhelming majority of patent laws around the world—not because of a deep conviction on the part of legislators as to its merits, but rather because of the influence of the TRIPS agreement, which prescribes a minimal (and extendable) patent term of twenty years.⁸⁰ Furthermore, because the patent term is an imported norm, it may also be possible to argue that extending the patent term would result in the imposition of net costs on the national economy and especially on consumers therein.⁸¹ This would be a further testament to the effects of the "global" influence on the "local" industry in the intellectual property context.⁸² Indeed, the patent system has been the subject of much debate as to its benefits (or lack thereof) for developing countries.⁸³ Despite the significance of this in the context of international relations, however, it remains beyond the scope of this research.⁸⁴

⁷⁸ Partnoy, *supra* note 69, at 8.

⁷⁹ Partnoy, *supra* note 69, at 8.

⁸⁰ Agreement on Trade-Related Aspects of Intellectual Property Rights, Including Trade in Counterfeit Goods, art. 33, Dec. 15, 1993, 33 I.L.M. 81, 1869 U.N.T.S. 332 ("The term of protection available shall not end before the expiration of a period of twenty years counted from the filing date."). For a discussion of the impact of the TRIPS patent term in the U.S., *see* Lemley, *supra* note 69, at 369. For more on the history of the patent term and the TRIPS agreement, *see* Abrams, *supra* note 7, at 1618–19.

⁸¹ NICHOLAS GRUEN, GERARD PRIOR & IAN BRUCE, INDUS. COMM'N, EXTENDING PATENT LIFE: IS IT IN AUSTRALIA'S ECONOMIC INTERESTS? v (1996), http://www.pc.gov.au/__data/assets/pdf_file/ 0017/8900/patents.pdf.

- ⁸² See Michael D. Birnhack, Trading Copyright: Global Pressure on Local Culture, in THE DEVELOPMENT AGENDA: GLOBAL INTELLECTUAL PROPERTY AND DEVELOPING COUNTRIES 363 (Neil W. Netanel ed., 2008) (arguing that the global copyright regime (G©) should be evaluated against the backdrop of a complex set of factors that form each country's cultural field, instead of being based on an exclusive legal or economic inspection); Michael D. Birnhack, Global Copyright, Local Speech, 24 CARDOZO ARTS & ENT. L.J. 491, 492–94 (2006) (analyzing the impact of globalization on copyright law).
- ⁸³ Carlos Correa, *TRIPS and TRIPS-Plus Protection and Impacts in Latin America, in* INTELLECTUAL PROPERTY, TRADE AND DEVELOPMENT: STRATEGIES TO OPTIMIZE ECONOMIC DEVELOPMENT IN A

⁷⁷ Johnson, *supra* note 76, at 269 (stating that the current patent term is arbitrary and the result of entrenched historical accident).

2. On the Changeability of the Patent Term

As stated above, while patent laws generally adopt the international standard pertaining to the patent term as prescribed by the TRIPS agreement, they also tolerate deviation from the standard twenty-year patent term. This has been most prevalent in relation to pharmaceutical patents, wherein patent term extensions have been rationalized on the basis of the lengthy administrative process that a pharmaceutical patentee has to endure to get his invention certified by the competent authorities in a given jurisdiction.⁸⁵ To date, various countries have sanctioned such extensions of the patent term.⁸⁶ The changeability of the patent term has also been manifested in another context, the "evergreening" of patents.⁸⁷ Patent systems that endorse

- ⁸⁴ For more on the intersection between globalized patent standards and developing countries see Khoury, supra note 19, at 25–70, and Michael D. Birnhack, Global Copyright, Local Speech, 24 CARDOZO ARTS & ENT. L.J. 491, 491–506 (2006).
- ⁸⁵ See Chuck Ludlam, Vice President for Gov't Relations, Biotechnology Indus. Org. (BIO), Testimony before the House Subcommittee on Courts and Intellectual Property Regarding the Patent Term for Biotechnology Inventions: Protecting Diligent Patent Applications (March 25, 1999), http://www.bio.org/ip/action/tstm032599.asp ("BIO supports amendments to the patent law that, above all, ensure that diligent patent applicants are not penalized for delays which are beyond their control.").
- 86 See 35 U.S.C. § 156 (2006); Jaclyn L. Miller, Drug Price Competition and Patent Term Restoration Act: The Elimination of Competition between Drug Manufacturers, 5 DEPAUL J. HEALTH CARE L. 91, 106-07 (2002). In addition to the United States, other countries provide for extended patent terms for pharmaceuticals, including Australia, Japan, Korea, Israel, and many EU members. Grace Chen, David Tadgell & Virginia Beniac-Brooks, Pharmaceutical Patent-Extension of Term Provisions Around the World, IPORGANIZERS: DRUGTERM, Nov. 2007, http://www.drugterm.com/country/world.htm. Despite an absence of internationally agreed-upon standards relating to these extensions, it is possible to identify some common features among the respective rules in the above mentioned countries. In this regard, DrugTerm identifies some common characteristics. See id. ("Extension is not automatic; the patent owner must make a specific application; [t]he length of the extension granted depends on the length of time between the date of filing of the patent application and the date of marketing approval; [a] maximum extension of 5 years is provided for; and [t]he rights of the patent owner in respect of the patent are usually limited during the extended term compared with the rights available during the original term."); Ministry of Economic Development, Review of the Patents Act 1953: The Pharmaceutical Patent Term in New Zealand 17 app. 1 (Regulatory & Competition Policy Branch, 2003), available at http://www.med.govt.nz/upload/4186/pharamceutical patent.pdf.
- ⁸⁷ Michelangelo Temmerman, The TRIPS Agreement, the Evergreening of Patents and Access to Medicines: Novartis v. India 1 (NCCR Trade Regulation, Swiss Nat'l Centre of Competence in Research, Working Paper No. 2008/16, 2008), available at http://ssrn.com/abstract=1185282 ("The Evergreening of patents (basically referring to the situation in which an already patent-

TRIPS-PLUS ERA 221-22 (Daniel Gervais ed., 2007); Lester C. Thurow, Needed: A New System of Intellectual Property Rights, HARV. BUS. REV., Sept.-Oct. 1997, at 94, 96.

this method allow for reapplying for an existing patented innovation citing sufficiently modified descriptions, claims or characters.⁸⁸ Such an application may be filed shortly before the expiration of the original patent term.⁸⁹ A third context in which a distinct patent term has been designated to a specific industry manifests itself in the Semiconductor Chip Protection Act of 1984, which provides a ten-year term for the engraved (etched) designs on microprocessor chips.⁹⁰

From all of the above, it is possible to conclude that practical and social needs have dictated the introduction of exceptions to the rigid and arbitrary conventional twenty-year patent term. This demonstrates that the conventional patent term is not cast in stone and that regulators have acknowledged that the patent term needs to be attuned to other interests and yield to other constraints. This openness on the part of the regulators raises the question whether, by similar measure, the patent term concept needs to be ever-responsive to the dictates and needs of patent theory. I would answer this question with an unequivocal "yes." If patent terms have been responsive to bureaucratic considerations, then surely they must also be attuned to the underlying rationales of patent law. Indeed, if the patent term has been created to serve distinct social goals, then a synergy needs to exist between those underlying goals and the patent term. As discussed in the next section, economists have established a vivid connection between the patent term and the scope of patent protection. Consequently, despite the fact that the patent term appears to be technology-neutral, it is in fact attuned to technology-specific considerations.

protected invention is re-applied under slightly modified descriptions, claims or characteristics shortly before the expiry of the 'original' patent) is a phenomenon affecting one of the major cogs in the wheel of patent balancing: the (20 year) term."); see also Thomas A. Faunce & Joel Lexchin, 'Linkage' Pharmaceutical Evergreening in Canada and Australia, 1 AUSTL. & N.Z. J. HEALTH POL'Y 8, 8 (2007), available at http://ssrn.com/abstract=1405010 [hereinafter Faunce & Lexchin, Linkage]; Thomas A. Faunce, New Forms of Evergreening in Australia: Misleading Advertising, Enantiomers and Data Exclusivity: Apotex v. Servier and Alphapharm v. Lundbeck, 12 J.L. & MED. 220, 220–32 (2008), available at http://ssrn.com/abstract=1405024 [hereinafter Faunce, New Forms].

⁸⁸ Temmerman, supra note 87, at 2; see also Faunce & Lexchin, Linkage, supra note 87, at 10; Faunce, New Forms, supra note 88, at 231.

⁸⁹ Temmerman, *supra* note 87, at 1. In this regard, Temmerman submits that the tackling of evergreening is possible within the traditional patentability requirements and no additional legal action is actually required. Temmerman, *supra* note 87, at 2; *see also* Shanti Kumar, Nitin Shukla, & Tanushree Sangal, Evergreening of Patents and Indian Patents Law (June 15, 2009), *available at* http://ssrn.com/abstract=1420003.

⁹⁰ Semiconductor Chip Protection Act of 1984, 17 U.S.C. §§ 901–14 (1985). For more on protection for computer software, *see* Peter S. Menell, *Tailoring Legal Protection for Computer Software*, 39 STAN. L. REV. 1329, 1364–65 (1987).

B. What Economists Teach Us About the Proper Patent Term

As early as the 1960s, economists have questioned the logic underlying the largely uniform patent term.⁹¹ The first and most widely recognized research was conducted by Nordhaus.⁹² According to Nordhaus, the formulation of an optimal patent term requires reaching an equilibrium between the incentives necessary to encourage innovation and the inefficiencies associated with the monopoly right that constitutes the essence of the patent.⁹³ Specifically, Nordhaus's model employs various factors, mainly the cost of R&D, the social value of the invention, and the elasticity of demand.⁹⁴ Based on these, Nordhaus was able to calculate optimal patent lifetimes within a broad range (i.e., 1.1 years to thirty-four years).⁹⁵ The weakness of this model lies in the difficulty of calculating social values, especially ex ante. This state of affairs prompted Scherer to devise a more flexible version of Nordhaus's model, wherein case-specific patent extensions could be granted.⁹⁶ In his model, Nordhaus perceives a fixed point in time in which all investment in research and all innovations occur.⁹⁷ Duffy deems this flat approach to innovation as

⁹¹ See Glynn S. Lunney, Jr., Patent Law, the Federal Circuit and the Supreme Court: A Quiet Revolution, 11 SUP. CT. ECON. REV. 1, 47 (2004). Partnoy has called for reducing the patent term. See Partnoy, supra note 69, at 1; see also Yehuda Kotowitz & Paul Schure, The Optimal Patent Length 1 (March 2006), available at http://economics.huji.ac.il/seminars/seminars 05-06/schure.pdf (arguing that "there are significant welfare losses when picking a longer than optimal patent length" and that "the current patent life of 20 years is far too long and reduces welfare significantly").

⁹² See, e.g., WILLIAM D. NORDHAUS, INVENTION, GROWTH AND WELFARE: A THEORETICAL TREATMENT OF TECHNOLOGICAL CHANGE (1969) [hereinafter Nordhaus, INVENTION]; William D. Nordhaus, *The Optimum Life of a Patent: Reply*, 62 AM. ECON. REV. 428, 428 (1972) [hereinafter Nordhaus, *Reply*] (finding that the level of welfare generated by the patent system was very insensitive to the life of the patent once the term reached six to ten years); William D. Nordhaus, *The Optimal Life of a Patent* 1 (Cowles Found. for Research in Econ. At Yale Univ., Discussion Paper No. 241, 1967), available at http://cowles.econ.yale.edu/P/cd/d02a/d0241.pdf [hereinafter Nordhaus, *Optimal*].

⁹³ See Nordhaus, Optimal, supra note 92, at 2.

⁹⁴ See Kenneth W. Dam, The Economic Underpinnings of Patent Law, 23 J. LEG. STUD. 247, 257 (1994); Edmund W. Kitch, The Nature and Function of the Patent System, 20 J.L. & ECON. 265, 284–85 (1977); Nordhaus, Reply, supra note 92, at 428; F.M. Scherer, Nordhaus' Theory of Optimal Patent Life: A Geometric Reinterpretation, 62 AM. ECON. Rev. 422, 424 (1972).

⁹⁵ Nordhaus, INVENTION, *supra* note 92, at 81–82.

⁹⁶ Scherer, *supra* note 94, at 422.

⁹⁷ See Nordhaus, Reply, supra note 92, at 429.

a further weakness in Nordhaus's model.⁹⁸ He advocates a fully dynamic approach to the patent term that can potentially impact the scope of and investment in innovation.⁹⁹ Regardless, the significance of Nordhaus's approach has been in transforming the patent term from a technical element within the patent system to a relevant balancing factor in the general patent scheme.

Another attempt to involve the patent term has been undertaken by Landes and Posner, who have asserted that "the length of a patent demonstrates the disjunction between actual and optimal protection."¹⁰⁰ Hopenhayn and Mitchell observe that in a world involving heterogeneous innovations, there is a need to provide a variety of patents by trading off patent breadth for length.¹⁰¹ In their view, this tradeoff needs to be based on a "quality-ladder model" that considers the fertility of innovations and their role as building blocks to future inventions.¹⁰² They contend that more fertile innovations get more returns for a shorter time.¹⁰³ Indeed, Burk and Lemley *have* provided empirical evidence as to differences between different industries with respect to innovation.¹⁰⁴ Burk and Lemley submit that industries vary from one another in various ways, including (but not limited to) the speed and cost of research, development, the ease with which inventions can be imitated by others, the need for cumulative or interpretative innovation rather than stand-alone development, and the extent to which patents cover entire products or merely components of products.¹⁰⁵ Furthermore, Mandeville contends that the system needs to

- ¹⁰¹ Hugo A. Hopenhayn & Matthew F. Mitchell, *Innovation Variety and Patent Breadth*, 32 RAND J. ECON. 152, 153 (2001).
- ¹⁰² Id. at 157, 163. Other research that explores the length (term) rather than the breadth (scope) of patents approaches the topic from a fiscal financial angle, namely interest rates. See Partnoy, supra note 69, at 5. Here too the view is that "the optimal patent term is highly sensitive to changes in the term structure of interest rates and to changes in the timing of cash outflows and inflows related to patents." Partnoy, supra note 69, at 5. Partnoy contends that "under certain assumptions a one percent shift in interest rates results in an approximately one-year shift in the optimal patent term." Partnoy, supra note 69, at 5.

⁹⁸ John F. Duffy, A Minimum Optimal Patent Term 1 (Jan. 22, 2003), available at http://ssrn.com/ abstract=354282.

⁹⁹ *Id.* at 2,

¹⁰⁰ LANDES & POSNER, *supra* note 40, at 300.

¹⁰³ Hopenhayn & Mitchell, *supra* note 102, at 156.

¹⁰⁴ Burk & Lemley, *supra* note 8, at 1604–07.

¹⁰⁵ Burk & Lemley, *supra* note 8, at 1577.

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take heed of the "economic characteristics of information."¹⁰⁶ Thus, a unified patent term is a problematic albeit convenient rule that needs to be changed. In this regard Mandeville has fittingly observed that "[a] new perspective on the patent system, indeed a new theory of the patent system is needed. Such a new perspective should begin with innovation. Innovation goes far beyond patents; there is much more to innovation than patents."¹⁰⁷ Gutterman provides a further point of leverage for utilizing the patent length mechanism. Indeed, the incentive-to-invent theory should be considered not so much from its monopoly aspects but rather from the correlation between the "anticipated rate of return on investments in the research required to generate new inventions," and the amount of said investments.¹⁰⁸ I also agree with Gwartney's observation that "[t]he consumer expectation in the high-tech world of today is that when a new technology is released, the cost will rapidly decrease within the first few years of availability."¹⁰⁹ He concludes that the "length of exclusivity in patent rights does not adequately mirror the expectations of society."¹¹⁰

To my mind, this type of perspective on the incentive to invent provides sufficient leeway for the regulator to mitigate excessive market control over the market of technology without substantially derogating from the socially desirable R&D activity done by the prospective patentee. In fact, this line of argument mimics earlier research that has pitted the private domain against the public domain. In this regard research has produced varying views on the topic. Indeed, according to Kitch's Prospect Theory, private property creates optimal utilization of a certain property item and is better than ownership that is shared by many.¹¹¹ When applied

¹⁰⁶ Thomas Mandeville, UNDERSTANDING NOVELTY: INFORMATION, TECHNOLOGICAL CHANGE AND THE PATENT SYSTEM 91 (1996).

¹⁰⁷ *Id.* at 35.

¹⁰⁸ GUTTERMAN, *supra* note 55, at 37.

¹⁰⁹ Gwartney, *supra* note 20, at 1438.

¹¹⁰ Gwartney, *supra* note 20, at 1438.

¹¹¹ See Kitch, supra note 94, at 266. For more on Kitch's Prospect Theory, see Martin Campbell-Kelly & Patrick Valduriez, An Empirical Study of the Patent Prospect Theory: An Evaluation of Antispam Patents 1 (Sept. 1, 2005), available at http://ssrn.com/abstract=796289. In their article, Campbell-Kelly and Valduriez note that the concept of a prospect theory was first proposed by Edmund Kitch in 1977. See id. at 2. In fact, "[a]t the time that Kitch was writing, the 'reward theory' had dominated economic discussions of the patent system for many years. The reward theory posited that a patent served to motivate inventors by rewarding them with a temporary monopoly on an invention. This, *inter alia*, would enable the inventor to commercialize the invention without fear of rapid imitation; it would allow the inventor 'breathing space' to assemble the

to patents, that argument would suggest that placing a patent in the private domain would optimize its utilization as compared to cases in which that same patent is placed in the public domain. Kitch has maintained that a system wherein patents award exclusive rights in discoveries encourages the inventor to invest in development without concern of the potential loss of his efforts to others.¹¹² Furthermore, this would encourage a potential innovator to expose the details of his innovation without fear of it being abused by others.¹¹³ Kitch also contends that his theory promotes progress and innovation by enabling the benefits of research to be solely internalized by the innovators.¹¹⁴ However, these propositions have encountered stiff opposition. For example, Gutterman has criticized Kitch's theory by asserting that it would create "serious risks that the technology would be underutilized and that the research efforts of rivals would be diverted to other, perhaps less promising, areas of activity."¹¹⁵ Gutterman's criticism exposes a major flaw in the patent rationalization process: that innovation is primarily spurred by the power that is vested in the innovator.

Merges and Nelson contend that Kitch's Prospect Theory needs to be supplemented to make up for the limits of patent rights.¹¹⁶ They observe that if the property rights are too narrow, then they "will not provide enough incentive to develop the asset."¹¹⁷ Conversely, if those rights are overly broad, then they will "preempt too many competitive development efforts."¹¹⁸ Landes and Posner caution that excessive patent protection can lead to reducing the benefits that society can harvest from the patent disclosure.¹¹⁹ In their view "[t]he greater patent protection is, the smaller the benefit to competitors from the information contained in the patent grant because the less they can do with it."¹²⁰ In this regard, DeBrock concedes the

resources needed for commercialization; and the tradable instrument of a patent would facilitate negotiations for financial and other resources." *Id.*

¹¹² Kitch, *supra* note 94, at 266.

¹¹³ Kitch, *supra* note 94, at 266.

¹¹⁴ Kitch, *supra* note 94, at 266.

- ¹¹⁵ GUTTERMAN, *supra* note 55, at 62.
- ¹¹⁶ Merges & Nelson, *supra* note 9, at 875.
- ¹¹⁷ Merges & Nelson, *supra* note 9, at 875.
- ¹¹⁸ Merges & Nelson, *supra* note 9, at 875.
- ¹¹⁹ Landes & Posner, *supra* note 40, at 299.
- ¹²⁰ Landes & Posner, *supra* note 40, at 299.

existence of an optimal patent term that is the product of an underlying balance between the interests of the two groups.¹²¹ In his view "the interaction of these two opposite forces implies a trade-off and the existence of an optimal patent life."¹²²

In light of all of this, it is possible to conclude that economists have paved the way for recognizing the patent term as a relevant element in the "innovation" discourse. Indeed, economists demonstrate that length elements need to be factored into the equation to optimize the benefits that can be derived from this important public good that is broadly referred to as "innovation," and avoid its unwarranted arrest.¹²³ The question of how far the protection of innovation should be stretched forms the backbone of the ongoing debate relating to the scope of patent protection and the role of the patent term therein.¹²⁴ Despite their evident contribution to the debate, however, economists have left it to the lawyers to create workable legal rules for implementing a differential patent term model. The formulation of such an elusive rule remains the primary challenge and constitutes the inner core of my research.

C. Rationalizing a Differential Patent Term

The patent term exists in the law not as a relevant variable but rather as a constant that most have not questioned. Partnoy observes that "although no policy maker could set optimal patent policy by varying patent length, courts were free to set optimal patent policy by varying the boundaries of patent breadth."¹²⁵ Given this state of affairs, the conventional patent system has distorted the utilitarian nature of patent protection. First and foremost, a patent system that remains indifferent to the impact of the patent term on different patents leads to a situation in which

¹²⁵ Partnoy, *supra* note 69, at 11.

¹²¹ See Lawrence M. DeBrock, Market Structure, Innovation, and Optimal Patent Life, 28 J.L. & ECON. 223, 223–24 (1985).

¹²² Id.

¹²³ See Takalo, supra note 1, at 39. Takalo outlines the imminent clash within the patent system between the diverging interests that are involved. In his view the public good aspect of intellectual property constitutes a "pervasive obstacle" in seeking the optimal technology policy because while intellectual property does not wear out, not securing a return for the innovator will reduce the scope of innovation in the economy. Takalo, supra note 1, at 33.

¹²⁴ See Simone A. Rose, Patent "Monopolyphobia": A Means of Extinguishing the Fountainhead?, 49 CASE W. RES. L. REV. 509, 511 (1999) (discussing whether intellectual property rights are property or monopoly, and contending that patent protection does not confer monopoly power on the grantee but instead contributes towards increasing market competition by increasing the number of options that are available to the consumer).

patents having a very short commercial life span harness socially undesirable monopolies.¹²⁶ These patents will linger for twenty years without any commercial relevance, and in so doing they are likely to hamper the proliferation of knowledge and innovation into the market. This, in turn, cements the monopoly distortions of patent law and undermines its underlying utilitarian justifications. Johnson contends that a fixed term of twenty years, regardless of the innovation or the industry from which it comes, demonstrates that patent law has a "marked lack of sophistication."¹²⁷ On the flip side, the patent extension tool that is invoked by the law today fails to provide a clear and broad mechanism for all types of innovation. In other words, its application remains on the fringes of patent protection, is limited to specific cases, and lacks a set of clear standards as to how and when it can be applied. Moreover, the patent extension rules, by definition, have a limited capacity in that they do not facilitate any reduction in the patent term.

Another question that looms in this regard relates to the regulator's role in the innovation debate. In other words, should the regulator be expected to get involved in the way innovation is utilized and the way it is directed, or should this issue be left to market actors that are motivated by economic incentives and self interest? I would opt for the former. Indeed, despite early skepticism as to the role of the state in generating particular incentives in order to boost innovation,¹²⁸ it remains generally accepted that patent law formulated by the regulator assumes a significant role in generating incentives for innovation and in creating wealth for society at large.¹²⁹

¹²⁷ Johnson, *supra* note 76, at 282.

¹²⁶ Johnson, *supra* note 76, at 269.

¹²⁸ See Gutterman, supra note 55, at 37 n.2. Gutterman observes that "[a] number of writers have argued that new inventions will arise independent of any state incentives or property rights awards whenever the state of basic knowledge or other social conditions are favorable." Gutterman, supra note 55, at 37. In this regard Gutterman refers to research dating back to the period 1923–1940. Gutterman, supra note 55, at 37 n.2.

¹²⁹ See Gwartney, supra note 20, at 1438 ("The patent system needs tweaking to serve better the interests across more industries that rely on it. Patents exist to promote progress, but ultimately the desire to promote progress is to benefit society."); Beckerman-Rodau, supra note 49, at 4. In this context it is worth noting that monopoly is not the only possible model for incentivizing innovation. For example, Shavell and Van Ypersele propose supplementing the grant of monopoly rights (which entail deadweight losses) with a reward system that is administered and funded by government. See Steven Shavell & Tanguy Van Ypersele, Rewards Versus Intellectual Property Rights, 44 J.L. & ECON. 525, 537–41 (2001). Johnson, however, is skeptical of this proposed reward system. He points out that it has weaknesses, namely, administration, determining worth, and deciding which innovations merit reward. See Johnson, supra note 76, at 273. Kaplow has also voiced skepticism, citing the difficulty of determining the reward. See Kaplow, supra note 12, at 1820.

Granted, in some cases there are those who will continue to engage in research and to seek innovation notwithstanding the lack of financial rewards that attached to the same.¹³⁰ This phenomenon is referred to in copyright discourse as romantic authorship.¹³¹ Likewise, one cannot rule out what I would refer to as romantic innovation.¹³² Nevertheless, the financial reward that is generally generated by the patent remains the primary engine of innovation.¹³³ What's more, that incentive also plays a pivotal role towards encouraging disclosure.¹³⁴ This, in turn, invigorates the proliferation of knowledge. Cornish observes that patents are intended to encourage inventions that are not only intended to be put to practical use but also to harness information that would otherwise remain undisclosed.¹³⁵ To my understanding, the best way to explain the nature of patents is by applying the metaphor of a social contract between the inventor and the collective, wherein the latter secures incentives to the benefit of the former to generate advantages for society at large.¹³⁶ As explained above, those incentives—which come in return for disclosure—assume the form of a monopoly that is intended to stimulate prospective innovators to invest time, energy, and financial resources into research and development in the hopes of generating income that would be reaped by themselves. It follows that if this structure is indeed indicative of a classic contract between the innovator and society, then the patent grant (including its duration) should be sub-

¹³⁰ See Gutterman, supra note 55, at 37.

¹³¹ See Anupam Chander & Madhavi Sunder, The Romance of the Public Domain, 92 CAL. L. REV. 1331, 1339 (2004).

¹³² See Edwin Mansfield, Patents and Innovation: An Empirical Study, 3212 MGMT. SCI. 172, 174 (1986) (finding that innovative activity is not contingent on patent protection).

¹³³ See Bonito Boats, Inc. v. Thunder Craft Boats, Inc., 489 U.S. 141, 150–51 (1989) ("The federal patent system . . . embodies a carefully crafted bargain for encouraging the creation and disclosure of new, useful, and nonobvious advances in technology and design in return for the exclusive right to practice the invention for a period of years.").

¹³⁴ Id.

¹³⁵ W.R. CORNISH, INTELLECTUAL PROPERTY: PATENTS, COPYRIGHT, TRADE MARKS AND ALLIED RIGHTS 79 (2d ed.1989) ("[Patents] are intended to encourage the making of inventions and the subsequent innovative work that will put those inventions to practical use; and they are expected to procure information about the inventions for the rest of the industry and the public generally, which otherwise might be withheld, at least for a period that could be crucial.").

¹³⁶ See Leslie G. Restaino, Steven E. Halpern & Eric L. Tang, Patenting DNA-Related Inventions in the European Union, United States and Japan: A Trilateral Approach or a Study in Contrast?, 2003 UCLA J.L. & TECH. 2, (2003); see also Carl Moy, 1 MOY'S WALKER ON PATENTS § 1:37 (4th ed. 2007).

ject to the assumptions underlying contract law,— namely, that a potential party will refrain from entering into a contract that does not serve its interests.¹³⁷ This also applies to the general will of society to grant a patent right to an inventor in return for his full disclosure of the technology. Indeed, society's "generosity" is propelled by its expectation to expand the aggregate social wealth.¹³⁸ Such social wealth, which is the accumulation of knowledge and innovation, is deemed to be contingent on providing sufficient incentives for all innovators (present and prospective) to continue engaging in research and development.¹³⁹

In accordance with this line of thinking about the rationale of patent law, it is only natural to expect that society will refrain from endorsing any rule which expands the private domain without securing some measure of benefit for the public domain (society at large). Specifically, a lengthy patent term that does not impact the incentive to invent, or that prevents access to technology in a disproportionate manner, negates patent theory and is not merited. Such a term falls beyond the bounds of the above described social contract because it preserves social monopolization and maintains deadweight losses.¹⁴⁰ In my view, the monopolistic entitlements that are granted to the innovator need to be offset to evade undesirable social effects. The patent system needs to be attuned to social needs and the changing face of the innovation scene in science and technology. What has been cannot (and must not) remain as a matter of course but needs to evolve to justify itself through

¹³⁷ Vincenzo Denicolò & Luigi A. Franzoni, *The Contract Theory of Patents*, 23 INT'L REV. L. & ECON. 365, 366–69 (2003), *available at* at http://ssrn.com/abstract=516723.

¹³⁸ See Roberto Mazzoleni & Richard R. Nelson, Economic Theories About the Benefits and Costs of Patents, 32 J. ECON. ISSUES 1031, 1038 (1998) (questioning the purpose of patents if they do not induce inventions); Kitch, supra note 94, at 265 (arguing that the patent system functions to increase output from resources).

¹³⁹ There are additional economic theories of patents that can potentially impact the elusive optimization of patent protection. In this context, Mazzoleni and Nelson advocate three theories (in addition to "motivation for useful invention") that can account for the benefits and costs of awarding patents for invention: disclosure, commercializing inventions, and exploring "broad prospects." Mazzoleni & Nelson, *supra* note 138, at 1033. These theories share one common denominator that fixates on the indirect economic benefits that accrue to society as a result of patent protection. *See* Mazzoleni & Nelson, *supra* note 138, at 1033. The theories converge in their tendency to favor extending the patent term. *See* Mazzoleni & Nelson, *supra* note 138, at 1033. The theories converge in their tendency to favor extending the patent term. *See* Mazzoleni & Nelson, *supra* note 138, at 1039. *See* Mazzoleni & Nelson, *supra* note 138, at 1042. In their view, patents enable orderly development of broad patents because "an initial discovery or invention is seen as opening up a whole range of follow-on developments or inventions." Mazzoleni & Nelson, *supra* note 138, at 1042.

¹⁴⁰ See Johnson, supra note 76, at 301(noting that loss to social welfare is one side of patent policy equation).

the prism of overall social needs and evolving reality. To my mind, patent protection was never just about granting a prize for innovators. That prize is merely a means to achieving a basic goal of encouraging innovation. In other words, the patent right is not a natural right that is vested in the innovator, but rather it is something bestowed upon him by society if and when (and so long as) society deems it fit.¹⁴¹

It could be claimed that there are two opposing views as to how one should consider the relationship between patent protection and public benefit. On the one hand, it could be argued that in protecting patents to the fullest extent, the incentive to innovators would be raised and, consequently, society at large would gain from their respective innovations. On the other hand, a counterclaim could be that society would gain more if it were allowed to freely access and use existing technology and base new innovations on it. DeBrock has summarized this dissonance within the patent discourse:

Granting the inventor a monopoly on the use of the discovery for a specified period of time eliminates the free-rider problem, thus restoring the incentive to invent. Extension of the duration of protection will increase incentives for private resource allocation toward technical advance. Unfortunately, extension of patent protection by definition brings with it the social inefficiencies recognized in a monopolistic market.¹⁴²

As such, if society is to reconsider the duration of the patent term, it must do so not so much from the narrow viewpoint of the innovator, but rather from a wider social perspective that takes stock of the conflicting interests. Indeed, given that patent protection rests predominantly on utilitarian rationales, it is only natural to expect the regulator to seek to maximize social benefits, thereby realizing the full potential of that theory. The patent system, however, seems to have thus far missed the opportunity to achieve this pivotal goal that can ensure its continued public-goodoriented legitimacy. This is mainly because the patent system has resigned itself to a unified rule that provides for a predetermined patent term, and does not afford much attention to the fact that a wide array of distinctly different technologies are impacted by that rule. On its face, applying this "technology-neutral protection" to varying types of innovation appears to be a positive method in that it creates blan-

¹⁴² DeBrock, *supra* note 121, at 223.

¹⁴¹ This is also clearly reflected in the nature of patent rights, namely, that they are predominantly negative rights. They bar others from using what is patented within the relevant jurisdiction. *See* United States Patent and Trademark Office, Nature of Patent and Patent Rights, http://www.uspto.gov/web/offices/pac/doc/general/nature.htm (last visited Mar. 19, 2010). Patent rights do not grant a patentee a positive right to use the patented subject matter. *Id.*

ket coverage and ensures legal certainty. However, by overlooking the specific and diverse characteristics of different technology sectors, patent law cannot attain the underlying utilitarian purpose for which it was created in the first place.¹⁴³

With that being said, a differential patent term appears to be a radical deviation from the widely accepted trend of unifying patent norms. Indeed, when reading patent laws around the world as well as the agreements that shape them (mainly TRIPS), it is evident that patent laws have been overwhelmingly influenced by a structured international framework comprising rules and standards that regulate the way in which patents are validated, protected, classified, and registered.¹⁴⁴ But while this unified patent system is deemed to be technology-neutral or even technologically-indifferent, on close examination it becomes evident that those involved in validating and invoking patent rights (the registrar, the courts, and the right holders) have formulated a clear distinction between the rules and the way in which they are applied.¹⁴⁵ Over time, research has concluded that patent law does indeed impact different industries in different ways. For example, Lemley observes that intellectual property rights "seem to promote innovation in some industries but harm innovation in others."¹⁴⁶ This problem is most evident in the areas of semiconductors, software, and telecommunications.¹⁴⁷ More specifically, there is a clear divergence between technologies relating to biotechnology and technologies relating to software.¹⁴⁸ In this regard, courts in the United States have reportedly

¹⁴³ Consider, for example, the nonlinear relationship between value and number of patents among holders of patent portfolios. *See* Gideon Parchomovsky & R. Polk Wagner, *Patent Portfolios*, 15 U. PA. L. REV. 1, 4–5 (2005).

¹⁴⁴ See, e.g., Paris Convention for the Protection of Industrial Property, July 19, 1967, 21 U.S.T. 1583, 828 U.N.T.S. 305 [hereinafter Paris Convention]; Patent Cooperation Treaty, June 19, 1970, 28 U.S.T. 7645, 1160 U.N.T.S. 231; Budapest Treaty on the International Recognition of the Deposit of Microorganisms for the Purposes of Patent Procedure, Apr. 28, 1977, 32 U.S.T. 1241, 1861 U.N.T.S. 361; Agreement on Trade-Related Aspects of Intellectual Property Rights, Apr. 15, 1994, 1869 U.N.T.S. 299; Patent Law Treaty, June 1, 2000, 39 I.L.M. 1047; Strasbourg Agreement Concerning the International Patent Classification Mar. 24, 1971, 26 U.S.T. 1793, 1160 U.N.T.S. 483.

¹⁴⁵ See Dan L. Burk & Mark A. Lemley, *Is Patent Law Technology-Specific?*, 17 BERKELEY TECH. L.J. 1155, 1156 (2002) (arguing that patent law is technology-specific in application).

¹⁴⁶ Mark A. Lemley, Intellectual Property Rights and Standard-Setting Organizations, 90 CAL. L. REV. 1889, 1892 (2002).

¹⁴⁷ Id. (proposing the assistance of standard-setting organizations in order to ameliorate the problems of overlapping intellectual property rights in industries in which IP is most problematic for innovation, particularly the industries of semiconductors, software, and telecommunications).

¹⁴⁸ Burk & Lemley, *supra* note 145, at 1156.

been more inclined to find nonobviouness in patent applications relating to biotechnology, even if the prior art demonstrates a clear plan for producing the invention.¹⁴⁹ The courts have been generally inclined to offset this by imposing stringent enablement and written description requirements on biotechnology patents.¹⁵⁰ In patents relating to software, however, research identifies a different judicial trend. Here, the courts have effectively lowered the enablement and best mode requirements, but have raised the nonobviousness threshold.¹⁵¹

Another reason for invoking a differential patent length relates to the skepticism as to the impact of patent protection on innovation in different jurisdictions. Lerner has demonstrated, through expansive empirical research covering sixty countries, that strengthening patent protection does not appear to have influenced the scope of patent applications filed in some countries that have implemented such a policy change.¹⁵² If, indeed, the strength of patent protection does not affect innovation beyond a certain critical point, that would be all the more reason to do away with any "redundant" patent term that is of no commercial use for the innovator while amounting to a burden on society and innovative activities by others. In light of Lerner's conclusion, my view is that such a differential patent term would eliminate these inefficiencies without derogating from the incentive to engage in R&D and innovation. This proposed approach would be easy to accept if we were to concede, as I think we should, that the patent system is not structured as a zerosum game but rather as a potential win-win system.

A patent system that utilizes not only the patent breadth but also the patent length can best contribute towards optimizing patent protection. Basing the patent

¹⁴⁹ Burk & Lemley, *supra* note 145, at 1156.

¹⁵⁰ Burk & Lemley, *supra* note 145, at 1156. ("Much of the variance in patent standards is attributable to the use of a legal construct, the 'person having ordinary skill in the art' (PHOSITA), to determine obviousness and enablement. The more skill those in the art have, the less information an applicant has to disclose in order to meet the enablement requirement—but the harder it is to meet the nonobviousness requirement. The level of skill in the art affects not just patent validity, but also patent scope.").

¹⁵¹ See Burk & Lemley, supra note 145, at 1162–68.

¹⁵² See Mariko Sakakibara & Lee Branstetter, Do Stronger Patents Induce More Innovation? Evidence from the 1988 Japanese Patent Law Reforms, 32 RAND J. ECON. 7798–99 (2001) (finding no innovation increase due to stronger patents); Josh Lerner, Patent Protection and Innovation Over 150 Years, 28 Nat'l Bureau of Econ. Research, Working Paper No. W8977, 2002), available at http://ssrn.com/abstract=315327 ("[T]he failure of domestic patenting to respond to enhancements of patent protection, and the particularly weak effects seen in developing nations, were quite striking.").

balance solely on the patent breadth is no longer a workable option. Indeed, the way in which the patent term has been historically crafted, as a "one term fits all," has been rendered obsolete. Applying a single term to all types of patents is not justified and stands contrary to the underlying rationales of patent protection as por-trayed by the utilitarian theory. In this context Carroll argues that

[A]pplying a socially costly, uniform solution to problems of differing magnitudes means that the law necessarily imposes *uniformity cost* by under-protecting those who invest, or would invest, in certain costly innovations and overprotecting those with low innovation costs or access to alternative apropriability mechanisms.¹⁵³

This debate about the form of patent law also rests on the rules-versusstandards debate.¹⁵⁴ On the one hand it appears that the rules and exceptions provided in patent law make for a clear legal structure. However, applying *standards*, a more complicated process, would facilitate the necessary leniency capable of sustaining competing interests within the innovation domain. Duffy has observed that

Clear rules can provide the certainty that encourages investment . . . [in] rights, but standards can provide the flexibility to accommodate the new and unpredictable [innovations] . . . Eventually, [such] rules always fail. . . . [Nevertheless,] [t]he short term certainty associated with rules may provide necessary, if temporary, safe harbors that allow property rights to thrive. . . . [I]n the long run, the repeated failures of patentable subject matter rules provide crucial insights into the meaning and process of invention in our society."

It is worth noting that even in the distant past, much thought was given to the correct patent term and how to predict it. In fact, even before the United States' patent law came into being, two reasons were given for the limited-time monopoly grant: the introduction of new trade and industry and the intent to compensate the patentee for costs that he has incurred.¹⁵⁶ If the aim of the patent system is to promote innovation by providing innovators with the incentive to continue to engage in R&D, then the focus needs to be on how patent protection granted to innovators should be altered so as to maximize social benefit. In this context, Denicolò asserts

 ¹⁵³ Michael W. Carroll, One for All: The Problem of Uniformity Cost in Intellectual Property Law, 55
 AM. U. L. REV. 845, 847 (2006).

¹⁵⁴ See John F. Duffy, Rules and Standards on the Forefront of Patentability, 51 WM. & MARY L. REV. 609, 611, 614–15 (2009).

¹⁵⁵ Id.

¹⁵⁶ Edward C. Walterscheid, Defining the Patent and Copyright Term: Term Limits and the Intellectual Property Clause, 7 J. INTELL. PROP. L. 315, 324 (2000).

that in deciding the length of the patent term, society needs to "balance the gains accruing from faster technological progress against the welfare loss that is associated with the temporary monopoly in the use of the new technology."¹⁵⁷ This is especially true given that the patent system is intended to regulate a wide expanse of innovation. In a nutshell, when innovations are heterogeneous (as they indeed are), it is advantageous to provide specifically tailored patent terms. The length of the patent goes to the heart of the issues relating to the allocation of resourcesknowledge and innovation—among different stakeholders.¹⁵⁸ Therefore, there is a need to recalibrate the patent term in a case-sensitive, differential manner. This would leave sufficient incentives for prospective innovators to engage in research and in development without derogating from the proliferation of relevant technology into the innovation market. According to this approach, the unitary patent term rule should be substituted by predetermined standards that are more in tune with the technological realties and needs of the modern era. This would be of special benefit to consumers as well as the innovation market at large. Consequently, the next section is devoted to exploring ways of creating this change in practice.

D. Formulating a System Comprising Differential Patent Terms

As I have demonstrated thus far, the patent breadth and its exceptions are not sufficiently sophisticated to optimize patent protection. Therefore, to optimize patent protection, the patent length needs to be factored into the equation. To my mind, such a merger between length and breadth would achieve the necessary fine tuning that is needed and would more effectively contribute to maintaining the incentive for innovation while securing the proliferation of knowledge and access thereto. It is worth pointing out that my conclusions are not tantamount to an allout attack on the patent system, nor do they reflect a denial of its virtues; rather, they attempt to revitalize the system in a manner that hones its abilities to achieve the socially optimal—thus desirable—level of patent protection.¹⁵⁹ As I have dem-

¹⁵⁷ Vincenzo Denicolò, *The Optimal Life of a Patent When the Timing of Innovation is Stochastic*, 17 INT'L J. INDUS. ORG. 827, 827 (1999).

¹⁵⁸ See Michael White, Why a Seventeen-Year Patent, 38 J. PAT. OFF. SOC'Y 839, 839, 859 (1956) (proposing a patent term that is shorter than seventeen years); L. James Harris & Regan J. Fay, Certain Incontestable Patents Are Warranted, 60 J. PAT. OFF. SOC'Y 27, 27 (1978) (proposing a dual patent system in which long-term patents would be granted for seventeen years and short-term patents for seven years).

¹⁵⁹ See Richard A. Epstein, Why Libertarians Shouldn't Be (Too) Skeptical About Intellectual Property 11 (Progress & Freedom Found., Progress on Point, Paper No. 13.4, 2006), available at http://ssrn.com/abstract=981779 (arguing that the law of intellectual property "should be subject

onstrated, the twenty-year patent term constitutes an arbitrary rule that lacks firm theoretical justifications. Moreover, that rule stands contrary to the underlying rationales of patent theory. But even with the justifications for a synthesis between the patent length and the patent breadth, another challenge looms. This relates to the form and content of the patent length. While economists have considered this topic within their discipline, a comprehensive and practical legal rule has remained elusive. Having reached this point in the reasoning, it is now clear why there is a need to refashion the conventional patent term. Thus, the challenge remains to create clear and workable rules that would translate the conclusions of past research into practical rules.

1. Commercial Capacity: The Missing Link in Innovation

This section proposes a workable patent duration model that aims to attain the most socially desirable patent terms. My proposed model assumes that the starting point for addressing the patent term is to focus on the durability of the justification for its existence. The duration of the patent term needs to be contingent on maximizing the aggregate benefits of all social interests, including those of the innovator (patentee). For example, where innovator V is engaged in research and development activity at the rate of W because of Y benefits that accrue from the patent, then V will still engage in W even if Y is reduced so long as his anticipated return is not substantially affected. Here, then, W will remain constant (or largely unchanged) as long as Y does not fall below a certain minimal threshold.

Consider a situation in which the innovator V knows that he can benefit commercially from his patented product for three years. In this case V will remain indifferent to any term of protection that is beyond the "commercial capacity" of his product, namely, three years. In other words, when aiming to create a patent term, one needs to consider the commercial capacity of the specific patented invention. One need not be a technology guru to know that the commercial duration of an electronic device is inherently different than that of a pharmaceutical invention. Whereas in the case of electronics, where technology becomes obsolete at a much faster pace because new gadgets are always being introduced, pharmaceutical preparations linger because of the (unfortunate) reality that ailments generally persist, transcend borders, and even reemerge.¹⁶⁰

to constant analysis and review, but *not* to any a priori attack on the supposed inferiority of intellectual property rights to those in tangible objects").

¹⁶⁰ What's more, the variant effect of patent protection is not only industry-specific but also innovator-specific (i.e. that its impact depends, also, on the identity of the innovator, be it a large corpo-

Thus, a differential patent system that is contingent on commercial capacity would contribute towards greater harmony between how patent protection is applied and its underlying theoretical justifications. A differential patent term would enable patent law to "adapt to new technologies without losing its essential character" of protecting innovation.¹⁶¹ And more importantly, it would allow patent law to edge closer towards optimal patent protection by honing in on the point in time at which all the incentives for R&D relating to a specific product are maximized. It is worth noting that previous research has also advocated for a more type-based approach to patent protection. Specifically, Thurow has distinguished between "fundamental advances in knowledge" vis-à-vis "extensions of existing knowledge."162 In his view each of those merits a "different kind of patent."¹⁶³ Indeed, one can no longer ignore the fact that different technologies have distinct characteristics and that their commercial capacity in the market is not of a single nature.¹⁶⁴ This, together with the utilitarian justification that forms the backbone of patent theory, necessitates a change in the regulative system whereby the unified patent term is substituted with predetermined standards that are more in line with technological realities. According to my proposed model, the patent breadth is determined not only by the scope of formal patent rights that are granted to a certain patentee by patent law, but also by the commercial capacity of the patent. In this case, the patent breadth would be the sum of the patentee's legally recognized rights (R) and his invention's commercial capacity (C), namely, its duration of relevance in the pertinent field of technology.

In my view the general overall incentive for innovation is contingent on three factors: the patent length, the patentee's rights granted by law, and the commercial capacity of the product covered by the patent. But since in patent law the patent

- ¹⁶¹ Burk & Lemley, *supra* note 145, at 1157.
- ¹⁶² Thurow, *supra* note 83, at 98.
- ¹⁶³ Thurow, *supra* note 83, at 98.
- ¹⁶⁴ Gutterman, *supra* note 55, at 42 ("Even if it is conceded that patents do provide some significant incentive for inventive activities, it appears that the actual importance of patent protection will vary depending on the industry sector.") (referring to CHRISTOPHER T. TAYLOR AND AUBREY SILBERSTON, THE ECONOMIC IMPACT OF THE PATENT SYSTEM: A STUDY OF THE BRITISH EXPERIENCE 26 (1973)).

ration, a single personally financed innovator, etc.). In this regard, Gutterman observes that given the "broad range of actors," it may be necessary to "provide a diverse range of possible incentives." Gutterman, *supra* note 55, at 44 ("Just as the importance of patent protection varies between industries, one must remember that patents may prove to be more valuable incentives to certain groups of inventors.").

right is constant, and given that my proposed model assumes a constant level of incentive (I) for all innovators, the only variable left in the equation—that affects the patent length—is, in fact, the commercial capacity of the patent. Consequently, there is an inverse relationship between a patent's length and its commercial capacity. To better explain and justify this synthesis between the two spheres of protection (breadth and length), it would be helpful to envision a parallelogram whose area represents the overall reward (incentive) for innovation. Here, the cumulative scope of the incentive to innovate (I) is represented by the parallelogram's area. Understandably, the area of such a parallelogram is a result of the multiplication of its base by its height. In this regard, the height of the parallelogram (L) symbolizes the patent term, and the base of the parallelogram denotes the patent breadth (B). Therefore, the area (I) is equivalent to L*B. As I have explained above, (B) is comprised of two elements: the formal patent rights (R) and the commercial capacity of that innovation (C).

Therefore, the method to express this relationship between the factors is I = $L^*B = L^*(R+C)$. It follows that L (the patent length) = I/(R+C). Given that I (the incentive to innovate) is constant for each given patent, and that the patent rights (R) are also constant in patent law, it is clear that there is an inverse relationship between the patent length and its commercial capacity. Thus, the only differential that can inversely affect the patent length is the invention's commercial capacity (C). Logically, then, it would be possible to construct the proper, optimal length for a given patent by identifying the distinct commercial capacity of the specific Therefore, the main challenge for determining the patent patented innovation. length reverts back to the elements that should be taken into account when determining the patent's commercial capacity. In this regard, I would resort to Gutterman's observation that there is a need to distinguish between an invention that "yields its various advantages quickly and achieves rapid acceptance in the market place" and an invention that has a "greater difficulty in achieving rapid acceptance."¹⁶⁵ While in the first case the patent term should be shortened, the latter case would necessitate extending the patent term.¹⁶⁶ That is because while in the first case an extension of the exclusive rights might "exacerbate the potential allocative problems of the original patent," in the latter case, there is a need to allow "sufficient time to recoup the development costs."¹⁶⁷ What follows is a list of the main

¹⁶⁷ Gutterman, *supra* note 55, at 67.

¹⁶⁵ Gutterman, *supra* note 55, at 67.

¹⁶⁶ See Gutterman, supra note 55, at 67.

elements that I believe should be considered when assessing the commercial capacity of a given invention:

- •Ratio between the conventional patent term (of 20 years) and the projected scientific relevance of the technology (in years).
- •Ratio between the successful patents in the specific technology and aborted research in that field of technology.
- •Time that is needed in order to reap profits to cover the R&D investment.
- •Cost of the investment that is required to bring the patent into commercial application.
- •Time that is needed in order to devise the invention.
- •Time that is needed in order to reach the commercialization stage of the patented product.
- •Scope of the market (whether local or international).¹⁶⁸

By calculating the commercial capacity of a patent, it would be possible to formulate specific patent terms for distinct types of innovations. In essence, the patent system would substitute its unified patent term rule with a system of differential patent terms. That new differential term would more accurately reflect the nature and achieve the purpose of the patent term in general patent theory. I emphasize that my proposed model involving differential patent terms is not necessarily intended to shorten the conventional twenty-year patent term in the case of every type of innovation. On the contrary, according to my proposed model it is possible to determine that for certain patents or fields of technology, a longer patent term is warranted. This model is especially relevant in the pharmaceutical sector, where the time between filing the patent application and receiving the patent registration is generally commercially worthless. Abramowicz has observed that "by the time market conditions make commercialization potentially attractive, the remaining patent term might be sufficiently short that a patentee will not develop an invention or will not spend as much on development as if more patent term remained."¹⁶⁹ Therefore, patent terms that are too short are likely to cause "patent underdevelopment," which manifests itself in a lack of incentive to engage in re-search and development.¹⁷⁰ This risk is further enhanced by the fact that in some cases the substantial threshold that a potential patentee needs to surmount also justi-

¹⁶⁸ See generally Johnson, supra note 76, at 293–96.

¹⁶⁹ Michael Abramowicz, *The Problem of Patent Underdevelopment* 1 (George Washington Univ. Law Sch. Pub. Law & Legal Theory, Working Paper No. 179, 2005), *available at* http://ssrn.com/ abstract=873473.

¹⁷⁰ Id.

fies extending the patent term.¹⁷¹ In those cases, a lengthier patent term may be warranted to maintain a constant level of incentives for innovation. This would be compatible with general patent theory and would be in line with the rationales of the United States' Patent Term Extension Act and other similar laws around the world.¹⁷²

2. On Minimizing the Projected Costs of Transition and Maintenance

Given the complexity of the elements that make up the commercial capacity of patents, it would probably be very problematic to apply those ad hoc determinations to every type of patent application. The cost of such determinations is likely to be cumbersome on the patent process, and the deadweight losses might indeed outweigh the system's anticipated benefits. It would also complicate the patent application process to an extent that would render it socially counterproductive.¹⁷³ Therefore, to simplify the task, I recommend creating or adopting a system for the classification of patents that would enable the user to identify the patent term depending on the type of patent (i.e., the class in which it is registered). Ideally, this proposed system of classification would dissect technology into various sections and subsections, each with its own distinct patent length. The relevant patent terms would be calculated and determined in advance based on variables and data that are relevant at the time.

However, my proposed model encounters a significant hurdle that needs to be overcome: how to classify the massive number of patents so as to achieve legal clarity for those engaged in innovation. Indeed, it appears as though such a system

¹⁷¹ See id. at 8. Abramowicz suggests that patent protection needs to be contingent on the showing of a substantial degree of achievement before patenting. This notion has taken root in the United States wherein the USPTO's utility guidelines move to a four-pronged test for utility: if the invention has a well-established, specific, substantial, and credible utility. The operative result of such an approach is the deferral (or complete refusal) of the patent grant. See Notice, United States Patent and Trademark Office Revision of Utility Examination Guidelines, 66 Fed. Reg. 1092, 1095 (Jan. 5, 2001), available at http://www.uspto.gov/web/offices/com/sol/notices/ utilexmguide.pdf.

 ¹⁷² See Drug Price Competition and Patent Term Restoration Act of 1984, Pub. L. No.98-417, 98 Stat. 1585 (codified at 21 U.S.C. § 355 and 35 U.S.C. §§ 156, 271); WENDY H. SCHACHT & JOHN. R. THOMAS, PHARMACEUTICAL PATENT TERM EXTENSIONS: A BRIEF EXPLANATION, 1–2 (2002), available at https://www.policyarchive.org/handle/10207/3565 (follow "View Publication" hyperlink on right side of page).

¹⁷³ Johnson, *supra* note 76, at 293–94 (pointing out that the challenge relates to formulating clear categories for defined groups inventions).

might itself be both costly and complicated. Gwartney has voiced a similar concern as to the implementation of the differential patent term, contending that

> Rather than simply granting every patent a term of twenty years, society may prefer a patent system that meritoriously awards innovation. Perhaps the patent system could award the inventor of an antigravitational device (that actually works) a patent term of fifty years, but to the inventor of a bathroom stall latch a patent term of five years. . . . In other words, the patent system could place value on how useful the invention is and award a patent term commensurate to that measure of usefulness. Overhauling the patent system, however, to have a multiplicity of types of patents would be legislatively difficult to implement and pragmatically complicated to practice.

While Gwartney's observation has merit, Johnson has a much more optimistic outlook as to the possibility of altering the patent term without incurring too many costs and risks. More specifically, Johnson argues that "the simple numeric quality of duration means that the effects of its manipulation would be more predictable than manipulation of other variables would be."¹⁷⁵ He further contends that "[d]uration has a comfortable quality of facilitating an 'ease in' to change, in part because it allows for on-going experimentation and adjustment with minimal risk."¹⁷⁶ Indeed, it is advisable to satisfy Gwartney's concerns by opting for a cheaper system in terms of implementation.

Another even more serious challenge that might come up against my proposed model emanates from the probable assumption that innovators cannot determine ex ante the application of their innovation. That is because some innovators may not be able to foresee the economic potential of their invention at the time of applying for a patent; only later can the innovator grasp the implications of his innovation. Furthermore, an innovation might be initially directed to one area of innovation but end up being applied in a wholly different area than was originally patented. What's more, some patents are more "generic" in nature to facilitate versatility in terms of additional applications of technology. Facially, these hurdles appear to undermine the proposed model in that its application in the ex ante sphere is at odds with the ex post nature of patent utilization. But upon closer examination, it is apparent that these hurdles can be circumvented. That is because my proposed concept of commercial capacity of innovation and the factors that it comprises do in fact allow for assigning the ex post effects for most types of innovation.

¹⁷⁴ Gwartney, *supra* note 20, at 1398–99 (footnotes omitted).

¹⁷⁵ Johnson, *supra* note 76, at 289.

¹⁷⁶ Johnson, *supra* note 76, at 289.

Indeed, I anticipate cases in which the ex ante determinations will not suffice because of the dynamic nature of certain types of innovation. In those cases, there will be a need to introduce an exception mechanism. The next section includes the details of such a mechanism.

The application of my proposed model—comprising a differential patent term—should not be deterred by short-term transition costs and exceptional cases that need to be addressed on their merits.

3. Nuts and Bolts of the Proposed Model

In my view, the cheapest system for attaining a viable classification of technology and innovation would be by resorting to the already existing classifications of patents as set by the Strasbourg Agreement Concerning the International Patent Classification of 1971, as amended in 1979 (IPC).¹⁷⁷ This agreement, to which sixty-one countries are now parties, is used by the patent offices of more than 100 countries, as well as by four regional offices and the secretariat of the World Intellectual Property Organization (WIPO) under the Patent Cooperation Treaty.¹⁷⁸ The IPC functions as a mechanism for the retrieval of patent documents when searching for prior art.¹⁷⁹ As such, it can assist patent-issuing authorities, potential inventors, research and development units, and others concerned with the application or development of technology. The international classification is dependable because it is continuously revised.¹⁸⁰ The classification applies to various documents relating to patents for invention, including published patent applications, inventors' certificates, utility models, and utility certificates.¹⁸¹ It is open to

 ¹⁷⁷ Strasbourg Agreement Concerning the International Patent Classification, Mar. 24, 1971, 26
 U.S.T. 1793, 1160 U.N.T.S 483 [hereinafter Strasbourg Agreement].

¹⁷⁸ See World Intellectual Property Organization, Treaties Statistics, http://www.wipo.int/treaties/en/ statistics/StatsResults.jsp?treaty_id=11(follow "List of Contracting Parties*" hyperlink) (last visited Mar. 20, 2010); World Intellectual Property Organization, Summary of the Strasbourg Agreement Concerning the International Patent Classification (1971), http://www.wipo.int/ treaties/en/classification/strasbourg/summary_strasbourg.html (last visited Mar. 20, 2010) [hereinafter Summary].

¹⁷⁹ See Strasbourg Agreement, supra note 177.

¹⁸⁰ See Summary, supra note 178 ("The revision is carried out by a Committee of Experts set up under the Agreement. All states party to the Agreement are members of the Committee of Experts."). The current ninth edition entered into force on Jan. 1, 2009. World Intellectual Property Organization, Guide to the IPC 2 (2009), http://www.wipo.int/export/sites/www/ classifications/ipc/en/guide/guide_ipc_2009.pdf [hereinafter Guide].

¹⁸¹ Guide, *supra* note 180, at 1.

all countries that are members of the Paris Convention.¹⁸² The working languages of the agreement are English and French.¹⁸³ As such, this system of classification facilitates "an effective search tool for the retrieval of patent documents by intellectual property offices and other users, in order to establish the novelty and evaluate the inventive step or non-obviousness (including the assessment of technical advance and useful results or utility) of technical disclosures in patent applications."¹⁸⁴

Furthermore, the IPC can be used to facilitate access to the technological and legal information contained therein.¹⁸⁵ Between 1974 and today, the IPC has been periodically revised "in order to improve the system and to take account of technical development."¹⁸⁶ Following the conclusion of its reform to "ensure its efficient and effective use in the electronic environment" in 2005, the IPC was divided into core and advanced levels.¹⁸⁷ Specifically, the core level is updated once every three years, and the advanced level is continually revised.¹⁸⁸ The system is sufficiently detailed to allow for a precise classification of all patentable subject matter.¹⁸⁹ It utilizes a detailed hierarchical structure of classification, with the highest part of that hierarchy being comprised of eight broad sections, designated A

¹⁸² Summary, *supra* note 178; *see also* Paris Convention, *supra* note 146.

¹⁸³ Strasbourg Agreement, *supra* note 177, at art. 3, ¶ 2. Pursuant to Article 3(2) of the Strasbourg Agreement, official texts of the Classification may be established in other languages. Strasbourg Agreement, *supra* note 177, at art. 3, ¶ 2.

¹⁸⁴ Guide, *supra* note 180, at 1. "The text of the first edition of the Classification was established pursuant to the provisions of the European Convention on the International Classification of Patents for Invention of 1954. Following the signing of the Strasbourg Agreement, the International (European) Classification of Patents for Invention, which had been published on September 1, 1968, was as of March 24, 1971, considered and referred to as the first edition of the Classification." Guide, *supra* note 180, at 1.

¹⁸⁵ Guide, *supra* note 180, at 1. Its other aims are to include the creation of "a basis for selective dissemination of information to all users of patent information[,] a basis for investigating the state of the art in given fields of technology[,] [and] a basis for the preparation of industrial property statistics which in turn permit the assessment of technological development in various areas." Guide, *supra* note 180, at 1.

¹⁸⁶ Guide, *supra* note 180, at 2.

¹⁸⁷ Guide, *supra* note 180, at 2.

¹⁸⁸ Guide, *supra* note 180, at 2.

¹⁸⁹ Guide, *supra* note 180, at 3.

through H.¹⁹⁰ Each section carries a title that provides a broad description of the contents of that section:

A HUMAN NECESSITIES;

B PERFORMING OPERATIONS; TRANSPORTING;

C CHEMISTRY; METALLURGY;

D TEXTILES; PAPER;

E FIXED CONSTRUCTIONS;

F MECHANICAL ENGINEERING; LIGHTING; HEATING; WEAPONS; BLASTING;

G PHYSICS;

H ELECTRICITY.¹⁹¹

Each section is subdivided into classes which are the second hierarchical level of the Classification. . . Each class symbol consists of the section symbol followed by a two-digit number [(e.g., H01)]. . . . The class title gives an indication of the content of the class [(e.g., H01 BASIC ELECTRIC ELEMENTS)]. . . . Each class[, in turn,] comprises one or more subclasses which are the third hierarchical level of the Classification. . . . The subclass title indicates as precisely as possible the content of the subclass [(e.g., H01S DEVICES USING STIMULATED EMISSION]. . . . Each subclass is broken down into subdivisions referred to as "groups", which are either main groups (i.e., the fourth hierarchical level of classification) or subgroups (i.e., lower hierarchical levels dependent upon the main

¹⁹⁰ Guide, *supra* note 180, at 3.

AGRICULTURE

FOODSTUFFS; TOBACCO

PERSONAL OR DOMESTIC ARTICLES

HEALTH; AMUSEMENT.

Guide, supra note 180, at 3.

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¹⁹¹ Guide, *supra* note 180, at 3 ("Each section title is followed by a summary of the titles of its main subdivisions..., Within sections, informative headings may form subsections, which are titles without classification symbols.") For example, "Section A (HUMAN NECESSITIES) contains the following subsections:

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group level of the Classification).¹⁹² In all, the IPC creates approximately 70,000 subdivisions.¹⁹³

The IPC's meticulous system of classification can be utilized as a basis for classifying innovations in terms of their duration, in accordance with the commercial capacity of those innovations. Ideally, the IPC's tools would create a situation wherein each type of patentable subject matter is allotted a clear patent duration that can be automatically applied to the patent once it is registered. For this purpose, the same body of experts entrusted with the task of classifying patents can now be delegated the task of entering the relevant duration for each patent classification. Understandably, the determination of the respective patent terms for each patent class using the commercial capacity factors may require consulting with experts who are familiar with the particular market at issue.

My proposed system of classification would need to address two more challenges: the possibility of multiple classifications for a single patent and the possibility of changes in the commercial capacity of a certain field of innovation. In my opinion, the first challenge can be resolved by opting for a system that would be contingent on the dominant technology that exists within the invention. As for the second challenge, I would propose a mechanism for the periodic review of commercial capacity. Thus, any change in the commercial capacity of a certain innovation can be immediately translated into a new duration for that innovation's corresponding patent classification.

In sum, the use of the existing IPC would entail fewer costs and could be more easily introduced into various nations' laws. The IPC's well-established structure within the international patent regulative framework makes it the cheapest and most accessible method for classifying technology for the purposes of my proposed model.

Notwithstanding my proposed model of patent term classification, the system will require sufficient flexibility to deal with patent applications that materialize in

¹⁹² Guide, *supra* note 180, at 3–4. "Most subclasses have an index which is merely an informative summary giving a broad survey of the content of the subclass. The electronic version of the IPC allows users to view the content of a subclass also by order of complexity of the subject matter." Guide, *supra* note 180, at 4. Each group symbol consists of the subclass symbol followed by two numbers separated by an oblique stroke [(e.g., H01S 3/00)]." Guide, *supra* note 180, at 4.

¹⁹³ Summary, *supra* note 178. "The appropriate IPC symbols are indicated on patent documents (published patent applications and granted patents), of which over 2,000,000 are issued each year. The appropriate symbols are allotted by the national or regional industrial property office that publishes the patent document." Summary, *supra* note 178.

extraordinary circumstances. For this, I recommend including a special mechanism whereby the patent applicant can petition the patent office and request a lengthier patent term. This mechanism would provide an additional safety valve by allowing the patent registrar to override the initial basic patent term granted to the patentee (in accordance with my proposed model). In deciding whether to accept such an application the patent office would need to consider each case on its merits. Clearly, such an exception should be applied with discretion, lest it completely override the proposed model.

IV. Conclusion

If we continue to uphold the premise that patent protection is a tool for the advancement of social progress and prosperity, as I think we should, then the rules that formulate this protection need to reflect these aims. For many decades now, the patent system has opted for a straightforward scheme with a unified patent term for all technologies and forms of innovation. This system has existed despite a decades-old debate among scholars relating to the interrelationship between the patent breadth (scope of the right) and the patent length (term).

I have demonstrated that the present-day patent length factors consisting of patent rights and exceptions are insufficient. I have also demonstrated that the largely arbitrary twenty-year term of patent protection needs to be substituted with an integrated mechanism involving both the patent breadth and length. The diversity of modern technology prompts the need to recalibrate the patent term so as to optimize the social benefits that are attained by patent protection. This change in the régime would support the aims of the underlying utilitarian theory that is a central pillar of patent discourse.

I have shown that to optimize patent protection, there is a need for a synergy between the length and breadth elements. In this regard, I have proposed basing the differential patent term on predetermined mechanisms of classification. The most obvious and efficient mechanism is the international classification as prescribed by the Strasbourg Agreement. I believe that the Strasbourg system can be used for classifying inventions in accordance with their commercial capacities and thus assist in calculating the length of their patent terms. Ultimately, this would help in transcending the theoretical stage in the debate and would pave the way towards achieving optimal patent protection.

Clearly, the intermediate transition to such a system would not come without costs. In my view, however, the long-term benefits outweigh the costs of transition and operation. My proposed system will better facilitate the proliferation of technology while maintaining a sufficient threshold for propelling and incentivizing innovation. At this junction, the optimal patent protection is achieved.

Because of the patent breadth's limited capacity, it is quite evident that the patent length needs to be factored in. The patent term can play a cardinal role in the reformulation of a new and more pragmatic patent system. In this research, I offered reasons for this assertion and proposed a method for factoring the patent term element into the patent system.

The time has come for the patent system to move with the times. Time is of the essence.

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Counterfeit Fashion: The Interplay Between Copyright and Trademark Law in Original Fashion Designs and Designer Knockoffs

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The fashion and apparel industry is big business in both the United States and abroad. With the growth of the fashion industry and the role of the media in disseminating fashion commentary, public awareness about prominent fashion designers, and the creations of such designers is at an all-time high. The popularity and status attached to certain designers and their trademark designs, therefore, has led to the rise of "style piracy." A style pirate will copy a designer's original creative work to capitalize on the popularity or desirability of the product. The copying can occur in varying degrees, including attempts to pass off counterfeit copies as the original or the creation of "designer-inspired" products that seek to profit by giving the impression of relatedness to the original. Despite the potential loss of substantial revenue and exclusive control over the use of original designs facing designers, few legal rights exist to protect these valuable creative and economic interests from misuse by style pirates. Specifically, United States laws extend spotty legal protections, at best, against counterfeit and knockoff designs. The Copyright Act fails to provide adequate protection because its protection is generally limited to nonutilitarian designs. Thus, the inherent usefulness of apparel traditionally exists as a barrier to protection through copyright law. Given the shortcomings of copyright law, many designers have turned to trademark law and secondary meaning in trademarks as a means of circumventing the requirements of copyright law in order to defend against style pirates and achieve some modest level of design protection. Although trademark law has been extended to utilitarian items in some cases, only a small portion of designs will ever reach the level of recognition and notoriety required for this type of protection. The interplay of both copyright and trademark law in this area highlights (1) the fact that neither copyright law nor trademark law affords sufficient protection for the original designs of fashion designers and (2) the need for a more comprehensive plan for protecting creative but utilitarian works such as fashion designs. Based on the shortcomings of the copyright and trademark laws to provide adequate rights and remedies for fashion designers, this article argues that the copyright eligibility requirements should be extended to encompass the original and creative elements of fashion designs, such that the framework of copyright law, and not trademark law, becomes the primary method of design protection.

I. Introduction

The apparel manufacturing industry generates hundreds of billions of dollars annually.¹ In 2007, Americans alone spent \$195.6 billion on apparel.² In 1999, sales of clothing and apparel were estimated at \$784.5 billion internationally.³ The growth of the fashion industry has spawned an increased public awareness for fashionable "designer products."⁴ In light of the popularity of certain designers or specific designs, style piracy has increased exponentially.⁵ Style piracy is "the copying of a designer's original designs, 'thereby securing, without expense, the benefit of his artistic work."⁶ A common example of such activity is the counterfeiting of high-end fashion bags such as those produced by Louis Vuitton, Kate Spade, or Coach.⁷ Although not exact copies, designer-inspired products also contribute to style piracy by giving the impression of relatedness to the designer product.⁸ For example, Louis Vuitton filed separate lawsuits against Burlington Coat Factory and

- ¹ RANDALL C. HARRIS, A BEGINNER'S GUIDE TO APPAREL MANUFACTURING: THE APPAREL INDUSTRY TODAY 1 (2001) (on file with author).
- ² Press Release, The NPD Group, Inc., The U.S. Apparel Market 2007 Dresses Up...Way Up (Mar. 18, 2008), http://www.npd.com/press/releases/press_080318.html.
- ³ Safia A. Nurbhai, *Style Piracy Revisited*, 10 J.L. & POL'Y 489, 489 (2002).
- ⁴ Rocky Schmidt, Designer Law: Fashioning a Remedy for Design Piracy, 30 UCLA L. REV. 861, 861 (1983).
- ⁵ *Id.* at 868 n.49.
- ⁶ Nurbhai, *supra* note 3, at 489–90 (citing Wolfenstein v. Fashion Originators' Guild of Am., Inc., 280 N.Y.S. 361, 364 (N.Y. App. Div. 1935).
- ⁷ See Alex Barbieri, Getting Real About Fake Designer Goods, Spt. 29, 2004, http://www.bankrate.com/brm/news/advice/scams/20040929a1.asp (noting that imitations sell at a fraction of the cost and can be found on over 5,000 sites on the Internet, at in-home sales parties akin to Tupperware gatherings of old, and at counterfeit bazaars on Canal Street in Chinatown in New York City).
- ⁸ See, e.g., Id. (noting that Louis Vuitton's famous monogram bag has inspired look-alikes with similar patterns such as a bag covered with monogrammed "XOs" rather than "LVs").

Dooney & Bourke for producing similar monogrammed handbags.⁹ Admittedly, style piracy is not new,¹⁰ but where it once took several years for a fashion to descend the price line to low-priced production, this progression is now nearly immediate.¹¹ Technological advances have made it possible for style pirates to obtain another person's designs and manufacture duplicates overnight.¹² Because of the pervasiveness of style piracy, copying is now considered commonplace in the fashion industry.¹³ Accordingly, the original designers of iconic fashion pieces stand to lose substantial amounts of revenue after expending capital to create the item.¹⁴ Despite the lost revenue and the loss of exclusive control over the use of original fashion designs, little exists under current laws to protect the creative and economic interests of these original designers.

- ⁹ See Despite Strong Vuitton Mark, Facts Lacking to Enjoin Accused Knock-off Handbags, 68 Pat. Trademark & Copyright J. (BNA) No. 1674, at 114 (June 5, 1980) (noting the attempt to enjoin production of beaded "NY" monogrammed bags inspired by the Louis Vuitton "LV" handbag in Louis Vuitton Malletier v. Burlington Coat Factory Warehouse Corp., No. 04 Civ. 2644, 2004 WL 1161167, at *5 (S.D.N.Y. May 24, 2004)); Multicolored Mark Doesn't Infringe Louis Vuitton's Marks, Despite Similarities, 68 Pat. Trademark & Copyright J. (BNA) No. 1687, at 552 (Sept. 17, 2004) (noting another Louis Vuitton suit against a manufacturer of monogrammed bag with different initials and lacking certain geometric shapes found on the original Louis Vuitton bag in Louis Vuitton Malletier v. Dooney & Bourke Inc., 340 F. Supp. 2d 415, 420 (S.D.N.Y. 2004)).
- ¹⁰ Style piracy of fashion designs has been a point of contention in the courts since at least the 1930s. See, e.g., Wolfenstein, 280 N.Y.S. at 362 (involving an agreement between associations composed of manufacturers and retailers of ladies' dresses, prohibiting style piracy); Wm. Filene's Sons Co. v. Fashion Originators' Guild of Am., 90 F.2d 556, 557–58 (1st Cir. 1937) (involving the copying of original dress designs of women's ready-to-wear fashion); Fashion Originators' Guild of Am. v. Fed. Trade Comm'n, 312 U.S. 457 (1941) (concerning the systematic copying of original dress and fabric designs); Nat Lewis Purses, Inc. v. Carole Bags, Inc., 83 F.2d 475, 475–76 (2d Cir. 1936) (discussing potential patent infringement of a woman's purse); Johnny Carson Apparel, Inc. v. Zeeman Mfg. Co., 203 U.S.P.Q. (BNA) 585, 589 (N.D. Ga. 1978) (noting that the copying of garments is an old practice in the clothing industry).
- ¹¹ Harris, supra note 1, at 4; see also Teri Agins, Copy Shops: Fashion Knockoffs Hit Stores before Originals as Designers Seethe Photos, Fax, Fedex and Spies Make Imitation Pervasive and All but Instantaneous—An Expensive Suit for Lauren, WALL ST. J., Aug. 8, 1994, at A1.

¹² See Nurbhai, supra note 3, at 490 (noting that design pirates can sneak into a fashion show and have duplicates available the next day or, alternatively, purchase the garment and return it after having it copied).

¹³ Harris, *supra* note 1, at 4.

¹⁴ Schmidt, supra note 4, at 861–62; see also Mingxia Xu, Canal St. Shoppers Have Designs on Counterfeit Bags, THE VILLAGER, Oct. 6–12, 2004, at 2, available at http://www.thevillager.com/ villager_75/canalstshoppers.html (noting that the popularity of counterfeit designer handbags even provokes customers to return the high-priced originals).

At best, the protection extended to fashion designs under United States law provides a spotty defense against counterfeit and knockoff designs. Under the Copyright Act, sufficiently original and non-utilitarian designs may qualify for protection.¹⁵ The inherent usefulness of apparel, however, traditionally exists as a barrier to protection through copyright law.¹⁶ Given the lack of protection available under copyright law, many designers have turned to trademark law and secondary meaning in trademarks as a means of circumventing the requirements of copyright law to receive some form of legal protection.¹⁷ Trademark law has been extended to the point that, at least in some circumstances, it protects utilitarian items of an arguably minimal original nature because of the recognizable nature of the item.¹⁸ Under these circumstances, trademark law functions to protect designs that would otherwise be in the public domain under copyright law.¹⁹ Even where protection is granted on the basis of secondary meaning, the lofty requirements of attaining such status result in protection for only a small portion of fashion designs.²⁰ In light of this limited scheme of protection, both copyright's primary function to "promote the [p]rogress of [s]cience and useful [a]rts"²¹ and trademark's goal of protecting against unfair competition²² accentuate the need for a more comprehensive plan of protecting fashion and apparel designs.

Accordingly, Part II of this article sets forth the current legal environment of statutes and legislative proposals that apply to the protection of fashion designs from counterfeiting and knockoffs. Part III analyzes the use of trademark law, as an alternative to copyright law, to protect certain designs that would otherwise be

- ¹⁷ See infra Part IV.
- ¹⁸ See infra Part IV.
- ¹⁹ See infra Part IV.
- ²⁰ See infra Part IV.

¹⁵ See infra Part III.A.

¹⁶ See infra Part III.A.

²¹ U.S. CONST., art. 1, § 8, cl. 8; see also Jeff Toole, Campbell v. Acuff-Rose Music, Inc.: The Rap on Remedies, 29 IND. L. REV. 467, 468–70 (1995) (discussing the careful balance required in copyright law of protecting original designers to promote continued creativity and the corollary need to prevent monopoly and to allow public use to spawn additional original works).

²² See Minneapple Co. v. Normandin, 338 N.W. 2d 18, 22 (Minn. 1983) ("The purpose of trademark law is to protect the public from confusion regarding the sources of goods or services and protect business from diversion of trade through misrepresentation or appropriation of another's goodwill.").

ineligible works. Finally, Part IV discusses the need for an extension of copyright eligibility to encompass the original elements of fashion designs so that copyright law becomes the primary method of design protection.

II. The Current Environment of U.S. Law Applicable to Fashion Design Protection

A. Fashion Designs Receive Little Protection Under Copyright Law

The Statute of Anne, an early law that protected against unauthorized copying, never contemplated the protection of fashion designs. Instead, the Statute of Anne covered only the "vesting [of] the copies of printed books in the authors or purchasers of such copies."23 Likewise, early United States copyright statutes wholly precluded fashion designs from protection. The first copyright statute extended protection only to maps, charts, and books.²⁴ Subsequent amendments enumerated additional types of works that qualified for protection. In 1802, historical prints and other engraved or etched prints were added.²⁵ Musical compositions were included by 1831,²⁶ and photographs and their negatives were incorporated in 1865.²⁷ Finally, the addition of paintings, drawings, chromos, statues, statuaries, and models or designs "intended to be ... works of the fine arts" completed the list of copyrightable items in 1870.²⁸ Fashion designs were never specifically added as copyrightable items. In fact, they were precluded from protection under the "design" category because of the requirement that the design be intended to be a work of fine art. Thus, by operation of this early statute, fashion designs were generally excluded by virtue of their useful nature.

The Copyright Act of 1909 replaced the previous statutory scheme and provided that protection encompassed "all the writings of an author."²⁹ The meaning of writings was not literal, but more appropriately described as some form of ex-

- ²³ Statute of Anne, 1710, 8 Anne, c. 19.
- ²⁴ Act of May 31, 1790, ch. 15, 1 Stat. 124.
- ²⁵ Act of Apr. 29, 1802, ch. 36, 2 Stat. 171.
- ²⁶ Act of Feb. 3, 1831, ch. 16, 4 Stat. 436.
- ²⁷ Act of Mar. 3, 1865, ch. 126, 13 Stat. 540.
- ²⁸ Act of July 8, 1870, ch. 230, 16 Stat. 198.
- ²⁹ Copyright Act of 1909, § 4, 35 Stat. 1075.

pression.³⁰ Therefore, in § 5, the 1909 Act set forth a list of copyright-eligible classes.³¹ Perhaps most relevant to fashion designs, § 5(g) conferred copyright eligibility on "works of art" and "models or designs for works of art."³² Facially, the removal of the fine arts requirement appeared to permit the registration of fashion designs. However, the Copyright Office clarified that "works of art" included only "works belonging fairly to the so-called fine arts" excluding "[p]roductions of industrial arts utilitarian in purpose and character . . . even if artistically made or ornamented."³³ In fact, "garments, laces, woven fabrics, or any similar articles" were generally barred from eligibility for copyright,³⁴ as both the Copyright Office and the courts adopted the position that the dominant function of fashion was utilitarian, and therefore such items were not eligible for copyright under the 1909 Act.³⁵

Today, fashion designs receive little protection under copyright laws because of the inherently utilitarian nature of clothing items. Pursuant to § 102(a) of the Copyright Act of 1976, copyright protection "subsists . . . in original works of authorship fixed in any tangible medium of expression . . . from which they can be perceived, reproduced, or otherwise communicated."³⁶ Section 102 further enumerates a nonexhaustive list of categories that constitute original works of authorship, including literary works, musical works, dramatic works, and pictorial, graphic, and sculptural works.³⁷ While fashion designs do not facially fall into any one of § 102(a)'s categories of "original works of authorship," some courts have extended protection to garments in very limited circumstances. For example, copyright protection has been granted to masquerade costumes as applied art.³⁸ Also,

- ³⁴ Nurbhai, *supra* note 3, at 495 (citation omitted).
- ³⁵ Nurbhai, *supra* note 3, at 495–97.
- ³⁶ Copyright Act of 1976, 17 U.S.C. § 102(a) (2006).
- ³⁷ See Copyright Act of 1909, § 102(a)(1)–(8), 35 Stat. 1075.
- ³⁸ See 1 MELVILLE B. NIMMER & DAVID NIMMER, NIMMER ON COPYRIGHT § 2.08[H][3], at 2-145 to -146 (2004) (citing several instances of protecting masquerade costumes as applied art in the Ninth Circuit and several district courts).

³⁰ See generally Burrow-Giles Lithographic Co., v. Sarony, 111 U.S. 53, 58 (1884) (clarifying that the Constitution's grant to Congress of securing exclusive rights to authors of writings as not literal but rather inclusive of all forms of expression as evidenced by the legislature's continued additions to the coverage of the statute).

³¹ Copyright Act of 1909, § 5, 35 Stat. 1075.

³² Copyright Act of 1909, § 5(g), 35 Stat. 1075.

³³ Nurbhai, *supra* note 3, at 495 (citation omitted).

one court held that summary judgment was improper against a plaintiff's claim that a nonfunctional swimsuit intended for display was a work of art and not a useful item of clothing.³⁹

The legislative history of the 1976 Act suggests that regardless of artistic or aesthetic considerations, copyright protection extends only to those elements that are capable of separation from utility. Accordingly, artistic elements inextricably linked with either the function or usefulness of the article are precluded from protection under copyright law. The House Report to the 1976 Act notes that:

[A]lthough the shape of an industrial product may be aesthetically satisfying and valuable, the ... intention is not to offer it copyright protection ... [u]nless the shape of [the] ... ladies' dress ... or any other industrial product contains some element that, physically or conceptually, can be identified as separable from the utilitarian aspects of that article The test of separability and independence from "the utilitarian aspects of the article" does not depend upon the nature of the design—that is, even if the appearance of an article is determined by esthetic [sic] (as opposed to functional) considerations, only elements, if any, which can be identified separately from the useful article are copyright-able.⁴⁰

In adopting this test of separability, courts have extended protection to utilitarian items such as jewelry boxes,⁴¹ artistic jewelry,⁴² and even to a Christmas decoration.⁴³ The Copyright Office has also been progressive in accepting registration of useful articles, such as bookends, candlesticks, chandeliers, and fishbowls as works of art.⁴⁴

In essence, it is now well-established that a useful article may be copyrightable insofar as its form exists independently of its useful function such that it may stand separately as a work of art.⁴⁵ For example, courts have embraced fabric pat-

³⁹ See Poe v. Missing Persons, 745 F.2d 1238, 1240–43 (9th Cir. 1984).

- ⁴¹ Dan Kasoff, Inc. v. Gresco Jewelry Co., 204 F. Supp. 694, 694 (S.D. N.Y. 1962), aff^{*}d, 308 F.2d 806, 806 (2d Cir. 1962).
- ⁴² Boucher v. DuBoyes, Inc., 253 F.2d 948, 949 (2d Cir. 1958).
- ⁴³ Sunset House Distrib. Corp. v. Doran, 304 F.2d 251, 251–52 (9th Cir. 1962).

⁴⁵ See NIMMER & NIMMER, supra note 38, § 2.08[B][3], at 2-90 to -91.

⁴⁰ See H.R. Rep. No. 94-1476, at 9 (1976), reprinted in 1976 U.S.S.C.A.N. 5659, 5668.

⁴⁴ NIMMER & NIMMER, *supra* note 38, § 2.08 [B][3], at 2-91.

terns as copyrightable as both a work of art and a print.⁴⁶ Nonetheless, copyright protection is largely unavailable for fashion designs because articles of clothing fall neatly within the statutory definition of useful items, as their function is not "merely to portray the appearance of the article or to convey information."⁴⁷ As a useful article, copyrights in fashion designs may only be claimed to the extent that they satisfy 17 U.S.C. § 101, which limits the protection of useful articles. In relevant part, § 101 clarifies that pictorial, graphic, and sculptural works include "works of artistic craftsmanship insofar as their form but not their mechanical or utilitarian aspects."⁴⁸ Therefore, fashion designs must have an original aspect capable of being separated from the function of covering the human body.

With clothing and apparel, it is difficult to locate an artistic work that can stand on its own, wholly independent from the useful aspect of a garment's form. Unlike fabric designs or patterns that have pictorial depictions that exist apart from the fabric itself, fashion designs are not so easily separated from their utilitarian function.⁴⁹ While fashion designs might contain patterns, embroidery, or illustrations that may be easily separated from the utilitarian function of the garment, the shape and form of the garment suffers because of the difficulty in establishing it as an artistic creation independent of its useful purpose of covering the human form. To demonstrate the difficulty of separability as applied to apparel, consider the question of whether a shirt sleeve is necessary and useful. Assuming an answer in the affirmative, at what point does a sleeve with a full, flowing cut and additional fringe extend past the utilitarian aspect and step into the artistic or original creation sphere sufficient to support a copyright? Given the difficulty in separating a garment's utilitarian function from its artistic creation, it is not surprising that courts hesitate to extend copyright protection where it is inherently difficult to draw a logical line between use and art in fashion designs.

Even where a design itself can obtain a copyright, the likelihood of robust protection is unlikely. A thin copyright is likely for two reasons. First, the basic underlying design for apparel is well established and available to the public. Therefore, the analogy can be made that basic fashion designs are akin to the basic plots or characters in a play because both involve a limited number of basic or stock plots or designs, and both are subject to the common availability of basic or stock plots

⁴⁶ See Peter Pan Fabrics, Inc. v. Brenda Fabrics, Inc., 169 F. Supp. 142, 142–43 (S.D.N.Y. 1959).

⁴⁷ NIMMER & NIMMER, *supra* note 38, § 2.08[D][2][a], at 2-145.

⁴⁸ 17 U.S.C. § 101 (2006) (defining "pictorial, graphic, and sculptural works").

⁴⁹ See generally NIMMER & NIMMER, supra note 38, § 2.08, at 2-144 to -149.

or designs in public domain.⁵⁰ Accordingly, copyright arguably exists in fashion designs only to the extent that truly original texture is added to the basic design. Second, fashion designs can be analogized to compilations of facts such as telephone directories.⁵¹ Just as facts, such as phone numbers, are in the public domain and thus ineligible for copyright, the component parts of clothing such as zippers, pockets, buttons, and basic patterns of an item of clothing are likewise widely available. Accordingly, the extent of copyright protection available in fashion designs could be construed as similar to the level of copyright protection applicable to phonebooks. Under such a framework, copyright protection would extend only to the original selection and organization of component pieces.

As an additional impediment to protection for fashion designs, copyright law generally protects against the duplication of another's designs when used as an instructional sheet for an unauthorized designer, but it will not grant that same protection when sought against the embodying of the design in competitive garments.⁵² Therefore, even when garments clear the initial hurdle of eligibility for copyright protection, the scope of the protection likely to be granted to fashion designs appears thin.

In sum, the extension of protection to original fashion designs is extremely limited because of the generally useful nature of clothing and apparel. As a result, a number of legislative attempts have been made to provide more comprehensive protection to fashion designs in an effort to promote new designs and to protect the economic investment of the original designers.

See Nichols v. Universal Pictures Corp., 45 F.2d 119, 121–22 (2d Cir. 1930) (refusing to extend copyright protection to basic background plots and stock characters absent original development because there are only a limited number of basic characters and plots); Sheldon v. Metro-Goldwyn Pictures Corp., 81 F.2d 49, 54–57 (2d Cir. 1936) (extending copyright protection to the additional texture and detail of expression placed atop the general patterns available in the public domain).

⁵¹ See Feist Publ'ns, Inc., v. Rural Tel. Ser. Co., 499 U.S. 340, 340–41 (1991) (clarifying that compilation of facts available in the public domain, such as a telephone directory, may receive copyright protection for original selection and organization but not for the facts themselves).

 ⁵² NIMMER & NIMMER, *supra* note 38, § 2.08[H][3], at 2-145 (citing Beaudin v. Ben & Jerry's Homemade, Inc., 95 F.3d 1, 2 (2d Cir. 1996); Russell v. Trimfit, Inc., 428 F. Supp. 91, 94 (E.D. Pa. 1977), *aff'd*, 568 F.2d 770 (3d Cir. 1978); Jack Adelman, Inc. v. Sonners & Gordon, Inc., 112 F. Supp. 187, 188 (S.D.N.Y. 1934)).

B. Attempts to Extend Specific Copyright Protection to Fashion Designs Have Failed to Achieve Additional Safeguards

Because of the limited scope and inconsistent protection of useful designs under current copyright law, numerous legislative attempts have been made to either extend current protection or create special schemes to protect designs. Since 1914, Congress has introduced approximately seventy bills intended to either protect designs through copyright law or to create a unique design-specific protection system.⁵³ Despite these attempts, no bill has been passed to increase protections for useful designs in general or fashion designs in particular.⁵⁴ In addition to consistently rejecting proposed bills to protect industrial designs, Congress explicitly deleted the proposed Title II from the Copyright Act of 1976.⁵⁵ Title II provided for the creation of "a new limited form of copyright protection for 'original' designs which are clearly a part of a useful article, regardless of whether such designs could stand by themselves, separate from the article itself."⁵⁶ Congress chose to reject this proposed extension of copyright because, as one court stated, Congress recognized the "concern that to make such designs eligible for copyright would be to create a 'new monopoly' having obvious and significant anticompetitive effects."57 The Register of Copyrights explained three potential anti-competitive effects of extending copyright to utilitarian objects in Esquire, Inc. v. Ringer:

> First, in the case of some utilitarian objects, like scissors or paper clips, shape is mandated by function. If one manufacturer were given the copyright to the design of such an article, it could completely prevent others from producing the same article. Second, consumer preference sometimes demands uniformity of shape for certain utilitarian articles, like stoves for instance. People simply expect and desire certain everyday useful articles to look the same particular way. Thus, to give one manufacturer the monopoly on such a shape would also be anticompetive [sic]. Third, insofar as geometric shapes are concerned, there are only a limited amount of basic shapes, such as circles, squares, rectangles and ellipses. These shapes are obviously in the public domain and accordingly it would be unfair to grant a monopoly on the use of any particular

⁵⁵ Nurbhai, *supra* note 3, at 501.

⁵⁷ See Esquire, 591 F.2d at 801 (citation omitted).

⁵³ Esquire, Inc. v. Ringer, 591 F.2d 796, 800 n.12 (D.C. Cir. 1978).

⁵⁴ Nurbhai, *supra* note 3, at 501.

⁵⁶ See H.R. Rep. No. 94-1476, at 50 (1976), reprinted in 1976 U.S.C.C.A.N. 5659.

such shape, no matter how aesthetically well it was integrated into a utilitarian article. $\frac{58}{8}$

Therefore, utilitarian-infused designs, such as clothing and apparel, remain largely unprotected under federal copyright law in spite of efforts to extend protection.

C. The Application of Trademark and Trade Dress Law to Fashion Designs May Provide a Modicum of Additional Protection

When style pirates make copies of fashion designs and use a famous brand name or a substantially similar mark in "passing off" counterfeits, designers are generally eligible for protection under the Lanham Act for trademark infringement and trademark dilution.⁵⁹ Even where style pirates use the "heart" of a design only as inspiration for a knockoff, designers may find redress in trade dress and secondary meaning pursuant to § 43(a) of the Lanham Act.⁶⁰ The primary purpose of the Act is to protect "a merchant's good will and business reputation by granting the merchant exclusive rights in the mark under which he or she sells products and services."⁶¹ Federal trademark law also seeks to protect consumers from misleading labels and confusion as to the source of goods.⁶² In general, a trademark is an individual feature, symbol, name, or small group of features on a product, while trade dress refers to the overall look and feel of a product.⁶³ Despite both trademark and trade dress as avenues for protection, only a limited number of designers will find successful redress under trademark law, primarily because of the requirements of distinctiveness and likelihood of confusion as to the source of goods.

Fashion designers generally face the best odds of successfully protecting designs when they have a well-established trademark⁶⁴ that has been purloined by a subsequent party. To establish a prima facie case for trademark infringement, the

⁵⁸ *Id.* at 801 n.15.

⁵⁹ Trademark (Lanham) Act of 1946 § 43(a), 15 U.S.C. § 1125 (a), (c) (2006).

⁶⁰ 15 U.S.C. § 1125(a).

⁶¹ M. Elaine Buccieri, Cause of Action for Trademark Infringement Under the Lanham Act, in 10 CAUSES OF ACTION 2d 501, at § 2 (2009).

⁶² Id. (citing as an example Star Fin. Servs., Inc. v. AASTAR Mortgage Corp., 89 F.3d 5 (1st Cir. 1996)).

⁶³ See Sports Design & Dev., Inc. v. Schoneboom, 871 F. Supp. 1158, 1160 n.2 (N.D. Iowa 1995).

⁶⁴ A trademark is a symbol, word, or name which identifies a particular product as coming from a distinct source. *See* 15 U.S.C. § 1127; *see also* Fila U.S.A., Inc. v. Kim, 884 F. Supp. 491, 493 (S.D. Fla. 1995) (providing judicial recognition of the definition of trademark).

Counterfeit Fashion

plaintiff must prove (1) that a distinctive mark has been used in commerce; (2) legal or equitable ownership of the mark; and (3) that the use of a similar mark is likely to cause confusion among consumers as to its source.⁶⁵ Distinctiveness is the ability of a mark to distinguish and identify the source of goods and services.⁶⁶ The Supreme Court has recognized that marks may be classified in five categories of increasingly distinct marks:⁶⁷ (1) generic, (2) descriptive, (3) suggestive,⁶⁸ (4) arbitrary,⁶⁹ or (5) fanciful.⁷⁰ Suggestive marks, arbitrary marks, and fanciful marks are entitled to immediate trademark protection because they are inherently distinctive.⁷¹ Descriptive marks may acquire distinctiveness through secondary meaning in the marketplace by establishing that the public has come to associate the mark with a specific source.⁷² Even marks initially excluded from registration, such as personal names or surnames, may obtain secondary meaning in the marketplace, thereby securing distinctiveness.⁷³ Following a finding of distinctiveness, the test for infringement is whether the use of the disputed mark creates a likelihood of confusion among the consuming public.⁷⁴

- ⁶⁸ Suggestive marks do not describe the product directly, but rather require the consumer to utilize imagination to understand the description. Sprinklets Water Ctr., Inc. v. McKesson Corp., 806 F. Supp. 656, 661 (E.D. Mich. 1992). A common example of suggestive marks is team names in professional athletics. *See, e.g.*, Harlem Wizards Entm't Basketball, Inc. v. NBA Props., Inc., 952 F. Supp. 1084, 1093 (D. N.J. 1997) (noting that the team name "Wizards" is suggestive, as the consumer must imagine the connection to basketball).
- ⁶⁹ An arbitrary mark possesses a dictionary meaning but that common meaning does not accurately describe the product. Buccieri, *supra* note 61, § 14.
- ⁷⁰ See Buccieri, supra note 61, § 14 ("A fanciful mark is a made up term or combination of letters or other symbols used to describe a product or service. The term has no separate significance or meaning apart from the product or service to which it is affixed." (internal citation omitted)). One such fanciful mark is KODAK.
- ⁷¹ *Two Pesos*, 505 U.S. at 768.
- ⁷² Buccieri, *supra* note 61, § 16.
- ⁷³ 2 J. THOMAS MCCARTHY, MCCARTHY ON TRADEMARKS AND UNFAIR COMPETITION § 13:2 (4th ed. 2009); see 15 U.S.C. 1052(e)–(f) (2006).
- ⁷⁴ RESTATEMENT (THIRD) OF UNFAIR COMPETITION § 21, cmt. a (1995). Confusion is established through the following factors: "(1) strength of the mark, (2) similarity of the marks, (3) relation of the goods . . . (4) similarity of marketing channels, (5) sophistication of the intended purchaser, (6)

⁶⁵ Buccieri, *supra* note 61, § 1.

⁶⁶ Buccieri, *supra* note 61, § 5.

⁶⁷ Two Pesos, Inc. v. Taco Cabana, Inc., 505 U.S. 763, 768 (1992).

In light of the protection granted to trademarks, a fashion designer that incorporates a registered trademark into a fashion design may obtain indirect protection of the design itself from those who misappropriate the mark for use on counterfeit goods. Protection would be available because the owner of a registered mark generally retains the exclusive right to use that mark in commerce.⁷⁵ Pursuant to the Lanham Act, the owner of a famous mark is also entitled to remedies when another uses the famous mark (after it has become famous) and causes dilution of the distinctive quality of the mark.⁷⁶ This protection not only includes indirect protection of fashion designs in suits against counterfeiters, but may also include protection against non-literal copies or unrelated goods where the use of the famous mark causes dilution.⁷⁷ Courts have unequivocally accepted the application of famous mark dilution to clothing and apparel, thereby providing an avenue for designers to indirectly protect garment designs by way of protecting the famous mark.⁷⁸ Where

⁷⁷ See Shields, supra note 76, § 9[a].

evidence of actual confusion, (7) intent of the defendant, (8) likelihood of expansion, and (9) discrepancies in quality between the products." Buccieri, *supra* note 61, § 43. Generally, a plaintiff's showing of likely confusion may be rebutted by a showing of one of the following: "(1) the marks are not confusingly similar, (2) the goods . . . are non-competitive and unrelated, and (3) the goods . . . of the defendant are sold in a remote trade territory, yielding no direct competition." Buccieri, *supra* note 61, § 28.

⁷⁵ See 15 U.S.C. §§ 1114(1), 1115(a).

⁷⁶ See 15 U.S.C. § 1125; see also Marjorie A. Shields, What Constitutes "Famous Mark" for Purposes of Federal Trademark Dilution Act, 15 U.S.C.A. §1125(c), which Provides Remedies for Dilution of Famous Marks, 165 A.L.R. Fed. 625 § 2 (2000) (discussing how a court, when determining whether a mark is distinctive and famous, may consider facts including but not limited to (1) degree of distinctiveness inherent or acquired; (2) duration and extent of use in connection with goods; (3) duration and extent of advertising or publicity targeted at the mark; (4) geographical trading area in which the mark is used; (5) channels of trade for the goods; (6) the degree of recognition of the mark; (7) nature and extent of use of the same or similar marks by third parties; and (8) whether the mark was federally registered).

⁷⁸ See, e.g, Nike Inc. v. Variety Wholesalers, Inc., 274 F. Supp. 2d 1352 (S.D. Ga. 2003) (finding Variety infringed Nike's trademarks by selling counterfeit Nike socks, T-shirts, and fleece items bearing designs similar to Nike's trademarks); Levi Strauss & Co. v. Amer. Pub. Co. Mktg., Inc., No. C-97-00681 DLJ, 1997 WL 337549 at *23 (N.D. Cal. May 27, 1997) (permanently enjoining alleged infringer from directly or indirectly manufacturing, distributing, or producing apparel bearing Levi's or a substantially similar, distinctive pocket stitching and tab device); Louis Vuitton Malletier & Oakley, Inc. v. Veit, 211 F. Supp. 2d 567, 577–78 (E.D. Pa. 2002) (finding dilution of the distinctive quality of "Louis Vuitton" and "Oakley" registered trademarks in use of louisvuitton-replicas.com domain name to sell products that the purchasing public was likely to attribute to the infringer's use a source of origin, authorization, or sponsorship to the detriment of the trademark holder); Victoria's Secret Stores v. Artco Equip. Co., Inc., 194 F. Supp. 2d 704, 704

infringement is established, a registrant may recover monetary damages and attorneys' fees.⁷⁹ Injunctive relief, destruction of infringing material,⁸⁰ and declaratory relief⁸¹ may also be granted. However, courts will refuse to grant protection where there is no evidence of actual harm or reduced capacity of the famous mark to identify and distinguish the goods sold.⁸²

While fashion designs may qualify for trademark protection in limited circumstances involving sufficient distinctiveness and likelihood of confusion, protection will extend only to the original designer's famous mark.⁸³ Therefore, the protection of a valid trademark indirectly encompasses a limited number of designs by virtue of the mark's attachment to a counterfeit item. Absent a registered mark, an owner may not sue for trademark infringement.⁸⁴ Infringement of unregistered marks must then be pursued as trade dress infringement claims under under 15 U.S.C. § 1125(a).⁸⁵ This section provides a civil cause of action against "[a]ny person who, on or in connection with any goods . . . uses in commerce any word, term, name, symbol, or device, or any combination thereof," which is likely to cause confusion as to the origin, sponsorship, or approval of the goods by another person.⁸⁶ The fundamental policy concerns underlying unfair competition law are (1) protecting the public from confusion about the source of goods, and (2) preventing a subsequent party from utilizing the reputation and goodwill of the original creator for

(S.D. Ohio 2002) (finding bad-faith use of the trademark "Victoria's Secret" in websites to divert consumers to an adult novelty store selling items such as lingerie).

- ⁸² See, e.g., Moseley v. V Secret Catalogue, Inc., 537 U.S. 418, 418 (2003) (denying trademark protection absent evidence that use resulted in actual injury to the economic value of the famous mark); Tommy Hilfiger Licensing, Inc. v. Nature Lab, LLC, 221 F. Supp. 2d 410, 416–17 (S.D.N.Y. 2002) (finding that the broadness of the joking use of Tommy Holedigger pet perfume did not pose a risk of negative associations to the famous mark).
- ⁸³ See 15 U.S.C. § 1127 (defining trademark); see also Buccieri, supra note 61, § 2 ("[T]he Lanham Act protects a merchant's good will and business reputation by granting the merchant exclusive rights in the mark under which he or she sells products and services.").
- ⁸⁴ Buccieri, *supra* note 61, § 21.
- ⁸⁵ Buccieri, *supra* note 61, § 21.
- ⁸⁶ 15 U.S.C. § 1125(a) (2006).

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⁷⁹ 15 U.S.C. § 1117(a) (2006).

⁸⁰ 15 U.S.C. §§ 1116, 1118.

⁸¹ See 28 U.S.C. § 2201(a).

economic benefit in competitive markets.⁸⁷ The term "trade dress" has been defined generally as the total image and overall appearance of a product,⁸⁸ including "features such as size, shape, color or color combinations, texture, graphics, or even particular sales techniques."⁸⁹ In essence, trade dress includes the totality of elements in which a product is presented.⁹⁰ Therefore, where the overall appearance of a counterfeit or knockoff design is so similar to an original design that it causes confusion as to the origin of the counterfeit or knock-off, a claim for trade dress infringement under 15 U.S.C. § 1125(a) may be available to the original designer.

To prevail on a trade dress infringement claim, a plaintiff must establish the existence of secondary meaning such that in the consumer's mind, the product is associated with a single source.⁹¹ Actual knowledge of the source is irrelevant.⁹² Factors considered by courts in determining whether secondary meaning has attached to trade dress include (1) sales success and amounts of receipts, (2) extent of unsolicited media coverage of the product, (3) intentional copying by third parties, (4) amount and extent of advertising expenses, (5) proper focus of advertising upon the trade dress, (6) statistical evidence from consumer recognition surveys and unsolicited consumer testimonials, (7) length and exclusivity of use, and (8) direct evidence of consumer association via testimony, affidavits, and depositions.⁹³ As there is no requirement of either actual sale of infringing goods or actual consumer confusion, a plaintiff must only show the "mere possibility of ... [a]n injury" to obtain injunctive relief.⁹⁴ In weighing these factors, courts have extended trade

⁸⁷ James E. Clevenger, *Proof of Trade Dress Infringement, in* 55 AM. JUR. 3D *Proof of Facts* 383, at § 1 (2000).

⁸⁸ Blue Bell Bio-Medical v. Cin-Bad, Inc., 864 F.2d 1253, 1256 (5th Cir. 1989).

⁸⁹ Two Pesos, Inc. v. Taco Cabana, Inc., 505 U.S. 763, 764 n.1 (1992) (quoting John H. Harland Co. v. Clarke Checks, Inc., 711 F.2d 966, 980 (11th Cir. 1981)).

⁹⁰ 1 MCCARTHY, *supra* note 73, § 8.1.

⁹¹ See David E. Rigney, Application of Secondary Meaning Test in Action for Trade Dress Infringement Under § 43(a) of Lanham Act (15 U.S.C.A. §1125(a)), 87 A.L.R. Fed. 15, § 2[a] (2005); see also Abercrombie & Fitch Stores, Inc. v. Am. Eagle Outfitters, Inc., 280 F.3d 619, 635 (6th Cir. 2002).

⁹² Rigney, *supra* note 91, § 2[a].

⁹³ Rigney, *supra* note 91, § 2[a].

⁹⁴ See Vuitton Et Fils, S. A. v. Crown Handbags, 492 F. Supp. 1071, 1077 (S.D.N.Y. 1979) (quoting Monsanto Chem. Co. v. Perfect Fit Prods. Mfg. Co., 349 F.2d 389, 392 (2d Cir. 1965).

dress protection to the overall look and feel of apparel and related products.⁹⁵ However, high-end and brand name fashion designs are not guaranteed trade dress protection because difficulties in setting forth sufficient evidence of secondary meaning consistently bar protection.⁹⁶

The high evidentiary burden of establishing secondary meaning in trade dress limits the application of trademark protection to prevent unauthorized copying of fashion designs and results in perhaps inconsistent protection. For example, Levi Strauss was able to obtain protection for a jean pocket tab, but not for its shirt pocket tab.⁹⁷ Given the nature of trade dress law, only the most recognizable of brand-name designs will warrant consideration for protection. Even then, only a handful of those brand-name or recognizable wearable apparel designers will qualify for protection, because of the difficulty of proving secondary meaning.

⁹⁵ See, e.g., LeSportsac, Inc. v. K Mart Corp., 754 F.2d 71 (2d Cir. 1985) (finding secondary meaning established and enjoining defendant from marketing lightweight luggage and bags that contained confusingly similar dress, in part because of substantial advertising, unsolicited media coverage, and high sales volume); Scholl, Inc. v. Tops E.H.R. Corp., 185 U.S.P.Q. (BNA) 754, at *2– 3, *12 (E.D.N.Y. 1975) (finding secondary meaning established in distinctive blue and yellow color combination, in part because of properly focused, extensive advertising); Le Sportsac, Inc. v. Dockside Research, Inc., 478 F. Supp. 602, 608–09 (S.D.N.Y. 1979) (finding substantial evidence of secondary meaning in line of travel bags and accessories, in part because of properly focused, extensive advertising, unsolicited media coverage, and increased sales); Stormy Clime, Ltd. v. ProGroup, Inc., 809 F.2d 971, 972, 974 (2d Cir. 1987) (finding secondary meaning in trade dress of a rain jacket because of substantial advertising expenditures, increased sales, and the exclusive sale of the jacket under registered trademark); Levi Strauss & Co. v. Blue Bell, Inc., 632 F.2d 817, 821 (9th Cir. 1980) (finding established secondary meaning in a pocket tab used on jeans based on widespread advertising directed to the mark and high revenue of sales).

See, e.g., Coach Leatherware Co. v. Ann Taylor, Inc., 933 F.2d 162 (2d Cir. 1991) (finding no secondary meaning in part because of the consumer awareness survey's inability to establish that the overall design of the manufacturer's handbag has attained requisite association in the minds of the public); Calvin Klein Co. v. Farah Mfg. Co., 229 U.S.P.Q. (BNA) 795, at *23–24, *26 (S.D.N.Y. 1985) (finding no secondary meaning in the back-pocket design stitching of jeans because of insufficient evidence of consumer association absent advertising that suggested the design as an identifying mark); Brooks Shoe Mfg. Co. v. Suave Shoe Corp., 716 F.2d 854, 860–61 (11th Cir. 1983) (finding no secondary meaning in shoe company's "V" design because of insufficient evidence of consumer association absent proper consumer recognition surveys and minimal advertising focus on the design); Levi Strauss & Co. v. Blue Bell, Inc., 778 F.2d 1352, 1358 (9th Cir. 1985) (finding no secondary meaning in a shirt pocket tab because the survey conducted did not support secondary meaning, there was no evidence of sales, and there was little evidence of advertising or promoting the shirt tab).

⁹⁷ See Levi Strauss, 632 F.2d 817 at 821; Levi Strauss, 778 F.2d at 1358.

Assuming proof of a strong mark or trade dress, some courts have nonetheless justified rejection of protection on the grounds that substantial confusion was unlikely because of different consumer markets or sophisticated buyers were unlikely to be fooled. For example, Louis Vuitton failed in an action against Burlington Coat Factory, despite judicial recognition of a strong mark, in part because the customer base of the \$29.98 knockoff handbag was completely different than that of the upscale designer bag and because of the significant differences apparent when visually comparing the bags.⁹⁸ In another recent case, Louis Vuitton failed to enjoin Dooney & Bourke from producing similar monogrammed bags because the absence of geometric shapes on the defendant's bags reduced the likelihood of consumer confusion and therefore, Louis Vuitton could not prove dilution.⁹⁹ Accordingly, the main purpose of trademark and trade dress law, to avoid misappropriation of reputation and consumer confusion, appears to be generally inconsistent with protecting the copying of fashion designs as a whole. Even where there is an acknowledged consumer association between the design and a source, protection varies widely.

In sum, trade dress law extends protection further than trademark law, which focuses on a designer's mark, but trade dress protection is not comprehensive and fails to cover the design configuration in whole.

III. Trade Dress May Be Used to Defeat The Exacting Requirements of Copyright In Extending Protection to The Most Popular And Recognizable Goods

As evidenced by the prevalence of brand-name or high fashion designers seeking redress under trade dress law and often successfully obtaining injunctive relief or other remedies, secondary meaning provides a means for otherwise uncopyrightable utilitarian works to be protected against unauthorized use.¹⁰⁰ If a useful item can establish secondary meaning in the marketplace such that it is attributable to a particular source, trade dress law appears to offer a means of protection if a copy of the item could cause substantial confusion to the public.¹⁰¹ Accordingly, where brand names or popular goods are involved, trade dress law may

⁹⁸ Despite Strong Vuitton Mark, Facts Lacking to Enjoin Accused Knock-off Handbags, supra note 9, at 1475, and accompanying text.

⁹⁹ Multicolored Mark Doesn't Infringe Louis Vuitton's Marks, Despite Similarities, supra note 9, at 553, and accompanying text.

¹⁰⁰ See infra Part III.a.

¹⁰¹ See supra Part II.c.

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provide an indirect way around the requirements of copyright law, such that useful designs otherwise subject to the public domain under copyright laws may be restricted from misuse by style pirates. Admittedly, the emphasis of trade dress law on widespread recognition tends to doom attempts by any but the most famous fashion designers to receive protection.

A. Some Utilitarian Designs Incapable of Copyright Protection May Attain Secondary Meaning in Trademark Restricting Material Otherwise Subject to the Public Domain Creating De Facto Copyright Protection of Some Useful Goods.

In extending trade dress to include not only product packaging but also to encompass the design of a product,¹⁰² United States jurisprudence has arguably created a narrow regime of protection for certain qualifying utilitarian goods such as clothing, handbags, and luggage. Absent such judicially created protection, these items, by virtue of their inherent usefulness, would fail to qualify for copyright protection and would likely reside in the public domain for unhindered use. While most utilitarian items are unlikely to qualify for trade dress, this limited exception for trade dress may allow some protection where copyright law does not.

Courts have been increasingly willing to extend trade dress protection to apparel designs. In *Wal-Mart Stores, Inc. v. Samara Brothers, Inc.*, the Supreme Court recognized that unregistered trade dress extends to clothing designs.¹⁰³ There, the Court considered product-design trade dress in the context of an allegedly infringed-upon line of designer children's clothing.¹⁰⁴ The Court ruled that product designs could be protected as distinctive trade dress so long as secondary meaning has been attained in the minds of the public.¹⁰⁵ This ruling implies that where the public comes to identify any combination of design features or the fashion design itself with a unitary source, protection via trade dress is available to designers.

Hermès International, a maker of luxury goods, also seized upon trade dress law to file an action against retailer Steven Stolman for selling the so-called "Jelly

¹⁰⁴ Id. at 207–08.

¹⁰⁵ See id. at 216.

¹⁰² See Wal-Mart Stores, Inc. v. Samara Bros., Inc., 529 U.S. 205, 209 (2000).

¹⁰³ See id. at 207.

Kelly," a knockoff of Hermès' Birkin bag.¹⁰⁶ Mr. Stolman's knockoffs were very similar to the \$5,000 Hermes bag but were created from transparent rubber.¹⁰⁷ The Jelly Kelly bags differed in other ways from the Birkin in that the keyhole cutouts on the flaps of the Jelly Kelly were larger than those on the Birkin, the straps were longer, and the classic locket dangling from the Birkin's horizontal strap was absent.¹⁰⁸ Additionally, the flaps on the Jelly Kelly bags were glued, not hand-stitched.¹⁰⁹ Hermès obtained a permanent injunction against the sale of these bags, along with an undisclosed settlement.¹¹⁰

The children's clothing line and the handbag discussed in *Wal-Mart Stores* and *Hermes*, respectively, constitute useful goods, rendering them incapable of coverage under copyright law. Admittedly, analytic dissection of both cases might produce separable elements that could qualify for copyright protection. However, in extending trade dress protection, the whole design concept itself may attain secondary meaning, thereby granting exclusive rights to the owner. Therefore, the prohibition against the protection of useful items under copyright law is contravened in the limited circumstances where (1) useful items incapable of copyright protection attain secondary meaning, and (2) a style pirate utilizes a substantially similar design capable of market confusion. In such circumstances, trade dress law operates in limited situations to protect otherwise public domain goods under copyright law.

Although considered on a motion for summary judgment, *Adidas-Salomon* AG v. Target Corp. presents an example of how trade dress may be applied to a useful clothing design in whole.¹¹¹ There, the defendant argued that the plaintiff could not establish its trade dress either as nonfunctional or distinctive, and that there was no likelihood of confusion between the trade dress of the shoes.¹¹² The

¹⁰⁹ Id.

¹⁰⁶ Hermès Int'l v. Steven Stolman, Ltd., No. CV 033722, 2003 WL 23883672, at *1 (E.D.N.Y. July 30, 2003).

¹⁰⁷ Ginia Bellafante, A Satire of a Classic Fails to Amuse the August House of Hermès, N.Y. TIMES, Aug. 12, 2003, at B8.

¹⁰⁸ Id.

¹¹⁰ See Bag the Knockoffs, NEWSDAY, Aug. 14, 2003, available at http://www.kirkland.com/ sitecontent.cfm?contentID=230&itemId=7391.

¹¹¹ Adidas-Salomon AG v. Target Corp., No. CV-01-1582-ST, 2002 WL 31971831, at *7-8 (D. Or. July 31, 2002).

¹¹² *Id.* at *5.

trade dress in controversy comprised the following design elements: "(1) three stripes on the side of the shoe parallel to equidistant small holes; (2) a rubber 'shell toe;' (3) a particularly flat sole; and (4) a colored portion on the outer back heel section."¹¹³ After weighing the evidence as applied to a host of factors, the magistrate denied summary judgment for the defendant on the grounds that Adidas had presented sufficient evidence of a trade dress that had acquired secondary meaning, and that the defendant's substantially similar shoe design posed a likely risk of confusion.¹¹⁴

While the magistrate in Adidas only considered grant of summary judgment, an application of the legal reasoning to a fashion design serves to fully illustrate how trade dress and secondary meaning operate to bypass copyright protection in certain circumstances. Consider the example of Burberry's arguably distinctive and recognizable tan and red plaid fabric pattern used to construct a handbag in combination with other functional and non-functional design elements. Burberry would possess a trademark in its logo and labels. However, Burberry also would have a strong argument for trade dress in the compilation of the following elements: (1) any registered trademark, logo, or label; (2) the plaid fabric; (3) the black accent detailing; (4) the hardware such as clasps or zippers; and perhaps (5) the shape of the bag. Applying the Adidas reasoning, Burberry would probably gain trade dress protection against exact copies, as well as those inspired by the original so long as a substantial likelihood of confusion exists. Initially, Burberry would not be foreclosed from redress by trade dress merely because of the inclusion of some functional design elements.¹¹⁵ That is, "trade dress protection focuses on the plaintiff's entire selling image, rather than the narrower single facet of trademark."¹¹⁶ Because trade dress considers the entire visual tapestry, a "defendant cannot avoid liability ... simply by segregating out the various aspects of the plaintiff's product . . . and claiming that no one of these is protectable in and of itself."¹¹⁷ As such,

¹¹³ *Id.* at *2.

¹¹⁴ *Id.* at *12, *17–18.

¹¹⁵ See id., at *6.

¹¹⁶ 1 MCCARTHY, *supra* note 73, § 8:2 (quoting Vision Sports, Inc. v. Melville Corp., 888 F.2d 609, 613 (9th Cir. 1989)); *see also* Clicks Billiards, Inc. v. Sixshooters, Inc., 251 F.3d 1252, 1259 (9th Cir. 2001) ("Trade dress is the composite tapestry of visual effects . . . [and] must be examined as a whole, not by individual constituent parts."); Fuddruckers, Inc. v. Doc's B.R. Others, Inc., 826 F.2d 837, 842 (9th Cir. 1987) ("[F]unctional elements that are separately unprotectable can be protected together as part of trade dress.") (quoting LeSportsac, Inc. v. Kmart Corp., 754 F.2d 71, 76 (2d Cir. 1985).

¹¹⁷ See Adidas-Salomon, 2002 WL 31971831 at *7 (D. Or. July 31, 2002).

the functional elements of an item that may be incapable of legal protection standing alone may, therefore, find some level of protection as part of the item as a whole under trade dress law.¹¹⁸ Thus, the entire composition of the Burberry handbag, from shape to accoutrements, may constitute trade dress. However, the scope of trade dress does not extend so far as to preclude all use of the individual components of the trade dress by competitors, but rather, only grants the right to "prevent competitors from using the items in a way that, viewed as a whole, is likely to confuse customers."¹¹⁹

Adidas' balancing of the factors for establishing secondary meaning also bodes well for the fashion designer. Of particular relevance is the recognition that a registered trademark may be considered as part of establishing the secondary mean-Therefore, a strongly branded and recognizable trademark such as Buring.¹²⁰ berry's labels or perhaps even the plaid pattern itself must be considered in the whole of trade dress. Secondary meaning is then much more likely where a famous mark may be considered in conjunction with other design elements. Additionally, secondary meaning may still be established absent trade dress-focused advertis-While trade dress-focused advertising is a potential factor, courts have ing.¹²¹ found that such advertising is not a requisite element.¹²² For example, widely recognized trade dress such as an hourglass-shaped Coca-Cola bottle may still qualify for secondary meaning absent a marketing campaign touting or promoting consumer awareness in the trade dress.¹²³ Therefore, where trade dress or consumer awareness of the entirety of the Burberry design rises to a significant level, the design may be protected. This is often the case with apparel that gains pop-culture status as the new "it-fashion" or when celebrities are often seen wearing the apparel. Lastly, Adidas recognizes that exact copying is not required to establish a presumption of secondary meaning where a "cursory look ... indicates that the trade dress of the defendant's product incorporates significantly more similarities to, than differences from, the [o]riginal."¹²⁴ Therefore, items "inspired" by the

¹¹⁸ Id.

- ¹²⁰ *Id.* at *11.
- ¹²¹ See id. at *2.

¹²² See id.

¹²⁴ See id. at *13.

¹¹⁹ Id. (citing Fuddruckers, 826 F.2d at 843 n.7).

¹²³ See Adidas-Salomon AG v. Target Corp., No. CV-01-1582-ST, 2002 WL 31971831, at *12 (D. Or. July 31, 2002).

original Burberry fashion design may be required to surpass this presumptive barrier.

Finally, Adidas' finding of a likelihood of confusion in a substantially similar fashion design supports the position that functional garment designs are increasingly likely to receive protection. The Ninth Circuit found that the likelihood of confusion, not intent to confuse or actual confusion, is all that is required.¹²⁵ "Likelihood of confusion will be found whenever consumers are likely to assume that a mark is associated with another source or sponsor because of similarities between the two marks."¹²⁶ Confusion may also be established via initial interest confusion¹²⁷ or post-sale confusion.¹²⁸ Ostensibly, a substantially similar design could cause both initial interest confusion by attracting the interest of a potential customer at the point of sale because of its similarity to another item, and post-sale confusion by confusing post-sale observers as to the source of the item. Moreover, the use of a source-indicating label on a substantially similar design may not be sufficient to avoid initial interest confusion, and it wholly fails to address post-sale confusion.¹²⁹ Post-sale observers may be unaware that two confusingly similar items are sold in different stores or at different prices, yet the observer's confusion may be detrimental to the original designer if they perceive the inferior-quality product as related to the original, thus damaging the original's reputation and image.¹³⁰ Therefore. the entirety of the Burberry handbag would be protected against aesthetically similar bags that seize the heart of the design even when clearly marked with another source indicator.

In sum, trade dress may operate to protect some product designs as a whole, where copyright protection of the same item would either be limited to a separable

¹²⁸ Post-sale confusion occurs where "consumers view a product outside the context in which it is originally distributed and confuse it with another, similar product" and can establish the requisite likelihood of confusion. *Id.* (quoting *Acad. of Motion Pictures Arts & Scis.*, 944 F.2d at 1455).

¹²⁹ Payless Shoesource, Inc. v. Reebok Int'l Ltd., 998 F.2d 985, 989-90 (Fed. Cir. 1993).

¹³⁰ See id.

¹²⁵ See Coca-Cola Co. v. Overland, Inc., 692 F.2d 1250, 1256 n.16 (9th Cir. 1982); Brookfield Comme'ns, Inc. v. West Coast Entm't Corp., 174 F.3d 1036, 1050 (9th Cir. 1999).

¹²⁶ Acad. of Motion Picture Arts & Scis. v. Creative House Promotions, Inc., 944 F.2d 1446, 1456 (9th Cir. 1991).

¹²⁷ Initial interest confusion occurs where similarities are used "to capture initial consumer attention even though no actual sale is finally completed as a result of the confusion." *Adidas-Salomon*, 2002 WL 31971831, at *16 (quoting Dr. Seuss Enters. L.P. v. Penguin Books USA, Inc., 109 F.3d 1394, 1405 (9th Cir. 1997)).

artistic element or wholly barred because the design is functional. As noted in the Burberry handbag hypothetical above, an extension of trade dress protection would cover the entirety of the product design assuming secondary meaning. The combination of design elements, including purely functional elements of the trade dress such as a specific handle, clasp, or zipper, would be protected along with nonfunctional elements such as the trademark itself and other aesthetic additions. In contrast, copyright protection would extend only to the fabric design of the Burberry handbag¹³¹ but little else without artistic elements separable from the bag's function.¹³² While there are many hurdles for a functional fashion design, trade dress law offers an alternative form of protection for certain non-copyrightable useful designs. Upon qualification for trade dress, the owner attains the exclusive rights to use that trade dress and the opportunity to receive relief for infringement.¹³³ Accordingly, otherwise public domain designs are essentially granted de facto copyright protection through the extension of trade dress law to protect the look and feel of a useful item as a whole.

B. Protecting Utilitarian Designs Under Trademark Law Promotes Further Inconsistency in Granting Exclusive Rights as to Fashion Designs

While secondary meaning in trade dress operates to protect certain useful, and therefore uncopyrightable, works, this loophole is indicative of a patchwork scheme of protection that supports the need for clear standards of protection over utilitarian items such as fashion designs. As noted above, copyright laws operate to protect wearable apparel and garments in whole only to the extent that they are non-functional.¹³⁴ Garments, such as "soft-sculpture" swimsuits¹³⁵ and costumes,¹³⁶ that have been given judicial protection by some courts accentuate the exceedingly

¹³¹ Fabric designs have been deemed generally capable of copyright protection. See Peter Pan Fabrics, Inc. v. Brenda Fabrics, Inc., 169 F. Supp. 142, 143 (S.D.N.Y. 1959).

¹³² Since the typical Burberry handbag design does not include ornamental or sculptural accoutrements like a large sculpted belt buckle, there would likely be judicial hesitancy to grant protection. *Cf.* Kieselstein-Cord v. Accessories by Pearl, Inc., 632 F.2d 989, 990, 992 (2d Cir. 1980) (unlike an unornamented handbag, the sculptural shape of a belt buckle was found to be separate from its intrinsic function and eligible for copyright).

Lanham Act § 43(a), 15 U.S.C. § 1125(a) (2006); see also Kendall-Jackson Winery, Ltd., v. E. & J. Gallo Winery, 150 F.3d 1042, 1046 (9th Cir. 1998) (making actionable use of marks).

¹³⁴ See supra note 40 and accompanying text.

¹³⁵ Poe v. Missing Persons, 745 F.2d 1238, 1240–43 (9th Cir. 1984).

¹³⁶ See supra note 38 and accompanying text.

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limited scope of copyright protection as applied to the entirety of the useful fashion design. Without this limited copyright protection of fashion designs in whole as artistic works, only the creative elements physically or conceptually separable from the product's function may be protected under copyright laws.¹³⁷ Where separable illustrations or designs are utilized as a trademark or acquire secondary meaning, the laws of unfair competition may offer double coverage. Moreover, secondary meaning in trade dress provides protection for designs in total, including utilitarian elements, where copyright wholly denies protection. Because of the contextual approach and fact-specific inquiry into distinctiveness, secondary meaning, and confusion, courts vary widely in their application of trade dress to fashion designs.¹³⁸ This further compounds the current inconsistency of the scheme available to protect fashion designs from unauthorized copying.

In sum, the interplay of copyright and trademark law results in an unpredictable environment where original fashion designers are uncertain of the possibility of legal protections and the extent that such protections would extend to their works. This lack of certainty supports the need for a fashion design-specific system or at least a more uniform interpretation and application of the current copyright and trademark laws to prevent inconsistency and uncertainty.

IV. The Protection of Fashion Designs Is Necessary to Protect Business Investment In Original Apparel Designs And to Promote Continued Innovation By Fashion Designers

Because of the useful nature of fashion designs, copyright generally precludes their protection. Therefore the creativity and originality of designers is stymied in favor of essentially unrestricted public use. As a result, the purpose of copyright law—balancing exclusive rights to the originator and public use—is skewed in favor of public use, which in turn reduces the incentives for designers to continue innovation. Moreover, trademark law fails to provide protection for even some famous designers because the difficulty in establishing that consumer confusion occurs and that cheap imitations dilute the strength of their mark. Trademark law similarly fails to adequately protect the business investment and reputation of fashion designers just as copyright fails to comprehensively protect the creative aspects of fashion designs. While the public benefits from the instantaneous copying and production of cheap replicas, the speed at which this copying occurs largely pre-

¹³⁷ See supra notes 40–48 and accompanying text.

¹³⁸ See supra notes 96–111, 122–124, and accompanying text.

cludes the original designer from enjoying exclusive production of an item for any meaningful time.

In light of the advances in design pirating, a new scheme of protection should be enacted that considers both copyrights creativity interests and trademarks business concerns in fashion designs. Otherwise, not only original designers, but also style pirates themselves may soon be out of a job as progressive fashion designers find little incentive to risk the expense of creating an original design where the promise of either exclusive control or economic benefit is nil.

A. The Purpose of Copyright Law Supports the Need to Protect Original Fashion Designs Despite Inherently Functional Nature

In granting exclusive rights, copyright seeks the threshold question of originality.¹³⁹ Copyright protection arises only to the extent of the "original intellectual conceptions" of their authors, not necessarily the entirety of the work.¹⁴⁰ For example, in *Burrow-Giles Lithographic Co. v. Sarony*, the Supreme Court extended copyright in a photograph narrowly to the artistic elements such as angles, lighting, posing, and accoutrements utilized by the photographer.¹⁴¹ More recently, in *Feist Publications, Inc., v. Rural Telephone Services Co.*, the Court determined that the original work of authorship in a telephone book could be copyrightable to the extent of its original manner of compiling or organizing factual information.¹⁴² While copyright protection extends only as far as the original work of the author, this requirement of originality has been recognized as minimal. Copyright "carries with it no implied criterion of artistic taste, aesthetic value, or intrinsic quality."¹⁴³ Accordingly, Justice Holmes noted that "[i]t would be a dangerous undertaking for persons trained only to the law to constitute themselves final judges of the worth of pictorial illustrations, outside of the narrowest and most obvious limits."¹⁴⁴

In applying these principles to fashion designs, it cannot be said that fashion designs lack sufficient originality for copyright protection where designers use ar-

¹³⁹ See Feist Publ'ns, Inc. v. Rural Tel. Serv. Co., 499 U.S. 340, 345 (1991) ("The sine qua non of copyright is originality.").

¹⁴⁰ Burrow-Giles Lithographic Co. v. Sarony, 111 U.S. 53, 58 (1884).

¹⁴¹ See id. at 53.

¹⁴² See Feist, 499 U.S. at 345–46.

¹⁴³ See H.R. Rep. No. 94-1476, at 54, reprinted in 1976 U.S.S.C.A.N. 5659, 5667.

¹⁴⁴ Bleistein v. Donaldson Lithographing Co., 188 U.S. 239, 251 (1903).

tistic vision to create garment concepts and designs. As noted in Bleistein v. Donaldson Lithographing Co., even the "least pretentious picture has more originality in [it] than directories and the like, which may be copyrighted."¹⁴⁵ Similarly, even the least original fashion design likely has more original artistic contribution in it than a factual compilation. Furthermore, in Bleistein, the Court reasoned that "there is no reason to doubt that these prints in their ensemble and in all their details, in their design and particular combinations of figures, lines and colors, are the original work of the plaintiff's designer."¹⁴⁶ Likewise, the original work of a fashion designer in creating a garment is found in the ensemble of all the details and design elements incorporated. Some might argue that there is very little originality in clothing designs because of well-established basic designs or even because of the regurgitation of styles from past generations, but this should not bar the applicability of copyright. Rather, copyright law must protect whatever originality the author has produced. The extent or "thinness" of the copyright protection, however, would ultimately turn upon the amount of originality involved. Fashion designers often succeed by being different and bringing a new style to the forefront. Accordingly, progressive fashion designers would likely receive more protection in their designs than those that only involve minimal originality. In sum, the fact that fashion designs possess the requisite originality for copyright is accentuated by the fact that aesthetic considerations have increased in value and the appearance of garments have come to the forefront. Moreover, it is not the place of judges to make determinations of aesthetic valuation where purely factual compilations possessing lesser originality may qualify for copyright. Thus, the originality found in fashion designs deserves to be protected. If not for a garment's inherent functional nature, the garment's design would presumably qualify for protection. The notion that a garment cannot be protected because of its inherent functional nature should be reevaluated. Fashion designs are no longer solely valued for a functional purpose. For example, the functional aspect of a Louis Vuitton handbag is not the reason customers pay in excess of \$1,000 where a bag that will perform the same function can be purchased for far less. Rather, it is increasingly the combination of aesthetically appealing original design elements that increases the value of the particular fashion design.

Therefore, copyright must adapt to protect this form of original authorship. Copyright law seeks to promote the useful arts by way of securing exclusive rights

¹⁴⁵ *Id.* at 250.

¹⁴⁶ *Id.* (emphasis added).

for the authors of these works for a limited time.¹⁴⁷ In doing so, copyright law attempts to strike a balance between granting exclusive rights as an incentive to originators and allowing free public use to promote additional progress.¹⁴⁸ In spite of this stated purpose, the balance is skewed in favor of public use where fashion designs are concerned because of their useful nature. Therefore, copyright law is not striking the balance that it seeks with fashion designs.

While the commercial nature of fashion tends to push many into arguing that fashion lies outside the realm of copyright, copyright law itself recognizes the importance of the commercial use and licensing of protected items.¹⁴⁹ It is precisely the grant of exclusive rights and ability to license protected items to others for use, thereby securing commercial gain, that underlies copyright as an incentive to continue creating. Absent copyright protection, the ability to control and license products essentially evaporates. Except in very limited circumstances, the fashion industry and designers must cope with exactly that state of affairs, lacking control and increasingly losing commercial value. Therefore, the incentives to create new fashion designs diminish immensely.

Designers take great risk and cost in creating a fashion line, and absent protection, style pirates may ride on the coattails of the designers' work and success, costing designers potentially huge sums of revenue. For example, manufacturer Jack Mulqueen grossed over \$200 million in 1981 by copying and selling the original creations of other designers.¹⁵⁰ To prevent such losses by the original designer of a garment, copyright protection should extend to situations where others take the essence or heart of a fashion design and create a work that evokes substantially the same look and feel as the original.¹⁵¹ While an amendment to the Copyright Act for works of fashion is not likely to be passed anytime soon because "legislators and courts have a great deal of trouble seeing past the utilitarian function of a piece

¹⁴⁷ See Burrow-Giles Lithographic Co. v. Sarony, 111 U.S. 53, 56 (1884) (citing U.S. CONST., art. 1 § 8, cl. 8).

¹⁴⁸ See U.S. CONST., art. 1 § 8; see also Jeff Toole, Campbell v. Acuff-Rose Music, Inc.: The Rap on Remedies, 29 IND. L. REV. 467, 468–70 (1995) (discussing the careful balance required in copyright law of protecting original designers to promote continued creativity and the corollary need to prevent monopoly and to allow public use to spawn additional original works).

¹⁴⁹ See Schmidt, supra note 4, at 861–62.

¹⁵⁰ Schmidt, *supra* note 4, at 863.

¹⁵¹ See generally Steinberg v. Columbia Pictures Indus., Inc., 663 F. Supp. 706, 709, 711–13 (1987) (protecting substantial similarity in visual works).

of clothing,"¹⁵² this position is especially perplexing where copyright protection has been extended to useful items such as fashion accessories, works of architecture, and computer chip designs.¹⁵³ In light of the more than sufficient originality found in fashion designs and copyright's goal of promoting the useful arts, the law must look past the difficulty in separating the creative elements of a fashion design from its functional elements and instead protect the sufficiently original creations of a fashion designer as a whole.

B. Copyright Law Exists as an Appropriate Medium to Protect Fashion Designs Because of the Focus on Promoting Arts and a Secondary Goal of Securing Exclusive Rights and Commercial Value to Originators.

While trademark law appropriately supports the copyright incentive scheme by explicitly granting protection to the business aspect of recognizable goods, copyright law is the appropriate medium to provide the primary protection over the original and artistic aspects of all fashion designs, not just the most popular. Trademark and trade dress law exist to protect business goodwill and to provide redress for customer confusion. As a result, trademark and trade dress laws do not focus on safeguarding the original artistic elements of a design itself, which is more traditionally the province of copyright law.¹⁵⁴ Therefore, trademark law primarily seeks to protect the consumer from confusion about the source of the goods, not the designer from unauthorized use or copying of artistic design elements.¹⁵⁵

Nonetheless, trademark and trade dress laws currently fill part of the void left by copyright and provide some minimum incentives for continued artistic creation via secondary meaning. Because trademark law's focus is on the business aspects of product sales, it appropriately protects designs of high commercial value and recognizability in the consumer marketplace. Accordingly, it is copyright law, and not trademark law, that must be extended to serve as the medium of protection for the original aspects of all fashion designs, not just those that are the most commercially valuable and recognizable. Admittedly, this protection should not extend to a

¹⁵⁵ See supra note 61 and accompanying text.

¹⁵² See Schmidt, supra note 4, at 861–62.

¹⁵³ See Christine Magdo, Protecting Works of Fashion from Design Piracy, HARVARD LEGAL ELECTRONIC DOCUMENT ARCHIVE, 2000 http://leda.law.harvard.edu/leda/data/36/MAGDO.pdf. Industrial designs continue to be the subject of many bills, but Congress has explicitly excluded fashion works from these bills; for example, the Industrial Design Anti-Piracy Act of 1989. Industrial Design Anti-Piracy Act of 1989, H.R. 3017, 101st Cong. (1989).

¹⁵⁴ See supra note 61 and accompanying text.

veritable grant of monopoly over a basic T-shirt design, but rather only to the unique artistic compilation of elements, added texture, and detail of any particular fashion design. Moreover, others are free to license the design from the original author to make copies or derivative works, and where not commercially viable, the design will likely fall into the public domain for free use.

However, clothing and fashion designs would require a different duration of protection. Clothing is seasonal, and trends and artistic originality tend to move in and out of the consumer consciousness rapidly. Therefore, a grant of exclusive rights for the 1976 Act's duration of life of the author plus 70 years, ¹⁵⁶ or 120 years from creation for anonymous works or works for hire, ¹⁵⁷ would be a de facto monopoly. Academics have pushed for a shorter duration of protection for fashion designs, thereby securing protection and incentive without inordinately sacrificing use. ¹⁵⁸ In any event, copyright law appears to be the appropriate medium of protection of original fashion designs, with trademark serving as a supplement to address unfair business competition as applied to fashion designs.

V. Conclusion

In its current state, intellectual property law, including copyright law and trademark law, inconsistently and perhaps arbitrarily grants exclusive rights in certain fashion designs while wholly excluding many other designs. Where copyright law has failed to protect fashion designs, designers sought to use trademark and trade dress law to protect their creations. Even so, trademark law served to protect only registered marks used by the designer and not the design as a whole. In addition, the extension of trade dress generally protected only the most recognizable of designs and was often inconsistently applied to even the most famous of brand names. Therefore, fashion designers have few legal rights to protect their original creations under the current laws.

While copyright law and trademark law protect very few qualifying designs, the near-wholesale exclusion of most other designs used to be justifiable based on the fact that designers generally enjoyed the benefits of being the first providers of the garment. In the past, the amount of time required for a competitor to copy and offer a counterfeit or knockoff effectively secured sufficient commercial benefits

¹⁵⁶ See 17 U.S.C. § 302(a)–(b) (2006).

¹⁵⁷ See 17 U.S.C. § 302(c).

¹⁵⁸ See, e.g., Nurbhai, supra note 3, at 517 (advocating a one-year term of protection); Schmidt, supra note 4, at 877 (advocating a one-year term for apparel design protection).

for the original designer as the sole provider of the garment until competing items could be designed and manufactured. This limited period of exclusivity promoted continued innovation in fashion design by incentivizing designers with the promise of obtaining the benefit of their work and creativity. However, technology has evolved to the extent that designs can now be purloined and placed in competition with the original almost instantaneously. As such, designers no longer have the promise of a limited period of time as the exclusive provider of a particular fashion design.

Accordingly, copyright law should be extended to include protection for fashion designs. In doing so, the original artistic creations of a fashion designer are adequately protected, thus securing the continued ability of the designer to control and reap the benefit of the design prior to use by others in derivative works. Trademark and trade dress law reiterates the importance of securing the commercial benefits of goodwill and reputation for a designer. Absent this incentive, fashion designers may fail to continue providing new apparel designs, thereby contravening the purpose of copyright law to encourage the useful arts. Copyright law requires a minimum of originality, and this requisite is ostensibly met by even the least creative of designers who assemble existing elements in a new manner. The fact that fashion designers satisfy the originality requirement is evident in the consumer valuation of garment designs, which now focuses primarily upon appearance, style, and image as opposed to function. The only bar would then be copyright's general prohibition against inherently useful items.

As it stands, copyright law fails to protect fashion designs as a form of original authorship. Instead, copyright law allows fashion designs to fall into the abyss of the public sphere without any semblance of safeguards for the original creative expression of designers. Since fashion designs have both aesthetic and functional purposes, copyright should extend protection to the design elements both functional and aesthetic in combination, so that others cannot piggyback upon the popularity of a designer and deprive the originator of the benefits of creating the garment.

Particularizing Patent Pleading: Pleading Patent Infringement in a Post-*Twombly* World

Jonathan L. Moore*

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The Supreme Court's recent jurisprudence has reinvigorated the role of pleading in civil litigation. As a result, in order to survive a motion to dismiss, plaintiffs must now include more detailed allegations that demonstrate a plausible entitlement to relief.

This article examines how these changes interact with the pleading requirements for patent infringement litigation. In recent years, the number of patent infringement lawsuits has increased dramatically, in part because of lax notice pleading requirements. This patent litigation explosion imposes exorbitant costs on defendants and has a detrimental effect on innovation.

As courts begin to apply the new plausibility pleading regime, this article argues that they should seize the opportunity to rein in abusive patent litigation by requiring particularized allegations of infringement. Adopting this regime effectuates Twombly and Iqbal, reduces the number of nuisance-value patent infringement suits, and begins to address the problems that cause the patent system to inhibit, rather than promote, progress in science and the useful arts.

I. Introduction

The theory behind the patent system in the United States is simple. In exchange for disclosing a novel, non-obvious, and useful invention to the public, an inventor receives the ability to exclude others from using that invention for twenty

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years.¹ This "carefully crafted bargain"² is supposed to stimulate innovation and "promote the [p]rogress of [s]cience and useful [a]rts."³

The operation of the patent system, however, is anything but simple. For a patent to issue, an application must endure a lengthy and complicated examination process by the Patent and Trademark Office.⁴ If a patent is eventually obtained, it does not guarantee its holder the right to practice the patented invention.⁵ Instead, a patent's economic value is derived solely from the right to exclude others.⁶ The

- ³ U.S. CONST. art. 1, § 8 ("The Congress shall have Power . . . To promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries"); *see* Graham v. John Deere Co., 383 U.S. 1, 5– 6 (1966).
- ⁴ See 35 U.S.C. § 131 (2006) ("The Director shall cause an examination to be made of the application and the alleged new invention; and if on such examination it appears that the applicant is entitled to a patent under the law, the Commissioner shall issue a patent therefor[e]."). See generally Michael Risch, The Failure of Public Notice in Patent Prosecution, 21 HARV. J.L. & TECH. 179, 182–84 (2007) (summarizing the patent prosecution process). For a more extensive discussion of this process, see 4 DONALD S. CHISUM, CHISUM ON PATENTS § 11.03 (2008).
- See 35 U.S.C. § 154(a)(1) (2006); see also Clair v. Kastar, Inc., 138 F.2d 828, 831 (2d Cir. 1943) (Hand, J.) ("[I]t is scarcely necessary at this day once more to expose the fallacy that a patent gives any right to the patentee to practice his disclosure. It merely enables him to stop others from practising it."); JAMES BESSEN & MICHAEL J. MEURER, PATENT FAILURE: How JUDGES, BUREAUCRATS, AND LAWYERS PUT INNOVATORS AT RISK 4 (2008) ("Patents do not actually provide an affirmative right to market an invention; they provide only a right to exclude others from doing so.").
- See 35 U.S.C. § 154(a)(1) ("Every patent shall contain a short title of the invention and a grant to the patentee, his heirs or assigns, of the right to exclude others"); see also Smith Int'l, Inc. v. Hughes Tool Co., 718 F.2d 1573, 1577 (Fed. Cir. 1983) ("The grant of a patent is the grant of the right to invoke the state's power in order to exclude others from utilizing the patentee's discovery without his consent."); Little Mule Corp. v. Lug All Co., 254 F.2d 268, 272–73 (5th Cir. 1958) ("[I]t must be remembered that a patent is not the granting of a right to make, use, or sell. It grants only the right to exclude others from making, using or selling the patented device."); Chicago & Alton Ry. Co. v. Pressed Steel Car Co., 243 F. 883, 890 (7th Cir. 1917) ("[A] patent conveys nothing but a negative right of exclusion. It is the right to exclude others, but not the natural right to make, use, and sell, which the patentee obtains from his general ownership of the materials employed, not from the government.").

¹ See 35 U.S.C. § 154(a) (2006); see also id. §§ 101–103 (stating the requirements for patentability); Pfaff v. Wells Elecs., Inc., 525 U.S. 55, 63 (1998).

² Pfaff, 525 U.S. at 63; Bonito Boats, Inc. v. Thunder Craft Boats, Inc., 489 U.S. 141, 150 (1989).

only way for a patent holder to prevent others from violating, or "infringing," a patent is to assert it in litigation.⁷

Patent infringement litigation, however, is out of control. Not only has the number of filed patent infringement cases increased dramatically in recent years, but each case requires a tremendous amount of time and money to resolve.⁸ High costs, lengthy time commitments, and uncertainty combine to create incentives for defendants to settle patent infringement cases early, even if a case is meritless.⁹ As a result, instead of incentivizing innovation, the current system encourages rent-seeking behavior from patent holders.¹⁰

While countless articles have outlined this problem, the proposed solutions vary significantly. Some commentators propose structural solutions, such as creating specialized trial courts to hear patent cases.¹¹ Others propose doctrinal reforms, such as altering the Federal Circuit's approach to claim construction.¹² Scarce attention has been paid, however, to the role that changes in civil procedure could play in mitigating the challenges of modern patent litigation in the United States.

This article will explore changes to the pleading requirements for patent infringement actions. In theory, the Federal Rules of Civil Procedure establish a minimal pleading requirement for all civil actions.¹³ Indeed, the appendix of official forms following the rules demonstrate that a patent infringement complaint only needs to include brief conclusory allegations, such as cursory statements about

- ¹⁰ See, e.g., Michael J. Meurer, Controlling Opportunistic and Anti-Competitive Intellectual Property Litigation, 44 B.C. L. REV. 509, 509 (2003).
- ¹¹ See, e.g., Arti K. Rai, Engaging Facts and Policy: A Multi-Institutional Approach to Patent System Reform, 103 COLUM. L. REV. 1035 (2003); Craig Allen Nard & John F. Duffy, Rethinking Patent Law's Uniformity Principle, 101 NW. U. L. REV. 1619 (2007).
- ¹² See, e.g., Judge James F. Holderman & Halley Guren, The Patent Litigation Predicament in the United States, 2007 U. ILL. J.L. TECH. & POL'Y 1; Craig Allen Nard, A Theory of Claim Interpretation, 14 HARV. J.L. & TECH. 1 (2000).
- ¹³ See FED. R. CIV. P. 8(a); see also infra Part II.A.

⁷ See 35 U.S.C. § 281 (2006) ("A patentee shall have remedy by civil action for infringement of his patent.").

⁸ See infra Part I.B.

⁹ See, e.g., Ranganath Sudarshan, Nuisance-Value Patent Suits: An Economic Model and Proposal, 25 SANTA CLARA COMPUTER & HIGH TECH. L.J. 159, 159–60 (2009).

the ownership of the patent, manner of infringement, and that the patentee provided notice to the alleged infringer.¹⁴

In a series of recent decisions, however, the Supreme Court revised this traditional pleading standard.¹⁵ These decisions require plaintiffs to plead facts that "nudge[] their claims across the line from conceivable to plausible."¹⁶ It remains unclear how this new pleading regime will apply to patent infringement actions or interact with the appendix of forms, which, by rule, sufficiently plead a cause of action.¹⁷

This article's thesis is that in light of the current patent litigation predicament, patent infringement actions should be held to a heightened pleading requirement, beyond that espoused by the Supreme Court in *Twombly* and *Iqbal* and approaching the particularity required by Federal Rule of Civil Procedure 9(b). Practically, this change would require a patent holder to plead particularized facts to support an infringement claim, such as the specific act of infringement or infringing product, how it infringes the patent, and what claims of the patent those actions infringe.

Part I provides an overview of patent infringement litigation in the United States and its substantial costs. Part II outlines modern pleading practice in civil litigation, how this translates to patent cases, and how notice pleading facilitates nuisance-value infringement claims. Finally, Part III discusses heightened pleading and how its application in the infringement context can address the unique challenges presented by patent litigation.

II. The Current Patent Litigation Predicament

A. What is Patent Infringement?

Patents give their holders the right to exclude others for a twenty-year period.¹⁸ The rights bestowed by a patent are defined by a patent's "claims"—

¹⁷ See FED. R. CIV. P. 84.

¹⁸ See 35 U.S.C. § 154(a) (2006).

¹⁴ *See* FED. R. CIV. P. Form 18.

¹⁵ See Ashcroft v. Iqbal, 129 S. Ct. 1937 (2009); Bell Atl. Corp. v. Twombly, 550 U.S. 544 (2007).

¹⁶ Twombly, 550 U.S. at 570. Accord Iqbal, 129 S. Ct. at 1950–51 (quoting and applying this language from Twombly).

densely worded single sentences at the end of the patent document.¹⁹ These rights can be infringed in two ways: directly and indirectly.

An alleged infringer is directly liable for infringement when, during the patent's term, the patented invention is made, used, offered to be sold, or sold without authority in the United States.²⁰ Direct liability also arises under the doctrine of equivalents. According to this doctrine, if a product or process does not literally infringe the patent, the alleged infringer will nonetheless be liable "if there is 'equivalence' between the elements of the accused product or process and the claimed elements of the patented invention."²¹

Individuals can also be subject to indirect, or secondary, liability for the infringement of others. Secondary infringement occurs when someone induces infringement of a patent,²² which requires that "an alleged infringer knowingly induce[] another to commit an infringing act."²³ In the case of process patents,

- ²⁰ See 35 U.S.C. § 271(a) (2006); see also Joy Techs., Inc. v. Flakt, Inc., 6 F.3d 770, 773 (Fed. Cir. 1993) (noting that "[t]he making, using, or selling of a patented invention is the usual meaning of the expression 'direct infringement'"); Tex. Instruments, Inc. v. U.S. Int'l Trade Comm'n, 805 F.2d 1558, 1562 (Fed. Cir. 1986) ("Literal infringement requires that the accused device embody every element of the claim as properly interpreted.").
- ²¹ Warner-Jenkinson Co. v. Hilton Davis Chem. Co., 520 U.S. 17, 21 (1997); see also Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co., 535 U.S. 722, 733 (2002) ("The doctrine of equivalents allows the patentee to claim those insubstantial alterations that were not captured in drafting the original patent claim but which could be created through trivial changes."). For a thorough discussion of the doctrine of equivalents, including its historical roots and development over time, see generally 5 CHISUM, supra note 4, § 18.02.

²² See 35 U.S.C. § 271(b). See generally Mark A. Lemley, Inducing Patent Infringement, 39 U.C. DAVIS L. REV. 225 (2005) (outlining inducement law).

²³ E.g., Alloc, Inc. v. Int'l Trade Comm'n, 342 F.3d 1361, 1374 (Fed. Cir. 2003); see also PharmaStem Therapeutics, Inc. v. ViaCell, Inc., 491 F.3d 1342, 1357 (Fed. Cir. 2007) (stating that "a person who provides a service that assists another in committing patent infringement may be subject to liability under section 271(b) for active inducement of infringement"); Minn. Mining & Mfg. Co. v. Chemque, Inc., 303 F.3d 1294, 1304–05 (Fed. Cir. 2002) ("In order to succeed on a claim of inducement, the patentee must show, first that there has been direct infringement . . . and

second that the alleged infringer knowingly induced infringement and possessed specific intent to encourage another's infringement." (citations omitted)).

¹⁹ See id. § 112; U.S. PATENT & TRADEMARK OFFICE, MANUAL OF PATENT EXAMINING PROCEDURE § 608.01(m) (7th rev. ed. 2008) (requiring claims to be in a single sentence); Christopher A. Co-tropia, Patent Claim Interpretation Methodologies and Their Claim Scope Paradigms, 47 WM. & MARY L. REV. 49, 53–54 (2005).

liability can arise from contributing to the infringement of a patent.²⁴ Both of these forms of secondary liability require proof of direct infringement by others.²⁵

The primary method of holding an infringer accountable, and enforcing a patentee's rights, is through litigation.²⁶ The patent system is designed to deter infringement by ensuring that infringers have a lot to lose—they can be subject to potentially broad remedies including treble damages,²⁷ injunctive relief,²⁸ and attorney's fees.²⁹ Patentees are encouraged to file suit soon after they become aware of infringing activity because failure to bring a timely action can often preclude enforcement of the patent altogether.³⁰ These characteristics ensure that the patent system is self-regulating.

- ²⁶ See 35 U.S.C. § 281 (2006); James Bessen & Michael J. Meurer, Lessons for Patent Policy from Empirical Research on Patent Litigation, 9 LEWIS & CLARK L. REV. 1, 9 (2005) [hereinafter Bessen & Meurer, Lessons] (noting that "the patent premium flows from patent litigation, or, more typically, the threat of litigation").
- ²⁷ 35 U.S.C. § 284 (2006); see also King Instruments Corp. v. Perego, 65 F.3d 941, 950 (Fed. Cir. 1995) ("Thus, the Patent Act creates an incentive for innovation. The economic rewards during the period of exclusivity are the carrot. The patent owner expends resources in expectation of receiving this reward. Upon grant of the patent, the only limitation on the size of the carrot should be the dictates of the marketplace. Section 284 attempts to ensure this result by deterring infringers and recouping market value lost when deterrence fails.").
- ²⁸ See 35 U.S.C. § 283 (2006) ("The several courts having jurisdiction of cases under this title may grant injunctions in accordance with the principles of equity to prevent the violation of any right secured by patent, on such terms as the court deems reasonable."); see also eBay Inc. v. MercExchange, L.L.C., 547 U.S. 388, 391–92 (2006) (outlining the equitable principles a court should consider when determining whether injunctive relief is appropriate).
- ²⁹ See 35 U.S.C. § 285 (2006) (allowing "reasonable" attorney fees "in exceptional cases").
- ³⁰ See, e.g., A.C. Aukerman Co. v. R.L. Chaides Constr. Co., 960 F.2d 1020, 1032–34 (Fed. Cir. 1992) (en banc) (discussing the application of the equitable doctrine of laches to patent infringement actions); State Contracting & Eng'g Corp. v. Condotte Am., Inc., 346 F.3d 1057, 1065 (Fed. Cir. 2003) ("To successfully invoke laches, a defendant must prove that the plaintiff delayed filing suit an unreasonable and inexcusable length of time after the plaintiff knew or reasonably should have known of its claim against the defendant and that the delay resulted in material prejudice to

See 35 U.S.C. § 271(c); see also Metro-Goldwyn-Mayer Studios Inc. v. Grokster, Ltd., 545 U.S. 913, 932 (2005) ("The doctrine was devised to identify instances in which it may be presumed from distribution of an article in commerce that the distributor intended the article to be used to infringe another's patent, and so may justly be held liable for that infringement.").

²⁵ See, e.g., Deepsouth Packing Co. v. Laitram Corp., 406 U.S. 518, 526 (1972) ("But it is established that there can be no contributory infringement without the fact or intention of a direct infringement."); Kinetic Concepts, Inc. v. Blue Sky Med. Group, Inc., 554 F.3d 1010, 1024 (Fed. Cir. 2009).

B. The Costs of Patent Infringement Litigation

In recent years, there has been a marked influx in the number of patents issued by the Patent and Trademark Office.³¹ In 2008 alone, 182,556 patents were issued.³² These patents were issued from the almost five hundred thousand patent applications that were filed in 2008—the most applications *ever* filed with the PTO in a year.³³ Both the number of patent applications and patents issued is significantly higher than at any time in the history of the U.S. patent system.³⁴

In light of the increase in the number of issued patents, it should come as no surprise that the number of patent infringement actions filed to enforce these rights has also dramatically increased.³⁵ For example, the probability that a patent will be involved in litigation within four years of its issuance is surging—more than double

- ³¹ See, e.g., BESSEN & MEURER, supra note 5, at 68 (noting that "over the last two decades the number of patent rights has proliferated dramatically"); Mark A. Lemley, *Ignoring Patents*, 2008 MICH. ST. L. REV. 19, 19 ("More than 2.5 million United States patents have been issued in the last twenty years.").
- ³² U.S. PATENT & TRADEMARK OFFICE, PERFORMANCE AND ACCOUNTABILITY REPORT: FISCAL YEAR 2009, at 112 tbl.1 (2009), available at http://www.uspto.gov/about/stratplan/ar/2009/ 2009annualreport.pdf. According to preliminary data from the PTO, an even higher number of patents (190,121) were issued in fiscal year 2009. Id.
- ³³ See id.; see also U.S. PATENT & TRADEMARK OFFICE, U.S. PATENT ACTIVITY: CALENDAR YEARS 1790 TO THE PRESENT (2009), available at http://www.uspto.gov/web/offices/ac/ido/oeip/taf/h_counts.pdf (providing historical data on the number of patent applications filed with the PTO). The number of patent applications has tripled since 1980. See BESSEN & MEURER, supra note 5, at 69.
- ³⁴ See, e.g., Ian Ayres & Gideon Parchomovsky, *Tradable Patent Rights*, 60 STAN. L. REV. 863, 864 (2007) (noting the "unprecedented proliferation of patents" in recent years).
- ³⁵ See, e.g., DAN L. BURK & MARK A. LEMLEY, THE PATENT CRISIS AND HOW THE COURTS CAN SOLVE IT 26 (2009) ("The flood of patents has been accompanied by a flood of patent lawsuits."); ADAM B. JAFFE & JOSH LERNER, INNOVATION AND ITS DISCONTENTS: HOW OUR BROKEN PATENT SYSTEM IS ENDANGERING INNOVATION AND PROGRESS, AND WHAT TO DO ABOUT IT 13–16 (2004) (discussing the "patent litigation explosion"); Jay P. Kesan & Gwendolyn G. Ball, *How are Patent Cases Resolved? An Empirical Examination of the Adjudication and Settlement of Patent Disputes*, 84 WASH. U.L. REV. 237, 250 (2006) ("For most of the past twenty years, the number of patent suits grew at a rapid rate that largely paralleled the growth in the total number of patents."); Jean O. Lanjouw & Mark Schankerman, *Protecting Intellectual Property Rights: Are Small Firms Handicapped*?, 47 J.L. & ECON. 45, 56 (2004).

the defendant."); see also 35 U.S.C. § 286 (2006) ("Except as otherwise provided by law, no recovery shall be had for any infringement committed more than six years prior to the filing of the complaint or counterclaim for infringement in the action."). For background on this doctrine, see generally Eric W. Guttag, Laches and Estoppel: The Patentee Who Procrastinates in Filing Suit May Be Lost, 31 AIPLA Q.J. 47 (2003).

what it was in 1984.³⁶ Overall, since the 1980s, patent litigation has undergone steady and unparalleled growth.³⁷

More specifically, according to recent data from the Administrative Office of U.S. Courts, from September 2008 to September 2009, almost 3,000 patent infringement suits were filed.³⁸ At the end of this period, almost 3,500 suits remained pending.³⁹ The number of suits filed represents a four percent decrease from 2008, but is less than the thirteen percent drop in intellectual property suits generally.⁴⁰

This growing body of cases is different from other civil actions. Most relevant for purposes of this article are the unique costs associated with patent litigation. Specifically, these costs come in three varieties: legal costs, innovation costs, and business costs.

1. Legal Costs

Patent litigation is expensive. According to the American Intellectual Property Law Association, the legal costs of a patent infringement action range from \$600,000 to \$5 million, depending on the patentee's potential recovery.⁴¹ In light of these significant legal costs, it is no surprise that one survey found that litigation costs are the number one concern for a company faced with a patent infringement suit.⁴²

³⁹ *Id.* at 200 tbl.C-11.

⁴⁰ *Id.* at 146 tbl.C-2A.

⁴² See Fulbright & JAWORSKI, L.L.P., FOURTH ANNUAL LITIGATION TRENDS SURVEY FINDINGS 45 (2007), available at http://www.fulbright.com/mediaroom/files/2007/FJ6438-LitTrends-v13.pdf.

³⁶ BESSEN & MEURER, *supra* note 5, at 129 & fig.6.3.

³⁷ BESSEN & MEURER, *supra* note 5, at 127; Lanjouw & Schankerman, *supra* note 35, at 46 (noting the "very rapid growth in patent litigation over the past [two] decades, during which the number of patent suits increased almost [ten]-fold"); Gauri Prakash-Canjels, *Trends in Patent Cases: 1990– 2000*, 41 IDEA 283, 284 (2001) (showing that from 1991 to 2000, the total number of filed patent infringement cases increased by 111%).

³⁸ ADMIN. OFFICE OF THE U.S. COURTS, 2009 ANNUAL REPORT OF THE DIRECTOR: JUDICIAL BUSINESS OF THE UNITED STATES COURTS 146 tbl.C-2A (2010), available at http://www.uscourts.gov/ judbus2009/JudicialBusinespdfversion.pdf [hereinafter 2009 ANNUAL REPORT]. Specifically, 2,792 patent cases were filed during this period. Id.

⁴¹ See AM. INTELLECTUAL PROP. LAW ASS'N, REPORT OF THE ECONOMIC SURVEY 2007, at 25 (2007).

Several factors contribute to these high legal fees. First, patent cases are extremely complex.⁴³ They involve two layers of complexity: highly technical legal doctrines and procedures, plus the application of these substantive principles to complex technologies.⁴⁴ For example, as part of every infringement suit, a court must interpret the scope of a patent's claims.⁴⁵ This hearing, called a *Markman* hearing, typically occurs prior to trial, and requires a judge to analyze the patent itself and the underlying technology to define what specific words or phrases in the patent's claims mean.⁴⁶ Such underlying complexity, both procedurally and substantively, is pervasive throughout patent litigation.⁴⁷

An additional factor driving up litigation costs is the length of time it takes to resolve patent cases.⁴⁸ Pretrial discovery and motions practice frequently take

⁴³ See, e.g., Hon. S. Jay Plager, Abolish the Court of Federal Claims? A Question of Democratic Principle, 71 GEO. WASH. L. REV. 791, 796–97 (2003) (noting "the obscurities and peculiarities of patent law and the complexities of new technology"); Benjamin Hershkowitz & Michael Schiffer, Are Patent Cases Too Complex?, PAT. STRATEGY & MGMT., July 2006, at 3 (noting that "patent law is generally acknowledged as one of the more complex bodies of law").

⁴⁴ See, e.g., PETER S. MENELL ET AL., PATENT CASE MANAGEMENT JUDICIAL GUIDE xxix (Lexis 2009), available at http://www.fjc.gov/public/pdf.nsf/lookup/patent01.pdf/\$file/patent01.pdf ("Patent cases feature complex and dynamic technological facts to a degree rarely encountered in most other areas of litigation."); Robin Feldman, *Plain Language Patents*, 17 TEX. INTELL. PROP. L.J. 289, 290 (2009) ("Nowhere is this dialogue more challenging than at the intersection where law and science interact in the form of patents. When the subject of the case is wrapped in complex and unfamiliar terms, it is tremendously difficult for legal actors to grapple with the theoretical content of the dispute.").

⁴⁵ See, e.g., Markman v. Westview Instruments, Inc., 517 U.S. 370, 372 (1996) (holding that "the construction of a patent, including terms of art within its claim, is exclusively within the province of the court"). Because judges construe claims, claim construction is reviewed on appeal without deference using a de novo standard. See, e.g., Cybor Corp. v. FAS Techs., Inc., 138 F.3d 1448, 1456 (Fed. Cir. 1998) (en banc).

⁴⁶ See, e.g., Mark A. Lemley, The Changing Meaning of Patent Claim Terms, 104 MICH. L. REV. 101, 101–02 (2005); Kelly Casey Mullally, Patent Hermeneutics: Form and Substance in Claim Construction, 59 FLA. L. REV. 333, 336–37 (2007).

⁴⁷ See, e.g., Hershkowitz & Schiffer, *supra* note 43, at 3 ("Patent cases . . . involve particularly complex issues of law and procedure."). In fact, Justice Scalia, during oral argument in a case discussing one of the criteria for patentability, non-obviousness, described the doctrine as "gobbledy-gook." Transcript of Oral Argument at 41, KSR Int'l Co. v. Teleflex, Inc., 550 U.S. 398 (2007) (No. 04-1350), available at 2006 WL 3422210.

⁴⁸ See, e.g., BESSEN & MEURER, supra note 5, at 131–32 (discussing how legal costs increase as litigation progresses). Because of the costs associated with patent litigation, a significant number of these cases settle quickly. See infra Part I.C; see also Kesan & Ball, supra note 35, at 272 (stating that "the vast majority of [patent infringement] cases settle").

months, if not years, to complete.⁴⁹ Discovery drags out, in part because the highly confidential proprietary information typically requested in infringement cases generates highly contentious relations between the parties, often resulting in numerous discovery-related motions.⁵⁰ The volume of discovery also contributes to these delays, as patent cases usually necessitate at least ten depositions and well over a hundred document requests reaching into the entirety of a party's business.⁵¹ As a result, discovery and pretrial proceedings alone entail substantial legal fees.⁵²

Of the infringement cases that go to trial, in one-third of them, the trial occurs over three years from the date that the plaintiff filed the complaint.⁵³ Twelve percent take over five years to reach trial.⁵⁴ Further, at the end of September 2009, almost 400 patent cases had been pending for three years or more.⁵⁵ Overall, this complexity and duration makes defending against patent infringement litigation an expensive endeavor.

2. Innovation Costs

Patent infringement suits have additional costs beyond the legal fees that an alleged infringer must incur to defend them. First, when faced with an infringement claim, inventors may choose to alter their research or products to simply

⁵⁰ See MENELL ET AL., supra note 44, at 4-2.

⁵¹ See MENELL ET AL., supra note 44, at 4-3 to 4-5.

⁴⁹ See, e.g., Holderman & Guren, supra note 12, at 10; JAFFE & LERNER, supra note 35, at 109 ("Because of this pre-trial process, it is not unusual for months or even years to pass between the filing of a complaint and a decision at the district court level.").

See, e.g., MENELL ET AL., supra note 44, at 4-3 (noting that document production alone "can rapidly escalate into the millions of dollars"); Holderman & Guren, supra note 12, at 10 ("[P]reparing and briefing a motion for summary judgment in a patent case in the district court could cost the parties hundreds of thousands of dollars."); Kesan & Ball, supra note 35, at 310 (stating that "much of the expense associated with patent litigation occurs long before the parties appear before a jury").

⁵³ See PRICEWATERHOUSECOOPERS, PATENT LITIGATION TRENDS AND THE INCREASING IMPACT OF NONPRACTICING ENTITIES 15 (2009), available at http://www.pwc.com/us/en/forensicservices/publications/assets/2009-patent-litigation-study.pdf. There are "significant variations" among districts. Id. at 17. For example, the Eastern District of Virginia's median time-to-trial was only 0.88 years from 1995 to 2008. Id. By contrast, the District of Connecticut has a median time-to-trial of 4.66 years. Id. at 18. These figures include both bench and jury trials. Id. at 15.

⁵⁴ See id. at 15.

⁵⁵ 2009 ANNUAL REPORT, supra note 38, at 58 tbl.S-11.

avoid the scope of the asserted patent.⁵⁶ If inventors cannot easily design around a patent that has been asserted against them, the threat of a lengthy lawsuit may be enough to cause them to cease research or the manufacture of a product or technology entirely.⁵⁷

Further, if an infringement suit is filed, the disruption may force a company to put research on hold until the litigation has been resolved, delaying potentially important development.⁵⁸ Litigation costs may also eat up resources that could have gone to research and development.⁵⁹ For these reasons, an infringement suit has the potential to negatively effect innovation generally.⁶⁰ These innovation costs are significant in light of the patent system's purpose of incentivizing innovation.⁶¹

3. Business Costs

Patent infringement suits also impose a variety of business costs on an alleged infringer. Initially, like any lawsuit, patent litigation disrupts a business's operations.⁶² Employees will be called to give depositions, personnel will need to be allocated to gather and provide documents, and time will have to be set aside to dis-

⁵⁶ See, e.g., Mark A. Lemley, Rational Ignorance at the Patent Office, 95 Nw. U. L. REV. 1495, 1517 (2001) [hereinafter Lemley, Rational Ignorance]; Nard, supra note 12, at 40.

⁵⁷ See JAFFE & LERNER, supra note 35, at 76 (noting that "[e]ven the threat of being forced to defend against patent infringement will, in many cases, compel companies to . . . abandon particular products"); Ayres & Parchomovsky, supra note 34, at 873; Gerard N. Magliocca, Blackberries and Barnyards: Patent Trolls and the Perils of Innovation, 82 NOTRE DAME L. REV. 1809, 1828–29 (2007); Nard, supra note 12, at 40 (noting that inventors will decide to avoid research when "the risks associated with improvement activity are too great"). As one commentator noted, however, "this is an unusual reaction." Lemley, Rational Ignorance, supra note 56, at 1517.

⁵⁸ See, e.g., BESSEN & MEURER, supra note 5, at 133 (discussing an example of how infringement litigation delayed research and development at a start-up microprocessor firm).

⁵⁹ JAFFE & LERNER, supra note 35, at 14. Further, nuisance-value settlements for a license to use the patented technology require an alleged infringer to pay money that could have gone toward research and development. Christopher A. Harkins, Fending Off Paper Patents and Patent Trolls: A Novel "Cold Fusion" Defense Because Changing Times Demand It, 17 ALB. L.J. SCI. & TECH. 407, 438 (2007).

⁶⁰ BESSEN & MEURER, *supra* note 5, at 141–42.

⁶¹ BESSEN & MEURER, *supra* note 5, at 141–42; *see also supra* notes 1–2 and accompanying text.

⁶² E.g., BESSEN & MEURER, supra note 5, at 132.

cuss the matter with an attorney.⁶³ Unlike other types of litigation, however, the expansive nature of discovery in patent cases exacerbates these disruptive effects.⁶⁴

The financial costs of patent litigation have additional consequences for an alleged infringer. A pending infringement suit may affect a company's ability to obtain credit or, at a minimum, increase its credit costs.⁶⁵ Investors may be hesitant to purchase a particular product or a company's stock if an infringement suit threatens to either shut the company down or prevent it from using a specific process or product.⁶⁶ For example, empirical data shows that the stock market negatively reacts to the announcement of a patent infringement suit.⁶⁷ Even if the alleged infringement pertains only to a component, if the overall product is a technology that requires significant investment, customers will be wary of making that investment because of the pending suit.⁶⁸ Thus, a company faces a variety of costs when confronted with allegations of patent infringement.⁶⁹

C. Resulting Behavioral Effects

The significant costs associated with patent infringement litigation have several real-world effects on the behavior of both patentees and alleged infringers. Because of these costs, an alleged infringer has an incentive to quickly settle an infringement claim, typically by purchasing a license to use the patented technology,

⁶³ See, e.g., JAFFE & LERNER, supra note 35, at 14 (noting the "substantial indirect costs associated with patent litigation," including the costs of extensive document production and making employees available for "time-consuming depositions"); John R. Allison et al., Valuable Patents, 92 GEO. L.J. 435, 441 (2004) (noting that litigation costs for patent cases do not take into account "other costs in lost employee productivity and uncertainty"); Lemley, Rational Ignorance, supra note 56, at 1502 (noting the "indirect social costs" of patent litigation, "such as . . . the value of the time lost by corporate employees involved in the case").

- ⁶⁴ See MENELL ET AL., supra note 44, at 4-2 to 4-4.
- ⁶⁵ BESSEN & MEURER, *supra* note 5, at 132.
- ⁶⁶ BESSEN & MEURER, *supra* note 5, at 133.
- ⁶⁷ BESSEN & MEURER, *supra* note 5, at 133–37; *see also* Harkins, *supra* note 59, at 444 (noting that a company "may lower its stock prices if it takes a chance on trial instead of an early settlement").

⁶⁹ BESSEN & MEURER, *supra* note 5, at 140.

⁶⁸ See BESSEN & MEURER, supra note 5, at 133; Harkins, supra note 59, at 437.

rather than take the case to trial.⁷⁰ For patentees, these costs create incentives to engage in rent-seeking behavior.⁷¹

Specifically, high litigation costs create incentives for patentees to file nuisance-value infringement claims.⁷² In recent years, nuisance-value patent suits have become a "daily fact of life for most corporate legal departments."⁷³ In fact, the increasing prevalence of these suits has led to some commentators describing them as the newest form of the "slip and fall,"⁷⁴ an "innovation tax,"⁷⁵ and as "the business model of the new millennium."⁷⁶ When faced with these suits, companies often quickly settle, even if meritorious defenses exist.⁷⁷ As a result, patentees begin to more aggressively assert their patents, and this cycle becomes selfperpetuating.⁷⁸

One highly publicized group of patentees that engage in such rent-seeking behavior is the so-called "patent troll."⁷⁹ The definition of this group varies tremen-

- ⁷⁴ Sheri Qualters, More Firms Fight Nuisance Patent Claims, BOSTON BUS. J., June 6, 2003, available at http://www.bizjournals.com/boston/stories/2003/06/09/story3.html.
- ⁷⁵ JAFFE & LERNER, *supra* note 35, at 16.
- ⁷⁶ Mark A. Lemley, Ten Things to Do About Patent Holdup of Standards (and One Not to Do), 48 B.C. L. REV. 149, 155 (2007) [hereinafter Lemley, Ten Things].
- ⁷⁷ See, e.g., Harkins, supra note 59, at 437; Sudarshan, supra note 9, at 160.
- ⁷⁸ See, e.g., Gibson, supra note 70, at 928–31; Debra Koker, Fulfilling the "Due Care" Requirement After Knorr-Bremse, 11 B.U. J. SCI. & TECH. L. 154, 158–59 n.50 (2005); Sudarshan, supra note 9, at 171–72.
- ⁷⁹ See, e.g., Magliocca, supra note 57, at 1810 (noting that "patent troll" is "a derogatory term for firms that use their patents to extract settlements rather than license or manufacture technology"); Rantanen, supra note 70, at 165 (noting that the group of rent-seeking patentees "encompasses,

⁷⁰ See, e.g., James Gibson, Risk Aversion and Rights Accretion in Intellectual Property Law, 116 YALE L.J. 882, 929–30 (2007); Kesan & Ball, supra note 35, at 280; Lanjouw & Schankerman, supra note 35, at 56 ("About 95 percent of all patent suits are settled by the parties before the end of trial, and most of those before the trial begins . . ."); Lemley, Rational Ignorance, supra note 56, at 1517–18; Jason Rantanen, Slaying the Troll: Litigation as an Effective Strategy Against. Patent Threats, 23 SANTA CLARA COMPUTER & HIGH TECH. L.J. 159, 163 (2006); Sudarshan, supra note 9, at 159–60.

⁷¹ See, e.g., Meurer, supra note 10, at 509.

⁷² See, e.g., Harkins, supra note 59, at 437; Sudarshan, supra note 9, at 172 ("Perhaps the greatest factor contributing to the existence of nuisance-value patent suits is the high cost of patent litigation.").

⁷³ Sudarshan, *supra* note 9, at 160.

dously.⁸⁰ Generally, however, the term refers to companies or individuals, usually non-practicing entities, who use a patent to extract rents from producers in a given field.⁸¹ This rent-seeking behavior is enabled, in part, by the proliferation of patents with dubious validity.⁸²

Regardless of how a patentee who brings a nuisance-value suit is described, several factors provide incentives for an alleged infringer to quickly settle. First, an alleged infringer has a lot on the line—the remedies available for patent infringement are substantial and far-reaching.⁸³ If a patentee prevails, defendants can be subject to high damage awards or even an injunction shutting down their business.⁸⁴ An injunction, in particular, has a high "negotiation value" because it would require an alleged infringer to stop selling and producing the infringing product immediately.⁸⁵ As one commentary noted, these potential remedies "encourage[] patent owners to roll the dice of litigation in hopes of reaping a large reward."⁸⁶

If a "patent thicket" exists, a single product may give rise to several potential suits that could subject a company to these severe consequences.⁸⁷ Additionally,

but is not limited to, what are typically described as 'patent trolls,' 'non-practicing entities,' or 'patent enforcement and holding companies'").

- ⁸⁰ See, e.g., BESSEN & MEURER, supra note 5, at 159 ("Patent trolls' are one of those great rhetorical confections that, unfortunately, mean different things to different people."); Rantanen, supra note 70, at 163–64. See generally Terrence P. McMahon et al., Who is a Troll? Not a Simple Answer, 7 SEDONA CONF. J. 159 (2006).
- ⁸¹ E.g., Brenda Sandburg, Trolling for Dollars, THE RECORDER (San Fran.), July 30, 2001, at 1.
- ⁸² See, e.g., Bessen & Meurer, Lessons, supra note 26, at 16 ("Opportunistic suits rely on weak patents to induce licensing."); Jeremiah Chan & Matthew Fawcett, Footsteps of the Patent Troll, INTELL. PROP. L. BULL., Fall 2005, at 1, 3–4.
- ⁸³ See, e.g., BURK & LEMLEY, supra note 35, at 28-29; JAFFE & LERNER, supra note 35, at 110-15 (discussing how the Federal Circuit has vastly expanded the remedies available for patent infringement); Magliocca, supra note 57, at 1814-15; see also supra notes 27-29 and accompanying text.
- ⁸⁴ See 35 U.S.C. § 284 (2006) (providing for treble damages in patent infringement cases in certain circumstances); *id.* § 283 (providing for injunctive relief); JAFFE & LERNER, *supra* note 35, at 110–11; Lemley, *Ten Things, supra* note 76, at 153–54.
- ⁸⁵ Lemley, *Ten Things*, *supra* note 76, at 153–54.

⁸⁶ BURK & LEMLEY, *supra* note 35, at 28–29.

⁸⁷ Ayres & Parchomovsky, *supra* note 34, at 871–72. "A patent thicket occurs when a technology or a product is covered by multiple patents that are often held by numerous patentees." *Id.* at 869.

once a company has developed and marketed a successful product, it has considerable sunk costs invested in that particular technology.⁸⁸ Thus, when faced with infringement suits, it makes more economic sense for that company to pay a royalty to patentees rather than investing in different technology.⁸⁹

Besides these potential consequences, the significant costs associated with infringement actions are another key factor that incentivizes early settlement.⁹⁰ Notably, a patentee and an alleged infringer do not share these costs equally—the alleged infringer bears a much heavier burden.⁹¹ Initially, patentees have the ability to retain counsel on a contingency fee basis.⁹² This minimizes a patentee's risk in filing suit and facilitates the growth of nuisance-value claims.⁹³

One area in which this disparity is particularly pronounced is the cost of discovery. Like all lawsuits, broad discovery requests in patent cases are burdensome in terms of production costs and business disruption.⁹⁴ In nuisance-value infringement suits, however, if the patentee is a troll or other non-practicing entity, these burdens will not be reciprocal because the patentee will have few, if any, docu-

- ⁹² See JAFFE & LERNER, supra note 35, at 152 (noting that contingency fees allow plaintiffs to bring infringement claims with "no cost"); Sudarshan, supra note 9, at 166.
- ⁹³ JAFFE & LERNER, *supra* note 35, at 152; *see* Sudarshan, *supra* note 9, at 166 (noting that "contingency fee arrangements are critical to the success of nuisance plaintiffs").
- ⁹⁴ See Sudarshan, supra note 9, at 173; see also MENELL ET AL., supra note 44, at 4-2 ("Thus, patent litigation discovery tends to be broad and demanding, touches highly sensitive information, and is extremely expensive."); R. David Donoghue, The Uneven Application of Twombly in Patent Cases: An Argument for Leveling the Playing Field, 8 J. MARSHALL REV. INTELL. PROP. L. 1, 6 (2008) ("Corporate defendants routinely spend hundreds of thousands of dollars collecting and analyzing documents just to respond to document requests in the beginning of a [patent infringement] case.").

⁸⁸ See Lemley, Ten Things, supra note 76, at 154 (noting the holdup problems created by "irreversible investments by defendants in the industry"); Magliocca, supra note 57, at 1814–15.

⁸⁹ *E.g.*, Magliocca, *supra* note 57, at 1814–15.

⁹⁰ See, e.g., JAFFE & LERNER, supra note 35, at 68; Kesan & Ball, supra note 35, at 280; Sudarshan, supra note 9, at 160.

⁹¹ See, e.g., JAFFE & LERNER, *supra* note 35, at 152 (discussing how alleged infringers bear a disproportionate share of the legal costs in patent infringement litigation).

ments in existence or business to disrupt.⁹⁵ Therefore, an alleged infringer normally bears a disproportionate share of discovery costs.⁹⁶

More significantly, however, a typical defense to infringement is invalidity.⁹⁷ To establish this defense, an alleged infringer must incur substantial costs, as it requires exhaustive prior art searches and significant analysis.⁹⁸ Further, a defendant has the burden of overcoming the statutory presumption that an issued patent is valid.⁹⁹

Another contributing factor is that non-practicing entities, such as patent trolls, are immune from many of the defensive litigation strategies that a defendant typically employs.¹⁰⁰ For example, one typical defense, a counterclaim for infringement of a patent owned by the defendant, is unavailable when the patentee is not producing anything.¹⁰¹ Many companies assemble vast patent portfolios to deter business competitors from filing patent infringement claims, since, if a suit is

⁹⁷ See 35 U.S.C. § 282 (2006); Paul H. Heller & Michael A. Gollin, Discovery in Patent Cases, in 5 INTELLECTUAL PROPERTY COUNSELING & LITIGATION § 70.01 (Matthew Bender 2009) (stating that invalidity is a commonly asserted defense to a patent infringement action); Lemley, Rational Ignorance, supra note 56, at 1502 ("Virtually every patent infringement lawsuit includes a claim that the patent is either invalid or unenforceable due to inequitable conduct (or commonly both).").

⁹⁸ See JAFFE & LERNER, supra note 35, at 152 (noting that proving invalidity requires significant cost and effort); Kesan & Ball, supra note 35, at 277 (stating that "obtaining a pre-trial ruling particularly pertaining to invalidity—can be very expensive"); Lemley, Rational Ignorance, supra note 56, at 1502 (noting that, when establishing invalidity during patent litigation, "lawyers and technical experts will spend hundreds and perhaps even thousands of hours searching for and reading prior art, poring over the specification and prosecution history, and preparing . . . invalidity arguments").

⁹⁹ See 35 U.S.C. § 282 (2006).

- ¹⁰⁰ Harkins, supra note 59, at 442–44; M. Craig Tyler, Patent Pirates Search for Texas Treasure, TEX. LAW., Sept. 20, 2004, at 1, available at http://www.wsgr.com/news/PDFs/ 09202004_patentpirates.pdf (stating that "the patent pirate is impervious to two of the most relied-upon defensive litigation tactics").
- ¹⁰¹ See Harkins, supra note 59, at 442–43; Sudarshan, supra note 9, at 167 ("Nuisance plaintiffs, however, who almost always exist solely for the purpose of enforcing a patent portfolio, have no ongoing business operations which subject them to the risk of a countersuit.").

⁹⁵ E.g., Harkins, *supra* note 59, at 443 ("Discovery burdens are unequal and mostly one-sided in favor of the patent troll who commonly has few documents beyond the patent and prosecution history."); Sudarshan, *supra* note 9, at 174.

⁹⁶ E.g., Harkins, supra note 59, at 443–44; Sudarshan, supra note 9, at 173 (stating that "the onus of discovery production, with regard to infringement, is largely on the defendant in nuisance suits").

filed, the business could then counterclaim for infringement of one of the patents in its portfolio.¹⁰² As a result, disputes are often resolved through cross-licensing agreements rather than litigation.¹⁰³ With trolls or non-practicing entities, however, this deterrent function is ineffective, since the patentee is not producing any products that could infringe any patents in the defendant's patent portfolio.¹⁰⁴

The significant amount of uncertainty surrounding patent litigation also encourages early settlement.¹⁰⁵ One key area of uncertainty is with regard to the scope of a patent's claims.¹⁰⁶ Because it is difficult to determine this scope when the case is initially filed, an alleged infringer cannot reliably predict the probability of success, and is therefore unwilling to risk going to trial.¹⁰⁷ Additionally, even if an alleged infringer prevails at trial, the patentee can appeal to the Federal Circuit, which has a well-documented reversal rate, particularly on the issue of claim construction.¹⁰⁸ Thus, this uncertainty, combined with the other factors mentioned,

¹⁰² See, e.g., Gideon Parchomovsky & R. Polk Wagner, *Patent Portfolios*, 154 U. PA. L. REV. 1, 34–36 (2005) (describing how vast patent portfolios avoid costly litigation, improve bargaining position, and improve defensive positioning by increasing the likelihood of a successful counterclaim for infringement of a patent in the portfolio).

¹⁰³ See, e.g., John R. Barton, Antitrust Treatment of Oligopolies with Mutually Blocking Patent Portfolios, 69 ANTITRUST L.J. 851, 854–55 (2002); Harkins, supra note 59, at 443; Magliocca, supra note 57, at 1816–17.

¹⁰⁴ See, e.g., Harkins, supra note 59, at 442–43; Magliocca, supra note 57, at 1817; Chan & Fawcett, supra note 82, at 4 ("A company's own patent portfolio, a shield or bargaining chip in a traditional IP dispute, has little value when dealing with a patent troll. And because patent trolls do not make or sell products the target company has no basis for filing a countersuit, and thus has no leverage to create an incentive for a cross-license or any other business resolution.").

¹⁰⁵ E.g., JAFFE & LERNER, supra note 35, at 15; Magliocca, supra note 57, at 1830. According to one patent litigator, "You're never really more than 80 percent sure you're going to win." Qualters, supra note 74.

¹⁰⁶ E.g., Sudarshan, *supra* note 9, at 175–76 ("Interpretation of the scope of patent claims is a notoriously indeterminate process. Accordingly, whether or not a defendant's products actually infringe a patent cannot be known with certainty until litigation is underway.").

¹⁰⁷ E.g., Magliocca, *supra* note 57, at 1829–30.

¹⁰⁸ See, e.g., Gretchen Ann Bender, Uncertainty and Unpredictability in Patent Litigation: The Time is Ripe for A Consistent Claim Construction Methodology, 8 J. INTELL. PROP. L. 175, 207 (2001) (finding a reversal rate of 40% for claim construction); Christian A. Chu, Empirical Analysis of the Federal Circuit's Claim Construction Trends, 16 BERKELEY TECH. L.J. 1075, 1142 (2001) ("[A] litigant whose case only involved an infringement issue had a 34% chance that the Federal Circuit would reverse the case on the basis of erroneous claim constructions."); Kimberly A. Moore, Markman Eight Years Later: Is Claim Construction More Predictable?, 8 LEWIS & CLARK L. REV. 231, 236–39 (2005) (finding a reversal rate of 40.8% when summary affirmances were

creates incentives for patentees to file nuisance-value infringement suits and for alleged infringers to quickly settle them.

III. Pleading Patent Infringement

A. Pleading Practice Generally

Every civil action begins with the filing of a complaint.¹⁰⁹ Over time, scholars have debated the level of detail that all pleadings,¹¹⁰ including a complaint, should include.¹¹¹ These pleading requirements vary based on the court system in which the action is taking place.

Before the adoption of the Federal Rules of Civil Procedure, federal courts were required to follow the civil procedure of the state in which they were located.¹¹² At that time, most states followed a system of pleading modeled after the code pleading statute of New York.¹¹³ New York adopted this statute, known as

¹¹⁰ See BLACK'S LAW DICTIONARY 1191 (8th ed. 2004) (defining "pleading" as "[a] formal document in which a party to a legal proceeding (esp. a civil lawsuit) sets forth or responds to allegations, claims, denials, or defenses. In federal civil procedure, the main pleadings are the plaintiff's complaint and the defendant's answer"); see also FED. R. CIV. P. 7 (listing the pleadings available in a civil action).

¹¹¹ For a discussion of the historical debates over pleading practice, see generally Stephen N. Subrin, How Equity Conquered Common Law: The Federal Rules of Civil Procedure in Historical Perspective, 135 U. PA. L. REV. 909 (1987).

¹¹² Act of June 1, 1872, ch. 255, § 5, 17 Stat. 196, 197 (stating that "the practice, pleadings, and forms and modes of proceeding . . . in the circuit and district courts of the United States shall conform, as near as may be, to the practice, pleadings and forms and modes of proceeding existing at the time in like causes in the courts of record of the State within which such circuit or district courts are held"); *see also* Amy v. City of Watertown, 130 U.S. 301, 304 (1889) (discussing how this statute requires that "whatever belongs to the three categories of practice, pleading, and forms and modes of proceeding, must conform to the state law and the practice of the state courts, except where Congress itself has legislated upon a particular subject"); Nudd v. Burrows, 91 U.S. 426, 441 (1875) (stating that the purpose of this Act was "to bring about uniformity in the law of procedure in the Federal and State courts of the same locality" and that the Act "had its origin in the code-enactments of many of the States").

¹¹³ See, e.g., CHARLES M. HEPBURN, THE HISTORICAL DEVELOPMENT OF CODE PLEADING IN AMERICA AND ENGLAND § 84 (1897) ("If the legislation thus begun had gone no further, the result would

excluded and 34.5% if summary affirmances are included); *see also* Cybor Corp. v. FAS Techs., Inc., 138 F.3d 1448, 1476 (Fed. Cir. 1998) (en banc) (Rader, J., dissenting) ("[O]ne study shows that the plenary standard of review has produced reversal, in whole or in part, of almost 40% of all claim constructions since *Markman I*... In fact, this reversal rate, hovering near 50%, is the worst possible. Even a rate that was much higher would provide greater certainty.").

¹⁰⁹ FED. R. CIV. P. 3 ("A civil action is commenced by filing a complaint with the court,").

the Field Code, in 1848,¹¹⁴ which acted as "a kind of catalytic agent for procedural reform elsewhere in the United States."¹¹⁵ Under this code, a complaint needed to include "[a] statement of the facts constituting the cause of action, in ordinary and concise language, without repetition, and in such a manner as to enable a person of common understanding to know what is intended."¹¹⁶ As a result, the code prevented parties from pleading legal conclusions or evidence in a complaint.¹¹⁷ Instead, a plaintiff was required to plead the "ultimate facts" that demonstrated that a cause of action existed.¹¹⁸

One example of how this pleading system operated is *Gillispie v. Goodyear* Service Stores.¹¹⁹ In *Gillispie*, the plaintiff alleged that the defendants, "without cause or just excuse and maliciously,' trespassed upon premises occupied by her as

- ¹¹⁴ See Act of Apr. 12, 1848, ch. 379, 1848 N.Y. Laws 497. For a discussion of the history leading up to the adoption of the Field Code, see generally Mildred V. Coe & Lewis W. Morse, Chronology of the Development of the David Dudley Field Code, 27 CORNELL L.Q. 238 (1942).
- ¹¹⁵ Lawrence M. Friedman, A HISTORY OF AMERICAN LAW 293 (3d ed. 2005).
- ¹¹⁶ Act of Apr. 12, 1848, § 120, 1848 N.Y. Laws 497, 521.
- ¹¹⁷ See, e.g., 5 CHARLES ALAN WRIGHT & ARTHUR R. MILLER, FEDERAL PRACTICE AND PROCEDURE § 1218 (3d ed. 2008) ("In the parlance fashionable during that era, the facts that were to be pleaded were the 'ultimate facts'; the inclusion of 'evidence' and 'conclusions of law' was improper." (internal footnote omitted)); Richard L. Marcus, *The Puzzling Persistence of Pleading Practice*, 76 TEX. L. REV. 1749, 1753 (1998) [hereinafter Marcus, *Puzzling Persistence*] (noting that, under code pleading, "the pleading was insufficient if limited to conclusions and improper if packed with evidence").
- ¹¹⁸ See, e.g., 5 WRIGHT & MILLER, supra note 117, § 1218 ("The codes required the pleader to set forth the facts underlying and demonstrating the existence of his cause of action."); David M. Roberts, Fact Pleading, Notice Pleading, and Standing, 65 CORNELL L. REV. 390, 395 (1980) ("Only ultimate facts satisfied the pleading standard; evidentiary facts and conclusions within a pleading could not state a claim.").
- ¹¹⁹ Gillispie v. Goodyear Serv. Stores, 128 S.E.2d 762 (N.C. 1963). Although this case was decided after the federal rules were adopted, North Carolina still used a code pleading system, and this case has been cited as the classic example of code pleading. See, e.g., JACK H. FRIEDENTHAL ET AL., CIVIL PROCEDURE: CASES AND MATERIALS 513–14 (rev. 9th ed. 2005); Martin B. Louis, Intercepting and Discouraging Doubtful Litigation: A Golden Anniversary View of Pleading, Summary Judgment, and Rule 11 Sanctions Under the Federal Rules of Civil Procedure, 67 N.C. L. REV. 1023, 1025 & n.22 (1989).

still have been among the great events in the history of modern law. But the really significant thing here is that the enactment of this New York code opened, as it were, the floodgates of reformatory legislation, and determined the course of its progress."); Charles E. Clark, *History, Systems and Functions of Pleading*, 11 VA. L. REV. 517, 533 (1925) (stating that the Field Code "served as the model of all succeeding codes in this country").

a residence, assaulted her[,] and caused her to be seized and confined as a prisoner."¹²⁰ According to the court, these statements were mere "legal conclusions" and not adequately supported by facts.¹²¹ Specifically, the court stated that these allegations "do not disclose what occurred, when it occurred, where it occurred, who did what, the relationships between defendants and plaintiff or of defendants inter se, or any other factual data that might identify the occasion or describe the circumstances of the alleged wrongful conduct of defendants."¹²² Accordingly, the court affirmed the trial court's dismissal of the complaint for failing to state sufficient facts to establish a cause of action.¹²³

As this example illustrates, code pleading was problematic. Enforcing the distinction between facts and legal conclusions opened the door for unresolvable disputes.¹²⁴ Judicial decisions were inconsistent—what one judge viewed as pleading facts constituted pleading legal conclusions to others.¹²⁵ As a result, cases were increasingly resolved based on pleading decisions rather than the merits of a case.¹²⁶

The Federal Rules of Civil Procedure were adopted in 1938 as a response to the pitfalls of code pleading.¹²⁷ The drafters intended to abolish code pleading in

- ¹²⁴ Richard L. Marcus, *The Revival of Fact Pleading Under the Federal Rules of Civil Procedure*, 86 COLUM. L. REV. 433, 438 (1986) [hereinafter Marcus, *Revival of Fact Pleading*]; see Christopher M. Fairman, *Heightened Pleading*, 81 TEX. L. REV. 551, 555 (2002).
- ¹²⁵ See Fairman, supra note 124, at 555; Roberts, supra note 118, at 395–96 ("This [code pleading] scheme placed considerable emphasis on hypertechnical artifices of pleading and produced inconsistent interpretations of the adequacy of a complaint's allegations."). One scholar of the period attempted to explain this distinction by stating that "to give the facts a legal coloring and aspect, to present them in their legal bearing upon the issues, rather than in their actual naked simplicity, is so far forth an averment of law instead of fact." JOHN NORTON POMEROY, CODE REMEDIES: REMEDIES AND REMEDIAL RIGHTS BY THE CIVIL ACTION § 423, at 640 (Walter Carrington ed., rev. 5th ed. 1929).
- ¹²⁶ See, e.g., 5 WRIGHT & MILLER, supra note 117, § 1218 (stating that the codes resulted in a "multitude of pleading decisions"); Marcus, *Puzzling Persistence, supra* note 117, at 1753 (noting that, under code pleading, "pleading decisions continued to multiply").
- ¹²⁷ E.g., Roberts, *supra* note 118, at 396. For a complete discussion of the historical background of the Federal Rules of Civil Procedure, see generally Subrin, *supra* note 111.

¹²⁰ Gillispie, 128 S.E.2d at 765–66.

¹²¹ *Id.* at 766.

¹²² *Id.* (emphasis omitted).

¹²³ Id.

the federal system and provide a new standard for the level of detail needed in a complaint.¹²⁸ The "keystone" of this new pleading system was Rule 8.¹²⁹ Specifically, Rule 8(a)(2) states that a complaint must contain "a short and plain statement of the claim showing that the pleader is entitled to relief."¹³⁰ Additionally, the rules contain an appendix of forms that illustrate sufficient pleadings under the rules.¹³¹ As Charles Clark, one of the drafters of the Federal Rules stated, these forms were "probably the most important part of the rules," because "when you can't define you can at least draw pictures to show your meaning."¹³²

Overall, the federal rules adopted a "notice pleading" standard.¹³³ The goal of the framers was that pleadings would merely put a party on notice and that facts, as well as the specifics of claims, would be fleshed out through the discovery process.¹³⁴ Instead of parties fighting over procedural technicalities, once discovery occurred, meritless claims could be disposed of through summary judgment.¹³⁵

¹³⁰ FED. R. CIV. P. 8(a)(2).

¹³¹ FED. R. CIV. P. 84.

- ¹³² Charles E. Clark, Pleading Under the Federal Rules, 12 WYO. L.J. 177, 181 (1958).
- ¹³³ E.g., 5 WRIGHT & MILLER, *supra* note 117, § 1202.
- ¹³⁴ See, e.g., Conley v. Gibson, 355 U.S. 41, 47–48 (1957) ("Such simplified 'notice pleading' is made possible by the liberal opportunity for discovery and the other pretrial procedures established by the Rules to disclose more precisely the basis of both claim and defense and to define more narrowly the disputed facts and issues."), *abrogated by* Bell Atl. Corp. v. Twombly, 550 U.S. 544 (2007); Hickman v. Taylor, 329 U.S. 495, 501 (1947) ("The new rules, however, restrict the pleadings to the task of general notice-giving and invest the deposition-discovery process with a vital role in the preparation for trial. The various instruments of discovery now serve (1) as a device . . . to narrow and clarify the basic issues between the parties, and (2) as a device for ascertaining the facts . . . relative to those issues."); *see also* O2 Micro Int'l Ltd. v. Monolithic Power Sys., Inc., 467 F.3d 1355, 1365 (Fed. Cir. 2006).
- ¹³⁵ E.g., Swierkiewicz v. Sorema N.A., 534 U.S. 506, 512 (2002) ("This simplified notice pleading standard relies on liberal discovery rules and summary judgment motions to define disputed facts and issues and to dispose of unmeritorious claims."); Leatherman v. Tarrant County Narcotics Intelligence & Coordination Unit, 507 U.S. 163, 168–69 (1993) ("[F]ederal courts and litigants must rely on summary judgment and control of discovery to weed out unmeritorious claims sooner rather than later.").

¹²⁸ See, e.g., Fleming James, Jr., The Objective and Function of the Complaint: Common Law— Codes—Federal Rules, 14 VAND. L. REV. 899, 918–19 (1961); Roberts, supra note 118, at 396.

¹²⁹ 5 WRIGHT & MILLER, supra note 117, § 1202 ("Rule 8 is the keystone of the system of pleading embodied in the Federal Rules of Civil Procedure."); see Patricia M. Wald, Summary Judgment at Sixty, 76 TEX. L. REV. 1897, 1917 (1998) (describing Rule 8 as "the jewel in the crown of the Federal Rules").

The classic example of notice pleading in action is *Dioguardi v. Durning*.¹³⁶ The plaintiff brought suit against the Collector of Customs at the Port of New York because he held the plaintiff's "tonics" from Italy for a year and then sold them at a public auction because of unpaid fees.¹³⁷ The plaintiff filed an "obviously home drawn" complaint alleging "that his 'medical extracts' were given to the Springdale Distilling Company 'with my betting (bidding?) price of \$110: and not their price of \$120," and "that three weeks before the sale, two cases, of [nineteen] bottles each case, disappeared."¹³⁸ The trial court dismissed the plaintiff's complaint for failing "to state facts sufficient to constitute a cause of action."¹³⁹

The Second Circuit, in an opinion by Judge Charles Clark, reversed.¹⁴⁰ The court concluded that "however inartistically they may be stated, the plaintiff has disclosed his claims that the collector has converted or otherwise done away with two of his cases of medicinal tonics and has sold the rest in a manner incompatible with the public auction he had announced."¹⁴¹ As a result, the court concluded that the plaintiff should not be deprived of his day in court and that dismissal of the complaint was inappropriate.¹⁴²

Notice pleading has several potential benefits. First, unlike the code pleading regime, it allows courts to resolve cases on the merits rather than relying upon procedural technicalities.¹⁴³ In theory, notice pleading also minimizes complexity.¹⁴⁴

¹³⁶ Dioguardi v. Durning, 139 F.2d 774 (2d Cir. 1944) (Clark, J.).

¹³⁷ *Id.* at 774.

¹³⁸ Id. at 774–75. The court also noted the "plaintiff's limited ability to write and speak English." Id. at 775.

¹³⁹ *Id.* at 774.

¹⁴⁰ *Id.* at 776.

¹⁴¹ Dioguardi v. Durning, 139 F.2d 774, 775 (2d Cir. 1944).

¹⁴² Id.

¹⁴³ See, e.g., Charles E. Clark, The Handmaid of Justice, 23 WASH. U. L.Q. 297, 319 (1938) ("[I]n the case of a real dispute, there is no substitute anywhere for a trial. To attempt to make the pleadings serve as such substitute is in very truth to make technical forms the mistress and not the handmaid of justice."); Hon. H. Church Ford, Federal Rules of Civil Procedure: Pleadings, Motions, Parties, and Pre-trial Procedure, 1 F.R.D. 315, 318 (1940) ("The philosophy which the rules seek to inculcate seems to be that the ends of justice may be attained more surely and more expeditiously by directing principal attention to the realities and by giving less consideration to mere formalities."); see also Conley v. Gibson, 355 U.S. 41, 48 (1957) ("The Federal Rules reject the approach that pleading is a game of skill in which one misstep by counsel may be decisive to the outcome and accept the principle that the purpose of pleading is to facilitate a proper decision on the mer-

This rationale focuses on an individual's access to justice and the court system as a method of obtaining relief for wrongs.¹⁴⁵

If a party fails to satisfy these pleading requirements, it can result in the dismissal of the cause of action for "failure to state a claim."¹⁴⁶ Alternatively, a party has the ability to move the court for "a more definite statement of a pleading . . . which is so vague or ambiguous that the party cannot reasonably prepare a response."¹⁴⁷ In line with the goals of notice pleading, however, the Supreme Court historically interpreted Rule 8 as imposing only a minimal burden on plaintiffs.¹⁴⁸ For example, in *Conley v. Gibson*, the Court stated the "accepted rule that a complaint should not be dismissed for failure to state a claim unless it appears beyond doubt that a plaintiff can prove no set of facts in support of his claim which would entitle him to relief."¹⁴⁹ The Court later explicitly rejected heightened pleading in any area other than those specifically enumerated in the rules.¹⁵⁰

its."), *abrogated by* Bell Atl. Corp. v. Twombly, 550 U.S. 544 (2007); Marcus, *Puzzling Persistence*, *supra* note 117, at 1749 (noting that under the federal rules, "[p]leading decisions, so prominent at common law and under the codes, were to wither and die except in extraordinary circumstances").

- ¹⁴⁴ See, e.g., Charles E. Clark, Simplified Pleading, 2 F.R.D. 456, 462 (1943) ("There is little doubt that the great success of the rules has been due to this combination of simplicity of general requirements, requiring little time and attention in their application, with the special devices for speedy disposition of those cases which are easily adjudicated."). As one commentary notes, "it has been said that 'a sixteen year old boy could plead' under these rules." 5 WRIGHT & MILLER, supra note 117, § 1202, at 94.
- ¹⁴⁵ See, e.g., Swierkiewicz v. Sorema N.A., 534 U.S. 506, 514 (2002) ("The liberal notice pleading of Rule 8(a) is the starting point of a simplified pleading system, which was adopted to focus litigation on the merits of a claim."); Surowitz v. Hilton Hotels Corp., 383 U.S. 363, 373 (1966) ("The basic purpose of the Federal Rules is to administer justice through fair trials, not through summary dismissals as necessary as they may be on occasion. These rules were designed in large part to get away from some of the old procedural booby traps which common-law pleaders could set to prevent unsophisticated litigants from ever having their day in court."); Fairman, *supra* note 124, at 557.
- ¹⁴⁶ FED. R. CIV. P. 12(b)(6).
- ¹⁴⁷ FED. R. CIV. P. 12(e).
- ¹⁴⁸ See, e.g., A. Benjamin Spencer, Plausibility Pleading, 49 B.C. L. REV. 431, 437-39 (2008).
- ¹⁴⁹ Conley v. Gibson, 355 U.S. 41, 45–46 (1957), *abrogated by* Bell Atl. Corp. v. Twombly, 550 U.S. 544 (2007).
- ¹⁵⁰ Leatherman v. Tarrant County Narcotics Intelligence & Coordination Unit, 507 U.S. 163, 168 (1993). Federal Rule of Civil Procedure 9 requires a plaintiff to plead claims of fraud or mistake "with particularity." FED. R. CIV. P. 9(b).

In 2007, this jurisprudence took a distinct turn with the Court's decision in *Bell Atlantic Corp. v. Twombly.*¹⁵¹ In *Twombly*, an antitrust case, the court concluded that the "no set of facts" language from *Conley* had "after puzzling the profession for [fifty] years . . . earned its retirement."¹⁵² In its place, the Court adopted a standard requiring a plaintiff to plead "a claim to relief that is plausible on its face."¹⁵³

The *Twombly* decision created uncertainty among circuit courts, which split over how broadly to read the decision.¹⁵⁴ One source of this confusion was that shortly after *Twombly* was decided, another Supreme Court decision reversed the dismissal of a civil rights complaint for failure to state a claim, without mentioning "plausibility pleading."¹⁵⁵ As a result, some courts read *Twombly* narrowly, confining the new "plausibility" standard solely to the antitrust context.¹⁵⁶ The majority of courts, however, viewed *Twombly* more broadly and applied the new pleading standard to other contexts.¹⁵⁷

¹⁵³ *Twombly*, 550 U.S. at 570. Thus, plaintiffs must "nudge[] their claims across the line from conceivable to plausible." *Id.*

¹⁵⁴ See Robbins v. Oklahoma, 519 F.3d 1242, 1247 (10th Cir. 2008) (noting that the new standard announced in *Twombly* is "less than pellucid"); Phillips v. County of Allegheny, 515 F.3d 224, 234 (3d Cir. 2008) (noting that the *Twombly* opinion is "confusing" and concluding that "[t]he issues raised by *Twombly* are not easily resolved, and likely will be a source of controversy for years to come"); Anderson v. Sara Lee Corp., 508 F.3d 181, 188 n.7 (4th Cir. 2007) ("In the wake of *Twombly*, courts and commentators have been grappling with the decision's meaning and reach."); Iqbal v. Hasty, 490 F.3d 143, 155 (2d Cir. 2007), *rev'd sub nom*. Ashcroft v. Iqbal, 129 S. Ct. 1937 (2009) ("Considerable uncertainty concerning the standard for assessing the adequacy of pleadings has recently been created by the Supreme Court's decision in [*Twombly*].").

¹⁵⁵ See Erickson v. Pardus, 551 U.S. 89, 93–95 (2007) (per curiam).

¹⁵⁶ See, e.g., Aktieselskabet AF 21. Nov. 2001 v. Fame Jeans Inc., 525 F.3d 8, 15 (D.C. Cir. 2008) ("We conclude that *Twombly* leaves the long-standing fundamentals of notice pleading intact."); McZeal v. Sprint Nextel Corp., 501 F.3d 1354, 1356 n.4 (Fed. Cir. 2007) (stating that the Court's opinion "does not suggest that *Bell Atlantic* changed the pleading requirement of Federal Rule of Civil Procedure 8 as articulated in *Conley*").

¹⁵⁷ See, e.g., Davis v. Coca-Cola Bottling Co. Consol., 516 F.3d 955, 974 n.43 (11th Cir. 2008) ("We understand *Twombly* as a further articulation of the standard by which to evaluate the sufficiency of all claims brought pursuant to Rule 8(a)."); *Phillips*, 515 F.3d at 234 ("[W]e decline at this point to read *Twombly* so narrowly as to limit its holding on plausibility to the antitrust context.");

¹⁵¹ Bell Atl. Corp. v. Twombly, 550 U.S. 544 (2007).

¹⁵² Id. at 563; see also Boroff v. Alza Corp., ____ F. Supp. 2d ____, 2010 WL 395211, at *2 (N.D. Ohio Jan. 27, 2010) (noting that "the Supreme Court has consigned the *Conley* standard to the dustbin of history").

The Supreme Court clarified the scope of *Twombly* two years later in *Ashcroft* v. *Iqbal*.¹⁵⁸ In *Iqbal*, a Pakistani national filed suit against several federal officials for allegedly subjecting him to unconstitutionally harsh conditions of confinement because of his race, religion, or national origin following the terrorist attacks of September 11, 2001.¹⁵⁹

The Court began its analysis by noting that Rule 8 "demands more than an unadorned, the-defendant-unlawfully-harmed-me accusation."¹⁶⁰ Accordingly, "[a] claim has facial plausibility when the plaintiff pleads factual content that allows the court to draw the reasonable inference that the defendant is liable for the misconduct alleged."¹⁶¹ This determination is "a context-specific task that requires the reviewing court to draw on its judicial experience and common sense."¹⁶² Further, the Court rejected the plaintiff's argument that *Twombly* applied only in the limited context of antitrust disputes, stating that "*Twombly* expounded the pleading standard for 'all civil actions."¹⁶³ Thus, following *Iqbal*, civil litigation shifted to a plausibility pleading paradigm.

B. Pleading in Patent Infringement Actions

A patent infringement suit is merely a specific type of civil action.¹⁶⁴ Accordingly, courts have traditionally applied the general notice pleading standard to

see also Smith v. Duffey, 576 F.3d 336, 339–40 (7th Cir. 2009) (describing *Twombly* as "fast becoming the citation du jour in Rule 12(b)(6) cases"); Mary J. Hackett & Patricia E. Antezana, All But Two Circuits Interpret Twombly Broadly, NAT'L L.J., Oct. 27, 2008, at S3.

- ¹⁵⁸ Ashcroft v. Iqbal, 129 S. Ct. 1937 (2009).
- ¹⁵⁹ *Id.* at 1942.
- ¹⁶⁰ Id. at 1949; see also id. at 1950 ("Rule 8 marks a notable and generous departure from the hypertechnical, code-pleading regime of a prior era, but it does not unlock the doors of discovery for a plaintiff armed with nothing more than conclusions.").
- ¹⁶¹ *Id.* at 1949.
- ¹⁶² *Id.* at 1950.
- ¹⁶³ Ashcroft v. Iqbal, 129 S. Ct. 1937, 1953 (2009) (quoting FED. R. CIV. P. 1).
- ¹⁶⁴ E.g., 6 R. CARL MOY, MOY'S WALKER ON PATENTS, § 17:4 (4th ed. 2007) ("Viewed at a basic level, a suit for patent infringement is simply a specific example of a general civil action."); see also FED. R. CIV. P. 2 ("There is one form of action—the civil action.").

patent infringement cases the same way that it applies in other cases.¹⁶⁵ As a result, "[i]nfringement complaints are usually sparse and conclusory."¹⁶⁶

One of the key contributing factors to the sparse nature of complaints in patent infringement actions is Form 18 of the Federal Rules of Civil Procedure.¹⁶⁷ This form provides a sample complaint for patent infringement.¹⁶⁸ Its content is significant because the forms, by rule, are deemed to be sufficient pleadings.¹⁶⁹ Specifically, the sample patent infringement complaint includes only five brief elements: a statement of jurisdiction, a cursory statement about the ownership of the patent, the allegedly infringing product, that the patentee provided notice to the alleged infringer, and the relief demanded by the plaintiff.¹⁷⁰

- ¹⁶⁶ MENELL ET AL., *supra* note 44, at 2-20; *see also id.* at 2-12 (noting that "[d]etails of the defendants' allegedly infringing activities are rarely offered" in infringement complaints).
- ¹⁶⁷ See FED. R. CIV. P. Form 18. When the federal rules were initially enacted, this was Form 16, rather than Form 18. See FED. R. CIV. P. Form 16 (1938), reprinted at 303 U.S. 775–76.
- ¹⁶⁸ FED. R. CIV. P. Form 18.
- ¹⁶⁹ FED. R. CIV. P. 84 ("The forms in the Appendix suffice under these rules and illustrate the simplicity and brevity that these rules contemplate."); see also Conley v. Gibson, 355 U.S. 41, 47 (1957) (stating that the forms contained in the federal rules "plainly demonstrate" the pleading requirement under the rules), abrogated by Bell Atl. Corp. v. Twombly, 550 U.S. 544 (2007); McZeal v. Sprint Nextel Corp., 501 F.3d 1354, 1356-57 (Fed. Cir. 2007) (citing and applying Form 18 as sufficient to state a claim for patent infringement). The Twombly Court also approved of the forms as sufficient pleadings. See Twombly, 550 U.S. at 565 n.10.
- ¹⁷⁰ FED. R. CIV. P. Form 18. The complete form is as follows:
 - 1. (Statement of Jurisdiction–See Form 7)

2. On *date*, United States Letters Patent No. ______ were issued to the plaintiff for an invention in an *electric motor*. The plaintiff owned the patent throughout the period of the defendant's infringing acts and still owns the patent.

3. The defendant has infringed and is still infringing the Letters Patent by making, selling, and using <u>electric motors</u> that embody the patented invention, and the defendant will continue to do so unless enjoined by this court.

¹⁶⁵ See, e.g., Phonometrics, Inc. v. Hospitality Franchise Sys., Inc., 203 F.3d 790, 794 (Fed. Cir. 2000) (noting that "a patentee need only plead facts sufficient to place the alleged infringer on notice"); 5 WRIGHT & MILLER, *supra* note 117, § 1251 ("The principles of pleading simplicity and brevity applicable to complaints in other actions also apply in infringement suits."); *see also* Swierkiewicz v. Sorema N.A., 534 U.S. 506, 513 (2002) ("Rule 8(a)'s simplified pleading standard applies to all civil actions, with limited exceptions.").

The Federal Circuit has required a complaint for patent infringement to satisfy a similarly minimal threshold.¹⁷¹ For example, in *Phonometrics, Inc. v. Hospitality Franchise Systems, Inc.*, a pre-*Twombly* decision, the court applied "the liberal pleading standards" to a patent infringement complaint.¹⁷² Specifically, the court concluded that "[t]he Rule 12(b)(6) pleading requirements for a complaint of infringement cannot be extended to require a plaintiff to specifically include each element of the claims of the asserted patent."¹⁷³ According to the court, "[t]o impose such requirements would contravene the notice pleading standard, and would add needless steps to the already complex process of patent litigation."¹⁷⁴ Thus, a patent holder only needs to allege "facts sufficient to put the alleged infringer on notice."¹⁷⁵

4. The plaintiff has complied with the statutory requirement of placing a notice of the Letters Patent on all <u>electric motors</u> it manufactures and sells and has given the defendant written notice of the infringement.

Therefore, the plaintiff demands:

(a) a preliminary and final injunction against the continuing infringement;

(b) an accounting for damages; and

(c) interest and costs.

Id. Additionally, a caption is required, and the complaint must be dated and signed. See id.

¹⁷¹ Notably, the review of a district court's dismissal pursuant to Rule 12(b)(6) is a procedural question to which the Federal Circuit applies the law of the regional circuit. See, e.g., C&F Packing Co. v. IBP, Inc., 224 F.3d 1296, 1306 (Fed. Cir. 2000) ("The question of whether a Rule 12(b)(6) motion was properly granted is a purely procedural question not pertaining to patent law, to which this court applies the rule of the regional ... circuit."). However, an interesting dilemma arises, as a regional circuit will never hear a patent case, so it can never provide guidance as to the pleading standard to use for infringement claims. See 28 U.S.C. § 1295(a) (2006) (providing that the Federal Circuit has exclusive jurisdiction over appeals in patent cases). See generally CBT Flint Partners, L.L.C. v. Goodmail Sys., Inc., 529 F. Supp. 2d 1376, 1379 (N.D. Ga. 2007) (pointing out this discrepancy). Indeed, the Federal Circuit has applied its own law, not the law of the regional circuit, when evaluating whether an inequitable conduct claim has been pleaded with the particularity required by Rule 9(b). See Exergen Corp. v. Wal-Mart Stores, Inc., 575 F.3d 1312, 1326 (Fed. Cir. 2009).

¹⁷⁵ *Id.*

¹⁷² Phonometrics, Inc. v. Hospitality Franchise Sys., Inc., 203 F.3d 790, 794 (Fed. Cir. 2000).

¹⁷³ Id.

¹⁷⁴ Id.

The Federal Circuit maintained this liberal approach to pleading following *Twombly* in *McZeal v. Sprint Nextel Corp.*¹⁷⁶ After reaffirming the *Phonometrics* court's statement that a plaintiff did not need to allege each element of the claims of the asserted patent, the court noted its belief that *Twombly* did not alter the pleading requirements of Rule 8.¹⁷⁷ Accordingly, any details regarding how the defendant's product infringed the patent were unnecessary, as these details were "something to be determined through discovery."¹⁷⁸ Notably, *McZeal* has been criticized and distinguished after the *Iqbal* decision.¹⁷⁹

However, district courts are still divided over what the rules require a patentee to plead, especially post-*Twombly*.¹⁸⁰ Initially, similar to the pre-*Iqbal* circuit split, the *Twombly* decision itself generated confusion.¹⁸¹ Some courts concluded that the Supreme Court's decision had no effect on patent cases.¹⁸² The majority of courts, however, recognized that *Twombly* applied to patent infringement ac-

- ¹⁷⁸ Id. at 1358. Notably, because the plaintiff was proceeding pro se, the court applied "the low bar for *pro se* litigants to avoid dismissal on the basis of [Federal Rule of Civil Procedure] 12(b)(6)." *Id.*
- ¹⁷⁹ See, e.g., Koninklijke Philips Elecs. N.V. v. ADS Group, ____ F. Supp. 2d ____, 2010 WL 938216, at *4 n.8 (S.D.N.Y. Mar. 12, 2010) ("The decision in *McZeal*, however, was motivated by a (perhaps) misplaced indulgence of the pleadings of a pro se plaintiff. Of greater relevance, *McZeal* was decided before the *Iqbal* decision made clear that *Twombly*'s heightened pleading standard applied to all cases, not merely those like *Twombly* that assert antitrust violations." (internal citation omitted)); Bender v. LG Elecs. U.S.A., Inc., No. C 09-02114 JF, 2010 WL 889541, at *3 (N.D. Cal. Mar. 11, 2010) (noting that *McZeal* was "unhelpful" because it "was decided after *Twombly* but before *Iqbal*" and because the plaintiff was proceeding pro se); Bender v. Motorola, Inc., No. C 09-1245 SBA, 2010 WL 726739, at *3 (N.D. Cal. Feb. 26, 2010) (describing a plaintiff's reliance on *McZeal* as "misplaced").
- ¹⁸⁰ See, e.g., LG Elecs. U.S.A., Inc., 2010 WL 889541, at *5 (noting the "lack of complete uniformity in recent district court authority" on the pleading requirements in patent infringement actions following *Twombly* and *Iqbal*). See generally Yekaterina Korostash, Pleading Standards in Patent Litigation After Bell Atlantic v. Twombly, INTELL. PROP. STRATEGIST, Jan. 2008, at 1.
- ¹⁸¹ See Donoghue, supra note 94, at 2 ("The courts are split, however, on the precise impact that Twombly has on pleadings in patent cases.").
- ¹⁸² See, e.g., CBT Flint Partners, L.L.C. v. Goodmail Sys., Inc., 529 F. Supp. 2d 1376, 1379–80 (N.D. Ga. 2007) (concluding that "*Twombly* did not alter pleading standards—especially in the patent context").

¹⁷⁶ McZeal v. Sprint Nextel Corp., 501 F.3d 1354 (Fed. Cir. 2007).

¹⁷⁷ *Id.* at 1357 & n.4.

tions.¹⁸³ This split was resolved by the Supreme Court's conclusive statement in *Iqbal* that the *Twombly* standard applied to all civil actions.¹⁸⁴

Iqbal did not, however, address the substantive pleading requirements for patent infringement actions. Over time, courts have split over two issues—and *Twombly* only reignited this debate. First, courts often divide over the question of whether the plaintiff must specify the claims in the patent that it believes the defendant is infringing.¹⁸⁵ Prior to *Twombly*, most courts did not require a plaintiff to specify the infringed claims.¹⁸⁶ These courts relied upon the notice function of pleadings and stressed that this notice function was satisfied without specifying the patent claims that were being infringed.¹⁸⁷ Historically, however, a plaintiff *was* required to plead with such specificity.¹⁸⁸

¹⁸⁴ See Ashcroft v. Iqbal, 129 S. Ct. 1937, 1953 (2009) (quoting FED. R. CIV. P. 1); see also Brooks v. Ross, 578 F.3d 574, 581 (7th Cir. 2009) (noting that *Iqbal* "clarified that *Twombly*'s plausibility requirement applies across the board, not just to antitrust cases").

¹⁸⁵ See, e.g., Franklin D. Kang, Pleading Patent Infringement Claims: Does Form 16 Suffice for All Purposes?, INTELL. PROP. L. NEWSL., Winter 2006, at 25, 29 ("There is . . . a split of authority on whether a complaint for patent infringement must specify the claims of the patent-in-suit alleged to have been infringed.").

¹⁸⁶ See, e.g., Phonometrics, Inc. v. Hospitality Franchise Sys., Inc., 203 F.3d 790, 794 (Fed. Cir. 2000); Beery v. Hitachi Home Elecs. (Am.), Inc., 157 F.R.D. 477, 480–81 (C.D. Cal. 1993); Tippmann Pneumatics, L.L.C. v. Brass Eagle, L.L.C., No. 1:04-CV-449-TLS, 2005 WL 2456908, at *2 (N.D. Ind. Oct. 4, 2005).

¹⁸⁷ See, e.g., Tippmann Pneumatics, L.L.C., 2005 WL 2456908, at *2 ("A claim for patent infringement is sufficient to put the defendant on notice even if it does not state which patent claims were infringed." (citing Phonometrics, 203 F.3d at 794)).

¹⁸⁸ See, e.g., J.D. Ferry Co. v. Macbeth Eng'g Corp., 11 F.R.D. 75, 76 (M.D. Pa. 1951) ("The general practice in patent infringement suits has been to require the plaintiff to state what claims of a patent he alleges to have been infringed."); Coyne & Delany Co. v. G.W. Onthank Co., 10 F.R.D. 435, 436 (S.D. Iowa 1950); Marvel Slide Fastener Corp. v. Klozo Fastener Corp., 80 F. Supp. 366, 367 (S.D.N.Y. 1948); Nat'l Nut Co. of Cal. v. Kelling Nut Co., 61 F. Supp. 76, 78–79 (N.D. Ill. 1945); Bonney Supply Co. v. Heltzel, 243 F. 399, 404 (N.D. Ohio 1917) ("The complainant knows, or should know, which of these separate claims are infringed; and it is therefore proper, in the interest of greater certainty and definiteness, that it be required to specify which of the ten claims it intends to rely on—in other words, give further and better particulars of the matter of infringement contained in its pleading.").

¹⁸³ See, e.g., Anticancer Inc. v. Xenogen Corp., 248 F.R.D. 278, 282 (S.D. Cal. 2007) ("The Court finds that the new *Bell Atlantic* pleading standard applies to pleadings in patent infringement actions"); see also In re Papst Licensing GMBH & Co. KG Litig., 585 F. Supp. 2d 32, 34–36 (D.D.C. 2008) (applying *Twombly* to a patent infringement action).

This trend has persisted following *Twombly* and *Iqbal*. Most courts continue to hold that a plaintiff does not need to identify which claims it believes are being infringed.¹⁸⁹ Notably, however, one court has concluded that the plaintiff must specifically plead the allegedly infringed claims.¹⁹⁰ As this court noted, "a plaintiff's failure to specify which claims it believes are infringed by a defendant's products places an undue burden on the defendant, who must wade through all the claims in a patent and determine which claims might apply to its products to give a complete response."¹⁹¹

The second area that has generated dispute is whether a plaintiff must specifically plead how the defendant is infringing the patent.¹⁹² On this issue, the division among courts is considerably more pronounced. Numerous courts, both before and after *Twombly*, have concluded that some identification of the method of infringement is required.¹⁹³ Similar to the rationale behind requiring a plaintiff to allege

¹⁹⁰ Taurus IP, L.L.C. v. Ford Motor Co., 539 F. Supp. 2d 1122, 1127 (W.D. Wis. 2008).

¹⁹¹ *Id.*; see also Ardente, Inc., 2010 WL 546485, at *5 n.6 ("[S]pecifying the patent claims allegedly infringed enhances the plausibility of a patent infringement plaintiff's complaint.").

¹⁹² See Kang, supra note 185, at 26 ("There currently exists a split of authority on whether a complaint for patent infringement must specify the defendant's products or services alleged to have infringed the patent-in-suit and, if so, the degree of specificity required.").

193 See, e.g., Eidos Commc'ns, L.L.C. v. Skype Techs. SA, ___ F. Supp. 2d ___, 2010 WL 638337, at *2-3 (D. Del. Feb. 24, 2010); Taurus IP, L.L.C., 539 F. Supp. 2d at 1126-27 (W.D. Wis. 2008); Windy City Innovations, L.L.C., v. Am. Online, Inc., 227 F.R.D. 278, 283 (N.D. Ill. 2005) (granting a defendant's motion to dismiss on an infringement claim because "a vague reference to 'other' unnamed products or services fails to provide the operative facts in relation to the alleged infringement by those 'other' unnamed products or services"); Gen-Probe, Inc. v. Amoco Corp., Inc., 926 F. Supp. 948, 961 (S.D. Cal. 1996); Paraffine Cos. v. Wieland, 17 F.2d 992, 993 (N.D. Cal. 1927); Bender v. LG Elecs. U.S.A., Inc., No. C 09-02114 JF, 2010 WL 889541, at *6 (N.D. Cal. Mar. 11, 2010) ("Sufficient allegations would include, at a minimum, a brief description of what the patent at issue does, and an allegation that certain named and specifically identified products or product components also do what the patent does, thereby raising a plausible claim that the named products are infringing."); Ware v. Circuit City Stores, Inc., No. Civ. A. 4:05-CV-0156-RLV, 2010 WL 767094, at *2 (N.D. Ga. Jan. 5, 2010); Fifth Market, Inc. v. CME Group, Inc., No. Civ. A. 08-520 GMS, 2009 WL 5966836, at *1 (D. Del. May 14, 2009) ("None of Fifth Market's claims, however, contain any reference to a single infringing product or method

¹⁸⁹ See, e.g., Ardente, Inc. v. Shanley, No. C 07-4479 MHP, 2010 WL 546485, at *5 n.6 (N.D. Cal. Feb. 10, 2010) ("The court is unaware of any case holding that the Supreme Court's decisions in *Twombly* and *Iqbal* have now resulted in a strict requirement that a patent infringement plaintiff plead the specific claims believed to have been infringed."); Aspex Eyewear, Inc. v. Clariti Eyewear, Inc., 531 F. Supp. 2d 620, 622 (S.D.N.Y. 2008); Rambus, Inc. v. Nvidia Corp., No. C 08-3343 SI, 2008 WL 4911165, at *2 (N.D. Cal. Nov. 13, 2008); Taltwell, L.L.C. v. Zonet USA Corp., No. Civ. A. 3:07cv543, 2007 WL 4562874, at *14 (E.D. Va. Dec. 20, 2007).

specific claims, these courts stress how failing to identify the specific infringing product or service imposes an undue burden on the defendant.¹⁹⁴

For example, in one recent case, the plaintiff alleged that the defendant was infringing its patent by "making, using, offering to sell and/or selling infringing software and hardware products."¹⁹⁵ However, the defendant produced at least 150 different types of products that had over 4000 possible end-user applications.¹⁹⁶ As the court noted, "Form [18] simply does not address a factual scenario of this sort."¹⁹⁷ Accordingly, the court held that the plaintiff's allegations did not provide fair notice to the defendant and therefore failed to satisfy Rule 8(a).¹⁹⁸

Another line of cases has reached the opposite conclusion and held that no such identification is necessary, even post-*Twombly*.¹⁹⁹ Again, these courts stress

- ¹⁹⁷ Id.
- ¹⁹⁸ Id.

Therefore, Fifth Market's complaint fails to provide the CME defendants with fair notice of the claims and grounds for their entitlement to relief, and the court will grant [their] motion to dismiss."); Halo Elecs., Inc. v. Bel Fuse Inc., No. 2:07-CV-00331-PMP-PAL, 2007 WL 2156332, at *2 (D. Nev. July 26, 2007); eSoft, Inc. v. Astaro Corp., Civ. No. 06-cv-00441-REB-MEH, 2006 WL 2164454, at *2 (D. Colo. July 31, 2006); Hewlett-Packard Co. v. Intergraph Corp., No. C 03-2517-MJJ, 2003 WL 23884794, at *1 (N.D. Cal. Sept. 6, 2003); *see also* Agilent Techs., Inc. v. Micromuse, Inc., No. 04 Civ. 3090(RWS), 2004 WL 2346152, at *4–6 (S.D.N.Y. Oct. 19, 2004) (holding that specifying the method of infringement was required, but that a Rule 12(e) motion was the appropriate remedy).

¹⁹⁴ See, e.g., Taurus IP, L.L.C., 539 F. Supp. 2d at 1127; Static Control Components, Inc. v. Future Graphics, L.L.C., No. 07CV00007, 2008 WL 160827, at *2 (M.D.N.C. Jan. 15, 2008); *Hewlett-Packard Co.*, 2003 WL 23884794, at *1.

¹⁹⁵ Hewlett-Packard Co., 2003 WL 23884794, at *1 (emphasis omitted).

¹⁹⁶ *Id.*

¹⁹⁹ See, e.g., Mesh Comm, L.L.C. v. EKA Sys., Inc., No. 8:09-cv-1064-T-33TGW, 2010 WL 750337, at *2 (M.D. Fla. Mar. 4, 2010) (concluding that vague infringement allegations lacking a reference to a specific product were sufficient under *Twombly*); Teirstein v. AGA Med. Corp., Civ. Action No. 6:08cv14, 2009 WL 704138, at *3 (E.D. Tex. Mar. 16, 2009); Digital Tech. Licensing L.L.C. v. Sprint Nextel Corp., Civ. Action No. 07-5432 (SRC)(MAS), 2008 WL 4068930, at *4 (D.N.J. Aug. 27, 2008) (concluding that a pleading that did not specify an infringing product was sufficient and noting that "there is no binding precedent that requires a complaint to provide notice of which of defendant's products infringe claims under the applicable patents"); Taltwell, L.L.C. v. Zonet USA Corp., Civ. Action No. 3:07cv543, 2007 WL 4562874, at *13–14 (E.D. Va. Dec. 20, 2007); Tippmann Pneumatics, L.L.C. v. Brass Eagle, L.L.C., No. 1:04-CV-449-TLS, 2005 WL 2456908, at *1–2 (N.D. Ind. Oct. 4, 2005); One World Techs., Ltd. v. Robert Bosch Tool Corp., No. 04 C 0833, 2004 WL 1576696, at *2 (N.D. Ill. July 13, 2004); *see also* Actus L.L.C. v. Bank of Am. Corp., Civ. Action No. 2-09-cv-102-TJW, 2010 WL 547183, at *2 (E.D. Tex. Feb.)

the low bar posed by the notice function of pleadings and state that discovery will allow a defendant to clarify the manner of infringement.²⁰⁰ For example, one court approved a complaint where the plaintiff alleged that its patent was infringed by the defendant "making, importing, offering for sale, selling, and/or using devices that embody the patented methods, including [four] megabit and higher density DRAMs."²⁰¹ The court concluded that even though this allegation referred to "nearly all of [d]efendants' product line," it was sufficient because it followed Form 18 and the defendant would receive more specific notice as discovery progressed.²⁰² Thus, in patent infringement actions, courts continue to dispute the contours of *Twombly, Iqbal*, and notice pleading generally.

Another issue is the inconsistency between Form 18, which, by rule, is a model of a sufficient pleading, and the modern plausibility pleading standard.²⁰³ Indeed, post-*Iqbal*, some courts have reaffirmed that a complaint modeled after Form 18 sufficiently states a claim.²⁰⁴ In a recent unpublished decision, the Federal Circuit also implied the continued vitality of Form 18 following *Iqbal*.²⁰⁵ The

10, 2010) ("The Court does not require that plaintiffs in a patent infringement lawsuit attach fullydeveloped infringement contentions to its complaint.").

²⁰¹ OKI Elec. Indus. Co. v. LG Semicon Co., No. CIV. 97-20310 SW, 1998 WL 101737, at *3 (N.D. Cal. Feb. 25, 1998).

²⁰⁴ See, e.g., Advanced Analogic Techs., Inc. v. Kinetic Techs., Inc., No. C-09-1360 MMC, 2009 WL 1974602, at *1 & n.2 (N.D. Cal. July 8, 2009); Iguana L.L.C. v. Lanham, No. 7:08-CV-09(CDL), 2009 WL 1620586, at *1-2 (M.D. Ga. June 9, 2009).

²⁰⁵ See Colida v. Nokia, Inc., No. 2009-1326, 2009 WL 3172724, at *2 & n.2 (Fed. Cir. Oct. 6, 2009) (concluding that the plaintiff's infringement claims were "facially implausible," but noting that he

²⁰⁰ See, e.g., S.O.I.Tec Silicon Insulator Techs., S.A. v. Memc Elec. Materials, Inc., Civ. No. 08-292-SLR, 2009 WL 423989, at *2 (D. Del. Feb. 20, 2009); One World Techs., Ltd., 2004 WL 1576696, at *2. Another court noted that imposing this requirement on a plaintiff would require an overly burdensome "Herculean investigation." Phillip M. Adams & Assocs., L.L.C. v. Dell, Inc., No. 1:05-CV-64 TS, 2008 WL 200340, at *1 (D. Utah Jan. 22, 2008). Interestingly, the court made no mention of the potential burdens that this minimal pleading might impose on the defendant. See id.

²⁰² Id.

²⁰³ See Bender v. LG Elecs. U.S.A., Inc., No. C 09-02114 JF, 2010 WL 889541, at *5 (N.D. Cal. Mar. 11, 2010) ("As several courts have noted, it is difficult to reconcile the guidelines set forth in *Twombly* and *Iqbal* with Form 18."); Elan Microelectronics Corp. v. Apple, Inc., No. C 09-01531 RS, 2009 WL 2972374, at *2 (N.D. Cal. Sept. 14, 2009) ("It is not easy to reconcile Form 18 with the guidance of the Supreme Court in *Twombly* and *Iqbal*; while the form undoubtedly provides a 'short and plain statement,' it offers little to 'show' that the pleader is entitled to relief."); *see also* FED. R. CIV. P. 84 (stating that the appendix of forms are examples of sufficient pleadings).

sparse allegations in this form appear to be the prototypical "[t]hreadbare recitals of the elements of a cause of action, supported by mere conclusory statements," that the Supreme Court in *Iqbal* rejected as insufficient.²⁰⁶ The difficulties inherent in this disparity are an issue that courts will be faced with in the post-*Twombly* era.

C. How Notice Pleading Enables Patent Litigation Abuse

As previously outlined, the patent litigation landscape is marred by an overabundance of nuisance-value suits.²⁰⁷ Notice pleading facilitates the proliferation of these suits in several ways.

1. Lowers Costs for Plaintiffs

First, notice pleading drastically lowers costs for plaintiffs.²⁰⁸ A patent infringement complaint, as discussed earlier, is simple and typically only a few pages in length.²⁰⁹ Thus, a plaintiff does not incur substantial costs to prepare and file it.²¹⁰ These factors incentivize the filing of nuisance-value infringement suits because a plaintiff does not stand to lose a significant amount of money by filing a complaint.²¹¹ Instead, the plaintiff stands to profit from a likely quick settlement.²¹²

In theory, a plaintiff in a patent infringement action, like all plaintiffs, would still incur costs based on the presuit investigation requirement contained in Rule

had not argued that the complaint was sufficient under Form 18 and Rule 84 of the Federal Rules of Civil Procedure).

- ²⁰⁸ See, e.g., Marcus, Revival of Fact Pleading, supra note 124, at 477 (discussing notice pleading and noting that "[t]he Federal Rules were designed, in part, to open the federal courts to those of lesser means").
- ²⁰⁹ See supra Part II.B; see also Tyler, supra note 100 (noting that patent infringement complaints are usually only four or five pages long).
- ²¹⁰ See, e.g., JAFFE & LERNER, supra note 35, at 152. Indeed, if a patentee is represented on a contingency fee basis, no costs are incurred.
- ²¹¹ See Tyler, supra note 100 ("A patent complaint requires remarkably little information.... Yet this simple, non-specific complaint has a nuisance value of a few hundred thousand dollars the minute it is filed and served.").

²⁰⁶ Ashcroft v. Iqbal, 129 S. Ct. 1937, 1949 (2009) (citing Bell Atl. Corp. v. Twombly, 550 U.S. 544, 555 (2007)).

²⁰⁷ See supra Part I.C.

²¹² See supra Part I.C.

11.²¹³ Specifically, as outlined by the Federal Circuit, "Rule 11 requires an attorney who files a patent infringement action to compare the accused device with the construed patent claims."²¹⁴ This necessarily requires that the "attorney interpret the pertinent claims of the patent in issue before filing a complaint alleging patent infringement."²¹⁵ In other words, an attorney must, "at a bare minimum, apply the claims of each and every patent that is being brought into the lawsuit to an accused device and conclude that there is a reasonable basis for a finding of infringement of at least one claim of each patent so asserted."²¹⁶ Thus, theoretically, an attorney will conduct a pre-filing investigation that will include construing the patent's claims and applying that construction to a specific product manufactured by the defendant.²¹⁷

Under the current notice pleading regime, however, this presuit investigation requirement imposes few real costs on a plaintiff in an infringement case. Despite the Federal Circuit's broad statements, often the actual presuit investigation required by courts is minimal.²¹⁸ The safe harbor provision in Rule 11 also allows unscrupulous parties to easily get away with failing to conduct an investigation prior to filing suit.²¹⁹ A plaintiff does not need to disclose this Rule 11 determina-

²¹⁴ Antonious v. Spalding & Evenflo Cos., 275 F.3d 1066, 1073 (Fed. Cir. 2002); see also Q-Pharma, Inc. v. Andrew Jergens Co., 360 F.3d 1295, 1300–01 (Fed. Cir. 2004); View Eng'g, Inc. v. Robotic Vision Sys., Inc., 208 F.3d 981, 986 (Fed. Cir. 2000).

²¹⁵ Antonious, 275 F.3d at 1072.

²¹⁶ View Eng'g, Inc., 208 F.3d at 986.

²¹⁷ See id.

²¹³ See FED. R. CIV. P. 11(b); see also Cooter & Gell v. Hartmarx Corp., 496 U.S. 384, 393 (1990) ("Rule 11 imposes a duty on attorneys to certify that they have conducted a reasonable inquiry and have determined that any papers filed with the court are well grounded in fact, legally tenable, and 'not interposed for any improper purpose.""); Christian v. Mattel, Inc., 286 F.3d 1118, 1127 (9th Cir. 2002) ("The attorney has a duty prior to filing a complaint not only to conduct a reasonable factual investigation, but also to perform adequate legal research").

²¹⁸ See, e.g., Apple Computer, Inc. v. Articulate Sys., Inc., 234 F.3d 14, 27 (Fed. Cir. 2000) (concluding that a pretrial investigation was sufficient when the only proof was a single entry in the plaintiff's privilege log that was never produced to the opposing party); Thomas I. Ross, *Making Patent Plaintiffs Pay*, INTELL. PROP. & TECH. L.J., June 2006, at 1, 2 (noting that "Rule 11 is ineffective as a sword against patent plaintiffs").

²¹⁹ See FED. R. CIV. P. 11(c)(2) (stating that a motion for sanctions under Rule 11 cannot be filed until a party is given the opportunity to withdraw the challenged filing, claim, or other argument within twenty-one days). See generally Lonnie T. Brown, Jr., Ending Illegitimate Advocacy: Reinvigorating Rule 11 Through Enhancement of the Ethical Duty to Report, 62 OHIO ST. L.J. 1555 (2001) (describing how Rule 11 is easily circumvented by ill-intentioned attorneys).

tion, either, making it difficult for a defendant to value the suit for settlement purposes.²²⁰ Further, the scope of a patent's claim is typically ambiguous and it is difficult to know with any certainty how a court will construe it.²²¹ This fact benefits nuisance-value plaintiffs, as it allows them to bring actions that lack merit but satisfy the minimal requirements of Rule 11.²²² Thus, notice pleading undermines the Rule 11 deterrent and further lowers the costs a plaintiff must incur prior to filing an infringement complaint.

For example, in a recent case, the Federal Circuit considered whether a plaintiff's counsel had sufficiently investigated whether the defendant's website infringed a patent for an interface between electronic and hard copies of documents.²²³ The plaintiff was a patent holding company that asserted numerous identical infringement actions against a variety of companies.²²⁴ The court concluded that the investigation was adequate because the plaintiff's counsel "examine[d] portions of [the defendant's] website and, based on his experience, concluded that it worked in a manner that infringed the [plaintiff's] patent."²²⁵ As this case illustrates, a cursory pre-filing inquiry can suffice in infringement cases demonstrating that this mechanism is not suitable for deterring the filing of nuisance-value suits.

2. Increases Costs for Defendants

Notice pleading also facilitates the filing of patent infringement suits, and therefore nuisance-value settlements, by increasing an alleged infringer's costs, particularly the costs of responding to a complaint. As a general matter, notice pleading is problematic when applied to technologically complex areas of the law be-

See FED. R. CIV. P. 11(b) (stating that presenting a pleading to the court certifies, *inter alia*, that it has been presented following a reasonable investigation); see also FED. R. CIV. P. 26(b)(3)(A) ("Ordinarily, a party may not discover documents and tangible things that are prepared in anticipation of litigation or for trial by or for another party or its representative (including the other party's attorney, consultant, surety, indemnitor, insurer, or agent)."). Indeed, this information is also potentially subject to the attorney-client privilege or work-product protection. See MENELL ET AL., supra note 44, at 4-8.

²²¹ See supra notes 106–08 and accompanying text.

²²² Sudarshan, *supra* note 9, at 176–77.

²²³ Eon-Net L.P. v. Flagstar Bancorp, 249 F. App'x 189, 189–90 (Fed. Cir. 2007).

²²⁴ *Id.* at 197.

²²⁵ *Id.* at 196.

cause it increases a defendant's response costs.²²⁶ More specifically, the cases previously mentioned, both before and after *Twombly*, typically do not require a plaintiff to specify the claim being infringed, nor the allegedly infringing product or process.²²⁷ Thus, an infringement complaint does not inform a defendant of what the case is truly about, requiring a defendant to expend substantial resources in order to effectively respond.²²⁸

These expenses generally result from the lack of two details in a complaint. First, most patent infringement suits allege infringement of patents with numerous claims, or assert infringement of several patents.²²⁹ As a result, a defendant must expend time and effort interpreting each potentially applicable claim, performing prior art searches for potential invalidity defenses, and preparing non-infringement defenses, which typically require hiring experts.²³⁰ This process often occurs during the period before an answer is filed so that a defendant can assert any applicable affirmative defenses.²³¹ This period is limited: twenty days after a complaint is served, or sixty days if a defendant waives service of process.²³² Responding in this short period of time, therefore, entails significant costs and may preclude a defendant from mounting an effective defense.²³³ Further, unlike nuisance-value plaintiffs, courts typically require defendants to plead additional detail for affirmative defenses such as invalidity and inequitable conduct.²³⁴ Accordingly, even

²²⁸ See Donoghue, supra note 94, at 6.

²²⁹ E.g., Sudarshan, *supra* note 9, at 164–65.

- ²³¹ See FED. R. CIV. P. 8(c)(1).
- ²³² FED. R. CIV. P. 12(a)(1)(A); *see also* FED. R. CIV. P. 4(d) (outlining the process for waiver which results in an extension of the time to answer).
- ²³³ See Donoghue, supra note 94, at 3–4.
- ²³⁴ See MENELL ET AL., supra note 44, at 2-23 to 2-24 (discussing the heightened pleading requirements for inequitable conduct and noting that "[c]ourts can require defendants to identify specific prior art references they intend to assert as invalidating and to disclose invalidity claims based on written description, indefiniteness, or enablement"); N.D. CAL. LOCAL PATENT R. 3-3; see also infra Part III.B (discussing the application of Federal Rule of Civil Procedure 9(b) to inequitable conduct).

²²⁶ See Richard A. Epstein, Bell Atlantic v. Twombly: How Motions to Dismiss Become (Disguised) Summary Judgments, 25 WASH. U. J.L. & POL'Y 61, 65 (2007) (noting how notice pleading does not work well in complex litigation).

²²⁷ See supra Part II.B.

²³⁰ *Id.* at 165; see also Donoghue, supra note 94, at 12–13 (describing this burden as "Herculean").

without an effective Rule 11 limitation, defendants need to conduct additional investigation and incur unique costs in responding to an infringement complaint.²³⁵

Additionally, large companies are the most common target of nuisance-value suits.²³⁶ Since a plaintiff does not need to plead the specific method of infringement by a defendant, a large company will need to investigate which of its products may be infringing—an expensive undertaking.²³⁷ Thus, overall, notice pleading imposes significant costs on alleged infringers, which only further encourages nuisance-value settlements and, therefore, the filing of nuisance-value claims.

3. Prevents Early Dismissal

As previously discussed, the overall paradigm of the Federal Rules is that discovery will expose meritless claims and that such claims can then be disposed of through motions for summary judgment.²³⁸ Accordingly, the minimal pleading requirements of Rule 8(a) were intended to prevent the dismissal of cases until after discovery occurs.²³⁹

In the patent context, however, this minimal pleading threshold prevents dismissal until after costly, and typically lengthy, discovery has occurred.²⁴⁰ As a result, accused infringers are forced to decide between settlement and incurring the substantial expenses associated with discovery.²⁴¹ Further, these costs are dispro-

- ²³⁷ See Donoghue, supra note 94, at 12–13.
- ²³⁸ See supra notes 134–35 and accompanying text.

²³⁵ For example, a patent is presumed to be valid, 35 U.S.C. § 282 (2006), so a plaintiff does not need to investigate the validity of a patent as part of its Rule 11 pre-filing investigation, whereas a defendant would need to do so in order to assert an invalidity defense. See MENELL ET AL., supra note 44, at 2-28 to 2-29; see also Q-Pharma, Inc. v. Andrew Jergens Co., 360 F.3d 1295, 1303 (Fed. Cir. 2004).

²³⁶ See Douglas L. Price, Assessing the Patentability of Financial Services and Products, 3 J. HIGH TECH. L. 141, 157 (2004) ("[T]here has been a substantial increase in nuisance cases by smaller companies who seek wealth by bringing patent infringement suits against larger companies."); see also Bessen & Meurer, Lessons, supra note 26, at 14 (noting that "small firms and independent inventors might engage in more opportunistic litigation").

²³⁹ See, e.g., Epstein, supra note 226, at 69–70 (noting the link between pleading standards and discovery); see also supra note 137 and accompanying text.

²⁴⁰ See, e.g., Donoghue, supra note 94, at 6; Heller & Gollin, supra note 97, § 70.01 (discussing the costs of discovery in patent infringement actions); see also supra notes 48–52 and accompanying text.

²⁴¹ Donoghue, *supra* note 94, at 6; Harkins, *supra* note 59, at 443–44.

portionately allocated to defendants.²⁴² It should come as no surprise, therefore, that a large percentage of infringement cases settle before discovery fully begins.²⁴³ For these reasons, notice pleading facilitates the proliferation of nuisance-value patent infringement claims.

IV. The Use of Heightened Pleading for Patent Infringement Actions

As the above analysis demonstrates, notice pleading is problematic in patent infringement actions. But are there any alternatives? This section explores the use of heightened, or particularized, pleading. Essentially, this alternative requires a plaintiff to plead more detail in support of a claim. Implementing this approach in patent cases presents an opportunity to remedy the ills caused by notice pleading and to begin addressing the current patent litigation predicament.

A. Heightened Pleading and Its Use in Other Areas

Other areas of the law use heightened pleading as a mechanism to reduce the amount of costly, time-consuming, and often frivolous litigation.²⁴⁴ Examining some of these areas, along with the rationales for why heightened pleading was implemented, provides a useful background for why adopting a similar approach is appropriate for patent infringement actions.

1. Federal Rule of Civil Procedure 9(b)

The Federal Rules of Civil Procedure contain one prominent example of heightened pleading requirements. Rule 9 states that "a party must state with particularity the circumstances constituting fraud or mistake."²⁴⁵ Generally, courts have interpreted this language to require a plaintiff to plead facts regarding who made a false statement, when and where it was made, as well as the content of the statement.²⁴⁶ Depending on the specific subject matter, some courts require even more detail.²⁴⁷

²⁴² See supra notes 91–96 and accompanying text.

²⁴³ See, e.g., BESSEN & MEURER, supra note 5, at 131–32.

²⁴⁴ See Bell Atl. Corp. v. Twombly, 550 U.S. 544, 569 n.14 (2007) ("On certain subjects understood to raise a high risk of abusive litigation, a plaintiff must state factual allegations with greater particularity than Rule 8 requires.").

²⁴⁵ FED. R. CIV. P. 9(b).

²⁴⁶ See, e.g., Benchmark Elecs., Inc. v. J.M. Huber Corp., 343 F.3d 719, 724 (5th Cir. 2003) ("Put simply, Rule 9(b) requires 'the who, what, when, where, and how' to be laid out." (quoting Williams v. WMX Techs., Inc., 112 F.3d 175, 179 (5th Cir. 1997))); U.S. ex rel. Costner v. United

The requirement of particularized facts has several rationales.²⁴⁸ First, it discourages meritless claims of fraud or mistake, which are frequently advanced solely for their settlement value and which impose substantial costs on courts and parties.²⁴⁹ Second, these claims cover such a wide variety of potential conduct that a defendant needs more information about the plaintiff's claim in order to prepare a responsive pleading.²⁵⁰ Particularity is also premised on the fact that fraud and mistake claims involve alleged conduct that incorporates some degree of moral turpitude, so particularity is needed to protect defendants from lightly made claims.²⁵¹ These considerations resulted in the particularity requirement in cases of fraud and mistake.

2. Securities Fraud

Securities fraud is one area where heightened pleading has been adopted by statute. Pursuant to federal securities statutes and their accompanying implement-

States, 317 F.3d 883, 888 (8th Cir. 2003) (noting that Rule 9(b) requires a claim to "identify who, what, where, when, and how"); Arruda v. Sears, Roebuck & Co., 310 F.3d 13, 19 (1st Cir. 2002) (stating that Rule 9(b) requires a plaintiff to specify "the time, place, and content of the alleged false or fraudulent representations" (quoting Powers v. Boston Cooper Corp., 926 F.2d 109, 111 (1st Cir. 1991))); Ullmo *ex rel.* Ullmo v. Gilmour Acad., 273 F.3d 671, 678 (6th Cir. 2001); Harrison v. Westinghouse Savannah River Co., 176 F.3d 776, 784 (4th Cir. 1999); 5A WRIGHT & MILLER, *supra* note 117, § 1297.

²⁴⁷ 5A WRIGHT & MILLER, *supra* note 117, § 1297.

²⁴⁸ For a complete discussion of the rationales for Rule 9(b), see 5A WRIGHT & MILLER, supra note 117, § 1296.

²⁴⁹ See, e.g., Kearns v. Ford Motor Co., 567 F.3d 1120, 1125 (9th Cir. 2009); U.S. ex rel. Williams v. Martin-Baker Aircraft Co., 389 F.3d 1251, 1256 (D.C. Cir. 2004); U.S. ex rel. Clausen v. Lab. Corp. of Am., Inc., 290 F.3d 1301, 1310 (11th Cir. 2002); 5A WRIGHT & MILLER, supra note 117, § 1296; see also Friedlander v. Nims, 755 F.2d 810, 813 n.3 (11th Cir. 1985) (noting that Rule 9(b) serves to "eliminate fraud actions in which all the facts are learned through discovery after the complaint is filed").

 ²⁵⁰ See, e.g., Williams, 389 F.3d at 1256; Clausen, 290 F.3d at 1310; Koch v. Koch Indus., Inc., 203 F.3d 1202, 1236–37 (10th Cir. 2000); 5A WRIGHT & MILLER, supra note 117, § 1296.

²⁵¹ See Kearns, 567 F.3d at 1125 (noting that a purpose of Rule 9(b) is "to protect those whose reputation would be harmed as a result of being subject to fraud charges"); Ackerman v. Nw. Mut. Life Ins. Co., 172 F.3d 467, 469 (7th Cir. 1999); Harsco Corp. v. Segui, 91 F.3d 337, 347 (2d Cir. 1996); Guidry v. Bank of LaPlace, 954 F.2d 278, 288 (5th Cir. 1992) ("This higher standard stems from the obvious concerns that general, unsubstantiated charges of fraud can do damage to a defendant's reputation."); 5A WRIGHT & MILLER, *supra* note 117, § 1296.

ing regulations, private individuals can bring a civil action for securities fraud.²⁵² The federal securities statutes forbid publicly traded companies from using "any manipulative or deceptive device" in connection with the purchase or sale of securities.²⁵³ Further, Securities and Exchange Commission Rule 10b-5 prohibits, in part, making "any untrue statement of a material fact," or failing "to state a material fact necessary in order to make the statements made . . . not misleading."²⁵⁴ Courts have implied the right to a private damages action from these sources.²⁵⁵

In 1995, Congress passed the Private Securities Litigation Reform Act, over the President's veto, to address alleged abuses in securities litigation.²⁵⁶ A key section of this legislation involved heightening the pleading requirements for private securities fraud actions.²⁵⁷ Specifically, the Act required a complaint for securities fraud, for each alleged violation, to "state with particularity facts giving rise to a strong inference that the defendant acted with the required state of mind."²⁵⁸

These heightened pleading standards were designed to "curb perceived abuses of the [section] 10(b) private action."²⁵⁹ Specifically, Congress noted the practice of routinely filing costly and burdensome lawsuits for the purpose of extracting "exorbitant 'settlements."²⁶⁰ The high costs of these suits created incentives for

²⁵⁴ 17 C.F.R. § 240.10b-5 (2009).

- ²⁵⁷ See PSLRA § 1, 109 Stat. at 746–47.
- ²⁵⁸ 15 U.S.C. § 78u-4(b)(2) (2006). Several courts have concluded that this statutory pleading standard is essentially the same standard as Federal Rule of Civil Procedure 9(b). See, e.g., Institutional Investors Group v. Avaya, Inc., 564 F.3d 242, 253 (3d Cir. 2009); Rubke v. Capitol Bancorp Ltd., 551 F.3d 1156, 1165 (9th Cir. 2009); Miss. Pub. Employees' Ret. Sys. v. Boston Scientific Corp., 523 F.3d 75, 85 n.5 (1st Cir. 2008).

²⁵² E.g., Dura Pharms., Inc. v. Broudo, 544 U.S. 336, 341 (2005) ("Private federal securities fraud actions are based upon federal securities statutes and their implementing regulations.").

²⁵³ 15 U.S.C. § 78j (2006); see also id. § 78u-4(b).

²⁵⁵ E.g., Dura Pharms., Inc., 544 U.S. at 341 ("The courts have implied from these statutes and Rule a private damages action, which resembles, but is not identical to, common-law tort actions for deceit and misrepresentation."); Herman & MacLean v. Huddleston, 459 U.S. 375, 380 (1983) ("The existence of this implied remedy is simply beyond peradventure.").

²⁵⁶ See Private Securities Litigation Reform Act, Pub. L. No. 104-67, 109 Stat. 737 (codified in scattered sections of 15 U.S.C.) [hereinafter PSLRA]; Marcus, *Puzzling Persistence, supra* note 117, at 1765.

²⁵⁹ Tellabs, Inc. v. Makor Issues & Rights, Ltd., 551 U.S. 308, 320 (2007).

²⁶⁰ H.R. REP. NO. 104-369, at 31-32 (1995) (Conf. Rep.).

parties to quickly settle, which only further encouraged the filing of additional claims.²⁶¹ In other words, heightened pleading addressed the problems of "nuisance filings, targeting of deep-pocket defendants, vexatious discovery requests, and manipulation by class action lawyers."²⁶² Thus, a more robust pleading requirement was implemented in securities fraud cases to limit such nuisance-value suits.

B. Applying a Heightened Pleading Standard to Patent Infringement Actions

Similar to these other types of cases, patent infringement litigation, as previously outlined, is expensive, time-intensive, and increasingly brought by nuisancevalue plaintiffs.²⁶³ As a result, like these other substantive areas, the pleading requirements for patent cases should be raised to curb litigation abuse.²⁶⁴

Initially, it is important to note that the pleading with particularity required by Rule 9(b) currently has limited application in patent cases. The sole area where courts apply the rule is to the affirmative defense of inequitable conduct.²⁶⁵ This defense alleges that the patentee, when applying for the patent, intended to mislead or deceive the patent examiner and "fail[ed] to disclose material information or

²⁶³ See supra Part I.

²⁶¹ See id: at 31.

²⁶² Tellabs, Inc., 551 U.S. at 320 (quoting Merrill Lynch, Pierce, Fenner & Smith Inc. v. Dabit, 547 U.S. 71, 81 (2006)).

²⁶⁴ Notably, other countries have imposed particularity requirements for pleading patent infringement actions. See, e.g., CPR 63.9 (U.K.), available at http://www.justice.gov.uk/civil/procrules_fin/pdf/parts/part63.pdf (requiring "particulars" in pleading patent infringement claim); see also CPR 63.9, PD ¶ 11.1 (U.K.), available at http://www.justice.gov.uk/civil/procrules_fin/pdf/practice_directions/pd_part63.pdf ("In a claim for infringement of a patent—(1) the statement of case must—(a) show which of the claims in the specification of the patent are alleged to be infringed; and (b) give at least one example of each type of infringement alleged . . ."). For a broader discussion of pre-trial patent procedure internationally, see generally Brian Daley et al., Pre-trial Proceedings in Patent Infringement Actions: A Comparison Among Canada, the United Kingdom, and the United States of America, 35 AIPLA Q.J. 113 (2007).

²⁶⁵ See, e.g., Exergen Corp. v. Wal-Mart Stores, Inc., 575 F.3d 1312, 1326–27 (Fed. Cir. 2009); Cent. Admixture Pharmacy Servs., Inc. v. Advanced Cardiac Solutions, P.C., 482 F.3d 1347, 1356–57 (Fed. Cir. 2007); Ferguson Beauregard/Logic Controls v. Mega Sys., L.L.C., 350 F.3d 1327, 1344 (Fed. Cir. 2003); see also Bartronics, Inc. v. Power-One, Inc., 245 F.R.D. 532, 535 (S.D. Ala. 2007) (listing cases); David Hricik, Wrong About Everything: The Application By the District Courts of Rule 9(b) to Inequitable Conduct, 86 MARQ. L. REV. 895, 905 (2003) ("A long line of district courts have held that Rule 9(b) applies to inequitable conduct claims.").

submit[ted] materially false information to the PTO during prosecution."²⁶⁶ If proven, it renders the patent unenforceable.²⁶⁷ Because this defense is essentially a "fraud on the Patent Office," courts apply Rule 9(b) and require that it be plead with particularity.²⁶⁸ However, courts have resisted expanding the particularity requirement to other areas of patent law.²⁶⁹

1. Heightened Patent Pleading Generally

In light of the Supreme Court's decisions in *Twombly* and *Iqbal*, and given the current patent litigation predicament, it is time to revisit the application of heightened pleading requirements to infringement actions. But what would a particularized patent pleading regime look like?

- ²⁶⁷ E.g., Digital Control, Inc., 437 F.3d at 1313; Life Techs., Inc. v. Clontech Labs., Inc., 224 F.3d 1320, 1324 (Fed. Cir. 2000) ("A determination of inequitable conduct during the prosecution of a patent application renders the subsequently issued patent unenforceable.").
- ²⁶⁸ E.g., Burlington Indus., Inc. v. Dayco Corp., 849 F.2d 1418, 1422 (Fed. Cir. 1988) ("The charge was formerly known as 'fraud on the Patent Office,' a more pejorative term, but the change of name does not make the thing itself smell any sweeter."); see also Venetec Int'l, Inc. v. Nexus Med., L.L.C., 541 F. Supp. 2d 612, 618 (D. Del. 2008) ("Because inequitable conduct is a claim sounding in fraud, Rule 9(b) applies which requires the elements of inequitable conduct to be pled with particularity."). Specifically, the Federal Circuit has held that "in pleading inequitable conduct in patent cases, Rule 9(b) requires identification of the specific who, what, when, where, and how of the material misrepresentation or omission committed before the PTO." Exergen Corp., 575 F.3d at 1327.
- ²⁶⁹ See, e.g., Cent. Admixture Pharmacy Servs., Inc. v. Advanced Cardiac Solutions, P.C., 482 F.3d 1347, 1356 (Fed. Cir. 2007) (declining to apply Rule 9 to a claim for willful infringement); Ferguson Beauregard/Logic Controls, Div. of Dover Res., Inc. v. Mega Sys., L.L.C., 350 F.3d 1327, 1343 (Fed. Cir. 2003) ("Willfulness does not equate to fraud, and thus, the pleading requirement for willful infringement does not rise to the stringent standard required by Rule 9(b).").

²⁶⁶ Digital Control, Inc. v. Charles Mach. Works, 437 F.3d 1309, 1313 (Fed. Cir. 2006); see Exergen Corp., 575 F.3d at 1327 n.3 ("The substantive elements of inequitable conduct are: (1) an individual associated with the filing and prosecution of a patent application made an affirmative misrepresentation of a material fact, failed to disclose material information, or submitted false material information; and (2) the individual did so with a specific intent to deceive the PTO."); Bruno Indep. Living Aids, Inc. v. Acorn Mobility Servs., Ltd., 394 F.3d 1348, 1351 (Fed. Cir. 2005); see also 37 C.F.R. § 1.56(a) (2009) ("Each individual associated with the filing and prosecution of a patent application has a duty of candor and good faith in dealing with the Office, which includes a duty to disclose to the Office all information known to that individual to be material to patentability as defined in this section.").

Generally, heightened pleading would require the pleading of additional detail to support an infringement claim.²⁷⁰ More specifically, adopting a heightened pleading standard would require a plaintiff, similar to the approach currently adopted by some courts, to specifically identify the claims of the patent that a defendant is allegedly infringing.²⁷¹ It would also require a plaintiff to specifically allege how the defendant is infringing.²⁷² Thus, a plaintiff would need to identify how the defendant's products, processes, or acts infringe specific patent claims.

This modification could also have implications for the pleading of patent claim construction. As previously outlined, ambiguity in the current claim construction jurisprudence allows nuisance-value patentees to undermine the efficacy of the Rule 11 pre-suit investigation requirement.²⁷³ A particularity requirement, however, could incorporate requiring a patentee to include in the complaint how it is construing the patent's claims to come to the conclusion that the defendant is infringing. After all, the plaintiff, in theory, should be conducting a claim construction analysis prior to filing suit anyway.²⁷⁴ Although plaintiffs could amend their complaint as discovery progressed, they would still be required to make an initial showing of sufficient facts before discovery could begin.²⁷⁵ By requiring plaintiffs to initially plead this claim construction, defendants would receive additional notice and the purposes of Rule 11 would be more effectively vindicated.²⁷⁶

A heightened pleading standard in infringement suits would also address the perverse incentives created by the current use of notice pleading.²⁷⁷ First, it would increase a nuisance-value plaintiff's costs of filing an infringement suit because the

²⁷⁰ See Christopher M. Fairman, The Myth of Notice Pleading, 45 ARIZ. L. REV. 987, 988 (2003) (noting that heightened pleading requires "greater factual detail").

²⁷¹ Donoghue, *supra* note 94, at 3; *see also supra* notes 190–91 and accompanying text.

²⁷² Donoghue, *supra* note 94, at 10.

²⁷³ See supra notes 221–22 and accompanying text.

²⁷⁴ See supra notes 215–17 and accompanying text.

²⁷⁵ This is because a motion to dismiss for failure to state a claim is made before discovery begins. FED. R. CIV. P. 12(b). A patentee would always be able to move the court to amend the complaint if necessary, which the rules state that a court should "freely give . . . when justice so requires." FED. R. CIV. P. 15(a)(2).

²⁷⁶ Cf. William M. Richman et al., The Pleading of Fraud: Rhymes Without Reason, 60 S. CAL. L. REV. 959, 969–71 (1987) (arguing that Rule 9(b) and Rule 8(a) should be harmonized and greater particularity required as needed for notice).

²⁷⁷ See supra Part II.C.

complaint would take more time and effort to prepare, and plaintiffs would be forced to incur presuit investigatory costs.²⁷⁸ These additional costs would make obtaining a nuisance-value settlement more difficult, thereby reducing the incentive to file a nuisance-value action.²⁷⁹

Second, a heightened pleading standard would provide an opportunity for defendants to avoid some of the costs associated with responding to nuisance-value suits. Insufficient pleading is addressed through a motion to dismiss for failure to state a claim.²⁸⁰ A defendant makes this motion prior to filing an answer.²⁸¹ Because affirmative defenses, such as patent invalidity, are not raised until an answer is filed,²⁸² this means that a defendant would not have to incur the significant costs of preparing an invalidity defense until the court rules on the motion.²⁸³ Thus, heightened pleading allows a defendant to put off many of the costs associated with responding to an infringement claim and reduces the incentive to immediately agree to nuisance-value settlements.

Additionally, heightened pleading would theoretically limit the costs a defendant would need to incur in order to prepare an answer in response to a nuisancevalue infringement claim. A defendant would no longer be forced to determine which patent claims were at issue or how those claims were being infringed when preparing its answer.²⁸⁴ Although a plaintiff could seek to amend these claims, a defendant could then move to amend its answer in response or argue that permitting the plaintiff's amendment would not be in the interests of justice.²⁸⁵ By shifting

- ²⁸⁰ See FED. R. CIV. P. 12(b)(6).
- ²⁸¹ FED. R. CIV. P. 12(b).
- ²⁸² FED. R. CIV. P. 8(c).
- ²⁸³ See supra notes 97–98 and accompanying text.
- ²⁸⁴ See supra Part II.B.
- ²⁸⁵ See FED. R. CIV. P. 15(a). Several courts have denied plaintiff-patentees' motions to amend pursuant to this provision. See, e.g., Hutchins v. Zoll Med. Corp., 430 F. Supp. 2d 24, 36–37 (D. Mass. 2006) (denying a patentee's motion to amend the complaint where it would be prejudicial and overly burdensome to the defendant); Ameritek, Inc. v. Carolina Lasercut Corp., 891 F. Supp. 254, 255–56 (M.D.N.C. 1994) (same).

²⁷⁸ See Pamela H. Bucy, Private Justice, 76 S. CAL. L. REV. 1, 75 (2002) (noting that a heightened pleading regime will require a plaintiff to conduct a "thorough investigation and well-conceived pleading from the beginning of a case").

²⁷⁹ See JAFFE & LERNER, supra note 35, at 176–77 (noting how doctrinal shifts by courts affect patentees' willingness to bring infringement suits).

this burden to the plaintiff, it would also provide another disincentive for plaintiffs contemplating filing a nuisance-value suit.²⁸⁶

Similarly, more stringent pleading requirements would also facilitate the early dismissal of dubious infringement claims.²⁸⁷ Heightened pleading would allow for early dismissal of these claims before the discovery process begins.²⁸⁸ This is obviously related to lowering a defendant's costs, because the earlier a patent case is resolved, the fewer costs a defendant must incur.²⁸⁹ Thus, overall, particularized pleading in patent infringement cases would impose additional costs on plaintiffs and lower the burden on defendants, reducing the incentives that currently foster the filing of nuisance-value infringement claims.

Moreover, adopting more stringent pleading requirements would effectuate the Supreme Court's decisions in *Twombly* and *Iqbal*. In *Twombly*, the Court sent a clear signal that the particularity required in pleading a substantive cause of action should be linked to the practical realities associated with that cause of action, and recognized how pleading standards can serve as a critical tool in streamlining litigation and its costs.²⁹⁰ Essentially, the Court recognized that in certain types of cases,

²⁸⁶ See Randy J. Kozel & David Rosenberg, Solving the Nuisance-Value Settlement Problem: Mandatory Summary Judgment, 90 VA. L. REV. 1849, 1856 (2004) (stating that a factor in the success of a nuisance-value litigation strategy is the cost to the initiating party versus the cost of an opposing party responding).

²⁸⁷ See Marcus, Revival of Fact Pleading, supra note 124, at 454 (arguing that pleadings practice should be used to resolve cases on the merits); see also Giarratano v. Johnson, 521 F.3d 298, 304 n.3 (4th Cir. 2008) (noting that "the Twombly standard is even more favorable to dismissal of a complaint").

²⁸⁸ See supra note 275 and accompanying text; see also U.S. ex rel. Grubbs v. Kanneganti, 565 F.3d 180, 185 (5th Cir. 2009) (stating that *Twombly* "raises a hurdle in front of what courts had previously seen as a plaintiff's nigh immediate access to discovery" and noting that "[i]n cases of fraud, Rule 9(b) has long played that screening function, standing as a gatekeeper to discovery").

²⁸⁹ See BESSEN & MEURER, supra note 5, at 131.

²⁹⁰ See Bell Atl. Corp. v. Twombly, 550 U.S. 544, 557–60 (2007); see also Francis v. Giacomelli, 588 F.3d 186, 193 (4th Cir. 2009) (noting that *Iqbal* and *Twombly* sought to address "the recognized problems created by 'strike suits'... and the high costs of frivolous litigation"); Smith v. Duffey, 576 F.3d 336, 340 (7th Cir. 2009) ("The [*Twombly*] Court held that in complex litigation . . . the defendant is not to be put to the cost of pretrial discovery—a cost that in complex litigation can be so steep as to coerce a settlement on terms favorable to the plaintiff even when his claim is very weak—unless the complaint says enough about the case to permit an inference that it may well have real merit."). This position has previously appeared in the Court's jurisprudence. *E.g.*, Associated Gen. Contractors of Cal., Inc. v. Cal. State Council of Carpenters, 459 U.S. 519, 528 n.17 (1983) ("Certainly, in a case of this magnitude, a district court must retain the power to insist

practical realities interfere with the notice function of complaints.²⁹¹ Similar concerns were raised in *Iqbal*.²⁹² The potential benefits of heightening these requirements indicate that courts should seize this opportunity to address the current patent litigation predicament.²⁹³

2. Interaction with Form 18 and the Need for Revision

A significant related issue is how a heightened pleading requirement would interact with Form 18, which requires only a few cursory statements in order for a complaint to survive a motion to dismiss.²⁹⁴ These minimal requirements conflict with *Twombly* and *Iqbal*, which require a plaintiff to provide a more "plausible" pleading.²⁹⁵

This inconsistency dictates the revision of Form 18.²⁹⁶ These revisions could incorporate a heightened pleading standard.²⁹⁷ The form was originally drafted when the rules were first promulgated in 1938.²⁹⁸ Since that time, it has not undergone any substantive revisions.²⁹⁹

upon some specificity in pleading before allowing a potentially massive factual controversy to proceed."); Blue Chip Stamps v. Manor Drug Stores, 421 U.S. 723, 741 (1975).

²⁹¹ See Twombly, 550 U.S. at 557–59.

²⁹² See Ashcroft v. Iqbal, 129 S. Ct. 1937, 1953 (2009); see also Hecker v. Deere & Co., 569 F.3d 708, 710 (7th Cir. 2009) (noting that "*Iqbal* reinforces *Twombly*'s message").

²⁹³ See Donoghue, supra note 94, at 13; see also Douglas G. Smith, The Twombly Revolution?, 36 PEPP. L. REV. 1063, 1067 (2009) ("As the costs of litigation increase and the scope of discovery expands, the need for more stringent pleading standards increases.").

²⁹⁴ See A. Benjamin Spencer, Understanding Pleading Doctrine, 108 MICH. L. REV. 1, 12–13 (2009) (noting the tension between the forms and the pleading standard outlined in Twombly); see also supra notes 167–70.

- ²⁹⁵ See supra notes 202, 206 and accompanying text.
- ²⁹⁶ See McZeal v. Sprint Nextel Corp., 501 F.3d 1354, 1360 (Fed. Cir. 2007) (Dyk, J., concurring in part, dissenting in part) ("One can only hope that the rulemaking process will eventually result in eliminating the form, or at least in revising it to require allegations specifying which claims are infringed, and the features of the accused device that correspond to the claim limitations.").

²⁹⁷ See id.

- ²⁹⁸ See FED. R. CIV. P. Form 16 (1938), reprinted at 303 U.S. 775-76.
- ²⁹⁹ Compare id., with FED. R. CIV. P. Form 18; see McZeal, 501 F.3d at 1360 (Dyk, J., concurring in part, dissenting in part). In 1963, the prayer for relief section of the form was amended to conform to the language of 35 U.S.C. § 284.

Patent law, however, has undergone significant changes since 1938, which have not been accounted for in the form.³⁰⁰ During the early twentieth century, through a series of decisions, the Supreme Court established a clear anti-patent framework, which one commentator described as its "most virulent anti-patent era."³⁰¹ Thus, the federal rules were drafted in an era of limited patent rights.

However, since that time, two significant changes occurred. First, the passage of the 1952 Patent Act represented a doctrinal shift in patent law.³⁰² Generally, the Act overturned the Supreme Court's prior anti-patent jurisprudence.³⁰³ For example, changes in the joint inventorship doctrine made patent invalidation less likely.³⁰⁴ The Act also clarified what rights a patent conferred and approved of the corporate patent strategy of acquiring "blocking patents."³⁰⁵

³⁰² See Bryson Act, Pub. L. No. 82-593, 66 Stat. 792 (1952); Merges, supra note 300, at 2221-24.

³⁰⁰ See generally Robert P. Merges, One Hundred Years of Solicitude: Intellectual Property Law, 1900–2000, 88 CAL. L. REV. 2187 (2000).

³⁰¹ Id. at 2223; see David Silverstein, Patents, Science, and Innovation: Historical Linkages and Implications for Global Technological Competitiveness, 17 RUTGERS COMPUTER & TECH. L.J. 261, 304 (1991) (describing this period as the "Dark Ages" in the history of the U.S. patent system); see also Great Atl. & Pac. Tea Co. v. Supermarket Equip. Corp., 340 U.S. 147, 152 (1950) ("The function of a patent is to add to the sum of useful knowledge. Patents cannot be sustained when, on the contrary, their effect is to subtract from former resources freely available to skilled artisans."); id. at 158 (Douglas, J., concurring) ("The patent involved in the present case belongs to this list of incredible patents which the Patent Office has spawned. The fact that a patent as flimsy and as spurious as this one has to be brought all the way to this Court to be declared invalid dramatically illustrates how far our patent system frequently departs from the constitutional standards which are supposed to govern."); Jungersen v. Ostby & Barton Co., 335 U.S. 560, 566-68 (1949) (invalidating a patent for "want of invention"); id. at 572 (Jackson, J., dissenting) (stating that "the only patent that is valid is one which this Court has not been able to get its hands on"); Mercoid Corp. v. Mid-Continent Inv. Co., 320 U.S. 661, 665-69 (1944) (stating that "the limits of the patent are narrowly and strictly confined to the terms of the grant" and deciding to "limit substantially the doctrine of contributory infringement"); Cuno Eng'g Corp. v. Automatic Devices Corp., 314 U.S. 84, 91-92 (1941) (adopting a heightened test for patentability, which was to be strictly applied, that required a "flash of creative genius").

³⁰³ Merges, *supra* note 300, at 2223.

³⁰⁴ Merges, *supra* note 300, at 2222.

³⁰⁵ Merges, *supra* note 300, at 2222; *see also* Prima Tek II, L.L.C. v. A-Roo Co., 222 F.3d 1372, 1379 n.2 (Fed. Cir. 2000) ("A 'blocking patent' is an earlier patent that must be licensed in order to practice a later patent. This often occurs, for instance, between a pioneer patent and an improvement patent.").

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Second, the Federal Circuit's creation in 1982 effected significant changes in patent law.³⁰⁶ In addition to making it easier to obtain a patent, the Federal Circuit has made patents easier to enforce.³⁰⁷ The court also made a substantial impact on the remedies available for infringement.³⁰⁸ In short, the creation of the Federal Circuit served to expand patent rights well beyond their scope when the federal rules, and thus Form 18, were drafted. Overall, these changes in patent law since the 1930s are in stark contrast to the relative stability of other substantive legal theories, such as negligence, which are also illustrated in the official forms.³⁰⁹

Additionally, patents themselves are significantly more complex today than they were when Form 18 was originally drafted. As the twentieth century progressed, there was a drastic increase in the number of claims per patent.³¹⁰ The underlying technology also became significantly more complicated during this period.³¹¹ Further, as previously mentioned, patents play a much larger role in modern society.³¹² For example, in 1938, 43,130 patents were issued, out of 75,006 applications.³¹³ In contrast, in 2008, over four times as many patents were issued

³⁰⁸ See JAFFE & LERNER, supra note 35, at 110–16 (discussing how the Federal Circuit has strengthened the remedies available to a patentee for infringement).

³⁰⁹ See Martin A. Kotler, The Myth of Individualism and the Appeal of Tort Reform, 59 RUTGERS L. REV. 779, 780 (2007) (noting the "relative stability in tort law throughout much of the twentieth century"). The Federal Rules contain an illustrative form for negligence. FED. R. CIV. P. Form 11. This form also has not changed significantly over time. Compare id., with FED. R. CIV. P. Form 9 (1938), reprinted at 308 U.S. 771.

³¹⁰ See, e.g., John R. Allison & Mark A. Lemley, *The Growing Complexity of the United States Patent System*, 82 B.U. L. REV. 77, 81 (2002) ("Patents issued in the 1990s contained approximately 50% more claims than patents issued in the 1970s.").

³¹¹ E.g., *id.* at 79–80.

³¹³ See U.S. PATENT & TRADEMARK OFFICE, U.S. PATENT ACTIVITY: CALENDAR YEARS 1790 TO THE PRESENT, at 2 (2009), available at http://www.uspto.gov/web/offices/ac/ido/oeip/taf/h_counts.pdf.

³⁰⁶ See Federal Courts Improvement Act of 1982, Pub. L. No. 97-164, 96 Stat. 25, 37 (codified as amended at 28 U.S.C. § 1295 (2006)); Merges, supra note 300, at 2224; Susan Sell, Intellectual Property and Public Policy in Historical Perspective: Contestation and Settlement, 38 Loy. L.A. L. REV. 267, 310 (2004) ("The United States' establishment of the Court of Appeals for the Federal Circuit . . . in 1982 also institutionalized a more pro-patent approach.").

³⁰⁷ See, e.g., BESSEN & MEURER, supra note 5, at 18; JAFFE & LERNER, supra note 35, at 115–23 (outlining how the Federal Circuit expanded patentable subject matter and made invalidity challenges more difficult).

³¹² See supra notes 31–34 and accompanying text.

out of almost seven times as many applications.³¹⁴ These changes only provide additional reasons to re-evaluate the content of Form 18 and the pleading requirements in patent infringement actions.³¹⁵

Alternatively, courts should interpret Form 18 in light of *Twombly* and *Iqbal*. For example, the sample infringement allegation in Form 18 is that "[t]he defendant has infringed and is still infringing . . . by making, selling, and using electric motors."³¹⁶ Several post-*Twombly* decisions have interpreted the use of the term "electric motors" as requiring a plaintiff to plead the specific product or method of infringement.³¹⁷ Another court narrowly interpreted the form as only applying when the plaintiff alleged solely direct infringement.³¹⁸ Accordingly, the claim that an alleged infringer "directly and/or indirectly" infringed the patents at issue precluded the patentee from relying on Form 18.³¹⁹

These decisions, however, are not uniform and, indeed, may not go far enough in the amount of information they require a patentee to plead. As a result, revising the form to require more detailed allegations is a preferable mechanism for addressing the problems created by notice pleading in patent infringement actions, and best effectuates *Twombly* and *Iqbal*.

³¹⁶ FED. R. CIV. P. Form 18.

³¹⁷ See, e.g., Eidos Commc'ns, L.L.C. v. Skype Techs. SA, ____ F. Supp. 2d ____, 2010 WL 638337, at *4 (D. Del. Feb. 24, 2010) ("The complaint at bar does not mimic Form 18, insofar as no category of product (or general identification of a process or method) is identified."); Bender v. Motorola, Inc., No. Civ. A. 09-1245 SBA, 2010 WL 726739, at *3 (N.D. Cal. Feb. 26, 2010) ("The form contemplates that the pleader identify the accused device with some semblance of specificity to alert the alleged infringer which device is at issue. It does not contemplate that the accused device or devices be described in terms of a multiplicity of generically-described product lines"); Ware v. Circuit City Stores, Inc., No. Civ. A. 4:05-CV-0156-RLV, 2010 WL 767094, at *2 (N.D. Ga. Jan. 5, 2010); Fifth Market, Inc. v. CME Group, Inc., No. Civ. A. 08-520 GMS, 2009 WL 5966836, at *1 (D. Del. May 14, 2009) ("Form 18 of Federal Rule of Civil Procedure 84 makes clear that, at a minimum, Fifth Market must allege, in general terms, an infringing product.").

³¹⁸ See Elan Microelectronics Corp. v. Apple, Inc., No. Civ. A. 09-01531 RS, 2009 WL 2972374, at
 *2 (N.D. Cal. Sept. 14, 2009).

³¹⁹ *Id.*

³¹⁴ See supra notes 32–33 and accompanying text.

³¹⁵ See McZeal v. Sprint Nextel Corp., 501 F.3d 1354, 1360–61 (Fed. Cir. 2007) (Dyk, J., concurring in part, dissenting in part); cf. Vangelis Economu, Sacking Super Sack: Using Existing Rules to Prevent Patentees from Fleeing an Improvident Patent Infringement Lawsuit, 8 J. MARSHALL REV. INTELL. PROP. L. 90 (2008) (discussing how courts can interpret procedural mechanisms in the Federal Rules of Civil Procedure to limit patent litigation abuse).

C. Counter-Arguments to Heightened Pleading

Twombly and *Iqbal* are not without their critics.³²⁰ Indeed, legislation has already been introduced in Congress to overrule them.³²¹ Many of these criticisms equally apply in the patent infringement context. In the end, however, the unique aspects of patent litigation indicate that the potential disadvantages of adopting heightened pleading for patent infringement are minimal.

1. Increased Patent Enforcement Costs

Heightened pleading reduces the incentive to file a nuisance-value suit, in part, by imposing additional costs on a plaintiff.³²² These additional costs, however, would not fall solely on nuisance-value plaintiffs.³²³ Instead, they would apply to all patent holders and potentially make enforcement of patent rights more difficult, particularly because it would lead to the dismissal of at least some meritorious claims.³²⁴ Because the primary justification of patents is their ability to

³²⁰ See, e.g., Bell Atl. Corp. v. Twombly, 550 U.S. 544, 596 (2007) (Stevens, J., dissenting) (criticizing the majority as enacting a "fundamental—and unjustified—change in the character of pretrial practice"); Spencer, *supra* note 148, at 433 (concluding that *Twombly* is "an unwarranted interpretation of Rule 8 that will frustrate the efforts of plaintiffs with valid claims to get into court"); Editorial, *Throwing Out Mr. Iqbal's Case*, N.Y. TIMES, May 20, 2009, at A28 (stating that *Iqbal* represents "[t]he [C]ourt's conservative majority . . . increasingly using legal technicalities to keep people from getting a fair hearing").

³²¹ See Notice Pleading Restoration Act of 2009, S. 1504, 111th Cong. § 2 (stating that "a Federal court shall not dismiss a complaint under rule 12(b)(6) or (e) of the Federal Rules of Civil Procedure, except under the standards set forth by the Supreme Court of the United States in Conley v. Gibson, 355 U.S. 41 (1957)"); Open Access to Courts Act, H.R. 4115, 111th Cong. (2009) ("A court shall not dismiss a complaint under subdivision (b)(6), (c), or (e) of Rule 12 of the Federal Rules of Civil Procedure unless it appears beyond doubt that the plaintiff can prove no set of facts in support of the claim which would entitle the plaintiff to relief. A court shall not dismiss a complaint under one of those subdivisions on the basis of a determination by the judge that the factual contents of the complaint do not show the plaintiff's claim to be plausible").

³²² See supra notes 278–79 and accompanying text.

³²³ See Robert G. Bone, Twombly, Pleading Rules, and the Regulation of Court Access, 94 IOWA L. REV. 873, 910–11 (2009) (discussing how heightened pleading, like any case-screening mechanism, affects both legitimate and meritless suits).

³²⁴ See Spencer, supra note 148, at 481 (noting that "plausibility pleading rejects potentially valid, meritorious claims").

incentivize innovation, making enforcement more difficult could have a detrimental impact on the incentive function of patents.³²⁵

In reality, however, this fear is unfounded. While some costs may be new, the particularized allegations that heightened pleading would entail are not imposing any costs that are not theoretically already required.³²⁶ Indeed, according to Rule 11, plaintiffs should be performing a pre-suit investigation anyway, at least to the extent possible, but notice pleading currently allows some of them to effectively shirk this responsibility.³²⁷ A heightened pleading requirement would therefore only impose additional costs on those unscrupulous plaintiffs that currently take advantage of this disparity.³²⁸ Thus, instead of requiring plaintiffs to discover more facts, heightened pleading merely requires that they put them into the complaint.³²⁹

Certainly, the new pleading regime would have some effect at the margins on the ability to enforce some patents. Infringement of some types of patents may be impossible to discover without the benefit of the broad discovery rules included in the Federal Rules of Civil Procedure.³³⁰ For example, process patents may become more difficult to enforce, especially if infringement occurs behind closed doors.³³¹

³²⁵ See Daniel R. Cahoy, An Incrementalist Approach to Patent Reform Policy, 9 N.Y.U. J. LEGIS. & PUB. POL'Y 587, 626 (2006) (noting that "a hobbled enforcement regime can greatly reduce [a patent system's] incentive value").

³²⁶ See Donoghue, supra note 94, at 3 ("Holding plaintiffs to a heightened pleading standard will not substantially increase a patent plaintiff's pre-filing burden.").

³²⁷ See supra Part II.C.1.

³²⁸ Unfortunately, no empirical data is available that would permit an estimate as to what percentage of patent infringement suits currently fall into this category.

³²⁹ Indeed, to the extent additional pre-filing requirements are imposed, as one commentator points out, requiring a greater investment in pre-filing investigation can "pay dividends later in the litigation if the results help guide a more efficient discovery process." Bone, *supra* note 323, at 926–27.

³³⁰ See Jeffrey I. D. Lewis & Art C. Cody, Unscrambling the Egg: Pre-Suit Infringement Investigations of Process and Method Patents, 84 J. PAT. & TRADEMARK OFF. SOC'Y 5, 19 (2002) (noting that it may be difficult for a plaintiff to establish infringement of a process patent prior to discovery); see also MENELL ET AL., supra note 44, at 2–29 (noting that "some infringement (for example, of software patents) is difficult to ascertain from publicly available information").

³³¹ See Lewis & Cody, supra note 330, at 7 ("When it comes to determining whether a process or business method infringes a patent, the inquiry is often illusive because critical information is not available to the patent holder."); see also Spencer, supra note 148, at 481 (noting that heightened pleading prevents discovery "in circumstances where the needed supporting facts lie within the exclusive possession of the defendants").

These cases, however, would likely be few and far between, and other methods exist to ensure the viability of enforcing these patents.³³² Thus, the overall benefits of adopting heightened pleading would justify any minimal costs that are created for this small subset of claims.

2. Alternate Mechanisms to Potentially Curb Abuse

Another potential counterargument is that other mechanisms currently in place can be used to more effectively deter frivolous claims. One such mechanism is the possibility of sanctions.³³³ Sanctions, however, have proven to be ineffective at addressing the problem. As previously noted, the ambiguous nature of claim scope allows plaintiffs to file suits that will be unsuccessful at trial but are sufficient to comply with Rule 11.³³⁴

Antitrust claims based on the patentee's filing of infringement claims are another potential mechanism for curbing patent litigation abuse. Generally, a patent does not implicate antitrust laws, even though a patent grants its holder a monopoly over the patented invention.³³⁵ However, if a patentee abuses this right and brings "sham" litigation, antitrust liability may arise.³³⁶ This liability requires both that the litigation be baseless and that it be brought in bad faith.³³⁷

³³² See 35 U.S.C. § 295 (2006) (creating a rebuttable presumption that a process patent has been infringed by a product as long as the patentee makes "a reasonable effort to determine the process actually used in the production of the product"); see also 3 Moy, supra note 164, § 12:42 (stating that few cases have used this section).

³³³ These sanctions could stem from several sources. First, as previously discussed, Rule 11 provides such a mechanism. See FED. R. CIV. P. 11(b). The U.S. Code also has a patent-specific section allowing a court to award attorney's fees in "exceptional" cases. See 35 U.S.C. § 285 (2006). Finally, a court also has the inherent power to award fees. See 28 U.S.C. § 1927 (2006).

³³⁴ See supra notes 221–22 and accompanying text.

³³⁵ See, e.g., Q-Pharma, Inc. v. Andrew Jergens Co., 360 F.3d 1295, 1304 (Fed. Cir. 2004) ("A patent owner who brings a suit for infringement, without more, is generally exempt from the antitrust laws for that action"); Intergraph Corp. v. Intel Corp., 195 F.3d 1346, 1362 (Fed. Cir. 1999) ("[T]he antitrust laws do not negate the patentee's right to exclude others from patent property").

³³⁶ See, e.g., Q-Pharma, Inc., 360 F.3d at 1304–05; Atari Games Corp. v. Nintendo of Am., Inc., 897 F.2d 1572, 1576 (Fed. Cir. 1990) ("When a patent owner uses his patent rights not only as a shield to protect his invention, but as a sword to eviscerate competition unfairly, that owner may be found to have abused the grant and may become liable for antitrust violations when sufficient power in the relevant market is present."); Handgards, Inc. v. Ethicon, Inc., 601 F.2d 986, 990 (9th Cir. 1979) ("The bringing of a series of ill-founded patent infringement actions, in bad faith, can constitute an antitrust violation in and of itself if such suits are initiated or pursued with an intent

Standing alone, these claims are ineffective at curbing infringement litigation abuse. Initially, alleged infringers typically raise antitrust violations as counterclaims.³³⁸ Thus, they do not affect the initial costs a defendant must incur—in fact, adding an antitrust counterclaim significantly increases the overall cost of the litigation.³³⁹ Second, these claims are difficult, if not impossible, to win.³⁴⁰ This is because of legal doctrines that present difficult hurdles, such as the fact that courts presume that an infringement suit has been brought in good faith.³⁴¹ Thus, antitrust claims are ineffective at reining in nuisance-value infringement suits.

An additional alternate mechanism is the use of local patent rules. Currently, many district courts adopt local procedural rules specifically for patent cases.³⁴² These rules may require a patentee to disclose the specific patent claims at issue and the manner of infringement early in litigation.³⁴³ Indeed, the Federal Circuit

to monopolize a particular industry (and, of course, the other elements of a Section 2 violation are present).").

³³⁹ Indeed, in *Twombly*, the Supreme Court quoted an opinion by Judge Posner discussing the significant costs of patent antitrust cases. Bell Atl. Corp. v. Twombly, 550 U.S. 544, 558 (2007) (quoting Asahi Glass Co. v. Pentech Pharms., Inc., 289 F. Supp. 2d 986, 995 (N.D. Ill. 2003) (Posner, J., sitting by designation)).

³⁴⁰ See, e.g., Meurer, supra note 10, at 539 ("Antitrust law does not reach opportunistic litigation because the purpose of such litigation is to extract a settlement payment, not to exclude a rival."); see also Meurer, supra note 10, at 540 ("[Antitrust] claims based on sham litigation are very common, but almost never successful." (footnote omitted)).

³⁴¹ See, e.g., C.R. Bard, Inc. v. M3 Sys., Inc., 157 F.3d 1340, 1369 (Fed. Cir. 1998) ("The law recognizes a presumption that the assertion of a duly granted patent is made in good faith; this presumption is overcome only by affirmative evidence of bad faith." (citation omitted)); Carpet Seaming Tape Licensing Corp. v. Best Seam Inc., 616 F.2d 1133, 1143 (9th Cir. 1980) ("[I]nfringement suits are presumed to be in good faith, a presumption which can be rebutted only by clear and convincing evidence.").

- ³⁴² See, e.g., N.D. CAL. LOCAL PATENT R., available at http://www.cand.uscourts.gov/ (follow "Rules: Civil Rules" hyperlink); E.D. TEX. LOCAL PATENT R., available at http://www.txed.uscourts.gov/ Rules/LocalRules/Documents/Appendix%20M.pdf.
- ³⁴³ See, e.g., N.D. CAL. LOCAL PATENT R. 3-1; E.D. TEX. LOCAL PATENT R. 3-1; see also Advanced Analogic Techs., Inc. v. Kinetic Techs., Inc., No. C-09-1360, 2009 WL 1974602, at *1 (N.D. Cal.

³³⁷ See, e.g., Nobelpharma AB v. Implant Innovations, Inc., 141 F.3d 1059, 1072 (Fed. Cir. 1998) ("[A] sham suit must be both subjectively brought in bad faith and based on a theory of either infringement or validity that is objectively baseless."); Argus Chem. Corp. v. Fibre Glass-Evercoat Co., 812 F.2d 1381, 1386 (Fed. Cir. 1987).

³³⁸ E.g., David R. Steinman & Danielle S. Fitzpatrick, Antitrust Counterclaims in Patent Infringement Cases: A Guide to Walker Process and Sham-Litigation Claims, 10 Tex. INTELL. PROP. L.J. 95, 95 (2001).

has held that "local rules requiring the early disclosure of infringement and invalidity contentions and requiring amendments to contentions to be filed with diligence" are consistent with the notice pleading regime in the Federal Rules.³⁴⁴

Local rules facilitate the efficient resolution of patent cases. The problem, however, is that by definition, these rules are not uniform.³⁴⁵ Further, these rules still do not provide needed specificity until after a defendant has incurred significant costs responding to the complaint.³⁴⁶ In fact, many of these rules do not require specific disclosure until after the discovery process has begun.³⁴⁷ Finally, even though the rules facilitate *efficient* resolution of cases, they do not necessarily facilitate *expedient* resolution.³⁴⁸ Even with these rules, infringement cases can still take well over a year to resolve.³⁴⁹ Thus, although the use of local rules, like other potential mechanisms, is beneficial, standing alone, it will not address many of the core issues that foster the growth of nuisance-value infringement claims.

V. Conclusion

Pleading is just one of the problematic issues in a patent system that some commentators describe as a "drag on innovation."³⁵⁰ In fact, legislation is currently pending in Congress to enact widespread, comprehensive patent reform.³⁵¹ In any

July 8, 2009) (denying a motion for a more definite statement because "Patent Local Rule 3-1 requires AATI to identify by name and model number and no later than ten days after the initial case management conference, each accused product, device, and apparatus").

³⁴⁴ O2 Micro Int'l Ltd. v. Monolithic Power Sys., Inc., 467 F.3d 1355, 1366 (Fed. Cir. 2006).

³⁴⁵ See FED. R. CIV. P. 83.

³⁴⁶ See McZeal v. Sprint Nextel Corp., 501 F.3d 1354, 1360 n.3 (Fed. Cir. 2007) (Dyk, J., concurring in part, dissenting in part).

³⁴⁷ See *id.* (noting that local rules have ameliorated some of the problems with notice pleading but "do nothing to require an adequate statement of the claim before discovery commences").

³⁴⁸ Interestingly, the Eastern District of Virginia, which, according to one study, had the fastest median time-to-trial for patent cases from 1995 to 2008 (0.88 years), does not have any local patent rules. See PRICEWATERHOUSECOOPERS, supra note 53, at 17. See generally E.D. VA. LOCAL R., available at http://www.vaed.uscourts.gov/localrules/EDVALRMay2009.pdf.

³⁴⁹ See, e.g., Integrated Circuit Sys., Inc. v. Realtek Semiconductor Co., 308 F. Supp. 2d 1106, 1107 (N.D. Cal. 2004) ("The purpose of the Patent Local Rules is to place the parties on an orderly pretrial track which will produce a ruling on claim construction approximately a year after the complaint is filed.").

³⁵⁰ BESSEN & MEURER, *supra* note 5, at 146.

³⁵¹ See Patent Reform Act of 2009, S. 515, 111th Cong. (2009).

event, the dramatic increase in costly patent infringement litigation is only contributing to the problem. If anything, this litigation demonstrates that action must be taken to mitigate its drastic and perilous consequences on innovation and the patent system as a whole.

Altering pleading standards will not remedy all that ails the modern patent system, or even all that ails patent infringement litigation. It does, however, present a mechanism for curbing litigation abuse and reining in troll-like behavior. Unlike other potential mechanisms, particularized patent pleading provides a quick, economically efficient method for alleged infringers to contest nuisance-value claims and begin the process of putting the patent system back on track to truly promoting progress in science and the useful arts.

State Bar Section News



Letter from the Chair

By Craig M. Lundell

Greetings again from the State Bar of Texas Intellectual Property Law Section. It is startling how fast this year has flown by. Our annual meeting is less than two months away and I will be passing the gavel to our capable chair elect, Shannon Bates.

On March 4–5, 2010, we held our 23rd Advanced Intellectual Property Law Course at the Four Seasons Hotel in Austin. Course director Steven Malin and the planning committee put together an excellent program. It was encouraging to see that attendance was up this year. That is a testament to the quality of the program and hopefully an indication that the economy, as it affects our practice, is beginning to improve. The Advanced Trademark Workshop add-on program was also a great success.

On June 11, 2010, we will hold our Annual Meeting and one day CLE presentation in conjunction with the State Bar of Texas Annual Meeting at the Omni Hotel in Forth Worth. Shannon Bates, our Chair-elect and her committee have already put together a great program. Again, this is one of the best CLE values around. If you need more CLE hours than we have scheduled for Friday, you can attend presentations from some of the other sections on Thursday for a nominal additional cost. If you haven't already done so, make your reservations to attend. Be sure to also get your ticket for the Intellectual Property Luncheon on Friday.

We will be awarding our annual women and minority scholarships, recognizing an inventor of the year and having several social activities. Applications for the scholarships and nomination forms for the inventor of the year award are available on our web site. Please give some consideration as to whether you know or have worked with an inventor that would be a worthy recipient of our award. If so, please fill out a form to nominate that creative person.

Plans are also well underway for the 6th Annual Advanced Patent Litigation Course entitled, "Taking Patent Cases to Trial in Texas," that will be held on July 29–30 at the Hyatt Hill Country Resort in San Antonio. The co-chairs, Sharon Israel and Sanford Warren, have put together a great program. It is our hope that moving the course to Texas this year will make it more accessible to a greater number of attorneys. If you are involved in patent litigation in Texas, you will not want to miss this program.

If you would like to become more involved in our section, please consider joining one of the many committees. It is through these committees that many of the activities of the section are carried out and we identify individuals who are willing to contribute their time to lead our section. If you have any questions, do not hesitate to contact me or any other officer of our section.

It has been a pleasure for me to serve as chair of the section during this past year. I hope to see many of you at our annual meeting in June.

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