

**Reform of a Fast-Moving Target:
The Development of Patent Law Since the 2004 National Academies Report**

by
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Adam Smith attributed history's greatest improvement in production to the division of labor.² By dividing labor among those with specialized skills, he explained, "Each individual becomes more expert in his own peculiar branch, more work is done upon the whole, and the quantity of science is considerably increased by it."³ Today, "this division of labor refers not only to the breakdown of jobs in a manufacturing plant or on an assembly line," but "includes the labor of those who choose a field, acquire education or training, gain experience, and develop their abilities within a complex meritocracy."⁴ Perhaps nowhere has the specialization occasioned by the division of labor become as refined as in the legal field, and the prime example of that specialization is patent law.

As recently as the end of the 1970s, the patent system "was widely perceived to be weak and ineffective, unable to keep up with the fast-moving technological changes, under attack by the antitrust authorities, and of only limited value to patent holders."⁵ Since the early 1980's however, patent law has gained increasing importance and visibility. Beginning in 1980, a series of legislative actions, judicial decisions, and executive branch initiatives strengthened patent rights by extending patenting to new subject matter, strengthening the position of the patent holder against infringers, encouraging new classes of patentees, extending the duration of some patents, and relaxing antitrust limitations on the use of patents.⁶ These dramatic changes have spurred several rounds of patent reform efforts in Congress.

¹ Howrey LLP, Irvine, California. The views expressed in this paper are those of the authors, and should not be attributed to Howrey LLP or its clients. The authors would like to thank Michael Chou, Elizabeth Hoult Fontaine, Ruhi Kumar, Jesse Mulholland, Mansi Shah, Michael Stimson, and Elizabeth Yang for their contributions to this paper.

² Adam Smith, AN INQUIRY INTO THE NATURE AND CAUSES OF THE WEALTH OF NATIONS 9 (1776).

³ *Id.* at 16.

⁴ Andrew Keen, THE CULT OF THE AMATEUR 56 (2007).

⁵ Committee on Intellectual Property Rights in the Knowledge-Based Economy, Board on Science, Technology, and Economic Policy, Policy and Global Affairs Division, National Research Council of the National Academies, A PATENT SYSTEM FOR THE 21ST CENTURY 21 (Stephen A. Merrill, Richard C. Levin & Mark B. Myers, eds. 2004) (hereafter "National Academies report").

⁶ *Id.* at 21-22.

Because patent law has until relatively recently been an obscure backwater of the law, its development historically has been left largely to patent lawyers. For example, the 1952 Patent Act was drafted by a committee including Patent Office Board of Appeals member P.J. Federico and then-private practice patent lawyer and later Court of Customs and Patent Appeals Judge Giles Rich.⁷ The current round of patent reform proposals has led to the observations that “the patent bar has long dominated patent policymaking”⁸ and that “Patent Policy is Too Important to Leave to the Patent Lawyers.”⁹ As to patent reform, the latter observation is doubtless true, but raises an obvious question: who should be crafting the legal changes that constitute reform of the patent laws?

Applying the division of labor principle to patent reform suggests using the three branches of our government, each of which specializes in performing particular labor relating to the law, to implement patent reform within their areas of specialty. That the legislative branch specializes in making the law, and has the power to enact legislation directed at reforming the patent laws, does not mean it should necessarily do so.¹⁰ The executive branch is ideally suited to analyzing its own performance and implementing permissible changes to its regulations that will address problems with its own performance.¹¹

Likewise, the judicial branch, through the common-law system, is ideally suited to develop case law to deal with perceived problems in the patent law,

⁷ See generally, Giles S. Rich, *Congressional Intent — Or, Who Wrote the Patent Act of 1952?*, Patent Procurement and Exploitation, The Southwestern Legal Foundation (1963).

⁸ James Bessen & Michael J. Meurer, PATENT FAILURE: HOW JUDGES, BUREAUCRATS, AND LAWYERS PUT INNOVATION AT RISK 27 (2008). Bessen et al. cast the patent bar and the pharmaceutical industry as the two “entrenched interests who have the most to gain from patents.” *Id.* at 257.

⁹ Adam B. Jaffe & Josh Lerner, INNOVATION AND ITS DISCONTENTS: HOW OUR BROKEN PATENT SYSTEM IS ENDANGERING INNOVATION AND PROGRESS 23 (2004).

¹⁰ Professor Cahoy urges an incrementalist approach to patent reform because, in his view, the complexity of the patent system combined with reasonable disagreement over the system’s most important goals and ambiguity regarding the economic incentives, dooms comprehensive legislative reform efforts to failure. See generally Daniel R. Cahoy, *An Incrementalist Approach to Patent Reform Policy*, 9 N.Y.U. J. LEGIS. & PUB. POL’Y 587 (2006).

¹¹ Of course, as the current dispute in *Tafas v. Dudas* demonstrates, any regulation must be within the agency’s power and must meet the applicable standard under established principles of administrative law. See generally Stuart Minor Benjamin & Arti K. Rai, *Who’s Afraid of the APA? What the Patent System Can Learn From Administrative Law*, 95 Geo. L.J. 269 (2007). Improvements to the USPTO’s performance can be accomplished both the agency itself and Congress. See generally U.S. Chamber of Commerce, RECOMMENDATIONS FOR CONSIDERATION BY THE INCOMING ADMINISTRATION REGARDING THE U.S. PATENT AND TRADEMARK OFFICE (2008).

particularly where the case law has created those very problems. Under the common law system, patent lawyers, trial lawyers, and trial and appellate judges wrestle with specific issues of law grounded in concrete facts.¹² Case-by-case, at least in theory, the courts incrementally develop law in a careful, considered way, informed by arguments of parties and, increasingly, amicus curiae and the Solicitor General.¹³ The Supreme Court's resurgent involvement in substantive patent cases signals that it will continue to play a major role in the development of patent law, a role viewed by many as positive.¹⁴ Indeed, through a variety of important decisions, the courts have embarked on their own patent reform.¹⁵

¹² Justice Holmes cautioned that “the proper derivation of general principals in both common and constitutional law . . . arise gradually, in the emergence of a consensus from a multitude of particularized prior decisions.” Frederic R. Kellog, *Law, Morals, and Justice Holmes*, 69 *Judicature* 214 (1986). That is, the “common law does not work from pre-established truths of universal and inflexible validity to conclusions derived from them deductively,” but “[i]ts method is inductive, and it draws its generalizations from particulars.” Benjamin N. Cardozo, *THE NATURE OF THE JUDICIAL PROCESS* 22-23 (1921). For historical reasons, early Federal Circuit decisions exhibited a “maximalist” approach, see William C. Rooklidge & Matthew F. Weil, *En Banc Review, Horror Pleni, and the Resolution of Patent Law Conflicts*, 20 *Santa Clara L. Rev.* 787, 802-04 (2000) (“Horror Pleni”) (urging “minimalist” opinion writing and avoidance of dicta), an approach that appears to be resurgent in today’s era of judicial patent reform.

¹³ The proper role of an appellate court is “to correct errors committed at trial,” *Key Pharm. v. Hercon Lab. Corp.*, 161 F.3d 709, 715 (Fed. Cir. 1999), and “to articulate and interpret legal rules that the lower courts must apply.” Maureen McGirr, *Panduit Corp. v. Dennison Mfg. Co: De Novo Review and the Federal Circuit’s Application of the Clearly Erroneous Standard*, 36 *Am. U. L. Rev.* 963, 963 n.3 (1987). “The declarative, legislative function of appellate courts can only be rightly exercised as a by-product of their mundane corrective function.” J. Dickson Phillips, Jr., *The Appellate Review Function: Scope of Review*, *Law & Contemp. Probs.*, 1, 6 (Spring 1984). The Federal Circuit’s en banc dust-up in *In re Comiskey*, 499 F.3d 1365 (Fed. Cir. 2007), *withdrawn*, 2009 WL 68845 (*en banc*) (Fed. Cir. 2009), appears to be more about this prudential concern than judicial power.

¹⁴ See, e.g., Hon. Timothy B. Dyk, *Does the Supreme Court Still Matter?*, 57 *AM. U.L. REV.* 763 (2008); Rachel Krevans & Daniel P. Muino, *Restoring the Balance: The Supreme Court Joins the Patent Reform Movement*, 9 *SEDONA CONF. J.* 15 (2008); Rebecca S. Eisenberg, *The Supreme Court and the Federal Circuit: Visitation and Custody of Patent Law*, 106 *MICH. L. REV.* 28, 29 (2007); Hon. Arthur J. Gajarsa & Dr. Lawrence P. Cogswell, III, *The Federal Circuit and the Supreme Court*, 55 *AM. U.L. REV.* 821 (2007). Others have suggested that the Supreme Court may not be well-suited to fashioning rules in patent cases. See, e.g., Debra D. Peterson, *Can This Brokered Marriage Be Saved? The Changing Relationship Between the Supreme Court and Federal Circuit in Patent Law Jurisprudence*, 2 *J. MARSHALL REV. INTELL. PROP. L.* 201 (2003); Mark D. Janis, *Patent Law in the Age of the Invisible Supreme Court*, 2001 *U. ILL. L. REV.* 387 (2001). Still others have lampooned the Court for its efforts in patent cases. See Howard Posner, *Sex and the Single Pronoun*, 29 *CAL. LAWYER* 21 (2009) (“The night was dirty and dark. Grimy. Thick. Impenetrable as a Supreme Court patent-law opinion.”).

¹⁵ See, e.g., Edward Lee, *The Future of Patent Reform*, 4 *I/S J.L. & POLICY* 1, 4 (2008) (“[R]egardless of whether Congress enacts major reforms of the Patent Code, patent reform is already upon us. The Supreme Court has effectuated key reforms of substantive patent law. And perhaps more importantly, the heightened public scrutiny of the patent system over the past five years has signaled a cautionary message about the need for improving the patent system.”); see

While some have questioned the courts' ability to implement the kind of changes that qualify as patent reform,¹⁶ the pace of change in the relevant patent law since the 2004 publication of the seminal National Academies report on patent reform suggests otherwise. In fact, the patent law changes that have occurred since 2004 suggest that the courts—not the legislature—should be entrusted with many of the patent reform topics that have since been considered.¹⁷ Side benefits of this division of labor likely include that a legislative package stripped of the contentious issues more suitable to resolution by the courts that might well find agreement, or at least enough agreement to be enacted.

In this paper we examine the principal topics that have been considered as part of the recent patent reform process—other than those like international harmonization that require legislative implementation—and analyze whether those topics are better considered through the judiciary's common law process rather than the legislative process. The focus of that examination is the changes that have taken place with respect to those topics since issuance of the National Academies report.

also Chief Judge Paul R. Michel, Remarks at the Harvard Law School Conference on Intellectual Property Law (Sept. 9, 2008) (transcript available at http://www.cafc.uscourts.gov/CJM_Speech_Harv_LS_Conf_9-08.pdf), (Explaining that it took the court so long to revisit its decision in *State Street* because “Most challenge our result more than our reasoning. Few plumb the depths of Supreme Court precedent. Almost none discuss practical impacts, empirical evidence or public policy. It is almost as if advocates assume every rule, test, and standard articulated even in dicta is both binding and immutable. But they are not.”). Moreover, as the Federal Circuit's recent decision in *In re Comiskey*, 499 F.3d 1365 (Fed. Cir. 2007), *withdrawn*, 2009 WL 68845 (Fed. Cir. 2009) (*en banc*) (remanding to the USPTO to decide whether the claims cover patentable subject matter when the only issue before the court was whether the claims were obvious under § 103), makes clear, the Federal Circuit is not afraid of taking an active role to identify and rule on issues it believes need to be reformed through the case law.

¹⁶ See Bessen & Meurer, *supra* note 8, at 25 (effective reform will require structural changes, including, possibly, multiple appellate courts, specialized district courts, and greater deference to fact-finders”); Craig Allen Nard & John F. Duffy, *Rethinking Patent Law's Uniformity Principle*, 101 NW. U. L. REV. 1619 (2007) (urging assignment of decision-making responsibility in patent law to two or three additional appellate courts).

¹⁷ This conclusion is neither new nor nonobvious. See Paul R. Michel, *Where Are We Now on Patent System Improvements and How Can We Best Make Further Progress?*, Remarks at the Fed. Trade Comm'n Hearing on the Evolving IP Marketplace (Dec. 5, 2008), (available at <http://www.cafc.uscourts.gov/FTCSpeech.pdf>) ; Kevin R. Davidson, *Retooling Patents: Current Problems, Proposed Solutions, and Economic Implications for Patent Reform*, 8 Hous. BUS. & TAX L.J. 425, 461 (2008).

I. THE NATIONAL ACADEMIES AND PATENT REFORM

Calls for reform of U.S. patent laws have been heard more or less continuously since Congress enacted the first patent statute in 1790. Because of the many and varied interests implicated by the patent laws, reform of those laws is necessarily a long, drawn-out process. Proposals for patent reform have repeatedly surfaced in Congress since the passage of the 1952 Patent Act, beginning with the Presidential Commission on the Patent System in 1966¹⁸ and continuing in the Mosbacher Advisory Commission in 1992.¹⁹ A 1999 effort at reform culminated in the American Inventors Protection Act, legislation that left many of the proposed reforms on the cutting room floor.²⁰

Patent reform regained significant momentum with publication of reports by the Federal Trade Commission (“FTC”)²¹ in 2003 and the National Academies of Sciences’ Committee on Intellectual Property Rights in the Knowledge-Based Economy²² in 2004, both of which concluded that the processes of obtaining and enforcing patents cost too much and are too complex. That momentum only accelerated as calls for patent reform even began to be heard in academia and the popular press.²³

Perhaps the single most important factor in creating the current patent reform effort is the National Academies report. That report identified reasons to pay attention to the patent system, criteria for evaluating the patent system, and

¹⁸ President’s Commission on the Patent System, “TO PROMOTE THE PROGRESS OF . . . USEFUL ARTS” IN AN AGE OF EXPLODING TECHNOLOGY (1966).

¹⁹ Advisory Commission on Patent Law Reform, A REPORT TO THE SECRETARY OF COMMERCE (1992). Section I of that report urged adoption of a “first-to-file” system with grace period and prior user rights, while section III suggested pre-grant publication of patent applications and section XIII urged adoption of assignee filing, all of which recommendations are included in the present proposed reforms.

²⁰ American Inventors Protection Act, Pub. L. No. 106-113, 106th Cong., 1st Sess., 1999 U.S.C.C.A.N. (113 Stat. 1501A) 552 (1999).

²¹ Federal Trade Commission, TO PROMOTE INNOVATION: THE PROPER BALANCE OF COMPETITION AND PATENT LAW AND POLICY (2003).

²² National Academies report, *supra* note 5. The National Academies report was preceded by a collection of papers in the area, a collection the National Academies report refers to as a “companion volume.” *Id.* at 2, 12, *citing* Committee on Intellectual Property Rights in the Knowledge-Based Economy, Board on Science, Technology, and Economic Policy, Policy and Global Affairs Division, National Research Council of the National Academies, PATENTS IN THE KNOWLEDGE-BASED ECONOMY (Wesley M. Cohen & Stephen a. Merrill, eds. 2003).

²³ *See generally, e.g.,* Jaffe & Lerner, *supra* note 9, (urging reform of the patent system).

seven specific recommendations for what it called “a 21st-Century Patent System.” Those recommendations are:

- Preserve a flexible, unitary, open-ended patent system;²⁴
- Reinvigorate the non-obviousness standard, particularly with respect to business method and gene sequence-related inventions;²⁵
- Initiate a post-grant open review procedure;²⁶
- Strengthen USPTO capabilities in areas of personnel, electronic processing, analytical capability and financial resources;²⁷
- Shield some research uses of patented inventions from infringement liability;²⁸
- Limit the subjective elements of patent litigation, including willfulness, best mode and inequitable conduct;²⁹ and
- Harmonize the U.S., European and Japanese patent examination systems.³⁰

Since publication of the National Academies report, patent reform efforts have increased in intensity and expanded in scope.³¹ Typical of the legislative process, successive patent reform legislative proposals became more and more larded with

²⁴ National Academies report, *supra* note 5, at 83-87.

²⁵ *Id.* at 87-95.

²⁶ *Id.* at 95-103.

²⁷ *Id.* at 103-08.

²⁸ *Id.* at 108-17.

²⁹ *Id.* at 117-23.

³⁰ *Id.* at 123-29.

³¹ See Patent Reform Act of 2005, H.R. 2795, 109th Cong., 1st Sess. (introduced June 8, 2005); Patent Reform Act of 2006, S.3818, 109th Cong., 2nd Sess. (introduced August 3, 2006); Patent Reform Act of 2007, S. 1145, 110th Cong., 1st Sess. (introduced April 18, 2007); Patent Reform Act of 2007, H.R. 1908, 110th Cong., 1st Sess. (introduced April 18, 2007); Patent Reform Act of 2008, S. 3600, 110th Cong., 2d Sess. (introduced September 25, 2007). The history of the early patent reform bills may be found in William C. Rooklidge, *Reform of the Patent Laws: Forging Legislation Addressing Disparate Interests*, 88 J. PAT. & TRADEMARK OFF. SOC'Y 9, 16-21 (2006).

provisions addressing problems with the patent laws perceived by constituencies other than the National Academies. Eventually the legislation collapsed under its own weight in 2008. Now is the time to consider whether that legislation should be trimmed back by eliminating provisions addressed to areas better suited to judicial resolution.

II. INJUNCTIVE RELIEF

Although the National Academies report did not identify injunctive relief as an area needing to be reformed, shortly after publication of the report, injunctive relief became a principal focus of the patent reform debate. Further, it became the first issue identified for reform that was addressed through the courts instead of through legislative action and serves as a primary example of how the judiciary — not the executive or legislative branches — is often the best forum to develop thoughtful changes to problems created by its case law.

The call for reform of the way in which courts granted injunctive relief in patent cases arose as a result of the increasing emergence of non-practicing entities enforcing their patents against companies with commercialized products. A famous example involved Research in Motion (“RIM”), the maker of the ubiquitous BlackBerry™ personal communication device. RIM was sued for patent infringement by NTP, a non-practicing entity that owns a patent covering basic technology used in connection with the BlackBerry.³² The trial court found that RIM infringed NTP’s patents and entered an order for a permanent injunction.³³

Despite RIM’s seeking a stay of the proceedings and concern by U.S. lawmakers that an injunction would deny them access to the ability to communicate in emergency situations, the district court indicated that it would soon set a date for an injunction to go into effect.³⁴ Before any injunction was entered, RIM settled with NTP for \$612.5 million dollars. These events fueled concern among some corporations that, like RIM, their returns on investments in research and development embodied in a complex product might be impaired if an adverse patent ruling relating to a relatively insignificant feature of that product could force withdrawal of the entire product from the marketplace.³⁵ Indeed, representatives of the information technology industry were particularly

³² See *NTP, Inc. v. Research in Motion, Ltd.*, 261 F. Supp. 2d 423, 425-426 (E.D. Va. 2006).

³³ *Id.* at 439; see also *NTP, Inc. v. Research in Motion, Ltd.*, 2003 U.S. Dist. LEXIS 26837, 2-3 (E.D. Va. Aug. 5, 2003).

³⁴ See *NTP, Inc. v. Research in Motion, Ltd.*, 2005 U.S. Dist. LEXIS 29902 (E.D. Va. Nov. 30, 2005).

³⁵ See Yuri Noguchi, *BlackBerry Patent Dispute is Settled*, The Washington Post, A1 (March 4, 2006).

concerned about the threat of an injunction for infringement by one of the thousands of components used in a product as complex as a computer.³⁶ Suddenly, non-practicing entities were given the pejorative label, “patent trolls,” and the various players involved in the patent reform efforts began to draft proposals for limiting non-practicing entities’ ability to obtain permanent injunctions against companies with commercialized products.

When it was first introduced, The Patent Reform Act of 2005 included an amendment to 35 U.S.C. § 283 that would have resulted in a stay of injunction pending appeal.³⁷ A later Committee Print would have amended 35 U.S.C. § 283 to require courts to consider whether patentees practiced their inventions in determining whether injunctive relief is warranted.³⁸

While the first proposal would have required a near-automatic *pendent lite* stay of a district court’s grant of an injunction, the second proposal was clearly targeted at eliminating the ability of non-practicing entities to obtain injunctive relief, without any consideration for the reasons why the invention was not being practiced. Needless to say, these proposals generated considerable controversy.

In the midst of a pitched political battle over patent injunctions, the Supreme Court rejected the Federal Circuit’s “general rule” favoring issuance of permanent injunctions to stop infringement of valid, enforceable patents in *eBay, Inc. v. MercExchange, LLC*.³⁹ The Supreme Court vacated the Federal Circuit’s affirmance of a permanent injunction against eBay by a non-practicing entity, MercExchange, and remanded for the Federal Circuit to perform the traditional four-factor balancing of the equities analysis used in non-patent cases.⁴⁰

³⁶ *Patent Law Reform: Injunctions and Damages: Hearing Before the S. Comm. on Judiciary, Subcomm. on Intellectual Property*, 109th Cong. (June 14, 2005) (statement of Chuck Fish, Time Warner, Inc.); *Perspectives on Patents: Post-Grant Review Procedures and Other Litigation Reforms: Hearing Before the S. Comm. on Judiciary, Subcomm. on Intellectual Property*, 109th Cong. (May 23, 2006) (statement of Mark Chandler, Cisco Sys.); *but see Patent Law Reform: Injunctions and Damages: Hearing Before the S. Comm. on Judiciary, Subcomm. on Intellectual Property*, 109th Cong. (June 14, 2005) (statement of Carl Gulbrandsen, Wisconsin Alumni Research Foundation) (explaining that limits to injunctive relief will encourage infringement. “Any limits to injunctive relief simply create incentives to infringe and to prolong litigation and, in fact, will potentially spawn additional litigation because companies will choose to forego up-front licensing and instead wait for a lawsuit to create what would be, in effect, a compulsory license. Such a situation would be especially difficult for universities because many are resource constrained and would have difficulty diligently pursuing their rights through litigation.”).

³⁷ Patent Reform Act of 2005, *supra* note 31, at § 7.

³⁸ *Id.*

³⁹ 547 U.S. 388 (2006).

⁴⁰ *Id.* at 394.

Specifically, the Supreme Court directed the Federal Circuit and district courts in patent cases to determine: (1) whether the plaintiff would face irreparable injury if the injunction did not issue; (2) whether the plaintiff has an adequate remedy at law; (3) whether granting the injunction is in the public interest; and, (4) whether the balance of the hardships tips in the plaintiff's favor.⁴¹ Relying on this analysis, some courts in post-*eBay* cases have denied patentees injunctions against continued infringement of their valid and enforceable patents.⁴²

By requiring the courts to formally engage in an exercise designed to recognize and balance the various equities at play in determining whether injunctive relief is an appropriate remedy, the Supreme Court fashioned a solution that addressed the concerns of manufacturing entities, fearful that a patentee could appear after launch of a commercially successful product and extort an unreasonably large royalty using the threat of an injunction. Because the four-part test considers facts specific to each case, unlike the legislative proposals, *eBay* still allows non-practicing entities such as universities and makers of competitive products not covered by the patent access to permanent injunctive relief.⁴³ Thus, the Supreme Court's decision in *eBay* managed to preserve the right of most patentees to exclude others from practicing their inventions,⁴⁴ while allowing courts to fashion alternative forms of relief, such as the imposition of monetary damages, when the facts do not support injunctive relief.

To be sure, *eBay* has not answered all the concerns about injunctive relief for patent infringement, and post-*eBay* cases have delved into an entirely new area: imposition of compulsory license royalties to infringers spared the rod of an injunction.⁴⁵ But *eBay*'s solution to the perceived injunction problem was elegant, emphasizing the courts' responsibilities to exercise their equitable

⁴¹ *Id.* at 391.

⁴² See *Respironics, Inc. v. Invacare Corp.*, No 04-0336, 2008 U.S. Dist. LEXIS 1174, at *13-14 (W.D. Pa. Jan. 7, 2008); *MercExchange, L.L.C. v. eBay, Inc.*, 500 F. Supp. 2d 556, 578 (E.D. Va. 2007); *Voda v. Cordis Corp.*, No. CIV-03-1512-L, 2006 U.S. Dist. LEXIS 63623, at *18-19 (W.D. Okla. Sept. 5, 2006); *Paice LLC v. Toyota Motor Corp.*, No. 2:04-CV-211-DF, 2006 U.S. Dist. LEXIS 61600, at * 13-14 (E.D. Tex. Aug. 16, 2006), *aff'd in part, vacated in part*, 504 F.3d 1293 (Fed. Cir. 2007); *z4 Techs., Inc. v. Microsoft Corp.*, 434 F. Supp. 2d 437, 440 (E.D. Tex. 2006), *aff'd*, 507 F.3d 1340 (Fed. Cir. 2007).

⁴³ See *Commonwealth Sci. & Indus. Research Organisation v. Buffalo Tech. Inc.*, 492 F. Supp. 2d 600 (E.D. Tex. 2007).

⁴⁴ See *Acumed LLC v. Stryker Corp.*, 2008 U.S. App. LEXIS 26519 (Fed. Cir. Dec. 30, 2008) (sustaining a grant of a permanent injunction while applying the four-factor test articulated in *eBay*).

⁴⁵ See *Paice LLC v. Toyota Motor Corp.*, 504 F.3d 1293, 1314-1315 (Fed. Cir. 2007) (affirming the district court's order denying a permanent injunction but remanding for the district court to reevaluate the factors considered when determining the appropriate rate for an on-going royalty).

powers. To the extent *eBay* solved a real problem, that problem was created by the courts, and the courts solved it. The legislative effort to reform injunctions against patent infringement is finished, at least for the foreseeable future.⁴⁶

III. OBVIOUSNESS

Striking at the heart of substantive patent law, the National Academies report recommended reinvigorating the standard for determining whether an invention is nonobvious. Under the patent statute, a claim is not patentable “if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.”⁴⁷ Courts have provided significant guidance as to how this statutory provision should be applied, and in 2004 the Federal Circuit was widely perceived to have settled on an obviousness test requiring a “teaching, suggestion, or motivation” (the “TSM test”) in the art to combine the teachings of multiple pieces of prior art.⁴⁸

The National Academies report recommended reinvigorating the obviousness standard, focusing particularly on business-method and gene-sequence inventions.⁴⁹ For business-method patents, the report expressed concerns that USPTO examiners lack access to published information about what was known to those in the art⁵⁰ and that the TSM test made showing obviousness too difficult in the business-method arts.⁵¹ The report also expressed concern about what the authors considered “a low standard of non-obviousness” for gene-

⁴⁶ See, e.g., Kevin P. Anderson & Robert J. Schieffel, *No Happy New Year for the Patent Bill*, Legal Times (January 19, 2009) (“The eBay Court largely pre-empted those legislative proposals by holding that factors such as public interest must be considered. As a result, district courts have started denying injunctions in some cases. Additionally, the mere possibility of no injunction has undoubtedly reduced the value of numerous settlements.”); Aaron Homer, *Whatever it is . . . You Can Get It On eBay . . . Unless You Want An Injunction—How the Supreme Court and Patent Reform Are Shifting Licensing Negotiations From the Conference Room to the Courtroom*, 49 S. TEX. L. REV. 235, 275 (2007) (“The Supreme Court foreclosed all debate [on injunctive reform] with its decision in *eBay*”); Vernon M. Winters, *If It’s Broke, Fix It: Two Suggestions and One Note About Patent Reform*, 53 FED. LAWYER 6, 19 (2006) (“It is tempting to add reform of the permanent injunction law to the short things to fix in the patent system, but the Supreme Court’s *eBay* decision may go a long way toward addressing that issue.”).

⁴⁷ 35 U.S.C. § 103(a).

⁴⁸ See, e.g., *Al-Site Corp. v. VSI Int’l, Inc.*, 174 F.3d 1308, 1323-1324 (Fed. Cir. 1999).

⁴⁹ National Academies report, *supra* note 5, at 87-95.

⁵⁰ *Id.* at 88-89.

⁵¹ *Id.* at 90.

sequence inventions, criticizing Federal Circuit precedent that applied an obviousness analysis used for synthetic chemical inventions to gene sequences.⁵²

The Supreme Court's recent decision in *KSR International Co. v. Teleflex, Inc.*⁵³ has alleviated many of the concerns identified in the report regarding obviousness for business-method inventions, and may well end up doing so for gene-sequence inventions. Above all, *KSR* emphasized that the inquiry set forth in *Graham v. John Deere Co.*⁵⁴ controls the obviousness determination. *KSR* changed the obviousness landscape by eliminating what many perceived to be the Federal Circuit's rigid application of the TSM test to combine prior art in favor of a more common-sense approach to obviousness:

The obviousness analysis cannot be confined by a formalistic conception of the words teaching, suggestion, and motivation, or by overemphasis on the importance of published articles and the explicit content of issued patents. The diversity of inventive pursuits and of modern technology counsels against limiting the analysis in this way. In many fields it may be that there is little discussion of obvious techniques or combinations, and it often may be the case that market demand, rather than scientific literature, will drive design trends. Granting patent protection to advances that would occur in the ordinary course without real innovation retards progress and may, in the case of patents combining previously known elements, deprive prior inventions of their value or utility.⁵⁵

KSR thus directly addresses many of the report's concerns, and recent case law applying *KSR* suggests that many of the report's recommendations regarding the obviousness standard may now be moot or on their way to being moot. Furthermore, the USPTO published new guidelines in view of *KSR* to assist the examiners and the public in making obviousness determinations.⁵⁶ Under these guidelines, the examiner can support an obviousness rejection by:

(A) Combining prior art elements according to known methods to yield predictable results;

⁵² *Id.* at 82, 92.

⁵³ 550 U.S. 398, 127 S. Ct. 1727 (2007).

⁵⁴ 383 U.S. 1, 17-18 (1966).

⁵⁵ 127 S. Ct. at 1741.

⁵⁶ *Examination Guidelines for Determining Obviousness Under 35 U.S.C. 103 in View of the Supreme Court Decision in KSR International Co. v. Teleflex Inc.*, 72 Fed. Reg. 57526 (Oct. 10, 2007).

- (B) Simple substitution of one known element for another to obtain predictable results;
- (C) Use of known technique to improve similar devices (methods, or products) in the same way;
- (D) Applying a known technique to a known device (method, or product) ready for improvement to yield predictable results;
- (E) "Obvious to try"--choosing from a finite number of identified, predictable solutions, with a reasonable expectation of success;
- (F) Known work in one field of endeavor may prompt variations of it for use in either the same field or a different one based on design incentives or other market forces if the variations would have been predictable to one of ordinary skill in the art; or
- (G) Some teaching, suggestion, or motivation in the prior art that would have led one of ordinary skill to modify the prior art reference or to combine prior art reference teachings to arrive at the claimed invention.⁵⁷

Further, the National Academies report recognized that some “apparently obvious [business-method] patents ... may have been approved not carelessly but under the prevailing rule that references should not be combined for the purpose of proving [obviousness] unless the examiner can point to a specific piece of prior art that says the references should be combined.”⁵⁸ *KSR* addressed this very issue, and the Federal Circuit has already applied *KSR* to invalidate business-method patent claims. In *Muniauction, Inc. v. Thomson Corp.*, for example, the Federal Circuit reasoned that the known desirability in the art of using the internet to distribute municipal debt to consumers made that claimed invention invalid for obviousness.⁵⁹ Thus, rather than requiring an examiner to point to a specific piece of prior art, the examiner may point to market forces or other factors that would have pushed the art towards the solution of the claimed invention in the business method context.⁶⁰

KSR also has affected application of the obviousness standard to gene-sequence inventions. The Federal Circuit has long required that for a claimed

⁵⁷ *Id.*, 72 Fed. Reg. at 57529.

⁵⁸ National Academies report, *supra* note 5, at 90.

⁵⁹ *See, e.g., Muniauction, Inc. v. Thomson Corp.*, 532 F.3d 1318, 1326-27, 1326 (Fed. Cir. 2008) (quoting *KSR* for “When a work is available in one field of endeavor, design incentives and other market forces can prompt variations of it, either in the same field or a different one.”).

⁶⁰ *See id.* at 1326.

invention to be non-obvious, even if the solution would have been “obvious to try,” it would not have been obvious absent a “reasonable expectation of success.”⁶¹ The report observed that the “reasonable expectation of success” requirement was not being applied to gene sequence inventions because of two subsequent Federal Circuit cases, *In re Bell*⁶² and *In re Deuel*,⁶³ which the report suggested created “a de facto rule of per se non-obviousness for a novel genetic sequence.”⁶⁴ The Federal Circuit held in *Bell* and *Deuel* that a claim to a gene sequence would not have been obvious unless the structure of the gene would have been obvious, regardless of whether it would have been obvious to isolate the gene. The “obvious to try/reasonable expectation of success” standard for analyzing method claims had no applicability to *Bell* and *Deuel* because the patents at issue in those cases claimed the genes themselves, not methods of isolating those genes. But the National Academies report argued that the claims to the genes should have been unpatentable if the methods of isolating them would have been obvious.⁶⁵

KSR addressed the “obvious to try” standard, characterizing the Federal Circuit’s analysis as “constricted,” and stating that “When there is a design need or market pressure to solve a problem and there are a finite number of identified, predictable solutions, a person of ordinary skill has good reason to pursue the known options within his or her technical grasp. If this leads to the anticipated success, it is likely the product not of innovation but of ordinary skill and common sense. In that instance the fact that a combination was obvious to try

⁶¹ See *In re O’Farrell*, 853 F.2d 894, 903-904 (Fed. Cir. 1988).

⁶² 991 F.2d 781 (Fed. Cir. 1993). In *Bell*, the invention was nucleic acid sequences that expressed human insulin-like growth factors (IGF) and the prior art included the known amino acid sequence of the IGF protein and known methods for isolating genes given the amino acid sequence of the proteins they encode. *Id.* at 782-83. The *Bell* court held that because the known methods for isolating genes were not useful to isolate the claimed IGF genes, “the requisite teaching or suggestion to combine the teachings of the cited prior art references is absent.” *Id.* at 785.

⁶³ 51 F.3d 1552 (Fed. Cir. 1995). In *Deuel*, the invention was nucleic acid sequences that expressed heparin-binding growth factors (HBGF) and the prior art included only a partial amino acid sequence of a protein related to HBGF and known methods for isolating genes given the partial amino acid sequence of the encoded protein. *Id.* at 1556. The Federal Circuit rejected the USPTO’s argument that an obvious variation of a known process to isolate the genes rendered the genes themselves obvious. *Id.* at 1559. The court held that “a conceived method of preparing some undefined DNA does not define it with the precision necessary to render it obvious over the protein it encodes.” *Id.* at 1560.

⁶⁴ National Academies report, *supra* note 5, at 92.

⁶⁵ The Federal Circuit’s standard has drawn much in the way of academic criticism. See Harold C. Wegner, *The Motivation Test: Death by Deuel*, presented at the 14th Annual Conference on International Intellectual Property Law and Policy, Fordham Univ. School of Law, April 20-21, 2006, in New York, New York (2006) (collecting criticism of the Federal Circuit standard).

might show that it was obvious under § 103.”⁶⁶ The USPTO’s Board of Patent Appeals and Interferences (“the Board”) applied *KSR*’s less-constricted “obvious to try” standard in upholding a rejection for obviousness of a polynucleotide claim in *In re Kubin*.⁶⁷ In *Kubin*, the Board reasoned

The “problem” facing those in the art was to isolate [the polynucleotide], and there were a limited number of methodologies available to do so. The skilled artisan would have had reason to try these methodologies with the reasonable expectation that at least one would be successful. Thus, isolating [the polynucleotide] was “the product not of innovation but of ordinary skill and common sense,” leading us to conclude [the polynucleotide] is not patentable as it would have been obvious to isolate it.⁶⁸

The *Kubin* applicants appealed to the Federal Circuit, and oral argument was held on January 8, 2009. The Federal Circuit may well follow the Board in *Kubin* and change its *Deuel* precedent, setting the non-obviousness bar higher for gene-sequence inventions. On the other hand, one panel of the court signaled that the court may resist such a change when it declined to revise its obviousness analysis for new chemical compounds after *KSR*, holding that “in cases involving new chemical compounds, it remains necessary to identify some reason that would have led a chemist to modify a known compound in a particular manner to establish prima facie obviousness of a new claimed compound.”⁶⁹ Or, the Federal Circuit may adopt a more nuanced approach, one that harmonizes its past approach with *KSR* and *Kubin*.⁷⁰ Thus, application of the obviousness standard to genetic sequences is still in flux, and the Federal Circuit may well resolve the issue, or may set the stage for a return to the Supreme Court.

In any event, the USPTO and the courts have accepted the report’s challenge to reinvigorate the obviousness standard. The report did not suggest changing the statutory standard, merely reinvigorating its application. There is no

⁶⁶ 127 S. Ct. at 1742.

⁶⁷ 83 U.S.P.Q.2d 1410, 1414-1415 (BPAI 2007).

⁶⁸ *Kubin*, 83 U.S.P.Q.2d at 1414 (quoting *KSR*, 127 S. Ct. at 1741).

⁶⁹ *Takeda Chem. Indus. v. Alphapharm Pty., Ltd.*, 492 F.3d 1350, 1357 (Fed. Cir. 2007). Circuit Judge Lourie wrote the opinions in *Bell*, *Deuel*, and *Takeda*.

⁷⁰ See American Intellectual Property Law Association, AIPLA RESPONSE TO THE NATIONAL ACADEMIES REPORT ENTITLED “A PATENT SYSTEM FOR THE 21ST CENTURY” 11-14, available on http://www.aipla.org/Content/NavigationMenu/IP_Issues_and_Advocacy/Comments/Comments.htm#nas.

reason to believe that that task requires legislative intervention to be accomplished.⁷¹

IV. BUSINESS METHOD PATENTS: JOINT INFRINGEMENT AND PATENTABLE SUBJECT MATTER

Although the National Academies report recommended addressing its expressed concern about business method patents by applying the obviousness standard more rigorously,⁷² the courts have addressed that concern in ways not contemplated by the report. Because the issue of joint infringement comes up frequently in litigation of business-method claims, developments in the law of joint infringement have restricted the enforcement of business-method patents. And the very patentability of such methods has been restricted as well.

Since 2004, the Federal Circuit has limited joint infringement to circumstances in which one party (the accused infringer) controls or directs each step of the patented process. The court adopted the “control or direction” standard in *BMC Resources, Inc. v. Paymentech, L.P.*⁷³ when it rejected infringement of a method for processing a debit transaction without using a personal identification number. The court reasoned that providing data to another party for completing infringing steps, without also providing instructions or directions to that party on how to use the data to complete the steps, did not constitute “control or direction.” The court further noted that the “control or direction” standard would be satisfied by acts for which the accused infringer would be vicariously liable.

In *Muniauction*, the Federal Circuit applied *BMC*’s “control or direction” standard where the patented methods concerned conducting auctions over the Internet.⁷⁴ Even though *BMC* suggested that merely instructing third parties might constitute “control or direction,” the *Muniauction* court rejected infringement where the accused infringer controlled access to its system and provided instructions to third-party users on how to use the system to complete the infringing steps. Because the users were not acting on the accused infringer’s behalf, the *Muniauction* court held that there was insufficient “control or

⁷¹ To be sure, some believe that the Supreme Court did not go far enough in *KSR*, and cite that case as a basis to question whether the courts can indeed effect real patent reform. See, e.g., R. Polk Wagner, *The Supreme Court and the Future of Patent Reform*, 55 FED. LAWYER 35 (2008).

⁷² National Academies report, *supra* note 5, at 87-95. Others have argued that business method patents impede innovation and should be judicially eliminated. See, e.g., Robert E. Thomas, *Debugging Software Patents: Increasing Innovation and Reducing Uncertainty in the Judicial Reform of Software Patent Law*, 25 Santa Clara Computer & High Tech. L.J. 191 (2009).

⁷³ 498 F.3d 1373, 1380-1381 (Fed. Cir. 2007).

⁷⁴ 532 F.3d at 1330 (Fed. Cir. 2008).

direction” to find direct infringement or vicarious liability. Thus, under the Federal Circuit’s case law, merely providing access and instructions does not constitute “control or direction” sufficient to establish joint infringement. Following *BMC* and *Muniauction*, courts have rejected joint infringement of business method patent claims on summary judgment.⁷⁵

While the Federal Circuit restricted the enforcement of business-method claims in *Muniauction* and *BMC*, late in 2008 it restricted the very patentability of such claims. In the *Bilski* case, the Federal Circuit ruled that, to be eligible for patent protection, a process must meet the machine-or-transformation test: “A claimed process is surely patent-eligible under §101 if: (1) it is tied to a particular machine or apparatus or (2) it transforms a particular article into a different state or thing.”⁷⁶ The Federal Circuit rejected its previous “useful, concrete, and tangible result” test that some viewed as liberally permitting business-method patent claims, but expressly refused to bar such claims altogether.⁷⁷ In *Bilski*, the Federal Circuit explained that the machine-or-transformation test excludes “insignificant” attempts to inject a machine or transformation into the process.⁷⁸ The *Bilski* court explained that “the use of a specific machine or transformation of an article must impose meaningful limits on the claim’s scope to impart patent-eligibility,” and the transformation or use of the machine “must not merely be insignificant extra-solution activity.”⁷⁹ Attempting to address concerns that

⁷⁵ See *Emtel, Inc. v. Lipidlabs, Inc.*, 2008 U.S. Dist. LEXIS 77597 at *42 (S.D. Tex. 2008) (no joint infringement of claims requiring both the operator of a videoconferencing system and a the physician who diagnosed the remote patient and provided instructions to a remote caregiver because the contracts between the system operators and physicians did not make the operators vicariously liable for the physicians’ acts in diagnosing remote patients, instructing on their treatment, or aiding in their treatment, and the operators were not involved in how the physicians diagnosed, instructed in treatment, or aided in treatment of, patients.); *Global Patent Holdings, LLC v. Panthers BHRC LLC*, 2008 U.S. Dist. LEXIS 61697 (S.D. Fla. Aug. 13, 2008) (no joint infringement of claims requiring downloading material from a remote server, a website server, and remote computer user because the users were not contractually bound to visit the website, the users were not visiting the website within the scope of an agency relationship with the accused infringer, and the accused infringer was not vicariously liable for the acts of the users.); *Gammino v. Cellco Partnership*, 527 F. Supp. 2d 395 (E.D. Pa. 2007) (no joint infringement of claims to “processes and apparatuses for preventing telephones from making international calls” because although the accused infringer had contracts with third party providers for the blocking step the accused infringer did not control or direct this step, know the provider’s methods, or even understand how the step was performed.).

⁷⁶ *In re Bilski*, 545 F.3d 943, 954 (Fed. Cir. 2008).

⁷⁷ In adopting the “machine or transformation” test, *Bilski* overruled aspects of the Federal Circuit’s decisions in *State Street Bank & Trust Co. v. Signature Financial Group*, 149 F.3d 1368, 1370 (Fed. Cir. 1998), and *AT&T Corp. v. Excel Communications, Inc.*, 172 F.3d 1352, 1355 (Fed. Cir. 1998), which relied on the “useful, concrete, and tangible result” test first mentioned in *In re Alappat*, 33 F.3d 1526 (Fed. Cir. 1994) (en banc).

⁷⁸ 545 F.3d at 961-62.

adoption of the “machine-or-transformation test” would stifle innovation, the Federal Circuit indicated that it may be willing to refine the test in an appropriate case.

While the Federal Circuit in *Bilski* limited its analysis to method claims, the court in *Comiskey* remanded to the Board of Patent Appeals and Interferences—after holding the method claims unpatentable under section 101—to determine whether the machine or apparatus claims are likewise unpatentable under section 101.⁸⁰ The Board already has shown, however, that it will not limit application of *Bilski* to method claims, having invalidated claims to “computer readable media” that “did not require transformation of any article [and] was [not] tied to any particular machine.”⁸¹

The Federal Circuit’s restricting patent eligible subject matter will limit patenting of business methods, and the court’s tightening of the joint infringement standard has limited enforcement of business method patents, thus addressing the National Academies report’s concern about business methods in ways supplemental to *KSR*’s raising of the obviousness bar.

V. WILLFULNESS

The National Academies report recommended eliminating willfulness as a basis for enhanced damages because willfulness is one of the main factors contributing to the increase in cost and decrease in predictability of patent infringement litigation.⁸² Following on the heels of the National Academies report, the legislative proposals to reform the patent laws included proposals that increased the standard for finding willfulness and prohibited a patentee from pleading willful infringement until after a court had found infringement of a valid patent.⁸³

⁷⁹ *Id.* at 962.

⁸⁰ *In re Comiskey*, 2009 WL 68845, *11 (Fed. Cir. 2009).

⁸¹ *In re Cornea-Hasegan*, <http://des.uspto.gov/Foia/ReterivePdf?system=BPAI&fINm=fd20084742-01-13-2009-1> (BPAI 2009) (non-precedential).

⁸² National Academies report, *supra* note 5, at 117-120.

⁸³ *See* Patent Reform Act of 2005, *supra* note 31, at §6; Patent Reform Act of 2006, *supra* note 31, at §5; Patent Reform Act of 2007, *supra* note 31, at §4; *see also* Statement of Mark Chandler *supra* note 36 (Explaining that the standard for establishing willfulness should be made harder because “The threat of treble damages based on an indefinite and fairly low standard mean that defendants face considerable pressure to settle even unjustified claims because a huge monetary judgment can result from loss on the merits.”)

Before Congress could enact any of these proposals into law, the Federal Circuit sitting *en banc* overruled over two decades of precedent imposing an affirmative duty of due care on accused infringers and instead articulated a far more difficult standard to establish willfulness.⁸⁴ Under the new standard announced in *In re Seagate*, the patentee must establish by clear and convincing evidence that the accused infringer was *objectively reckless*.⁸⁵ As part of moving to this objective standard, the Federal Circuit emphasized that there is no obligation for a potential infringer to obtain an opinion of counsel.⁸⁶ The Federal Circuit further explained that

The state of mind of the accused infringer is not relevant to this objective inquiry. If this threshold objective standard is satisfied, the patentee must also demonstrate that this objectively-defined risk (determined by the record developed in the infringement proceeding) was either known or so obvious that it should have been known to the accused infringer.⁸⁷

In determining whether an accused infringer “acted despite an objectively high likelihood that its actions constituted infringement of a valid patent,” courts must consider “both legitimate defenses to infringement claims and credible invalidity arguments”⁸⁸

While less draconian than either the National Academies report’s recommendation to eliminate willfulness entirely or the legislative proposals to limit both the claim and its pleading, the heightened *Seagate* standard has been widely viewed as significantly restricting willfulness.⁸⁹ Indeed, district courts

⁸⁴ *In re Seagate Tech., LLC*, 497 F.3d 1360, 1371 (Fed. Cir. 2007), *cert. denied*, 2008 U.S. LEXIS 2153 (2008).

⁸⁵ *Seagate*, 497 F.3d at 1371 (“we overrule the standard set out in *Underwater Devices* and hold that proof of willful infringement permitting enhanced damages requires at least a showing of objective recklessness. Because *we abandon the affirmative duty of due care*, we also reemphasize that there is no affirmative obligation to obtain opinion counsel.”) (emphasis added).

⁸⁶ *See id.*

⁸⁷ *See id.*

⁸⁸ *See id.*; *Black & Decker, Inc. v. Robert Bosch Tool Corp.*, No. 2007-1243, 2007-1244, 2008 U.S. App. LEXIS 207, at **18 (Fed. Cir. Jan. 7, 2008).

⁸⁹ *See* The Coalition for 21st Century Patent Reform, *Patent Reform Wrap-Up for the 110th Congress*, http://www.patentsmatter.com/docs/FNL.Wrap_Up_of_110th_Congress.pdf, 2 (2008) (“legislation restricting the doctrine of willful patent infringement . . . mooted by *In re Seagate*”). That view, however, is not uniform. *See* Paul M. Janicke, *Patent Law Reform: What Lies Ahead for Willfulness and Inequitable Conduct?*, <http://www.aipla.org/html/Spring/2008/Janicke-paper.pdf>, 2-5 (2008) (“the effects of *Seagate* are apt to be small in terms of litigation dynamics”).

have begun granting summary judgment or judgment as a matter of law on willfulness, a practice largely unheard of before *Seagate*.⁹⁰ Thus, without resorting to legislative action, the very court whose prior case law had created an atmosphere resulting in increased litigation costs and decreased predictability has addressed the willfulness problem in a constructive way. While *Seagate* may or may not have solved the willfulness problem, Congress should at least wait to see the extent to which the willfulness problem survives, and if so in what form, before considering further efforts in the area.

VI. EXTRATERRITORIAL APPLICATION OF U.S PATENT LAW

Although the National Academies report did not address reforming 35 U.S.C. § 271(f), directed at extraterritorial enforcement of patent infringement by U.S. manufacturers, changes in technology and increases in the cross-border movement of goods soon teed this issue up for judicial and legislative reform.

Section 271(f) was enacted to prevent patent infringers from avoiding liability under U.S. patent laws by manufacturing parts in the United States before shipping them abroad to be assembled into a patented device. Specifically, Section 271(f) prohibits “supplying” a “component” of a patented invention abroad knowing that such components would be combined in a manner that would infringe the patent if such combination occurred within the United States.⁹¹ Since enactment of section 271(f), however, two trends have significantly changed international commerce. First, the development of the internet and computer technology greatly facilitated the flow of information. Second, intangible inventions such as software and business methods became patentable subject matter in the United States.⁹² Courts struggled in applying the language of

⁹⁰ See, e.g., *TGIP, Inc. v. AT&T Corp.*, No. 2:06-CV-105, 2007 WL 3194125 (E.D. Tex. Oct. 29, 2007); *Cohesive Technologies, Inc. v. Waters Corp.*, Nos. 98-12308-DPW, 99-11528-DPW, 01-12307-DPW, 2007 WL 2746805 (D. Mass. Aug. 31, 2007).

⁹¹ The patented invention may be an apparatus claim or a method claim. See *Cardiac Pacemakers, Inc. v. St. Jude Medical, Inc.*, No. 2007-1296, slip op. at 16, (Fed. Cir. Dec. 18, 2008), <http://www.cafc.uscourts.gov/opinions/07-1296.pdf> (affirmed its holding in *Union Carbide Chems. & Plastics Tech. Corp. v. Shell Oil Co.*, 425 F.3d 1366 (Fed. Cir. 2005), that § 271(f) applies to method claims).

⁹² See *State St. Bank & Trust v. Signature Fin. Servs.*, 149 F.3d 1368 (Fed. Cir. 1998) (held that software which manipulates numbers to produce a financial output is patentable).

section 271(f) to intangible inventions not easily contained by physical borders,⁹³ a struggle that came to a head in *Microsoft v. AT&T*.⁹⁴

Before *Microsoft v. AT&T*, U.S. software companies complained that section 271(f) unfairly put them at a disadvantage because once software was designed in the United States, transmission abroad for copying and sale would be subject to section 271(f). By contrast, in every other industry, the company that designs a product in the United States can use that design to manufacture components abroad without facing section 271(f) liability.⁹⁵ *Microsoft v. AT&T* relieved some of that pressure by narrowing the interpretation of section 271(f), in particular as applied to the software industry.

Microsoft v. AT&T concerned whether section 271(f) was applicable to a master disk of software that was sent from the United States to a foreign manufacturer to be used to create multiple copies of the software that was then installed on computers that were made and sold abroad.⁹⁶ The Supreme Court held that sending the master disk abroad did not constitute “supply” within the meaning of section 271(f), and, as a result, U.S. patent owners must rely on foreign enforcement alone when accused infringers are violating their rights outside the reach of U.S. law. “Foreign law alone, not United States law, currently governs the manufacture and sale of components of patented invention in foreign countries.”⁹⁷

The 2006 Patent Reform Act proposed a complete repeal of § 271(f).⁹⁸ The provision was withdrawn from the 2007 Patent Reform Act because Congress

⁹³ For example, the Federal Circuit in *Eolas Techs. Inc. v. Microsoft Corp.* held that § 271(f) does not require a “component” to be a physical component. *Id.*, 399 F.3d 1325, 1339 (Fed. Cir. 2005). That holding was effectively overruled by *Microsoft Corp. v. AT&T Corp.*, 550 U.S. 437, 460-61, 476 (2007).

⁹⁴ 550 U.S. 437, 460-61, 476 (2007).

⁹⁵ See Brief for the United States as Amicus Curiae, 20, *Microsoft Corp. v. AT&T Corp.*, 550 U.S. 437 (2007) (No. 05-1056); see also *Pellegrini v. Analog Devices, Inc.*, 375 F.3d 1113, 1118 (Fed. Cir. 2004) (held that supply of instructions or corporate oversight does not constitute “supply” as in § 271(f)).

⁹⁶ *Microsoft v. AT&T* involved a patent for a computer capable of digitally encoding speech. Microsoft’s operating system, Windows, contains software that enables a computer to process speech in a similar manner. Thus, a computer installed with Windows in the U.S. could infringe AT&T’s patent; but neither Windows nor a computer standing alone could infringe. Microsoft shipped a master disk, which contained Windows, to foreign manufacturers, who made thousands of copies of the master disk and installed Windows on foreign-made computers. The master disk itself was never installed.

⁹⁷ *Id.* at 476.

⁹⁸ The Patent Reform Act of 2006, *supra* note 31, at §5.

recognized that the pending *Microsoft v. AT&T* case would address these concerns without having to resort to legislative involvement.⁹⁹ Accordingly, with its decision in *Microsoft v. AT&T*, the Supreme Court resolved the principal concern over section 271(f) and eliminated the need for legislative reform.

VII. DAMAGES

Like injunctions, damages is a subject matter nowhere mentioned in the National Academies report. But it was quickly raised as a topic for discussion, and immediately became, without doubt, the most contentious subject of the patent reform debate. Generally referred to as being directed to “damages apportionment,” the proposals to reform patent damages law have been directed not only to apportionment, but also to the entire market value rule, factors considered in the reasonable royalty determination, and reviewability of jury verdicts.

The House bill introduced by Congressman Howard Berman (D-Cal.) and passed, as well as the Senate bill introduced by Senator Patrick Leahy (D-Vt.) would have added, among others, the following provisions to 35 U.S.C. §284:

(2) RELATIONSHIP OF DAMAGES TO CONTRIBUTIONS OVER PRIOR ART. –The court shall conduct an analysis to ensure that a reasonable royalty under paragraph (1) is applied only to that economic value properly attributable to the patent’s specific contribution over the prior art.¹⁰⁰ . . . The court shall exclude from the analysis the economic value properly attributable to the prior art, and other features or improvements, whether or not themselves patented, that contribute economic value to the infringing product or process.

(3) ENTIRE MARKET VALUE RULE.—Unless the claimant shows that the patent’s specific contribution over the prior art is the predominant basis for market demand for an infringing product

⁹⁹ See Sen. Patrick Leahy, *On Introduction of The Patent Reform Act of 2007*, Apr. 18, 2007, <http://leahy.senate.gov/press/200704/041807a.html> (“[w]e do not inject Congress into the ongoing litigation over . . . section 271(f) . . . while the interpretation of the provision is currently pending before the Supreme Court”).

¹⁰⁰ This provision also states “In a reasonable royalty analysis, the court shall identify all factors relevant to the determination of a reasonable royalty under this subsection, and the court or jury, as the case may be, shall consider only those factors in making the determination.” This sentence would make jury verdicts more easily reviewable by requiring detailed instructions on the relevant factors and by possibly requiring trial courts to use special interrogatories to ensure that juries consider only the relevant factors. See Amy Landers, *2007 Patent Reform: Proposed Amendments on Damages*, http://www.patentlyo.com/patent/2007/04/2007_patent_ref.html (Apr. 29, 2007). This sentence has been largely uncontroversial.

or process, damages may not be based upon the entire market value of that infringing product or process.

(4) OTHER FACTORS.—In determining damages, the court may also consider, or direct the jury to consider, the terms of any nonexclusive marketplace licensing of the invention, where appropriate, as well as any other relevant factors under applicable law.¹⁰¹

This legislative proposal has been subject to considerable criticism.¹⁰² One of the present authors has shown that the cases cited as supporting the need for damages reform establish no such need.¹⁰³ That same author also has pointed out that implementation of Berman House and Leahy Senate legislative proposals would waste judicial and party resources by requiring damages apportionment in every patent infringement case in which the patentee seeks reasonable royalty damages, remove the burden of proof on apportionment analysis from the infringer, implement a two-step apportionment analysis that would effectively eliminate all but nominal value for reasonable royalty, and all but eliminate the entire market value rule.¹⁰⁴

These criticisms, however, pale in comparison to those leveled more recently. In a recent paper, John Schlicher attacks the legislative proposals as “unlikely to improve damages awards and . . . likely to prevent sensible awards.”¹⁰⁵ His comprehensive analysis explains that the bills would inappropriately limit damages analysis to three methods and mistakenly treat the entire market value rule as a separate damage theory.¹⁰⁶ He concludes that they also would fail to identify inventions responsible for the entire profits from product sales, would not require damages equal to the economic value of

¹⁰¹ In addition to authorizing the court to consider or direct the jury to consider any relevant factor, paragraph 4 confirms that the apportionment provision of paragraph 2 and the entire market value rule provision of paragraph 3 do not completely supplant the law of reasonable royalty damages. This provision would leave in place rules of thumb that have plagued patent damages analysis. *See generally* Patent Reform, Statement of Sen. Kyl regarding S.3600, Sept. 27, 2008 Cong. Rec. S9982, S9984.

¹⁰² *See e.g.*, 153 Cong. Rec. H10, 218-9 (Sept. 6, 2007) (comments of Rep. Michael Michaud on the House floor); *id.* at H10,221 (comments of Rep. Don Manzullo on the House floor).

¹⁰³ William C. Rooklidge, “*Reform*” of Patent Damages: S.1145 and H.R. 1908, http://www.patentmatter.com/press/pdfs/Patent_Damages_Reform_Rooklidge.pdf, at 4 (May 2007).

¹⁰⁴ *Id.* at 3-6.

¹⁰⁵ John W. Schlicher, *Patent Damages, the Patent Reform Act, and Better Alternatives for the Courts and Congress* (November 9, 2008).

¹⁰⁶ *Id.* at 10-27.

inventions, and would serve as an obstacle to sensible awards. In sum, he asserts that these proposals would lead in certain circumstances to insufficient or excessive damages awards, lead to less licensing and more litigation, and impose burdensome new requirements on judges in patent actions.¹⁰⁷ In a recent paper, Professor Shane piles on attacks on the legislative damages proposals from an economic perspective, marshaling empirical evidence that suggests enactment of the proposed legislation would reduce the aggregate U.S. patent value between \$34.4 billion and \$85.3 billion, reduce the aggregate value of U.S. public companies between \$38.4 billion and \$225.4 billion, reduce R&D expenditures between \$33.9 billion and \$66 billion per year, put at risk between 51,000 and 298,000 U.S. manufacturing jobs, and favor industries employing fewer people over those employing more people.¹⁰⁸

A principal part of the problem posed by the legislative attempts to address the perceived apportionment problem has been the attempt to define a “gist” of the invention that should be used as the royalty base instead of using the subtractive approach of the case law to date. Whether described as “the inventive contribution,” “the patent’s specific contribution over the prior art,” the “essential

¹⁰⁷ *Id.*

¹⁰⁸ Scott Shane, *The Likely Adverse Effects of an Apportionment-Centric System of Patent Damages*, http://www.mfgpatentpolicy.org/images/Apportionment_of_Damages_Adverse_Effects_Jan14_09.pdf (Jan. 14, 2008). Contrasted with this is the recent speculation that “friction” caused by the increase in patent infringement litigation, increase in the costs of defending such litigation, the danger of plaintiffs’ forum shopping, and the risk of excessive damages is discouraging R&D by IT start-ups and urging “Reforms that direct courts to calculate the royalty or damages awards on the basis of a calculation on the proportionate value of the patentee’s contribution to the product in question rather than on the full value of the entire product.” Committee on Assessing the Changes in the Information Technology Research and Development Ecosystem, Computer Science and Telecommunications Board, Division on Engineering and Physical Sciences, National Research Council of the National Academies, *ASSESSING THE IMPACT OF CHANGES IN THE INFORMATION TECHNOLOGY R&D ECOSYSTEM: RETAINING LEADERSHIP IN AN INCREASINGLY GLOBAL ENVIRONMENT*, http://books.nap.edu/openbook.php?record_id=12174&page=99 4-14, 5-10 (prepublication copy 2009) (“National Academies II report”). In addition to lacking any empirical support for its assertion regarding the effect on IT start-ups, this report’s recommendation to direct courts to calculate reasonable royalty damages on the basis of the “proportionate value of the patentee’s contribution to the product in question rather than on the full value of the entire product” is already embodied in the law, for relevant cases, in the form of restrictions on the entire market value rule and requirement for apportionment in cases of improvement inventions. In contrast to the extensive research and data gathering that formed the basis for the 2004 National Academies report, the National Academies II report appears to be based only on the input obtained from three workshops held in late 2006-early 2007, all before the 1.5 billion dollar jury verdict in *Lucent Techs. Inc. v. Gateway, Inc.* was thrown out on a motion for JMOL, or *In re Seagate Tech., LLC, Microsoft Corp. v. AT&T, Corp.*, and other recent cases relevant to patent reform issues were decided. Indeed, there is scant evidence or expert opinion on which to base the brief comments the report offers on intellectual property rights. For example, the premise of a patent litigation explosion is debunked by the recent decline in patent infringement complaints. See Amanda Bronstad, *Patent Infringement Filings Take A Nosedive*, Nat’l L.J. (January 19, 2009) (2008 filings down 8% from 2007).

features,” or any similar language directed to the gist or heart of the invention, the legislative attempt to separate the core of the invention from the patent claims would dramatically change patent infringement damages law by introducing into the reasonable royalty analysis an extra layer, one that may have no relevance to the particular case, would grossly oversimplify the complex apportionment analysis, and would invite inappropriate “prior art subtraction” or other mischaracterization of the claimed invention so as to deprive combination inventions of value.¹⁰⁹

While the Federal Circuit has labored long and hard to root the “essence,” “gist” and “heart” of the invention out of the determination of obviousness in utility patent law,¹¹⁰ and has indeed recently rejected the “point of novelty” analysis in design patent law,¹¹¹ one commentator attempted to inject this analysis into patent damages law by relying on a recent case dealing with patent exhaustion.¹¹²

The Supreme Court has signaled that it is dissatisfied with the way patents are now valued for purposes of assessing damages. In its recent *Quanta* opinion, a contributory infringement case, the Court said valuation should be based on the “essential elements” of the invention and not the claimed product that incorporates the

¹⁰⁹ “Reform”, *supra* note 103, at 2-6.

¹¹⁰ *Para-Ordance Mfg. v. SGS Importers Int’l, Inc.*, 73 F.3d 1085 (Fed. Cir. 1995); *Everpure, Inc. v. Cuno, Inc.*, 875 F.2d 300 (Fed. Cir. 1989); *Bausch & Lomb, Inc. v. Barnes-Hind, Inc.*, 796 F.2d 443 (Fed. Cir. 1986); *Loctite Corp. v. Ultraseal Ltd.*, 781 F.2d 861 (Fed. Cir. 1983); *Stratoflex, Inc. v. Aeroquip Corp.*, 713 F.2d 1530 (Fed. Cir. 1983). See also Howard T. Markey, *Why Not the Statute?*, 65 J. PAT. & TRADEMARK OFF. SOC’Y 31, 36 (1983) (“The invention, under the statute, is a ‘whole’ and must be considered as such.”) (“*Why Not the Statute?*”).

¹¹¹ *Egyptian Goddess, Inc. v. Swisa, Inc.*, 543 F.3d 665, 678 (Fed. Cir. 2008) (en banc) (rejecting “point of novelty” prong of traditional two-prong design patent infringement test).

¹¹² Rick Weiss, *Tackling the Challenge of Patent Reform: Recommendations for the Obama administration and Congress*, <http://www.scienceprogress.org/2009/01/tackling-the-challenge-of-patent-reform/> (Jan. 12, 2009). A draft “judicial guide” urges courts to “direct the jury to the patented improvement, as explained typically in the patent specification or prosecution history” in cases where “the patentee has claimed both a component and the previously known apparatus or system in which it is used” Peter S. Menell, Lynn Pasahow, James Pooley & Matthew Powers, Patent Case Management Judicial Guide, http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1328659 at 7-11 (2009). Rather than referring to a judicially sanctioned search for the “gist,” “heart,” or “essential features” of the invention, this passage refers to the fact that the patentee bears the burden of apportionment for improvement inventions. See *Garretson v. Clark*, 111 U.S. 120, 121 (1884) (“When a patent is for an improvement, and not for an entirely new machine or contrivance, the patentee must show in what particulars his improvement has added to the usefulness of the machine or contrivance. He must separate its results distinctly from those of the other parts, so that the benefits derived from it may be distinctly seen and appreciated.”).

invention. This admonition of the Supreme Court provides good guidance for resolving the legislative and court impasse.

The only problem with this analysis is that is completely incorrect. To understand why, one needs to know a bit about *Quanta* and its predecessors.

In *Quanta Computer, Inc. v. LG Electronics, Inc.*,¹¹³ the Supreme Court held that patent exhaustion applies to the authorized sale of components that must be combined with other components in order to practice the method claimed in the patents. In reaching this holding, the Court quoted its 1942 decision in *United States v. Univis Lens*, “where one has sold an uncompleted article which, because it embodies essential features of his patented invention, is within the protection of his patent, and has destined the article to be finished by the purchaser in conformity to the patent, he has sold his invention so far as it is or may be embodied in that particular article.”¹¹⁴ In the context in which the Court used the term “essential features” in *Univis*, the term was clearly intended to capture the thought that exhaustion applies where a patentee has sold a product essentially embodying the whole of a patented invention. The court was not attempting to dissect the invention into essential and non-essential features. In using the language from *Univis* that “exhaustion was triggered . . . by the sale of [items whose] only reasonable and intended use was to practice the patent and that “embodie[d] essential features of [the] patented invention,”¹¹⁵ the *Quanta* Court only intended to follow the rationale of *Univis* that exhaustion applies where a patentee sells a product that embodies essentially all of the features of a claimed invention. In determining that the items sold embodied essentially all of the features of the patented invention, the Court noted that “the only step necessary to practice the patent is the application of common processes or the addition of standard parts.”¹¹⁶

The *Quanta* Court distinguished its previous decision in *Aro*, stating that

LGE’s reliance on *Aro* is misplaced because that case dealt only with the question whether replacement of one part of a patented combination infringes the patent. First, the replacement question is

¹¹³ 128 S.Ct. 2109 (2008).

¹¹⁴ *United States v. Univis Lens Co.*, 316 U.S. 241, 250-51 (1942)

¹¹⁵ *Quanta*, 128 S.Ct. at 2119, citing *Univis*, 316 U.S. at 249-51.

¹¹⁶ *Id.* at 2121. Earlier, the *Quanta* Court characterized the holding of *Univis* as patent exhaustion applies “following the sale of an item . . . when the item sufficiently embodies the patent—even if it does not completely practice the patent—such that its only and intended use is to be finished under the terms of the patent.” 128 S.Ct. at 2117. In other words, the *Quanta* Court characterized the *Univis* test as defining when an item “sufficiently embodies the patent” by whether the item’s “only and intended use is to be finished under the terms of the patent.”

not at issue here. Second, and more importantly, *Aro* is not squarely applicable to the exhaustion of patents like the LGE Patents that do not disclose a new combination of existing parts.¹¹⁷

Per the *Quanta* Court, “*Aro*’s warning that no element can be viewed as central to or equivalent to the invention is specific to the context in which the combination itself is the only inventive aspect of the patent.”¹¹⁸ Of course, *Quanta*’s “essential features of the patented invention” cannot be applied to combination patent claims made up of a combination of prior art elements because subtraction of the common processes or standard parts would leave nothing. And the problem with distinguishing “combination” patent claims is that most if not all patent claims are combinations of old elements. As Chief Judge Markey explained “there ain’t no new elements! Only God makes things out of new elements.”¹¹⁹ In other words, most all patent claims are combinations of old steps or elements. As Chief Judge Markey also explained, “It may be possible to think of a non-combination claim, but it’s very hard. Perhaps chemical claims are meant, but they are usually combinations of chemical elements.”¹²⁰

Entirely apart from *Quanta*’s acknowledgement that its “essential features of the patented invention” test does not apply to combination claims (the vast majority of patent claims), the case itself deals not with the value of a claimed invention, but when in the distribution chain the patentee must collect for that value. *Quanta* and *Univis* alike hold that, in the absence of a contract to the contrary, there is a certain point beyond which the patent owner may not control the patented invention because to do so would unreasonably restrain commerce in unpatented goods. This point is reached, and the patent is exhausted, where essentially all of the claimed combination is being sold, and any remaining part of the claimed combination that remains to be added is trivial. This is similar to the infringement liability that attaches to infringers who import components of a patented invention that are “especially made or especially adapted for use in the invention and not a staple article or commodity of commerce suitable for substantial noninfringing use.”¹²¹ In both cases, less than the entirety of the claimed invention needs to be present for the legal effect to attach. Neither *Quanta* nor *Univis* in any way address the value of the use made of an invention.

¹¹⁷ *Id.* at 2121.

¹¹⁸ *Id.*

¹¹⁹ Howard T. Markey, *Some Patent Problems*, 80 F.R.D. 203, 209 (1979). Similarly, Chief Judge Markey stated that “Only God creates from nothing.” Howard T. Markey, *Semantic Antics in Patent Cases*, 88 F.R.D. 103, 106 (1980) (“*Semantic Antics*”). Or, “Only God works from nothing. Man must work from old elements.” *Why Not the Statute?*, *supra* note 1110 65 J. PAT. & TRADEMARK OFF. SOC’Y at 34.

¹²⁰ *Semantic Antics*, *supra* note 119, at 106.

¹²¹ 35 U.S.C. §271(f)(2).

The Supreme Court in *Quanta* did not signal dissatisfaction “with the way patents are now valued for purposes of assessing damages,” as that issue simply was not presented. The *Quanta* Court nowhere said that “valuation should be based on the ‘essential elements’ of the invention and not the claimed product that incorporates the invention.” *Quanta*’s “essential elements” statement does not provide “good guidance for resolving the legislative and court impasse,” and should not be used in any damages legislation.

Meanwhile, as the battle over the Berman House bill and Leahy Senate bill’s patent damages reform provisions waged, Senator Jon Kyl (R-Ariz.) introduced his own patent reform bill, S.3600.¹²² Section 4 of that bill addressed patent damages in a level of detail unusual for legislation in a jurisdiction employing the common-law system. That section describes the hypothetical negotiation standard, authorizes the fact-finder to use relevant factors, bars the use of factors “not based on the particular benefits or advantage of the use of the invention” except in limited circumstances, limits the use of comparable royalties, prohibits consideration of the infringer’s financial condition, authorizes sequencing of trials, requires heightened scrutiny of expert witnesses, and dictates special consideration of jury instructions. Introduced late in the process, the Kyl bill has of yet generated little discussion or interest. Regarding that bill, however, Senator Kyl has made what is perhaps the most cogent comment to date on reform of patent damages law: “The task of reforming substantive damages standards presents a very difficult legislative question. Damages calculation is an inherently fact-intensive inquiry and requires legal flexibility so that the best evidence of a patent’s value may always be considered. Any proposed changes to the law must be evaluated in light of the kaleidoscope of factual scenarios presented by the calculation of damages for different types of patents.”¹²³

The response to the Berman House and Leahy and Kyl Senate bills suggests that legislation is a blunt instrument with which to attempt to resolve perceived problems with a subject as complex as patent damages. And enactment of legislation would likely prevent the courts from adopting a simpler and better solution.¹²⁴ As John Schlicher advised, “I would leave the problems to the federal courts. The courts have the power to correct the problems within the spacious charter of section 284.”¹²⁵

¹²² Patent Reform Act of 2008, *supra* note 31, at §4.

¹²³ Sept. 27, 2008 Cong. Rec. at S9983.

¹²⁴ *Id.* at 23-25.

¹²⁵ *Id.* at 6; *see also* “Reform,” *supra* note 103, at 18 (“Further judicial development and less-intrusive legislation could solve any problems that truly exist in the patent damages area.”).

And there is perhaps no better illustration of the courts' power to correct any problems with the patent damages law than the very scenario that has served as the rallying cry for patent damages reform. In introducing the Senate bill, Senator Leahy explained, "As products have become more complex, often involving hundreds or thousands of patented aspects, litigation has not reliably produced damages awards in infringement cases that correspond to the value of the infringed patent."¹²⁶ And Senator Hatch explained, "Some claim that courts have allowed damages for infringement to be based on the market for an entire product when all that was infringed is a minor component of the product."¹²⁷ The Senate Report of S.1145 claimed "No doubt several alarming cases, which have captured the attention of the public and the Congress, represent the tip of the iceberg; these, not surprisingly, involve outsized damages awards."¹²⁸ The source for this assertion is the testimony of Professor John R. Thomas offered at a hearing of the House Subcommittee on Courts, the Internet, and Intellectual Property.¹²⁹ Professor Thomas testified that "reform of patent damages law . . . could ameliorate two factors that contribute to the current troubles of the U.S. patent system: Uncertainty concerning the extent and value of patent rights; and the high licensing, litigation and transaction costs that innovative industry must pay in order to obtain clear answers."¹³⁰

Professor Thomas began his analysis of the problems he perceives with patent damages with the then-recent jury verdict against Microsoft Corporation in *Lucent Technologies Inc. v. Gateway, Inc.*¹³¹ "As suggested by the \$1.52 billion damages award Alcatel-Lucent recently obtained against Microsoft," Professor Thomas asserted, "evidence is mounting that judicial determinations of damages for patent infringement have begun to exceed market rates."¹³² The mere size of

¹²⁶ Cong. Rec. S4685 (Apr. 18, 2007).

¹²⁷ Cong. Rec. S4691 (Apr. 18, 2007).

¹²⁸ S. Rep. No. 110-259, at 12 (2008).

¹²⁹ *The Patent Reform Act of 2007: Hearing Before the Subcomm. on the Courts, the Internet, and Intellectual Prop. of the H. Comm. on the Judiciary*, 110th Cong. (Apr. 26, 2007) (Statement of Professor John R. Thomas) (available at <http://judiciary.house.gov/hearings/April2007/Thomas070426.pdf>) ("Thomas testimony").

¹³⁰ *Id.*

¹³¹ *Lucent Technologies Inc. v. Gateway, Inc.*, Nos. 02CV2060-B, 03CV06990B, 03CV1108-B (S.D. Cal. Feb. 21, 2007).

¹³² Thomas testimony, *supra* note 129, at 3. This supposition appears to have been thoroughly debunked. See Paul R. Michel, *supra* note 15; Shane, *supra* note 108, at 10-12; Aron Levko, Vincent Torres & Joseph Teelucksingh, *A Closer Look: 2008 Patent Litigation Study, Damages awards, success rates and time-to-trial*, <http://www.pwc.com/extweb/pwcpublications.nsf/docid/ebc144cf6220c1e785257424005f9a2b> (2008); J. Sean McGrath & Kathleen M. Kedrowski, *Trends in Patent Damages*, <http://www.docs.piausa.org/ABA/07-06-01-ABA-Report-On-Patent->

Lucent v. Gateway's verdict quickly became a basis to attack many aspects of the patent system, and the system itself. An editorial in *The Los Angeles Times* summed it up stating, "The patent system in the United States is so dysfunctional that it can even generate sympathy for Microsoft."¹³³ This "poster-child" case of excessive damages deserves closer inspection.

The celebrated damages award against Microsoft in *Lucent v. Gateway* was based on a royalty rate applied against a base of sales of the computer systems with the Windows operating system although the infringing method was performed by only a small part of the computer system, namely the "Windows Media Player," which is a software program in the Windows operating system. The district court instructed the jury both on damages apportionment¹³⁴ and the entire market value rule. The entire market value rule jury instruction, No. 62, explained: "An award on damages based on a percentage of sales of computer systems with a Windows operating system is permitted if Lucent proves . . . the specific features covered by the patent claims . . . were the basis for customer demand or that the patented features and the computer function together as a single unit."

Many commentators identified problems with the *Lucent v. Gateway* verdict.¹³⁵ The entire market value rule instruction, some pointed out, goes further than the current law on "entire market value."¹³⁶ The instruction's disjunctive "or" is the problem: the Federal Circuit's *Rite-Hite* decision requires that the claimed invention be the basis for the customer demand for the entire computer system before applying the entire market value rule.¹³⁷ The functional relationship test is an additional test that that the Federal Circuit applied in *Rite-Hite* in a lost-profits context to conveyed goods sold with the claimed invention,

Damages.pdf, 1-13 (2007); Paul Janicke, *Patent Litigation Remedies: Some Statistical Observations*, www.patentmatter.com/issue/Patent_Litigation_Remedies-Janicke.ppt (2007).

¹³³ Editorial, *Level Playing Field: Patent Problems in Patent Law*, *LOS ANGELES TIMES* (Feb. 24, 2007). See also Steven Levy, *Changes in Patents May Be Pending: "Patent trolls" come out of the woodwork after companies have spent billions on a product*, *NEWSWEEK* (Mar. 12, 2007) ("nutty verdicts like the \$1.52 billion MP3 judgment").

¹³⁴ The instruction on damages apportionment was Instruction 60, which counseled the jury to consider: "The portion of the profit that is due to the patented invention, as compared to the portion of the profit due to other factors, such as unpatented elements or unpatented processes, or features or improvements developed by Microsoft."

¹³⁵ See Schlicher, *supra* note 105, at 26-27; "Reform," *supra* note 103, at 8-9; David Blackburn & Mario A. Lopez, *Where's the Economics Behind Lucent v. Gateway et al.?*, http://www.nera.com/Publication.asp?p_ID=3094 (2007).

¹³⁶ See Schlicher, *supra* note 105, at 26; "Reform," *supra* note 103, at 8-9.

¹³⁷ *Rite-Hite Corp. v. Kelley Co., Inc.*, 56 F.3d 1538, 1549-51 (Fed. Cir.) (*en banc*), *cert. denied*, 116 S. Ct. 184 (1995).

not an alternative test for applying the entire market value rule.¹³⁸ Even apart from the disjunctive problem with the entire market value rule instruction, John Schlicher proceeded to eviscerate both the instructions on apportionment and the entire market value rule for wholly independent reasons. “The jury was not usefully instructed on either the entire market value rule or the apportionment rule,” he explained.¹³⁹

These problems did not go unnoticed. On Microsoft’s motions for judgment as a matter of law and new trial, the trial judge threw out the jury verdict, finding “that there is insufficient evidence to establish the required nexus between the patented features and the value of the entire computer and therefore, the jury’s application of the entire market value rule to the computer was unsupported as a matter of law.”¹⁴⁰

Attention has shifted to an appeal from a related *Lucent v. Gateway* case in which the jury award plus prejudgment interest totaled \$511 million. In that case Microsoft appeals the jury verdict based on perceived application of the entire market value rule, among other issues.¹⁴¹ There is no evidence, Microsoft argues in its appeal brief, that the claimed method for entering information into fields on computer-based forms by using predefined onscreen tools serve as the basis for consumer demand for the infringing products, Microsoft’s Outlook, Money and Windows Mobile products.¹⁴² To support its argument, Microsoft relies on clear

¹³⁸ *Id.* The patented goods in *Rite-Hite* were truck restraint and the goods sold with them, dock levelers, did not have a functional relationship with the truck restraints to warrant application of the entire market value rule. The *Rite-Hite* court began its analysis by recognizing that its “predecessor court held that damages for component parts used with a patented apparatus were recoverable under the entire market value rule if the patented apparatus ‘was of such paramount importance that it substantially created the value of the component parts,’” citing *Marconi Wireless Telegraph Co. v. United States*, 99 Ct. Cl. 1, 52 (Ct. Cl. 1942), *aff’d in part and vacated in part*, 320 U.S. 1 (1943). Subsequent commentators have viewed the functional relationship test as an added test for unpatented goods sold with patented goods. See, e.g., Susan Perng Pan, *Patent Damage Assessments after Rite-Hite and Grain Processing*, 43 IDEA 481, 506 (2002).

¹³⁹ Schlicher, *supra* note 105, at 26-27.

¹⁴⁰ *Lucent Techs. Inc. v. Gateway, Inc.*, 509 F. Supp. 2d 912, 936 (S.D. Cal. 2007), *aff’d*, 543 F.3d 710 (Fed. Cir. 2008) (“*Lucent v. Gateway I*”).

¹⁴¹ *Lucent Techs. Inc. v. Gateway, Inc.*, No. 2008-1485, -1486, -1487, -1495 (Fed. Cir.) (“*Lucent v. Gateway II*”). Different judges in the same district decided *Lucent v. Gateway I* (Brewster, J.) and *Lucent v. Gateway II* (Huff, J.). Judge Huff rejected Microsoft’s motion for JMOL and a new trial, reasoning that “the award does not reflect an entire market value calculation on its face” and that “substantial evidence supports the jury’s verdict, whether or not the entire market value rule applies.” Order on Post-Trial Matters, *Lucent v. Gateway II*, 26 (S.D. Cal. June 19, 2008).

¹⁴² Brief of Appellant Microsoft Corp., *Lucent v. Gateway II*, *supra* note 141 (Fed. Cir. Nov. 21, 2008) (“Microsoft Brief”). Unlike the case before Judge Brewster, this case, before Judge Huff, involved a jury instruction on the entire market value rule that properly required that “the party seeking damages must show two things: (1) the patented feature is the basis for consumer demand,

statements of the law from both the Federal Circuit and Supreme Court that application of the entire market value rule requires that the patented feature serve as *the* basis for the customer demand, a position reflected by the jury instruction on the entire market value rule.¹⁴³ The trial judge, Judge Huff, rejected Microsoft's position on post-trial motions, reasoning that "Lucent introduced substantial evidence, such as marketing material, product documentation, and expert testimony, that the accused features *were important to* the success of Microsoft's products and were promoted by Microsoft."¹⁴⁴ This lesser standard arguably finds some support in Federal Circuit precedent, and clarification of the proper standard would be salutary.¹⁴⁵

Microsoft's appeal has generated considerable interest in the patent community. Apple Inc. and Oracle Corporation filed an amicus brief directed in large part to the entire market value issue. In that brief, they explained:

Specifically, the district court improperly found the verdict supported despite the absence of meaningful and rigorous proof . . . that the requested damages have a valid nexus to the value of the patented feature relative to the rest of the product on which the royalty is sought. As a result, a minor option in complex, feature-laden products was leveraged into a massive damage award of

and (2) the patented and unpatented components are part of a single functioning unit." Instruction No. 46. "If the party fails to show both elements," that instruction went on to explain, "they may still be able to recover damages, but those damages should not be based on the value of the entire product."

¹⁴³ Microsoft Brief, *supra* note 142, at 54-55, citing *Rite-Hite*, 56 F.3d at 1549 ("the patented feature is the 'basis for customer demand'"); *Garretson v. Clark*, 111, U.S. 120, 121 (1884) ("the entire value of the whole machine, as a marketable article, is properly and legally attributable to the patented feature"); *Imonex Servs., Inc. v. W.H. Munzprufer Dietmar Trenner GMBH*, 408 F.3d 1374, 1380 (Fed. Cir. 2005) ("the patent-related feature is the basis for customer demand").

¹⁴⁴ Order on Post-Trial Matters, *Lucent v. Gateway II*, *supra* note 141, at 27. Her order also explained that the award is not conclusively based on the entire market value, since Lucent asked for \$561.9 million in damages but only got \$358 million on the Day patent. The remainder that adds up to the \$511.6 million is \$10.3 million on the Agulnick patent and \$51,000 in prejudgment interest.

¹⁴⁵ See *Bose Corp. v. JBL, Inc.* 274 F.3d 1354 (Fed. Cir. 2001) (noting that the trial court "found that the invention of the '721 patent improved the performance of the loudspeakers and contributed substantially to the increased demand for the products in which it was incorporated"); *Fonar Corp. v. General Elec. Co.*, 107 F.3d 1543, 1552 (Fed. Cir. 1997) (holding that "the patented feature is the basis for customer demand of the entire machine" established by evidence that the infringer used the patented feature as a marketing tool to distinguish the infringing machine from others in the market); *Marconi Wireless Telegraph Co. v. United States*, 99 Ct. Cl. 1, 22 (1942), *aff'd in part and vacated in part on other grounds*, 320 U.S. 1 (1944) (requiring only that the claimed invention "substantially created the value" of the entire article).

more than \$500,000,000 based upon the entire United States revenue for those products.¹⁴⁶

Rather than arguing for a change or clarification in the law on the standard for applying the entire market value rule, however, Apple and Oracle urge the Federal Circuit to issue a “clear mandate” that district judges must fulfill their gatekeeper role in this regard:

But district courts are tasked as gatekeepers to prevent parties from receiving windfall judgments despite such failures of proof. *See, e.g., Kumho Tire Co. Ltd. v. Carmichael*, 526 U.S. 137, 147-49 (1999) (holding that the district courts' gate-keeping function requires the rigorous requirement that expert testimony be relevant and reliable). Indeed, judges are the only ones who can play the vital gate-keeping role of ensuring that patent holders establish damages with a valid nexus to the proven infringement. District courts must ensure that a patent holder relies only on reliable and tangible, not speculative or conjectural, evidence of damages tied to actual use and value of an accused feature. A clear mandate from this Court to that effect is the best hope for accused infringers that they will not be subject to unwarranted massive payouts - either in a settlement or after trial.¹⁴⁷

Amici Apple and Oracle do not seek a change in the law; only that the law be applied.¹⁴⁸ And in many cases it is. For example, Federal Circuit Judge Randall

¹⁴⁶ Brief of amicus curiae Apple Inc. & Oracle Corp., *Lucent Techs. Inc. v. Gateway, II*, *supra* note 141 (Fed. Cir. Dec. 9, 2008).

¹⁴⁷ *Id.* at 21-22.

¹⁴⁸ In another amicus brief, ten “technology-based companies” argued that the case should be remanded for faulty jury instructions, despite that fact that Microsoft did not in its appeal brief challenge the jury instructions and may not have even preserved the issue. Brief For Ten Amici Curiae Technology-Based Companies In Support Of Appellant Microsoft Corporation, *Lucent v. Gateway, II*, *supra* note 141 (Fed. Cir. Dec. 15, 2008). This brief also argues for abolishing application of the entire market value rule to reasonable royalty valuation, another issue apparently neither raised nor preserved by the appellant. *Id.* at 13-21. This brief also proposed that the Federal Circuit mandate use of a particular jury instruction on comparability of licenses in the reasonable royalty analysis, despite the fact that the Federal Circuit has never been in the business of mandating jury instructions. The instruction reads “Where a party’s reasonable royalty calculation purports to be based on existing licensing norms that are expressed as a customary percentage times a customary royalty base, the party introducing such evidence must at a minimum show by a preponderance of the evidence that, as compared to the hypothetical license for the patent in suit, the licenses introduced as evidence show (i) a *similar* royalty base and (ii) a *similar* royalty percentage that has previously been used in (iii) a *similar* license covering (iv) a *similar* patent.” *Id.* at 25-26. This last proposal would be more appropriately directed to The National Jury Instruction Project, whose draft model instructions contain six instructions on damages. The National Jury Instruction Project, MODEL PATENT JURY INSTRUCTIONS,

Rader, sitting by designation in the Northern District of New York, recently excluded an expert's testimony on the entire market value rule because of the expert's "inability to link his opinion to the realities of the case."¹⁴⁹ As Judge Rader pointed out, Federal Circuit precedent "requires sound economic proof of the nature of the market and likely outcomes with infringement factored out of the economic picture" in all damages calculations.¹⁵⁰ "Where, as here, such sound economic and factual predicates are absent from a reasonable royalty analysis," Judge Rader explained, "a district court must exercise its discretion to exclude the proffered testimony."¹⁵¹ Judge Rader found plenty of Federal Circuit authority on which to base exclusion. Perhaps if the Federal Circuit made the same kind of emphatic statement, critics of the present application of the entire market value rule would be assuaged.

That the most recent damage award relied upon by proponents as justifying patent damages reform has been vacated by the trial court, and that application of the entire market value rule in a related case is being challenged in a high-profile appeal based on crystal-clear precedent suggests that the courts have a role to play in resolving at least the entire market value aspect of the perceived damages problem. The trial court's action and the Federal Circuit's consideration of that aspect of the perceived problems with patent damages may well dampen the fervor for reform of patent damages, just as the Supreme Court's decisions in *KSR*, *eBay* and *Microsoft* did for obviousness, injunctions and foreign infringement, and the Federal Circuit's decision in *Seagate* did for willfulness.¹⁵² Meanwhile, the legislative process should go forward without the intensely criticized damages provisions.

VIII. VENUE

The Eastern District of Texas has been a popular venue for patent litigation in recent years. Because the current venue statute allows venue anywhere a corporate defendant does business, cases do not need a significant

<http://memberconnections.com/olc/filelib/LVFC/cpages/9008/Library/National%20Jury%20Instructions.pdf>52-61 (Dec. 5, 2008).

¹⁴⁹ *Cornell Univ. v. Hewlett-Packard Co.*, 2008 WL 2222189 (N.D.N.Y. 2008).

¹⁵⁰ *Id.* at *2, quoting *Grain Processing Corp. v. American Maize-Products Co.*, 185 F.3d 1341, 1350 (Fed. Cir. 1999).

¹⁵¹ *Id.*

¹⁵² See Anderson & Schieffel, *supra* note 46 (*Lucent* "provides the Federal Circuit with another golden opportunity to take away one of the remaining pressing issues at the heart of patent reform").

connection to the venue.¹⁵³ Many cases filed in the Eastern District lack meaningful connection to the venue and are considered to be prime examples of plaintiff forum-shopping. Thus, although venue was not as issue considered in the National Academies report, because of the increase in patent cases filed in the Eastern District of Texas, venue reform was added to the Patent Reform Act of 2007.¹⁵⁴

“The purpose of venue statutes is to protect defendants ‘from the inconvenience of having to defend an action in a trial court that is either remote from the defendant’s residence or from the place where the acts underlying the controversy occurred.’ This purpose is achieved by limiting the plaintiff’s choice of forum to certain courts among those that might otherwise have personal jurisdiction over the defendant.”¹⁵⁵

Congress amended 28 U.S.C. §1391(c) in 1988 to address problems regarding venue that arose in multidistrict states.¹⁵⁶ As amended, section 1391(c) provided enlarged venue for corporate defendants, which became the basis for the Federal Circuit’s decision in *VE Holding* applying the revised general venue law to patent infringement cases.¹⁵⁷ Thus, because the 1988 amendment allowed corporate patent infringement defendants to be sued wherever personal jurisdiction attaches, and personal jurisdiction is determined by typically broad state long-arm statutes, the amended section 1391(c) has invited plaintiffs to shop for favorable forums, those with short times to trial, skilled judges, and plaintiff-friendly juries.

¹⁵³ The Eastern District of Texas has been called a “haven for patent pirates” and a “hotbed for patent trolls.” Sam Williams, “*A Haven for Patent Pirates*,” TECH. REV., Feb. 3, 2006; Peter Lattman, “*Patent Trolls’ Grazing the Piney Woods*,” WALL ST. J. L. BLOG, Mar. 27, 2006. Justice Scalia even called it a “renegade jurisdiction.” Xuan-Thao Nguyen, “*Justice Scalia’s ‘Renegade Jurisdiction’: Lessons for Patent Law Reform*,” 83 TUL. L. REV. 111 (2008) (citations omitted). In recent years, the district’s reputation for having patent-savvy judges, short times to trial, and plaintiff-friendly juries have caused patentee-plaintiffs to file their cases there in droves.

¹⁵⁴ The intent of these bills could not be clearer; as explained in the forthcoming National Academies report, these bills seek to “curtail the ability of plaintiffs to file infringement actions in jurisdictions most likely to favor plaintiffs.” National Academies II report, *supra* note 108, at 4-13. In other words, rather than just seeking to level the playing field, these bills seek to put patentee-plaintiffs at a disadvantage.

¹⁵⁵ William C. Rooklidge & Renee L. Stasio, *Venue in Patent Litigation: The Unintended Consequences of Reform*, 20 No. 3 INTEL. PROP. & TECH. L.J. 1, at *1 (March 2008) (citing *VE Holding Corp. v. Johnson Gas Appliance Co.*, 917 F.2d 1574, 1576 (Fed. Cir. 1990)).

¹⁵⁶ *Id.* at *2 (citing *VE Holding Corp.*, 917 F.2d at 1578); *see also* Charles S. Ryan, *The Expansion of Patent Venue Under the Judicial Improvements and Access to Justice Act (Part I)*, 77 J. PAT. & TRADEMARK OFF. SOC’Y 85, 88-99 (1995) (tracing the history of the corporate venue statute).

¹⁵⁷ *Id.* (citing *VE Holding Corp.*, 917 F.2d at 1583).

Since 2002, the Eastern District of Texas has transformed itself into the number one district in the country for filing patent cases. The numbers are staggering. In 2007, 368 new patent cases were filed in the Eastern District of Texas, compared to a mere 32 new patent cases filed in 2002.¹⁵⁸ This total of 368 new patent cases for 2007 – an increase of over 1100% since 2002 – exceeds that of any other district in the country, including the Central District of California’s 208 patent cases filed in 2007 or the 148 filed in 2007 in the Northern District of California, home of Silicon Valley.¹⁵⁹

While the Eastern District of Texas continues to have more patent cases filed there than any other district, its numbers are now declining. Only 307 patent lawsuits were filed there in 2008.¹⁶⁰ This represents nearly a 17% decrease from 2007 – and the first yearly decline in at least five years.¹⁶¹ Moreover, this decline is not merely an artifact of the economic downturn and reduced patent litigation filings nationally. The decline in 2008 in the Eastern District of Texas is far greater than in other popular patent infringement venues, including the Central District of California:

Venue	2007	2008	% Change
E.D. Tex.	368	307	- 16.6
C.D. Cal.	208	201	- 3.4
N.D. Cal.	148	209	+ 29.2

Some attribute the slowdown in the Eastern District of Texas to the growing popularity of the district; the more cases are filed there, the longer those cases take to be heard. As a result, some say the Eastern District of Texas is less of a “rocket docket” than its reputation indicates.¹⁶² Indeed, the district recently

¹⁵⁸ See, e.g., Yan Leychkis, “Of Fire Ants and Claim Construction: An Empirical Study of the Meteoric Rise of the Eastern District of Texas as a Preeminent Forum for Patent Litigation,” 9 YALE J. L. & TECH. 193, 205 (2007); see also Joseph Casino & David Boag, “Transferring Cases Out of Eastern Dist. of Texas,” <http://ip.law360.com/articles/72770> (Oct. 15, 2008).

¹⁵⁹ Casino & Boag, *supra* note 158.

¹⁶⁰ According to COURTLINK, as of December 31, 2008 307 patent cases were filed in the Eastern District of Texas compared to 201 patent cases in the Central District of California and 209 patent cases in the Northern District of California.

¹⁶¹ See also Lynne Marek, “Eastern Texas’ IP ‘Rocket Docket Shows Signs of Slowing,” <http://www.law.com> (Oct. 3, 2008).

¹⁶² See *id.*

dropped from the fifth fastest judicial district to the 18th.¹⁶³ According to a PricewaterhouseCoopers study, time to trial in the Eastern District of Texas is 1.79 years compared to the national median of slightly more than 2 years.¹⁶⁴

The Eastern District of Texas is not the first, nor will it be the last, so-called “rocket docket” to experience a downturn in filings after overloading its docket. The Eastern District of Virginia was the original rocket docket, earning its title by following its motto, “JUSTICE DELAYED, JUSTICE DENIED,” as inscribed on the sculpture of a tortoise and hare that stands before the courthouse.¹⁶⁵ When that district became clogged with patent cases, however, the time to trial increased and judges there granted transfer requests more freely. Plaintiffs got the message and began looking elsewhere for a new rocket docket.¹⁶⁶ The same result appears to have happened in the Eastern District of Texas independent of any reform to the venue statutes.¹⁶⁷

These characteristics are argued by some to exist in the Eastern District of Texas, which some have argued to be consistently hostile to motions to transfer venue.¹⁶⁸ As such, many believe that the driving force behind the current suggested reform to venue is the desire within the patent community to limit the

¹⁶³ See *The Rocket Docket*, Inside Counsel (Aug. 2008).

¹⁶⁴ See Jerry Crimmins, *Patent Plaintiffs Flock to ‘Rocket Docket’ in Wisconsin*, Chicago Daily Law Bulletin (Aug. 14, 2008).

¹⁶⁵ See Steven Andersen, *International Trade Commission Sees Surge in Patent Cases: IP’s Little-Known ‘Rocket Docket’ Comes of Age*, CORPORATE LEGAL TIMES (Oct. 2004); see also T.S. Ellis III, Presentation at the Proceedings of the 1999 Summit Conference on Intellectual Property: *Quicker and Less Expensive Enforcement of Patents: United States Courts* (1999), in *Streamlining International Intellectual Property* 11, 12-14 (5 CASRIP Publ’n Series 2000), available at <http://www.law.washington.edu/casrip/symposium/Number5/pub5atcl2.pdf>.

¹⁶⁶ See William P. DiSalvatore, *Filing Considerations in Patent Litigation*, in *Practicing Law Inst., Patent Litigation* 2001, at 81, 92-93 (2001) (discussing the Eastern District of Virginia’s efforts in reducing the attractiveness of the district as a magnet for patent cases through an increasing willingness to transfer venue).

¹⁶⁷ See Susan Decker, *Texas District is Heaven for Patent Holders Under Siege*, Seattle Times Business & Technology, May 1, 2006 (quoting Judge John T. Ward, long credited for leading the Eastern District of Texas to its current popularity with the plaintiffs’ patent bar, as admitting “[w]e’ve got too many cases now ... [i]t will correct itself over time.”).

¹⁶⁸ See Zusha Elinson, *5th Circuit Ruling Shoots Down IP Rocket Docket*, <http://www.law.com> (Oct. 14, 2008) (citing Legal Metric’s study showing that over 17 years of rulings on contested transfer motions in patent cases, the Eastern District of Texas granted only 33.1 percent of those motions, the second-lowest rate in the nation, next to the District of Minnesota).

ability of patentees to forum shop and bring infringement actions in the Eastern District of Texas that have little connection to that district.¹⁶⁹

The Patent Reform Act of 2007 as passed by the House proposed adding a provision to 28 U.S.C. § 1400(b) that “a party shall not manufacture venue by assignment, incorporation, joinder or otherwise primarily to invoke the venue of a specific district court.”¹⁷⁰ This provision would require courts to examine “the purpose of the plaintiff’s activities on which venue is based, that is, plaintiff’s intent in performing the acts on which venue is based.”¹⁷¹

Examining a plaintiff’s intent regarding its venue selection creates several issues. First, a subjective examination of intent would create unpredictable results.¹⁷² Further, allowing defendants to dismiss or transfer based on the subjective factor of plaintiff’s intent would result in venue motions being filed much more often, placing additional burden on the courts.¹⁷³ Additionally, a subjective examination of intent would require discovery to obtain evidence of intent.¹⁷⁴ All of these results would increase the cost and complexity of patent infringement litigation from the outset.¹⁷⁵

Portions of the Berman Bill’s proposed reform to the venue statute as passed by the House create further uncertainties. It includes “substantial” to modify certain triggering activities for venue for both the defendant and plaintiff. Importantly, the bill attempted to be balanced in providing venue where key activities of both the defendant and plaintiff occurred such as providing venue where the plaintiff engaged in “substantial” research and development, manufacturing or management of either relating to the patent(s) in dispute.¹⁷⁶ Trying to decide what is considered “substantial” relative to activities of either the defendant or plaintiff would create further subjective analysis.¹⁷⁷

¹⁶⁹ See, e.g., ABA Section of Intellectual Property Law, *A Section White Paper: Agenda for 21st Century Patent Reform*, 49 (May 2007); see also Roderick R. McKelvie, “*Forum Selection in Patent Litigation: A Traffic Report*,” 19 No. 8 INTELL. PROP. & TECH. L.J., 4 (2007).

¹⁷⁰ H.R. 1908, § 11. See S. 1145, as reported, § 8 for corresponding provision.

¹⁷¹ See Rooklidge & Stasio, *supra* note 166, at *3.

¹⁷² *Id.*

¹⁷³ *Id.* at *3-4.

¹⁷⁴ *Id.* at *4.

¹⁷⁵ *Id.*

¹⁷⁶ See Patent Reform Act of 2007, *supra* note 31, at §11 (proposing additions as 28 U.S.C., § 1400(c)(2), § 1400(c)(5), and § 1400(c)(7)).

¹⁷⁷ Rooklidge & Stasio, *supra* note 155, at *5.

In sum, the proposed intent and substantiality revisions to the venue statute would impose an increased burden on both litigants and the courts while decreasing the certainty of venue decisions.¹⁷⁸ Less certainty would then lead to more mandamus petitions from venue decisions, imposing a greater burden on the Federal Circuit.¹⁷⁹ These unintended consequences of the proposed venue reform do not seem justified by any problem in the Eastern District of Texas, especially in light of the decline in filings there likely due to the current backlog of cases and two other recent developments.

In addition to the natural decline that logically follows an overloaded rocket docket, a recent pair of transfer cases is being hailed as providing a new remedy against forum shopping. The Fifth Circuit's recent decision *In re Volkswagen of America, Inc.*¹⁸⁰ seems to provide fertile new ground for defendants to transfer their cases out of the Eastern District of Texas.¹⁸¹ Prior to this decision, cases filed in the Eastern District of Texas usually stayed there.¹⁸² In *Volkswagen*, however, the Fifth Circuit issued a writ of mandamus directing the Eastern District of Texas to transfer the case because the trial court "gave undue weight to plaintiffs' choice of venue, ignored [] precedents, misapplied the law, and misapprehended the relevant facts."¹⁸³

Volkswagen involved a fatal accident that occurred in Dallas, in a car that was purchased in Dallas County, where Dallas residents witnessed the accident, Dallas emergency personnel responded to the accident, and a Dallas doctor performed the autopsy.¹⁸⁴ Based on these facts, the Fifth Circuit found that

¹⁷⁸ *Id.* at *6.

¹⁷⁹ *Id.*

¹⁸⁰ See *In re Volkswagen of America, Inc.*, 545 F.3d 304 (5th Cir. 2008).

¹⁸¹ Importantly, the law of the regional circuit governs a §1404(a) analysis. See, e.g., *In re D-link Corp.*, 183 F. App'x. 967, 968 (Fed. Cir. 2006). Thus, the Eastern District of Texas, and the Federal Circuit in reviewing appeals from it, will apply the transfer standard articulated in *In re Volkswagen*.

¹⁸² See Elinson, *supra* note 168 (reporting the Eastern District of Texas having the second-lowest transfer rate in the nation); Robert Green Sterne, Kenneth C. Bass, III, Jon E. Wright, Lori A. Gordon & Matthew J. Dowd, *Reexamination Practice With Concurrent District Court or USITC Patent Litigation*, 13 (2008) ("Reexamination Practice"). *In re Volkswagen* also is significant because defendants have had mixed results in obtaining a stay of litigation in the Eastern District of Texas pending a reexamination in the USPTO. Indeed, a review of all patent cases between 2004 through the present found that seven cases involved facts whereby a defendant filed a request for reexamination and subsequently filed a motion to stay the litigation. Of these seven cases, the motions to stay were granted in three cases.

¹⁸³ *Volkswagen*, 545 F.3d at 309.

¹⁸⁴ *Id.* at 316.

“there is no relevant factual connection to the Marshall Division.”¹⁸⁵ As such, the Court held that “when the transferee venue is not clearly more convenient than the venue chosen by the plaintiff, the plaintiff’s choice should be respected. When the movant demonstrates that the transferee venue is clearly more convenient, however, it has shown good cause and the district court should therefore grant the transfer.”¹⁸⁶ In other words, if the transferee venue is “clearly more convenient,” little, if any, deference should be given to a plaintiff’s choice of forum.

Two months after the Fifth Circuit spoke in *Volkswagen*, the Federal Circuit followed suit in the patent case *In re TS Tech Corp.*,¹⁸⁷ granting a writ of mandamus and holding that the Eastern District of Texas court clearly abused its discretion in denying a motion to transfer venue. In *TS Tech*, the Federal Circuit applied Fifth Circuit law and tracked *Volkswagen* in holding that the district court reached a “patently erroneous result” in failing to transfer the case to the Southern District of Ohio. The underlying case involved a complaint by Lear Corp. against Ohio entity TS Tech for patent infringement based on vehicle headrest assemblies that TS Tech sells to Honda Motor Co. As in *Volkswagen*, the Federal Circuit held that the district court (1) gave too much weight (i.e., “inordinate weight”) to Lear’s choice of venue, (2) disregarded the 100-mile rule for witness convenience where all of the witnesses were in Ohio, Michigan or Canada and none were in Texas, (3) read out of the 1404(a) analysis the factor regarding relative ease of access to proof where all of the physical evidence was in Ohio, and (4) disregarded Fifth Circuit precedent stressing the public interest in having localized interests decided at home, given that the Fifth Circuit in *Volkswagen* had rejected the notion that the citizens of the Eastern District of Texas has a substantial interest in having the patent dispute tried in that venue merely because Honda cars had been sold in that district.

Before *TS Tech*, the Federal Circuit had upheld the Eastern District judges’ refusal to transfer patent cases.¹⁸⁸ Even before *TS Tech* the Eastern District judges did not always refuse to transfer patent cases,¹⁸⁹ and the Federal Circuit has generally upheld decisions in patent cases from the Eastern District.¹⁹⁰

¹⁸⁵ *Id.* at 318.

¹⁸⁶ *Id.* at 315.

¹⁸⁷ Misc. No. 888 (Fed. Cir. Dec. 29, 2008).

¹⁸⁸ See Alisha Kay Taylor, *What Does Forum Shopping in the Eastern District of Texas Mean for Patent Reform?*, 6 J. MARSHALL REV. INTELL. PROP. L. 570, 581-82 (2007).

¹⁸⁹ *Id.* at 582.

¹⁹⁰ *Id.*

But the Federal Circuit's decision in *TS Tech* has been widely hailed as changing the equation in the Eastern District of Texas.¹⁹¹

The second judicial development that counsels against legislatively restricting venue in patent infringement actions is the recent expansion of declaratory judgment jurisdiction for challenges by potential infringers. In *MedImmune, Inc. v. Genentech, Inc.*,¹⁹² the Supreme Court rejected the Federal Circuit's longstanding two-part test for determining, in the patent context, whether district courts have jurisdiction to hear a declaratory judgment cause of action. "[P]rior to *MedImmune*, [the Federal Circuit] articulated a two-part test that first considers whether conduct by the patentee creates a reasonable apprehension on the part of the declaratory judgment plaintiff that it will face an infringement suit, and second examines whether conduct by the declaratory judgment plaintiff amounts to infringing activity or demonstrates concrete steps taken with the intent to conduct such activity."¹⁹³ The Supreme Court rejected the first part of the test, the "reasonable apprehension of suit" test, because it "conflicts" and would "contradict" several cases in which it found that a declaratory judgment plaintiff had a justiciable controversy.¹⁹⁴ The Court explained that the correct standard for determining a justiciable declaratory judgment is "whether the facts alleged, under all the circumstances, show that there is a substantial controversy, between parties having adverse legal interests,

¹⁹¹ See Lawrence B. Ebert, *In re TS Tech to shut down patent biz in ED Texas?*, <http://ipbiz.blogspot.com/> (2008) ("Back in May, IPBiz asked 'Will VW shut down the patent biz of ED Texas?.' With the CAFC order in the case *In re TS Tech*, the answer may be 'yes.'"); Barnes & Thornburg, *Escape From Texas: Federal Circuit Ruling May Prompt More Transfers of Patent Cases Out of the Eastern District of Texas*, <http://www.mondaq.com/article.asp?articleid=72380> (2009) ("the ruling may make it much less likely for plaintiffs to file lawsuits in the Eastern District of Texas"); Gary Odom, *Get Out of Town*, http://www.patenthawk.com/blog/2008/12/get_out_of_town.html ("Is this the beginning of the end for efficient patent justice in this country?").

¹⁹² 127 S. Ct. 764 (2007).

¹⁹³ *Sandisk Corp. v. STMicroelectronics, Inc.*, 480 F.3d 1372, 1379 (Fed. Cir. 2007).

¹⁹⁴ *MedImmune, Inc.*, 549 U.S. at 774 n.11; *Sandisk Corp.*, 480 F.3d at 1380. "The reasonable-apprehension-of-suit test also conflicts with our decisions in *Maryland Casualty Co. v. Pacific Coal & Oil Co.*, 312 U.S. 270, 273, 61 S. Ct. 510, 85 L. Ed. 826 (1941), where jurisdiction obtained even though the collision-victim defendant could not have sued the declaratory-judgment plaintiff-insurer without first obtaining a judgment against the insured; and *Aetna Life Ins. Co. v. Haworth*, 300 U.S. 227, 239, 57 S. Ct. 461, 81 L. Ed. 617 (1937), where jurisdiction obtained even though the very reason the insurer sought declaratory relief was that the insured had given no indication that he would file suit. It is also in tension with *Cardinal Chemical Co. v. Morton Int'l, Inc.*, 508 U.S. 83, 98, 113 S. Ct. 1967, 124 L. Ed. 2d 1 (1993), which held that appellate affirmance of a judgment of noninfringement, eliminating any apprehension of suit, does not moot a declaratory judgment counterclaim of patent invalidity." *MedImmune, Inc.*, 549 U.S. at 774 fn.11.

of sufficient immediacy and reality to warrant the issuance of a declaratory judgment.”¹⁹⁵

In *SanDisk Corp. v. STMicroelectronics*, the Federal Circuit’s first substantive examination of declaratory judgment jurisdiction after *MedImmune*, the Federal Circuit declined to set forth “the outer boundaries of declaratory judgment jurisdiction,” but held “that where a patentee asserts rights under a patent based on certain identified ongoing or planned activity of another party, and where that party contends that it has the right to engage in the accused activity without license, an Article III case or controversy will arise and the party need not risk a suit for infringement by engaging in the identified activity before seeking a declaration of its legal rights.”¹⁹⁶ Further, declaratory judgment jurisdiction was not defeated by SanDisk’s assertion that it would not sue ST because ST had engaged in a course of conduct that shows a preparedness and willingness to enforce its patent rights despite this statement.¹⁹⁷ “Having approached SanDisk, having made a studied and considered determination of infringement by SanDisk, having communicated that determination to SanDisk, and then saying that it does not intend to sue, ST is engaging in the kinds of extra-judicial patent enforcement with scare-the-customer-and-run-tactics that the Declaratory Judgment act was intended to obviate.”¹⁹⁸

In the aftermath of *MedImmune* and *SanDisk*, potential infringers are more likely to be able to establish declaratory judgment jurisdiction. The potential infringer’s exercise of that ability to bring a declaratory judgment action would deny the patentee the ability to choose a forum unrelated to the dispute.¹⁹⁹ Whether the change in declaratory judgment jurisdiction, or the increased ability of defendants to transfer patent cases, will decrease patentee forum shopping in a significant way remains to be seen. The legislative proposals for venue reform in patent cases, proposals triggered by the proliferation of patent cases filed in the Eastern District of Texas, may well turn out to be unjustified in view of the decreased patent case filings, mounting patent case backlog, enhanced ability of defendants to transfer their cases out of the district, and pending legislative

¹⁹⁵ *MedImmune*, 549 U.S. at 771 (citing *Maryland Casualty Co. v. Pacific Coal & Oil Co.*, 312 U.S. 270, 273, (1941)).

¹⁹⁶ *Sandisk*, 480 F.3d at 1381.

¹⁹⁷ *Id.* at 1382-83.

¹⁹⁸ *Id.* at 1383 (citations omitted).

¹⁹⁹ The declaratory judgment plaintiff’s ability to choose a forum, however, is nowhere near as broad as that of the ordinary patent infringement plaintiff. That is because the patentee’s sales alone do not support specific personal jurisdiction in the declaratory judgment context. *See generally Avocent Huntsville Corp. v. Aten Int’l Co.*, 2008 WL 5216005, *10 (Fed. Cir. 2008).

reforms in areas other than venue.²⁰⁰ Although these developments do not change the perception of pro-patentee rules and juries, and do nothing to discourage the development of new patent rocket docket, time will tell whether the situation will change to the point that legislation, particularly that which would add such a substantial burden, is necessary. Until then, Congress should stay its hand with venue reform legislation.

IX. INTERLOCUTORY APPEAL OF CLAIM CONSTRUCTION

The National Academies report did not include a recommendation for interlocutory appeals of claim construction orders, but recent patent reform bills in both houses of Congress contain a provision that would create a right to interlocutory appeal of trial court decisions in patent cases “determining construction of claims” and mandating that the action in the trial court be stayed pending appeal. Of course, interlocutory appeal of claim construction rulings is already available under both grants of summary judgment, grant or denial of preliminary injunction, and certification, instances in which claim construction would be dispositive or controlling.²⁰¹ But advocates of interlocutory appeal want such review available for non-dispositive and non-controlling claim construction decisions as well.

In introducing the Patent Reform Act of 2007, Senators Patrick Leahy and Orrin Hatch, and Representatives Howard Berman and Lamar Smith explained that section 10(b) would make “patent reform litigation more efficient by providing the Federal Circuit jurisdiction over interlocutory orders in what have become known as *Markman* orders, in which the district court construes claims of a patent.”²⁰² They recognized that “the contours of the [patent] claim are crucial to resolution of the patent litigation,” and expressed the belief that “authorizing interlocutory appeals will add predictability at an earlier stage of litigation.”²⁰³

²⁰⁰ See Shannon Henson, *Eastern Texas Could Cease To Be IP Fast Track*, <http://ip.law360.com/articles/81307> (January 1, 2009); Taylor, *supra* note 190, at 582-89 (proposing nationwide adoption of Judge Ward’s patent rules, creating specialized patent courts, and post-grant review as alternatives to venue reform).

²⁰¹ See 28 U.S.C. 1295(a)(1) (jurisdiction over final decisions in patent cases, including summary judgment grants); 1292(b) (jurisdiction over orders which district court certifies as one that “involves a controlling question of law as to which there is substantial ground for difference of opinion and that an immediate appeal from the order may materially advance the ultimate termination of the litigation”); 1292(c)(1) (jurisdiction over grant or denial of preliminary injunction in patent cases).

²⁰² Patrick Leahy, *Leahy-Hatch/Berman-Smith, The Patent Reform Act Of 2007, Section-By-Section* (Apr. 18, 2007), available at <http://leahy.senate.gov/press/200704/041807a.html>.

²⁰³ *Id.*

Proponents of authorizing interlocutory appeal and stay for claim construction orders believe that their proposal would address the high claim construction reversal rate by reaching the appellate determination earlier in the process.²⁰⁴ Additional interlocutory appeals would not, however, address proposed explanations of the high reversal rate of claim construction orders. Some have attributed the relatively high claim construction reversal rate to the district court judges lacking both technical expertise and frequent exposure to patent claim construction. Interlocutory appeals of claim construction rulings would not address these challenges.²⁰⁵

Another reason posited for the high claim construction reversal rate is the Federal Circuit's treatment of district court claim construction decisions. The Federal Circuit treats claim construction as a pure question of law, and accordingly, it does not formally defer to district court claim construction rulings.²⁰⁶ Creation of an additional avenue to appeal claim construction rulings would do nothing to increase the Federal Circuit's level of deference to district court claim construction rulings. Indeed, it would do nothing at all to address any of the problems that result in the high claim construction reversal rate.

Proponents of additional interlocutory appeal of claim construction also envision that the Federal Circuit's early determination of claim scope would encourage earlier settlement.²⁰⁷ This does not seem likely. Most patent cases are

²⁰⁴ See, e.g., Andrew Cadel, Steven Schreiner & Ozzie Phares, *Interlocutory appeal is proposed: Claim-construction rulings would be immediately appealable*, NATIONAL LAW JOURNAL (Dec. 4, 2006); *Patent Trolls: Fact or Fiction?: Oversight Hearing Before the H. Subcomm.e on Courts, the Internet, and Intellectual Property*, 109th Cong. 8 (June 15, 2006) (statement of Chuck Fish, Vice President & Chief Patent Counsel of Time Warner) (urging adoption of interlocutory appeal of claim construction rulings "because they are so reversed so frequently and require retrial of cases").

²⁰⁵ See generally William C. Rooklidge & Mansi H. Shah, *Creation of the Right to Interlocutory Appeal of Patent Claim Construction Rulings and Mandatory Stay Pending Appeal*, http://www.patentmatter.com/issue/pdfs/Interlocutory_Review_Paper.pdf (July 2, 2007).

²⁰⁶ See *Cybor Corp. v. FAS Techs., Inc.*, 138 F.3d 1448, 1455 (Fed. Cir. 1998) (en banc); but see *Nazomi Comms., Inc. v. ARM Holdings, PLC*, 403 F.3d 1364, 1371 (Fed. Cir. 2005) (suggesting that "common sense dictates that the trial judge's view will carry weight" in the Federal Circuit's de novo review of claim construction). Interposing interlocutory appeal would also suggest a lack of respect for district courts and their capacity to resolve patent issues, but on the other hand may not be unwelcome. See Ronald M. Whyte, *Remarks on Patent Reform: Reaction from the Judiciary*, 19 BERKELEY TECH. L.J. 1049 (2004) (quoting an unnamed judge responding to a request for input on patent reform proposals as saying "The meaningful reform would be the elimination of jurisdiction for the District Court in patent litigation.").

²⁰⁷ See, e.g., Cadel, Schreiner & Phares, *supra* note 204.

resolved early on, within 12 to 15 months of the filing of the complaint.²⁰⁸ Perhaps the most important window of settlement opportunity opens after the district court issues its initial claim construction ruling. That ruling can facilitate settlement by bringing the parties together in their view of the merits of the case.²⁰⁹ If Congress were to authorize additional interlocutory appeal and stay options, the party losing the claim construction ruling would have little incentive to settle after a claim construction ruling. The cost of an appeal would be relatively low, so even parties with weak cases would have an incentive to appeal.²¹⁰ This could delay settlement by up to a year in an appreciable number of cases which now settle during the relatively short 12-15 month window.²¹¹

Finally, proponents of authorizing additional interlocutory appeal of claim construction rulings and stays pending appeal argue that the limited availability of interlocutory appeal after *Markman* rulings is partially to blame for high litigation costs.²¹² Allowing an interlocutory appeal and stay may have the perverse effect of lengthening patent lawsuits and making them even more expensive. Interlocutory appeal of claim construction “portends chaos in process,”²¹³ and when combined with stay would burden litigants and courts alike with delay and increased cost. The Federal Circuit would have to make claim construction rulings without knowledge of the accused products and devices and separated from the arguments about infringement and invalidity.²¹⁴ Without a developed record, the appellate court may have to revisit premature claim construction

²⁰⁸ See 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, 311 (2006).

²⁰⁹ See *id.* at 262 (explaining that the introduction of the patent claim construction process altered the incentives for parties to settle by changing how they evaluate the probability of winning at trial).

²¹⁰ See Kimberly A. Moore, *Markman Eight Years Later: Is Claim Construction More Predictable?*, 9 LEWIS & CLARK L. REV. 231, 241 (2005) (noting that “appeals have low transaction costs as compared to trials” and “with de novo review, patentees have little to lose”).

²¹¹ Kimberly A. Moore, *Are District Court Judges Equipped to Resolve Patent Cases?*, 12 FED. CIR. B.J. 1, 29-30 (2002).

²¹² Fish Statement, *supra* note 204.

²¹³ *Lava Trading, Inc. v. Sonic Trading Mgmt., LLC*, 445 F.3d 1348, 1355 (Fed. Cir. 2006) (Mayer, J., dissenting). Additionally, the increase in claim construction appeals would overburden the Federal Circuit. See Daniel L. Schwartz, *Practice Makes Perfect?: An Empirical Study of Claim Construction Reversal in Patent Cases*, 107 Mich. L. Rev. 223, 264-65 (2008).

²¹⁴ *Mass. Inst. of Tech. v. Abacus Software*, 462 F.3d 1344, 1350-51 (Fed. Cir. 2006) (decrying deciding claim construction issues on an undeveloped record).

rulings.²¹⁵ This would significantly increase litigation costs and delay, and bring into question whether a case or controversy even exists.

Availability of interlocutory appeals and stays would encourage litigants to engage in gamesmanship. A litigant could seek appeal and stay by raising what until then had been latent claim construction issues. Accused infringers, who in particular benefit from delay, would be tempted to repeatedly raise claim construction issues in order to trigger an appeal and stay, thereby delaying the proceedings. Indeed, any party that sees its case going badly would be tempted to inject a claim construction issue, thereby triggering an appeal and stay. Creation of the ability to seek interlocutory appeal and stay would become a tool for well-heeled litigants to delay resolution of patent litigation.

Although the current legislative proposal for creating an additional avenue for interlocutory appeal of patent claim construction rulings suffers flaws, the issues surrounding the high reversal rate of claim construction rulings can and should be addressed. Chief Judge Michel has suggested a more limited appellate provision.²¹⁶ Senator Hatch has recognized that “other experts believe that a return to the treatment of claims construction as a mixed question of law and fact might induce more deferential review by the appellate court” and that “others have suggested that increased expertise among the district court judges trying patent cases might result in a lower reversal rate.”²¹⁷ Let us consider some of these alternatives in turn.

In order to increase trial court expertise with patent matters, Congressmen Darrell Issa (R. CA) and Adam Schiff (D. CA) introduced a bill to establish “a pilot program in certain United States district courts to encourage enhancement of expertise in patent cases among district judges.”²¹⁸ The patent pilot program bill would initiate a 10-year pilot program under which judges who do not opt out of hearing patent cases would receive additional training in patent law and funds for hiring technically trained law clerks.²¹⁹ Armed with more expertise and resources, such judges would be expected to correctly decide patent claim

²¹⁵ See *Lava Trading*, 455 F.3d at 1355 (Mayer, J., dissenting) (“We set ourselves up to have to decide claim construction again later, which could well differ from the ruling today.”).

²¹⁶ He has also made a compelling argument identifying problems with legislation allowing additional claim construction appeals in a June 2007 letter to Senators Patrick Leahy (D-Vt) and Arlen Specter (R-Pa). http://www.aipla.org/Content/ContentGroups/About_AIPLA1/AIPLA_Reports/20074/MichelLtr6-13-07.pdf.

²¹⁷ *Introduction of the Patent Reform Act of 2006: Hearing Before the S. Comm. on the Judiciary*, 109th Cong. (2006) (statement by Sen. Orrin G. Hatch, Member, S. Comm. on the Judiciary).

²¹⁸ H.R. 34, 110th Cong., 1st Sess. (passed Feb. 12, 2007); H.R. 5418, 109th Cong., 2nd Sess. (passed Sept. 28, 2006).

²¹⁹ *Id.* at §(1)(a)(1).

construction issues more frequently. The House passed the patent pilot bill in 2006 and 2007, but the companion Senate bill, introduced by Senator Specter, was referred to the Judiciary Committee, where it languished. In January 2009, Congressmen Issa and Schiff introduced a new version of the patent pilot program bill,²²⁰ and Senator Specter introduced a companion bill in the Senate.²²¹ Under these bills, 15 district courts would be chosen to be a part of the 10-year pilot program where the judge and the judge's clerks receive special training in patent law and technical issues. If a patent case is randomly assigned to a judge in the district who is not a part of the pilot program, the judge can pass the case to the pool of judges who are a part of the program. In this way, patent cases within participating districts would generally be handled by judges who have an interest in patent law and who have special training in the specialized area of the law.

The problem of high reversal rates is most directly addressed by increasing the Federal Circuit's deference to district court claim construction rulings. This has led many to call for the Federal Circuit to abandon de novo review of district court determinations that support the claim construction conclusion.²²² Although the Federal Circuit has been moving in that direction, Congress need not wait for the court to act. Regardless of whether Congress or the Federal Circuit moves first on this issue, according district court claim construction factual findings deference would increase predictability by limiting the circumstances in which the Federal Circuit could reverse claim constructions rulings.²²³

Creation of another interlocutory appeal path for patent claim construction rulings would not solve the problems it is intended to address, but would instead create a host of its own problems. To address the problem of unpredictable patent

²²⁰ H.R. 628, 111th Cong., 1st Sess. (January 22, 2009).

²²¹ S. 299, 111th Cong., 1st Sess. (January 22, 2009).

²²² See, e.g., *Brief for Amicus Curiae American Intellectual Property Law Association in Phillips v. AWH Corp.*, Nos. 03-1269, -1286, http://www.aipla.org/Content/ContentGroups/Issues_and_Advocacy/Amicus_Briefs1/PhillipsAmicusBrief.pdf; see also *A Section White Paper*, *supra* note 170, at 42-44.

²²³ See *Amgen Inc. v. Hoechst Marion Rousse, Inc.*, 469 F.3d 1039 (Fed. Cir. 2006). *Amgen* was the Federal Circuit's most recent step toward reversal of its en banc pronouncement in *Cybor* that claim construction determinations be reviewed de novo. The Court denied Amgen's petition for rehearing and rehearing en banc, over the dissents of Judges Newman, Michel, Rader and Moore. The dissenting opinions revealed that most of the court's judges are willing to reconsider the de novo review standard. Eight judges now appear willing to reconsider the no deference rule when seven judges represented in this case (Michel, Newman, Rader, Moore, Gajarsa, Linn, Dyk) are counted with Judge H. Robert Mayer, the most vocal critic of *Cybor*. Judge Gajarsa's opinion, joined by Judges Linn and Dyk, said he would be willing to reconsider that standard in the appropriate case—the atypical case where the proper claim construction is not revealed by the intrinsic evidence and can only be determined by resolving conflicting expert testimony, i.e., where it depends on extrinsic evidence.

claim construction rulings, as manifested both by poor quality claim construction rulings and by the high rate of reversal of those rulings, Congress should take steps to enhance the patent expertise of district court judges, such as offered by the pending patent pilot program bills, and consider requiring appellate deference to district court claim construction decisions.

X. RESEARCH EXEMPTION

The National Academies report and others have expressed concern that patentees' exclusive rights sometimes results in costs that outweigh the benefits to society from rewarding innovation.²²⁴ First, research universities may face considerable administrative costs in ensuring compliance with patent rights.²²⁵ Second, strict enforcement of patent rights prevent the public from working on patented inventions to design improvements or non-infringing design-arounds.²²⁶ Third, even non-commercial basic research may be inhibited by patent rights. *Id.* Last, patents in biotechnology may inhibit the realization of the full potential of an invention because "no single firm can conceive of all of the ways the discovery might be exploited."²²⁷

The Federal Circuit leaned strongly in favor of exclusive patent rights, and against the common-law research exception, in *Madey v. Duke University*,²²⁸ in which the Court held that "regardless of whether a particular institution or entity is engaged in an endeavor for commercial gain, so long as the act is in furtherance of the alleged infringer's legitimate business and is not solely for amusement, to satisfy idle curiosity, or for strictly philosophical inquiry, the act does not qualify for the very narrow and strictly limited experimental use defense."²²⁹ In light of *Madey*, the National Academies report recommended that certain exemptions be created for protection from infringement liability, specifically in the area of research tools and biotechnology.²³⁰

²²⁴ National Academies report, *supra* note 5, at 108-111; *see also Perspectives on Patents: Harmonization and Other Matters: Hearing before S. Comm. on the Judiciary, Subcomm. on Intellectual Property*, 109th Cong. (July 26, 2005) (Statement of Charles E. Phelps, Univ. of Rochester on behalf of the Ass'n of Amn. Univs.) (explaining that patent reform should include an experimental research exemption because among other reasons, to do so would foster harmonization with Europe where such an exemption is the norm).

²²⁵ *Id.* at 109.

²²⁶ *Id.* at 110.

²²⁷ *Id.*

²²⁸ 307 F.3d 1351 (Fed. Cir. 2002).

²²⁹ *Madey*, 307 F.3d at 1362.

²³⁰ National Academies report, *supra* note 5, at 108-110.

The National Academies report reviewed the experimental use exception under European patent laws, noting that Article 27(b) of the European Patent Convention states, “The right conferred by a community patent does not extend to acts done for experimental purposes relating to the subject matter of the patented invention.”²³¹ A recent paper discussed the applications of this exception in European courts,²³² quoting a case in the German Federal Court of Justice interpreting § 11 No. 2 of the German Patent Act, which codified Article 27(b), noting that section “exempts all experimental acts as long as they serve to gain information and thus to carry out scientific research into the subject-matter of the invention including its use. . . . [I]t cannot matter whether the experiments are used only to check the statements made in the patent or else to obtain further research results and whether they are employed for wider purposes, such as commercial interests.”²³³ The critical distinction is between experimentation *on* a patented invention versus experimentation *using* a patented invention. The European approach of allowing experimentation *on* a patented invention furthers the innovation promotion purpose of patent system by allowing the public to improve upon patented inventions, to design around them, and to test the validity of issued patents.²³⁴

The National Academies report reviewed proposals by legal scholars that would allow limited experimental use exemptions.²³⁵ The Eisenberg (1989) proposal, like the European approach, would exempt experiments on patented inventions to check patent validity or to improve upon inventions, but would not exempt experimental use of a patented invention where research is the primary market.²³⁶ The O’Rourke (2000) proposal would require courts to consider five factors to determine whether an accused infringer should benefit from an experimental use defense, and if not, consider whether these factors should reduce damages.²³⁷ The Dreyfuss (2003) proposal would allow basic researchers to avoid any patent infringement by executing waivers in which they agree to

²³¹ *Id.* at 111.

²³² See Wolrad Prinz zu Waldeck und Pyrmont, *Research Tool Patents After Integra v. Merck – Have They Reached a Safe Harbor?*, 14 MICH. TELECOMM. TECH. L. REV. 367 (2008).

²³³ *Id.* at 395-96 (quoting *Clinical Trials I*, 28 IIC 838 (1997); [1997] R.P.C. 623, 638-639 (F.R.G.)).

²³⁴ *Id.* at 399-400.

²³⁵ National Academies report, *supra* note 5, at 112-114.

²³⁶ See Rebecca S. Eisenberg, *Patents and the Progress of Science: Exclusive Rights and Experimental Use*, 56 U. CHI. L. REV. 1017, 1078 (1989).

²³⁷ See Maureen O’Rourke, *Toward a Doctrine of Fair Use in Patent Law*, 100 COLUM. L. REV. 1177, 1206-09 (2000).

immediately publish findings and forego patenting any discoveries.²³⁸ And the Strandburg (2004) proposal, like the European approach, would allow exemption for experimenting *on* patented inventions for purposes of improving them, and compulsory licensing for using patented research tools.²³⁹

The National Academies report ultimately recommended administrative action that would shield federally funded researchers under 28 U.S.C. § 1948(a).²⁴⁰ This solution would benefit patent owners, who could still seek patent infringement damages on the “exempted” research from the government in the Court of Federal Claims, but would allow federally funded researchers to conduct basic research without fear of infringement liability.²⁴¹ While this approach favors federally funded research over other research, it is much more likely to be implemented than any Congressional legislation or change in the “experimental use” case law, the National Academies report concluded, and thus it remains the most likely option for reinvigorating the experimental use exception to patent infringement.²⁴²

As a creature created by the courts, the common-law experimental use exemption is suited to reform by the courts. The only case subsequent to the National Academies report that involved the exemption was decided on entirely

²³⁸ See Rochelle Cooper Dreyfuss, *Varying the Course in Patenting Genetic Material: A Counter-Proposal to Richard Epstein's Steady Course*, NYU Public Law Research Paper No. 59 1, 9 (2003).

²³⁹ See Katherine J. Strandburg, *What Does the Public Get? Experimental Use and the Patent Bargain*, 2004 WIS. L. REV. 81, 118-120, 142-144 (2004).

²⁴⁰ National Academies report, *supra* note 5, at 115-116. A different approach, limiting the statutorily enacted version of the common-law exemption to “research and/or diagnostic testing uses of naturally occurring genetic sequences,” is urged in Christopher M. Holman, *Trends in Human Gene Patent Litigation*, 322 Science 198, 199 (2008).

²⁴¹ *Id.*; Comments on H.R. 1908 and S. 1145, The Patent Reform Act of 2007 5, Assoc. of American Univ., et al. (May 2007), http://www.patentsmatter.com/media/issue/resources/20070501_UnivColl.pdf (pushing for a narrowly crafted research exemption that would “at a minimum allow research on a patented product or process – research that specifically examines the nature of the patented invention – to determine whether it functions as claimed, to better understand its operation under various conditions, to discover something unknown about it, or, under appropriate circumstances, to improve it.”); see also *Patent Law Reform: Injunctions and Damages: Hearing before S. Comm. on Judiciary, Subcomm. on Intellectual Property*, 109th Cong. (June 14, 2005) (Statement of Professor Mark A. Lemley) (“Congress should take care not to eliminate the incentives for investing in research tools. While experimenting on a commercial product in order to improve on it or design around it is legitimate activity that deserves to be exempt from patent infringement, the use of a patented research tool for its intended purpose in research should not be exempt from patent infringement.”).

²⁴² *Id.* at 115.

different grounds because the patentee waived its challenge to the issue.²⁴³ This paucity of cases, combined with the fact that a single case could resolve the issue, suggests that the issue of common law experimental use is not so imperative that Congress should act now.

XI. INEQUITABLE CONDUCT

The National Academies report recommended elimination of the inequitable conduct defense or a change in its implementation so as to discourage its perceived abuse.²⁴⁴ Congress has responded to this recommendation by proposing curbs on the inequitable conduct defense or the transfer of that defense to the USPTO.²⁴⁵ The debate on these inequitable conduct reforms has largely centered on whether to abolish the doctrine or revise it, with few participants advocating that it be left as is.²⁴⁶ By the end of the last Congress, proposals had surfaced to eliminate the defense outright, but assure that the USPTO would be positioned to sanction acts of misconduct, including misconduct by individuals adverse to a patent in post-grant proceedings.²⁴⁷

Meanwhile, the Federal Circuit has been working productively in a way that may well address the National Academies' concerns with respect to the issue.

²⁴³ *Integra LifeSciences I Ltd. v. Merck KGaA*, 545 U.S. 193 (2005) (holding later activities exempted from infringement by 35 U.S.C. §271(e)(1) and not considering trial court's holding that earlier activities were exempted by common-law experimental use exemption).

²⁴⁴ National Academies report, *supra* note 5, at 121-23; accord John F. Lynch, *An Argument for Eliminating the Defense of Patent Unenforceability Based on Inequitable Conduct*, 16 AIPLA Q. J. 7 (1988).

²⁴⁵ See Patent Reform Act of 2007, *supra* note 31, at §12; Patent Reform Act of 2006, *supra* note 31, at §5; Patent Reform Act of 2005, *supra* note 31, at §5.

²⁴⁶ Compare, Kevin Mack, *Reforming Inequitable Conduct to Improve Patent Quality: Cleansing Unclean Hands*, 21 BERKELEY TECH. L.J. 147 (2006) (proposing creation of procedures for the applicant and its competitors to submit information to the USPTO and adopting a "loser pays" approach to inequitable conduct allegations, while opposing insulating patentees from inequitable conduct by its attorneys or giving the USPTO a role in inequitable conduct), with Glenn E. Von Tersch, *Curing the Inequitable Conduct Plague in Patent Litigation*, 20 Hastings Comm/Ent. L.J. 421, 444 (1998) (proposing adoption of cure of inequitable conduct through reexamination or reissue and implementation of a loser pays approach to inequitable conduct allegations), with Shashank Upadhye, *Liar Liar Pants On Fire: Towards a Narrow Construction for Inequitable Conduct as Applied to the Prosecution of Medical Device and Drug Patent Applications*, 72 U. MO. KANSAS CITY L. REV. 669, 670 (2004) (urging strict application of inequitable conduct because "in order to foster a better patent examination system, to protect applicants from being maligned by defense attorneys, to protect the valuable intellectual property rights that companies possess, and as a matter of good social policy, applicants ought to disclose more, rather than less, information, especially in the medical fields.").

²⁴⁷ See Patent Reform Act of 2008, *supra* note 31, at §11.

The area in which the Federal Circuit has made the most progress is the inference of deceptive intent. The court has been criticized for seemingly indulging inferences of deceptive intent based on little in the way of evidence.²⁴⁸ For example, in *Ferring B.V. v. Barr Laboratories, Inc.*,²⁴⁹ the Federal Circuit affirmed the district court's grant of summary judgment of inequitable conduct based on the inventor's withholding of information that he knew or should have known to be "highly material" (that his declarants had been employed by or received research funding from the patentee) because the examiner asked for "non-inventor" declarations, thus justifying an inference of deceptive intent.²⁵⁰ In other words, that the inventor should have known that the ongoing financial relationships between the patentee and the declarants were material enabled the inference of deceptive intent, and the determination of inequitable conduct. In dissent, Judge Newman decried the leveraging of inference on summary judgment, accusing the majority of imposing "a positive inference of wrongdoing, replacing the need for evidence with a 'should have known' standard of materiality, from which deceptive intent is inferred, even in the total absence of evidence."²⁵¹ Per the dissent, "the panel majority infers material misrepresentation, infers malevolent intent, presumes inequitable conduct, and wipes out a valuable property right, all on summary judgment, on the theory that the inventor 'should have known' that something might be deemed material."²⁵² And *Ferring* is no outlier: in *Hoffman-La Roche v. Promega Corp.*,²⁵³ the Federal Circuit affirmed the district court's determination of intent to deceive inferred in large part from the patentee's use of the past tense in connection with a prophetic example cited as evidence of patentability during prosecution, a decision that again drew an emphatic dissent from Judge Newman.²⁵⁴

²⁴⁸See Chris Henry, *Inequitable Conduct Inequitably Inferred: When Do Patent Applicants' Actions Intend To Deceive?*, 65 WASH. & LEE L. REV. 1159, 1191 (2008) (urging the Federal Circuit to adopt a higher standard for inferences of intent to deceive the USPTO).

²⁴⁹ 437 F.3d 1181 (Fed. Cir. 2006).

²⁵⁰ *Id.* at 1190-91.

²⁵¹ *Id.* at 1196 (Newman, J., dissenting).

²⁵² *Id.* The *Ferring* decision has drawn criticism besides that of the dissent on the inference of intent to deceive. Lisa A. Dolak, *Inequitable Conduct: A Flawed Doctrine Worth Saving*, 8-10 (2008); Henry, *supra* note 245, at 1189-90.

²⁵³ 323 F.3d 1354, 1360 (Fed. Cir. 2003).

²⁵⁴ *Id.* at 1379-81 (Newman, J., dissenting). This decision is also criticized in Henry, *supra* note 245, at 1177-78.

More recently, however, in *Star Scientific, Inc. v. R.J. Reynolds Tobacco Co.*,²⁵⁵ the Federal Circuit tightened up the basis for the inference of intent to deceive. While a “district court may infer facts supporting an intent to deceive from indirect evidence,” . . . “no inference can be drawn if there is no evidence, direct or indirect, that can support the inference.”²⁵⁶ And not only must there be evidence, that evidence must meet the clear-and-convincing standard, the court explained, and the inference “must also be the single most reasonable inference able to be drawn from the evidence to meet the clear and convincing standard.”²⁵⁷ The panel decision emphasized the consequences of a determination of inequitable conduct in justifying scrupulous attention to the clear and convincing evidentiary standard:

The need to strictly enforce the burden of proof and elevated standard of proof in the inequitable conduct context is paramount because the penalty for inequitable conduct is so severe, the loss of the entire patent even when every claim clearly meets every requirement of patentability. . . . Just as it is inequitable to permit a patentee who obtained his patent through deliberate misrepresentation or omissions of material information to enforce the patent against others, it is also inequitable to strike down an entire patent where the patentee only committed minor missteps or acted with minimal culpability or in good faith. As a result, courts must ensure that an accused infringer asserting inequitable conduct has met his burden on materiality and deceptive intent with clear and convincing evidence before exercising its discretion on whether to render a patent unenforceable.²⁵⁸

Star Scientific was not an opinion of the en banc court, and is entitled to no more deference than any other panel opinion.²⁵⁹ Recognizing this fact, Professor

²⁵⁵ 537 F.3d 1357 (Fed. Cir. 2008) (reversing a determination of inequitable conduct based on the patentee’s alleged “quarantine” of material prior art by switching from a patent prosecution firm that knew of the prior art to one that did not).

²⁵⁶ *Id.* at 1368.

²⁵⁷ *Id.* at 1366.

²⁵⁸ *Id.* at 1365-66.

²⁵⁹ Of course, the district courts must follow *Star Scientific*, and one of the first district court decisions to consider inequitable conduct in the wake of that opinion gives cause for optimism. In *New Medium LLC v. Barco N.V.*, Circuit Judge Posner, sitting by designation as a trial judge in the Northern District of Illinois, held two patents unenforceable for inequitable conduct, but rejected as a basis for inequitable conduct that two of the patentee’s four declarants did not disclose that they had been paid for their declarations submitted in an ex parte reexamination. The court rejected the compensation charge because “all expert reports in an ex parte proceeding before the Patent Office are procured by the patent owner or applicant, and it is customary to pay the experts for their time, as was done in this case.” Per Judge Posner, “There is nothing in the reports of the

Dolak has pointed out that “successful implementation of a more rigorous intent standard . . . would depend on the commitment of the Federal Circuit to speak with one voice.”²⁶⁰ Panels must strictly follow the binding precedent of prior panels, she explains, and “resist the temptation to articulate new and different formulations of the governing standards.”²⁶¹ “Consistency is the key on the part of the Federal Circuit, the patent specialist and the patent owner,” another commentator explained, and the “Federal Circuit must continue to strive for uniformity in the law.”²⁶² While the Federal Circuit may have had some difficulty doing that in the past,²⁶³ the court has mechanisms in place to help it achieve that goal.²⁶⁴

As the Federal Circuit is wrestling with the intent standard, the Supreme Court may join the fray. A recent Federal Circuit decision in *Aventis Pharma. S.A. v. Amphastar Pharms., Inc.*²⁶⁵ affirmed the district court’s determination of inequitable conduct relying on a “lesser quantum of proof . . . needed to establish the requisite intent” where a high level of materiality is present.²⁶⁶ In dissent, Judge Rader argued that inequitable conduct law should be restricted to “only the most extreme cases of fraud and deception.” The patentee recently petitioned for a writ of certiorari, arguing that the Federal Circuit’s decision presents the very problem identified in the National Academies report by inferring intent from materiality and applying a sliding scale where a patentee may be found to have

two experts who didn’t say they had been retained to suggest they were charging no fee—no suggestion that they had been moved by altruism or a strong conviction of the rightness of the application to volunteer to submit an expert report *gratis*.” This common-sense analysis is a breath of fresh air in the inequitable conduct analysis. He did, however determine that the patents were indeed unenforceable because of far more egregious, but different, conduct.

²⁶⁰ Dolak, *supra* note 252, at 10.

²⁶¹ *Id.*

²⁶² Cedric A. D’Hue, *Disclosing an Improper Verb Tense: Are Scientists Knaves and Patent Attorneys Jackals Regarding the Effects of Inequitable Conduct?*, 14 U. BALT. INTELL. PROP. L.J. 121, 147 (2006).

²⁶³ See, e.g., Matthew F. Weil & William C. Rooklidge, *Stare Un-Decisis: The Sometimes Rough Treatment of Precedent in Federal Circuit Decision-Making*, 80 J. PAT. & TRADEMARK OFF. SOC’Y 791 (1988).

²⁶⁴ Dolak, *supra* note 252 at 10 (non-panel members should review opinions before release); see generally Horror Pleni, *supra* note 12, at 787 (urging authoring judges to treat precedent fairly, limit dicta and heed concerns express before publication, the other panel judges to review draft opinions before circulation to the entire court, non-panel judges and the Senior Technical Assistant to review circulating opinions, the panel judges to consider conflicts identified in petitions for rehearing, and the entire court to address real conflicts en banc).

²⁶⁵ 525 F.3d 1334 (Fed. Cir. 2008).

²⁶⁶ 475 F. Supp. 2d 970, 976 (C.D. Cal. 2007).

committed inequitable conduct when the omitted material is highly material but was omitted due to gross negligence rather than an actual intent to deceive.²⁶⁷ The Supreme Court's opportunity to address the intent concerns articulated during the patent reform debate leaves the Federal Circuit—at least for now—to address other concerns expressed about the inequitable conduct defense.

To be sure, there are other aspects of inequitable conduct that suffer criticism, including the materiality standard,²⁶⁸ the relationship between the conduct and patentability,²⁶⁹ and the remedy for inequitable conduct,²⁷⁰ none of which have enjoyed much in the way of judicial reform since 2004. Clearly then, the courts will have a lot to do in resolving the many legitimate concerns about the inequitable conduct doctrine. For this reason, Professor Dolak argues, “legislative action would be more appropriate because the recommended modifications affect virtually every aspect of the doctrine, and because it is unlikely that a given case or series of cases will present appropriate facts for judicial resolution in the near future.”²⁷¹

Moving forward with legislative reforms has proven difficult, however, for at least several reasons. The cynical might suggest that some participants in

²⁶⁷ The petition for certiorari addresses the issue “Whether a court may refuse to enforce an otherwise valid patent on the basis of an inequitable conduct determination premised on a sliding scale between intent and materiality, effectively permitting a finding of fraudulent intent to be predicated on gross negligence.” Petition for certiorari, *Aventis Pharma S.A. v. Amphastar Pharmaceuticals, Inc.* at i.

²⁶⁸ See Elizabeth Peters, *Are We Living In A Material World?: An Analysis of the Federal Circuit's Materiality Standard Under the Patent Doctrine of Inequitable Conduct*, 93 IOWA L. REV. 1519, 1564 (2008) (criticizing the Federal Circuit's materiality standards as creating “vast uncertainty for future applicants,” requiring use of “more applicant and judicial resources, and creating “a federal court system that is ripe for allowing parties to forum shop for the most favorable standard of materiality”); James Cronin, *Inequitable Conduct and the Standard of Materiality: Why the Federal Circuit Should Use the Reasonable Patent Examiner Standard*, 50 ST. LOUIS U. L.J. 1327, 1360 (2006) (urging adoption of the reasonable patent examiner standard as the sole standard of materiality).

²⁶⁹ Dolak, *supra* note 252 (arguing that inequitable conduct should be reformed by unifying the standards used by the courts and USPTO, sanctioning only conduct that undermines the integrity of the prosecution process, implementing a more rigorous intent standard, abandoning the balancing of materiality and intent, permitting trial judges to tailor the remedy to the circumstances, and awarding attorney fees to successful patentees).

²⁷⁰ See Allison Pruitt, *Keeping Patent Applicants Honest: A Proposal to Apply Disgorgement Remedies to Findings of Inequitable Conduct During Patent Prosecution*, 13 J. INTEL. PROP. L. 465, 489 (2006) (urging disgorgement of profits as remedy for inequitable conduct); Dolak, *supra* note 252, at 8 (urging restriction of inequitable conduct to conduct that undermines the USPTO's substantive examination).

²⁷¹ Dolak, *supra* note 252, at 2.

the patent reform debate oppose inequitable conduct reform for the very reason that the National Academies report supported its elimination—the defense injects significant cost, complexity and uncertainty in patent infringement lawsuits that accused infringers find valuable as leverage in seeking favorable settlements with patent owners or, when the allegations prove successful, avoiding paying damages on otherwise valid and infringed patents. But more importantly, the proponents of inequitable conduct reform cannot agree on what form that reform should take. For example, many are horrified at the thought of moving the issue from the courts to the already overburdened USPTO.²⁷² Others see the problem, and hence the solution, completely differently depending on their perspective. Inequitable conduct reform also depends in large part on reforms to other areas of law.²⁷³

The principal issue intertwined with inequitable conduct is post-grant review. Historically, the USPTO's role was limited to examining patent applications for compliance with the statutory requirements for patentability before allowing a patent to issue. Congress first enacted a law that provided for the USPTO's post-grant review of issued patents (called *ex parte* reexamination) in 1980,²⁷⁴ and then enacted another law that provided for a second form of reexamination, namely *inter partes* reexamination.²⁷⁵ These existing forms of post-grant patent review suffer from two significant problems. First, they have been relatively little-used because of their limited scope (both as to the kind of prior art eligible and the bases available), the lack of any statutory deadline for seeking reexamination after the patent issues, and the nature of the estoppel that prevents an unsuccessful challenger from raising certain defenses to the validity of the patent in a subsequent infringement action.²⁷⁶ Second, the USPTO has taken a long time to reach final decisions in reexamination proceedings.²⁷⁷

²⁷² See *id.*; see also Michel, *supra* note 15 (“others suggest that inequitable conduct – or fraud on the patent office – should be legislatively removed from the courts and committed solely to the PTO. This, however, is the very same desperately under-resourced PTO that cannot promptly and properly complete *ex parte* reexaminations and under proposed legislation would have the added burden of many new *inter partes* reexaminations. This is the same PTO that hires 1,000 new examiners each year but also loses 600.”).

²⁷³ Robert A. Armitage, *Inequitable Conduct and Post-Grant Review: Why the Imperative to Eliminate the Inequitable Conduct Defense? What Relates Eliminating the Defense to Expanding Post-Grant Review?* (2009).

²⁷⁴ Pub. L. 96-517, 94 Stat. 3016, §1 (1980).

²⁷⁵ American Inventors Protection Act, Pub. L. 106-113, 113 Stat. 1501A-571, §4606 (1999).

²⁷⁶ These problems generally are identified in United States Pat. & Trademark Off., REPORT TO CONGRESS ON INTER PARTES REEXAMINATION, http://www.uspto.gov/web/offices/dcom/olia/reports/reexam_report.htm (2004); Reexamination Practice, *supra* note 182; J. Steven Baughman, *Reexamining Reexaminations: A Fresh Look at the Ex Parte and Inter Partes Mechanisms for Reviewing Issued Patents*, 89 J. Pat. & Trademark Off. Soc'y 349, 360 (2007); Roger Shang & Yar Chaikovsky, *Inter Partes Reexamination of Patents: An Empirical*

The National Academies report introduced the idea of an open review of issued patents to improve the quality of patents in a way more efficient than litigation or existing reexamination proceedings.²⁷⁸ The report recommended “an Open Review procedure, enabling third parties to challenge the validity of issued patents on any grounds in an administrative proceeding within the USPTO.”²⁷⁹ This review was to commence within one year of the grant of the patent. Subsequently, Congress proposed open, post-grant review procedures in the Patent Reform Acts of 2005,²⁸⁰ 2006,²⁸¹ 2007,²⁸² and 2008.²⁸³ Some of these proposals involved open review throughout the life of the patents and drew criticism and opposition.²⁸⁴

Support for open, post-grant review has since flagged. Some oppose open, post-grant review without other reforms, such as inequitable conduct reform, on which Congress has made little progress.²⁸⁵ More importantly, since the National Academies report USPTO operations have deteriorated, with a mounting backlog of unexamined patent applications and lengthening delay in examining patent applications, and this deterioration has created an urgency to focus on fixing the USPTO rather than assigning it new responsibilities.²⁸⁶

Evaluation, 15 Tex. Intell. Prop. L.J. 1 (2006); Sherry M. Knowles, et al., *Inter Partes Patent Reexamination in the United States*, 86 J. Pat. & Trademark Off. Soc’y 611 (2004).

²⁷⁷ See generally Reexamination Practice, *supra* note 182, at 10-11, 22.

²⁷⁸ See National Academies report, *supra* note 5, at 95-97.

²⁷⁹ *Id.* at 96.

²⁸⁰ Patent Reform Act of 2005, *supra* note 31, at §9.

²⁸¹ Patent Reform Act of 2006, *supra* note 31, at §6.

²⁸² Patent Reform Act of 2007, *supra* note 31, at §6.

²⁸³ Patent Reform Act of 2008, *supra* note 31, at §5.

²⁸⁴ Matthew P. Becker, “The Patent Reform Act of 2007: How It May Impact Patent Rights,” <http://www.law.com/jsp/article.jsp?id=1178096682581> (May 4, 2007).

²⁸⁵ See, e.g., The Biotechnology Ind. Org., *Statement on H.R. 1908, The Patent Reform Act of 2007*, 5 (2007). The interrelationship between inequitable conduct and open, post-grant review and other reforms is explored in Armitage, *supra* note 273.

²⁸⁶ See, e.g., John White, *Mea Culpa, Patent Reform and Other Issues*, <http://www.ipwatchdog.com/2009/01/15/mea-culpa-patent-reform-and-other-issues/id=1549/> (“The PTO back-log is making patents commercially irrelevant for many industries. By the time the patent is awarded, the worth of the patent has been lost and any edge it might have provided against competition severely blunted.”); The Coalition for 21st Century Patent Reform, *Patent Reform in the 111th Congress*, [http://www.patentsmatter.com/docs/FNL_111thCongress Patents.pdf](http://www.patentsmatter.com/docs/FNL_111thCongress%20Patents.pdf) (2009) (“The Office has become progressively less able to complete the examination of pending patent applications in a

Until greater consensus is reached, Congress appears likely to step back and let the courts continue their work, notwithstanding the toll the current state of the law exacts on the patent system. Moreover, the failure to address inequitable conduct defense has the potential to become much more problematic should Congress move forward with the various proposals to expand public participation in USPTO proceedings, both pre-grant and post-grant.

XII. BEST MODE

Like willful infringement, best mode is an issue that the National Academies report recommended stripping from the law. The report noted that the requirement for an inventor to disclose the “best mode” for carrying out the invention was highly subjective and introduced unnecessary cost and unpredictability into patent infringement litigation.²⁸⁷ The legislative proposals have not included removal of best mode. Rather, H.R. 1908 only would have amended section 282(b) to remove failure to comply with the best mode requirement as a defense to patent validity,²⁸⁸ while S. 1145 would have retained the best mode requirement without limitation.

Unlike most other litigation subjects subject to patent reform efforts, the courts have done little in the way of clarifying or improving the law of best mode. While best mode decisions remain relatively rare, even nonprecedential Federal Circuit decisions on the issue generate much in the way of commentary.²⁸⁹ Because the issue is so fact-intensive, it will continue to be subjective, unpredictable and costly to litigate unless and until Congress steps in.

XIII. USPTO RULEMAKING POWER

timely manner. As a result, it has amassed a large and growing backlog of unexamined patent applications. In addition, the quality of patents has been questioned by the media and certain stakeholders, leading to the perception that patent protection is not being appropriately granted to deserving inventions. In short, the need to address the core mission of the Office has never been more urgent.”).

²⁸⁷ National Academies report, *supra* note 5, at 120-21.

²⁸⁸ Patent Reform Act of 2007, *supra* note 31, at §13. This is an attempt to bridge the gap between those advocating for elimination of the best mode requirement and those advocating for its retention. Compare <http://www.bio.org/ip/domestic/bestmode.pdf> (arguing for elimination of best mode requirement) with http://www.piausa.org/patent_reform_issues/eliminating_best_mode/ (arguing for retention of the best mode requirement and defense).

²⁸⁹ See <http://www.patentlyo.com/patent/2008/05/cafc-failing-to.html#comments> (discussing *TALtech Ltd. v. Esquel Apparel, Inc.*, No. 2007-1506 (Fed. Cir. 2008) (patent invalid for failure to disclose best mode, to wit, commercial name of particular adhesive tape, despite disclosing the tape’s characteristics)); <http://www.patenthawk.com/blog/2008/05/puckered.html> (same).

The 2004 National Academies report discussed means to ease the USPTO's case load under the heading "Strengthen USPTO Capabilities." Meanwhile, the USPTO has been attempting to implement its own reforms. On January 3, 2006, the USPTO issued two separate notices of proposed rulemaking in the Federal Register.²⁹⁰ The Proposed Rules delineated changes to the patent examination process that would limit the number of continuing applications, requests for continued examinations ("RCEs"), and claims that an applicant could make as a matter of right. After a four-month public comment period during which the USPTO received hundreds of written comments, the USPTO published the final claims and continuation rules on August 21, 2007.²⁹¹

The day after the rules were published, Dr. Triantafyllos Tafas filed a complaint styled *Tafas v. Dudas* under the Administrative Procedure Act to permanently enjoin the USPTO from enacting them.²⁹² The case was consolidated with GlaxoSmithKline's complaint seeking similar relief. On August 1, 2008, the district court granted GSK's and Tafas's motions for summary judgment, finding the final claims and continuation rules to be improper extensions of USPTO authority under 5 U.S.C. Sec. 706(2).²⁹³ The district court permanently enjoined implementation of the final rules.²⁹⁴ The USPTO's appeal of *Tafas v. Dudas* is currently pending in the Federal Circuit.²⁹⁵

Legislation like that proposed in the Patent Reform Act of 2007 as introduced, which would have granted the USPTO broad substantive rulemaking authority, would not only have rendered the Federal Circuit's decision moot,²⁹⁶ but would have permitted the USPTO to interpret the patent laws in any area not specifically contrary to judicial rulings. Many, including the American Bar

²⁹⁰ The two proposed rules are "Changes to Practice for Continuing Applications, Requests for Continued Examination Practice, and Applications Containing Patentably Indistinct Claims," 71 Fed. Reg. 48 (Jan. 3, 2006), and "Changes to Practice for the Examination of Claims in Patent Applications," 71 Fed. Reg. 61 (Jan. 3, 2006).

²⁹¹ "Changes to Practice for Continuing Applications, Requests for Continued Examination Practice, and Applications Containing Patentably Indistinct Claims," 71 Fed. Reg. 46, 716-843 (Aug. 21, 2007). For written comments on the proposed rules see 72 Fed. Reg. at 46744-830.

²⁹² *Tafas v. Dudas*, 541 F. Supp. 2d 805, 810 (E.D. Va. 2008).

²⁹³ *Tafas*, 541 F. Supp. 2d at 811.

²⁹⁴ *Id.* at 817.

²⁹⁵ *Id.*, appeal docketed, No. 08-1352 (Fed. Cir. Sep. 24, 2008).

²⁹⁶ Both the Senate and the House bills provide that the "Director [of USPTO] may promulgate such rules, regulations, and orders that the Director determines appropriate to carry out the provisions of this title or any other law applicable to the United States Patent and Trademark Office of that the Director determines necessary to govern the operation and organization of the Office." The Patent Reform Act of 2007, *supra* note 31, at §11.

Association²⁹⁷ and the Coalition for 21st Century Patent Reform,²⁹⁸ however, opposed proposals that would expand the rulemaking power of the USPTO on the grounds that they would inappropriately give the USPTO policy-making power that Congress should retain, allow the USPTO to displace the court's incremental, common-law development of patent law, and increase the level of deference accorded the USPTO's decisions by the courts. While the Senate Judiciary accepted these arguments and removed any language in the reported version of S.1145 that would have changed the USPTO's rule making authority, the House-passed version of H.R. 1907 would have specifically authorized the USPTO to specify the "circumstances under which an application for patent may claim the benefit under sections 120, 121 and 365(c) of the filing date of a prior filed application for patent," thus permitting the USPTO to void much of the district court's ruling.

Entirely apart from the wisdom of giving the USPTO substantive rule-making authority, the Federal Circuit will decide in *Tafas v. Dudas* whether the agency needs the additional authority contemplated by the legislative proposals to do what it has done with respect to claims and continuations. Should the Federal Circuit rule that the USPTO does not have that authority, the House will have to decide whether to continue an attempt to convince its Senate colleagues to grant the agency such authority.

CONCLUSION

Since publication of the National Academies report, Congress has considered a host of legislative proposals directed at reforming the patent system. Judicial developments since publication of that report, however, suggest that in many areas the courts are competent to implement reforms of their own, and that courts are better suited to solve some patent problems, particularly those of their own making. At the very least, Congress should stay its hand regarding injunctive relief, damages, willfulness, obviousness, business-method patents, extraterritoriality, venue, interlocutory appeal, USPTO rulemaking power and common-law experimental use exemption. For now, at least, Congress should instead focus its efforts on areas clearly outside the purview of the courts, such as improving the operations of the USPTO.²⁹⁹

²⁹⁷ See September 20, 2007 letter to Senators Leahy and Specter from Pamela Banner Krupka on behalf of the American Bar Association (http://www.ipo.org/AM/Template.cfm?Section=Legislative_Action_Center&CONTENTID=16234&TEMPLATE=/CM/ContentDisplay.cfm) ("Inappropriate ceding of congressional responsibilities to the Director of the U.S. Patent and Trademark Office"); see also A SECTION WHITE PAPER, *supra* note 169 at 62-63.

²⁹⁸ See Gary L. Griswold, *Views on the New (or Pending) Patent Reform Legislation*, <http://www.patentmatter.com/issue/pdfs/AIPLASpeech10-18-07.ppt#348>, 7 (Oct. 18, 2007).

²⁹⁹ See Ron D. Katznelson, *The Perfect Storm of Patent Reform?*, <http://works.bepress.com/rkatznelson/54/> (November 7, 2008).