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Patent Showdown at the N.D. Circuit

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PATENT SHOWDOWN AT THE

N.D. C[ORR]AL

PETER S. MENELL*

ABSTRACT

Software patent cases often present dozens of claims requiring tremendous effort and years of costly litigation to resolve. In a provocative essay, Judge William Alsup offers an innovative case management solution inspired by western frontier justice. As Judge Alsup warned attorneys in a recent case, tell your clients that “the day of reckoning is close at hand.”

Modeled after the famous “Shootout at the OK Corral,” the “Showdown at the N.D. C[orr]al” aims to streamline patent litigation by requiring the patentee to choose its “best” claim and the defendant to choose the “weakest” claim for an early summary judgment showdown. Judge Alsup emphasizes the potentially severe stakes: “injunction city” if the patentee prevails and “big” sanctions if the claims fail.

This article assesses whether Judge Alsup’s patent case management invention works for its intended purposes. Based on a review of the two showdowns to date, it concludes that the showdown procedure has yielded mixed results. The procedure, however, raises serious fairness concerns that could well lead to a bigger showdown at the Federal Circuit Corral.

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It is an honor to comment on Judge, or perhaps more aptly, “Sheriff” William Alsup’s provocative approach to patent litigation on the digital frontier.¹ Judge Alsup is one of the most experienced, demanding, innovative, and no-nonsense intellectual property jurists in the nation. He rode into the N.D. C[orr]al with a lot of firepower: undergraduate training in math and engineering, years tinkering with radio devices,² a clerkship with Justice William O. Douglas,³ and extensive experience as an antitrust

1. See Hon. William Alsup, *Huge Numbers of Patent Cases: How One District Judge Manages Them*, 18 CHI.-KENT J. INTELL. PROP. L. 111 (2019).

2. See Sarah Jeong, *The Judge’s Code*, THE VERGE (Oct. 19, 2017), <https://www.theverge.com/2017/10/19/16503076/oracle-vs-google-judge-william-alsup-interview-waymo-uber>.

3. In 1934, President Franklin Delano Roosevelt appointed William O. Douglas, a young, idealistic, brash law professor who was skeptical of corporate power, to the Securities and Exchange Commission. See generally BRUCE MURPHY, *WILD BILL: THE LEGEND AND LIFE OF WILLIAM O. DOUGLAS* (2003). Five years later, President Roosevelt appointed Douglas to the Supreme Court following the retirement of Justice Louis D. Brandeis. Justice Douglas’s appointment reinforced the Court’s shifting balance on economic regulation and antitrust enforcement. See *United States v. Columbia Steel Co.*, 334 U.S. 495, 535–36 (1948) (Douglas, J., dissenting) (“We have here the problem of bigness. Its lesson should by now have been burned into our memory by Brandeis. The Curse of Bigness shows how size can become a menace—both industrial and social The philosophy of the Sherman Act is that it should not exist Industrial power should be decentralized . . .”); C. Paul Rogers III, *The Antitrust Legacy of Justice William O. Douglas*, 56 CLEV. ST. L. REV. 895 (2008). Justice Douglas brought that skepticism of monopoly, bigness, and economic power to patent jurisprudence. See *Cuno Eng’g Corp. v. Automatic Devices Corp.*, 314 U.S. 84, 91 (1941); *Great Atlantic & Pacific Tea Co. v.*

litigator at the U.S. Department of Justice and in private practice.⁴ He has been serving at the N.D. C[orr]al since 1999, just as the dot.com bubble⁵ was nearing its peak and, more significantly, during the tumultuous era after it burst. As a result, Judge Alsup has handled a good number of digital era patent cases. Of particular note, Judge Alsup serves as the trial judge in the epic battle between Oracle and Google over Google's use of Java application programming interface components ("APIs") in the Android mobile operating system.⁶ That case continues, nearly a decade after it began.⁷ Thus, it would be an understatement to say that Judge Alsup has had a front-row seat to the digital revolution. He has been an active and important participant.

I have also enjoyed a pretty good vantage point. I wrote some early articles on legal protection for computer software at the dawn of the digital intellectual property revolution.⁸ Soon after joining the Berkeley Law faculty in 1990, I laid the groundwork for the Berkeley Center for Law & Technology ("BCLT"), which launched in 1995, just as the Internet was emerging. Soon thereafter, the *Markman* claim construction rulings⁹ generated significant changes in how patent cases were adjudicated. The following year I reached out to the Federal Judicial Center ("FJC") to offer BCLT's services in educating federal judges about the rising tide of

Supermarket Equip. Corp., 340 U.S. 147, 154–55 (1950) (Douglas, J., concurring) (suggesting that the patent power was to promote the progress of both science and the useful arts, thereby requiring "a distinctive contribution to scientific knowledge" was a constitutional test for patentability); *Mercoid Corp. v. Mid-Continent Inv. Co.*, 320 U.S. 661 (1944) (expanding patent misuse); *Funk Brothers Seed Co. v. Kalo Inoculant Co.*, 333 U.S. 127 (1948) (imposing tighter limits on patent eligibility); see generally Donald S. Chisum, *Patenting Intangible Methods: Revisiting Benson (1972) after Bilski (2010)*, 27 SANTA CLARA HIGH TECH. L.J. 445, 450 (2010) (remarking that "Justice Douglas was notoriously hostile toward the patent system"). By the end of Justice Douglas's first decade on the high court, Justice Robert Jackson quipped that the Supreme Court's passion for striking down patents might lead observers to conclude that "the only patent that is valid is one which this Court has not been able to get its hands on." *Jungersen v. Ostby & Barton Co.*, 335 U.S. 560, 572 (1949) (Jackson, J., dissenting).

4. See Jeong, *supra* note 2; Dan Farber, *Judge William Alsup: Master of the Court and Java*, CNET (May 31, 2012), <http://www.cnet.com/news/judge-william-alsup-master-of-the-court-and-java/>.

5. See Dot-com bubble, WIKIPEDIA, https://en.wikipedia.org/wiki/Dot-com_bubble.

6. See *Oracle Am., Inc. v. Google Inc.*, 872 F. Supp. 2d 974 (N.D. Cal. 2012), *rev'd and remanded*, 750 F.3d 1339 (Fed. Cir. 2014), *on remand*, 2016 WL 3181206 (N.D. Cal. June 8, 2016) and 2016 WL 5393938 (N.D. Cal. Sept. 27, 2016), *rev'd and remanded*, 886 F.3d 1179 (Fed. Cir. Mar. 27, 2019); see Peter S. Menell, *Rise of the API Copyright Dead?: An Updated Epitaph for Copyright Protection of Network and Functional Features of Computer Software*, 31 HARV. J.L. & TECH. 305, 433–52 (2018).

7. See Peter S. Menell, *API Copyrightability Bleak House: Unraveling and Repairing the Oracle v. Google Jurisdictional Mess*, 31 BERKELEY TECH. L.J. 1515 (2016).

8. See Peter S. Menell, *Tailoring Legal Protection for Computer Software*, 39 STAN. L. REV. 1329 (1987); Peter S. Menell, *An Analysis of the Scope of Copyright Protection for Application Programs*, 41 STAN. L. REV. 1045 (1989).

9. See *Markman v. Westview Instruments, Inc.*, 52 F.3d 967 (Fed. Cir. 1995), *aff'd* 517 U.S. 370 (1996).

intellectual property litigation. The next summer the FJC sent 40 federal judges to UC-Berkeley for the first of what would prove to be over two decades of intensive courses on intellectual property law and case management.

At around that time, Judge Ronald Whyte was grappling with the rise of patent litigation in the N.D. Cal.'s San Jose outpost. He convened patent practitioners to develop a pragmatic set of Patent Local Rules to structure the pretrial process.¹⁰ I worked with Judge Whyte to spread the gospel of patent local rules and early proactive judicial management of patent cases. Many other districts and judges adopted versions of these rules, which have streamlined and harmonized patent case management.

This work became a career-long passion and pursuit. Since 1998, I have organized over 60 intellectual property education programs for federal judges, advised district courts on the development of patent local rules, and conducted studies on patent case management.¹¹ Beginning in 2005, I led the development of the PATENT CASE MANAGEMENT JUDICIAL GUIDE, a comprehensive treatise for managing patent cases, now in its third edition.¹²

Notwithstanding these efforts to streamline patent litigation, I share Judge Alsup's view that patent litigation, particularly cases involving software patents and non-practicing entities ("NPEs"), remains one of the most complex, costly, and challenging areas of federal litigation. The case

10. See James Ware & Brian Davy, *The History, Content, Application and Influence of the Northern District of California's Patent Local Rules*, 25 SANTA CLARA COMP. & HIGH TECH. L.J. 965 (2009).

11. See, e.g., Jeffrey A. Lefstin, Peter S. Menell, & David O. Taylor, *Final Report of the Berkeley Center for Law & Technology Section 101 Workshop: Addressing Patent Eligibility Challenges*, 33 BERKELEY TECH. L.J. 551 (2018) [hereinafter BCLT 101 Report]; Stuart Graham, Peter S. Menell, Carl Shapiro, & Timothy Simcoe, *Final Report of the Berkeley Center for Law & Technology Patent Damages Workshop*, 25 TEX. INTELL. PROP. L.J. 115 (2017); J. Jonas Anderson & Peter S. Menell, *Informal Deference: An Historical, Empirical, and Normative Analysis of the Standard of Appellate Review for Patent Claim Construction*, 108 NORTHWESTERN UNIV. L. REV. 1, (2014); Peter S. Menell, *It's Time to Make Vague Software Patents More Clear*, WIRED (Feb. 7, 2013), <https://www.wired.com/2013/02/its-time-to-make-vague-software-patents-more-clear>; Peter S. Menell, *Forty Years of Wondering in the Wilderness and No Closer to the Promised Land: Bilski's Superficial Textualism and the Missed Opportunity to Return Patent Law to its Technology Mooring*, 63 STAN. L. REV. 1289 (2011) [hereinafter Menell, *Forty Years of Wondering in the Wilderness*].

12. See PETER S. MENELL, LYNN PASAHOW, MATTHEW POWERS, JAMES POOLEY, STEVEN CARLSON, JEFFREY HOMRIG, GEORGE PAPPAS, CAROLYN CHANG, COLETTE REINER MAYER, & MARC DAVID PETERS, PATENT CASE MANAGEMENT JUDICIAL GUIDE (3d ed. 2016; 2nd ed. 2012; 1st ed. 2009) [hereinafter PCMJG3d]. Professor Dennis Crouch characterized the PATENT CASE MANAGEMENT JUDICIAL GUIDE as "the patent litigator's Bible." See Dennis Crouch, *Book Review: Justifying Intellectual Property*, PATENTLYO (Oct. 14, 2011), <https://patentlyo.com/patent/2011/10/merges-justifying-intellectual-property.html>. More recently, I co-authored a patent mediation guide. See KATHI VIDAL, LEERON G. KALAY, PETER S. MENELL, MATTHEW POWERS, & SARITA VENKAT, PATENT MEDIATION GUIDE (Federal Judicial Center 2019).

law is difficult to master and constantly evolving. The stakes can be enormous. Judges and juries struggle to understand the technology and economic damages theories propounded.¹³ And the litigation typically unfolds in multiple venues—other district courts, the Patent Trial and Appeal Board, the International Trade Commission, and foreign tribunals—simultaneously. I also share Judge Alsup’s view that the patent system needs to be fixed.¹⁴

Part I of this commentary sets the stage and assesses whether the patent showdown “invention” works for its intended purposes. Part II explores the broader challenges posed by software patent litigation. Part III comments on the pressures posed by crowded dockets on district judges.

I. PATENT CASE MANAGEMENT

Judge Alsup lassos the patent cases on his docket, like all of his cases,¹⁵ with unusual tenacity. He works relentlessly to understand the science and engineering underlying the disputes,¹⁶ applies an engineer’s problem-solving determination and grit, and candidly experiments with novel case

13. The most revealing and compelling evidence of this proposition comes from one of Judge Alsup’s former colleagues, Paul Grewal, who served as a N.D. Cal. Magistrate Judge from 2010 to 2016. Paul earned his Bachelor of Science in Civil and Environmental Engineering in 1993 from the Massachusetts Institute of Technology. He shared his views about the juror comprehension at a conference in 2017. After jury trials on which he presided concluded, he routinely met with jurors to get their impressions:

“[O]ne consistent response, especially in the patent cases, raised alarm bells: most jurors understood almost nothing about the technical and economic evidence they just heard How could this be, with gatekeeping patent judges, and of course incredible patent trial counsel directing every element of the presentation? The answer, I’d suggest, requires far more candor that we are used to about how patent trials actually work. We are submitting IP disputes to intelligent, well-meaning, hard-working, good people who nevertheless in most cases lack any reasonable tools to do their jobs. Few of them could pass any kind of test on the technical subject matter presented. Fewer still can even articulate why they decided that one side’s thin distinction prevails over the others. Because of the sanctity we hold for jurors and deliberations, no one really knows just how bad the problem is.

See Paul Grewal, former N.D. Cal. Magistrate Judge, Keynote Address at Stanford Law School: Scientific Evidence on Trial: Time to Get Real, Patent Law in Global Perspective Conference (Oct. 20, 2017).

14. See Alsup, *supra* note 1.

15. See, e.g., Matthias Gafni & John Woolfolk, *Federal judge asks PG&E: Should I ‘let you keep killing people?’ Rules utility violated its felony probation—U.S. District Judge William Alsup spent Wednesday morning eviscerating PG&E in federal court over wildfires*, THE MERCURY NEWS (Jan. 31, 2019), <https://www.mercurynews.com/2019/01/30/federal-judge-to-decide-whether-to-toughen-pges-probation-terms-today/>; Chloe Cornish, *Judge hearing Uber-Waymo case throws sand in Silicon Valley’s gears*, FINANCIAL TIMES (Dec. 1, 2017), <https://www.ft.com/content/3d4cb174-d636-11e7-a303-9060cb1e5f44>.

16. For example, Judge Alsup learned the Java programming language in order to understand the issues driving the Oracle v. Google litigation. See Jeong, *supra* note 2; Farber, *supra* note 4.

management approaches.¹⁷ His essay offers insights about the evolution of patent litigation in the digital age and explains his blunt “showdown” procedure,¹⁸ inspired by the western classic, *Gunfight at the O.K. Corral*.¹⁹

For those who did not grow up on western film classics, *Gunfight at the O.K. Corral* chronicles the notorious gunfight between lawmen and outlaws on October 26, 1881, in Tombstone, Arizona Territory.²⁰ The gunfight epitomizes the danger and lawlessness of the western frontier where marauding bandits wreaked havoc on those seeking to develop the west. The dramatic showdown at the O.K. Corral was the culmination of a feud between the outlaw “Cowboys” (Billy Claiborne, Ike and Billy Clanton, and Tom and Frank McLaury) and the lawmen (Marshal Virgil Earp and his associates, Morgan Earp, Special Policeman Wyatt Earp, and temporary policeman Doc Holliday). Billy Clanton and the McLaury brothers were killed. Ike Clanton, Billy Claiborne, and Wes Fuller ran from the fight. Virgil and Morgan Earp and Doc Holliday were wounded. Wyatt Earp was unharmed and would later exact revenge. The story can be seen as a turning point in the settling of the west. The Earps and Doc Holliday stood up to the Cowboys in support of the community and the rule of law.

In the modern patent showdown playing out at the N.D. C[orr]al, Judge Alsup is not a combatant like Marshal Earp but rather a neutral jurist seeking to resolve complex and potentially costly disputes between patent owners and technology companies. The “showdown” metaphor suggests that a new breed of marauders—non-practicing entities (“NPEs”) armed with vast portfolios of vague, overbroad, and dubious patent claims—seeks to shakedown technology companies through the threat and pursuit of costly litigation. As reflected in the first and last paragraphs of his essay—sharing his view that software patents are a “plague on innovation”²¹—“Sheriff” Alsup would, if left to his own devices, be inclined to take extreme measures against the digital patent marauders. But constrained as he is as “just a lowly

17. See, e.g., Ginny LaRoe, *For Oracle, Google Lawyers, a Trial by Fire*, THE RECORDER (Sept. 16, 2011) (observing that Judge “Alsup has become something of an innovator in patent litigation. In recent years, he’s employed all sorts of methods designed to make what he calls the ‘bone crushing’ parts go more smoothly—at least for him. The Oracle case, in which the company claims Google’s Android mobile operating system violates the Java-related patents and copyrights it acquired when it bought Sun Microsystems Inc., may be Alsup’s boldest experiment yet.”).

18. See Alsup, *supra* note 1, at 116.

19. See *id.* at 122; GUNFIGHT AT THE O.K. CORRAL (Paramount Pictures 1957).

20. See GUNFIGHT AT THE O.K. CORRAL, https://en.wikipedia.org/wiki/Gunfight_at_the_O.K._Corral.

21. See Alsup, *supra* note 1, at 124.

district judge”²² by other law enforcement institutions—the Patent Office, the Federal Circuit, and the Supreme Court—“Sheriff” Alsup aims to keep the peace on the Silicon Valley frontier through swift and efficient case management.²³ In that sense, Judge Alsup, like Marshal Earp, seeks to promote peace, tranquility, and the rule of law in the west.

Judge Alsup began roaming Silicon Valley long before NPEs rode into town.²⁴ In those bygone days, patents played a different role than in the digital age. Innovative companies invested substantial resources to solve complex technological problems like squeezing thousands of transistors onto miniscule silicon wafers.²⁵ Electrical engineers, mechanical engineers, and materials scientists in those days would have sneered at patenting one-click ordering to automate shopping²⁶ or simulating a slide-to-unlock icon to prevent butt calls.²⁷ When arduous research and testing produced a significant breakthrough, companies applied for and obtained a patent. For about 17 years thereafter, the patentee could run any intellectual property raider out of N.D. Cal. (and the rest of the U.S. of A.) by asserting its patent. The litigation was relatively straightforward.²⁸ The patentee asserted one or a few patent claims. A judge, rather than a jury, typically heard the case. And the matter was efficiently resolved.

22. *See id.* at 111.

23. *See id.* (stating that “I do follow the law. If I don’t agree with a decision by the Federal Circuit, too bad for me; I follow it anyway because I took an oath to follow the law. I try to be fair to both sides even if I think one of them is a total abuse of the system.”).

24. *See Alsup*, *supra* note 1, at 113–14.

25. *See* TRANSISTOR COUNT, https://en.wikipedia.org/wiki/Transistor_count. Companies like Intel relied on patenting their innovations to propel Moore’s law. The latest chips now hold billions of transistors. *See* TRANSISTOR COUNT, WIKIPEDIA https://en.wikipedia.org/wiki/Transistor_count.

26. *See* U.S. Patent No. 5,960,411, Method and System for Placing a Purchase via a Communications Network (Sept. 28, 1999) (issued to Amazon.com); *Amazon.com, Inc. v. Barnesandnoble.com, Inc.*, 73 F. Supp.2d 1228 (W.D. Wash. 1999) (granting preliminary injunction), *vacated and remanded*, 239 F.3d 1343 (Fed. Cir. 2001); Troy Wolverton, *Amazon, Barnes&Noble settle patent suit*, CNET (Mar. 6, 2002), <http://news.cnet.com/2100-1017-854105.html>. The European patent application was rejected. *See* Tim Worstall, *Amazon Loses 1-Click Patent*, FORBES (July 7, 2011), <https://www.forbes.com/sites/timworstall/2011/07/07/amazon-loses-1-click-patent>.

27. *See* U.S. Patent No. 8,046,721, Unlocking a Device by Performing Gestures on an Unlock Image (Oct. 25, 2011) (issued to Apple, Inc.). The Federal Circuit vacillated on whether Apple’s slide-to-unlock invention was patent-worthy. *See Apple Inc. v. Samsung Elecs. Co., Ltd.*, 816 F.3d 788 (Fed. Cir. 2016) (holding slide-to-unlock patent obvious); *rev’d* 839 F.3d 1034, 1047–58 (Fed. Cir. 2016) (en banc) (finding slide-to-unlock to be nonobvious); *but see id.* at 1064–70 (Prost, C.J., dissenting); 1074–85 (Dyk, J. dissenting); *id.* at 1087–89 (Reyna, J. dissenting); *see also* Richard Beem, Stephan Freischem, Martin Hemmer & Jonathan Moss, *The Slide to Unlock Patent: A Jurisdictional Comparison*, AIPPI (June 18, 2018) (reporting that the slide-to-unlock patent was determined to be invalid in Germany, United Kingdom, and The Netherlands as obvious), <https://aippi.org/no-show/the-slide-to-unlock-patent-a-jurisdictional-comparison/>.

28. *See Alsup*, *supra* note 1, at 112 Fig. 2.

The digital revolution brought new challenges to patent case management. Section A summarizes the background for understanding the showdown method. Section B reviews the patent case management prior art. Section C discloses the details of Judge Alsup's method for improving case management. Section D assesses whether it works for its intended purposes.

A. Background of the Invention

The United States Patent and Trademark Office ("PTO") was initially skeptical of software patents.²⁹ As software technology emerged in the 1960s, the PTO denied patent protection for computer software under the "mental steps" doctrine, a rule that excluded processes that could be carried out through a series of mental steps.³⁰ Bureaucratic concerns about the challenges posed by processing a deluge of software applications for which prior art was scattered³¹ and political crossfire between vested patent constituencies³² led to the PTO to oppose eligibility for computer software.³³

In 1968, the Patent Office rejected a patent application for a method of converting "binary coded decimal" numerical information into binary number signals as ineligible.³⁴ On appeal to the Court of Customs and Patent Appeals, Judge Giles Rich reversed the PTO's rejection and held that the claims covered machine-implemented processes and apparatuses, such as "cash registers, bookkeeping machines and adding machines" which have always been eligible for patent protection.³⁵ The Supreme Court reversed.³⁶ Writing for the Court, Justice Douglas reasoned that allowing protection for the claimed invention was tantamount to patenting an idea and would "would wholly preempt the mathematical formula and, in practical effect, would be a patent of the algorithm itself."³⁷ The Court reinforced this ruling six years

29. See Menell, *Tailoring Legal Protection for Computer Software*, *supra* note 8, at 1347–49.

30. See, e.g., *In re Shao Wen Yuan*, 188 F.2d 377, 379–83 (C.C.P.A. 1951) (rejecting an application claims mathematical means to determine optimal profile of airfoil).

31. See Gregory J. Maier, *Software Protection—Integrating Patent, Copyright and Trade Secret Law*, 28 IDEA 13, 14–15 (1987).

32. See Duncan M. Davidson, *Protecting Computer Software: A Comprehensive Analysis*, 23 JURIMETRICS J. 339, 349 (1983).

33. See generally REPORT OF THE PRESIDENT'S COMMISSION ON THE PATENT SYSTEM, "TO PROMOTE THE PROGRESS OF . . . USEFUL ARTS" IN AN AGE OF EXPLODING TECHNOLOGY 20–21 (1966).

34. See Board of Appeals of the United States Patent Office, Serial No. 315,050.

35. See Application of Benson, 441 F.2d 682, 682 (C.C.P.A. 1971) (referring to Board of Appeals of the United States Patent Office, Serial No. 315,050).

36. *Gottschalk v. Benson*, 409 U.S. 63 (1972).

37. *Id.* at 71–72.

later in *Parker v. Flook*,³⁸ holding that algorithms as part of process claims must be considered as if it were part of the prior art. Therefore, the claim is patent eligible only if there is some other “inventive concept in its application.”³⁹

The Supreme Court’s 1981 decision in *Diamond v. Diehr*,⁴⁰ however, opened the door for software patents. The Court concluded that “a physical and chemical process for molding precision synthetic rubber products [encompassing the use of computer software and an algorithm] falls within the § 101 categories of possibly patentable subject matter.”⁴¹ Justice Rehnquist purported to distinguish *Benson* and *Flook* before proclaiming that “[o]ur earlier opinions lend support to our present conclusion that a claim drawn to subject matter otherwise statutory does not become nonstatutory simply because it uses a mathematical formula, computer program, or digital computer.”⁴² The Court emphasized that process claims are properly analyzed

as a whole. It is inappropriate to dissect the claims into old and new elements and then to ignore the presence of the old elements in the analysis. This is particularly true in a process claim because a new combination of steps in a process may be patentable even though all the constituents of the combination were well known and in common use before the combination was made. The ‘novelty’ of any element or steps in a process, or even of the process itself, is of no relevance in determining whether the subject matter of a claim falls within the § 101 categories of possibly patentable subject matter.⁴³

In so holding, Justice Rehnquist effectively overruled *Flook*’s requirement of inventive application. He reiterated, however, that “a mathematical formula as such” is not patentable nor is limiting the use of a formula to a particular technological environment.⁴⁴ The touchstone for patentability of a process embodying a mathematical formula, according to the Court, is significant post-solution activity—i.e., “transforming or reducing an article to different state or thing.”⁴⁵

38. 437 U.S. 584 (1978).

39. *Id.* at 594.

40. 450 U.S. 175 (1981).

41. *Id.* at 184.

42. *Id.* at 187.

43. *Id.* at 188–89.

44. *Id.* at 191.

45. *Id.* at 191–92.

Notwithstanding the *Diehr* ruling, most of the emerging software industry did not initially choose the patent protection path. Even Xerox Corporation, which had built its plain paper copier empire on patent protection,⁴⁶ did not patent many of its fundamental software advances relating to microcomputers, graphical user interface technology, and networking. Nor did it aggressively enforce the computer-related patents that it obtained.⁴⁷

The relatively open software technology landscape enabled Apple, Sun, Microsoft, Cisco, and other emerging technology companies to build their technological outposts on the digital frontier without having to navigate a patent minefield. Trade secret and copyright protection, rather than patent law, served as the principal forms of intellectual property protection for computer software during this formative era.⁴⁸ The software industry moved quickly, and companies did not see much advantage in pursuing software patent protection.⁴⁹

The computer-related patent landscape brightened by the mid-1980s. Congress established the U.S. Court of Appeals for the Federal Circuit in 1982 for the express purpose of “ending the current legal confusion created

46. See *SCM Corp. v. Xerox Corp.*, 463 F. Supp. 983 (D. Conn. 1978), *aff'd*, 645 F.2d 1195 (2d Cir. 1981) (highlighting Xerox’s large patent portfolio).

47. See Malcolm Gladwell, *Creation Myth: Xerox, Apple, and the Truth about Innovation*, THE NEW YORKER (May 16, 2011), <https://www.newyorker.com/magazine/2011/05/16/creation-myth>; MICHAEL HILTZIK, DEALERS OF LIGHTNING: XEROX PARC AND THE DAWN OF THE COMPUTER AGE 329–45, 389–98 (2000); see also John Markoff, *Even Sun Microsystems Had Its Roots at Xerox PARC*, N.Y. TIMES (May 28, 2014) (reporting that one of Sun’s founders modeled Sun’s workstation on Xerox’s Alto computer system using less expensive, off-the-shelf parts; and that Microsoft’s Word and Office suite traces back to a Xerox memo), <https://bits.blogs.nytimes.com/2014/05/28/even-sun-microsystems-had-its-roots-at-xerox-parc/>; Greg Satell, *How PARC Saved Xerox*, FORBES (May 21, 2015) (noting that Xerox PARC spawned Adobe and 3Com), <https://www.forbes.com/sites/gregsatell/2015/03/21/how-parc-saved-xerox/#56bdb391f52>; *The History of PostScript*, PREPRESSURE.COM (Feb. 11, 2017) (describing how Adobe was formed to commercialize “Interpress,” a language developed by John Warnock, a Xerox PARC engineer, to control laser printing; after Xerox declined to pursue the project, Warnock and his boss formed Adobe and developed PostScript), <https://www.prepressure.com/postscript/basics/history>.

48. See Menell, *Tailoring Legal Protection for Computer Software*, *supra* note 8, at 1349–51.

49. See *id.* at 1346–47, 1351; Glenn J. MacGrady, *Protection of Computer Software—An Update and Practical Synthesis*, 20 HOUS. L. REV. 1033, 1063–64 (1983); Robert Greene Sterne et al., *The 2005 U.S. Patent Landscape for Electronic Companies*, in Practising Law Institute Course Handbook Series: Annual Institute on Computer & Internet Law, at 3 (2005) (“The 1980s saw an amazing business phenomena in the U.S. of creation of many start up electronic companies, some of which broke out of the pack of their competitors to become very large companies in their own right. Notable examples are Apple, Microsoft, Oracle, Cisco, Sun, [and] AOL As upstarts, these companies in general did not embrace patents in the slightest.”) [hereinafter *2005 U.S. Patent Landscape*]; cf. KEVIN G. RIVETTE & DAVID KLINE, REMBRANDTS IN THE ATTIC: UNLOCKING THE HIDDEN VALUE OF PATENTS 41–42 (2000) (suggesting ignorance of patent law and antipathy towards software patents as among the reasons companies did not pursue them).

by eleven different appellate forums, all generating different interpretations of the patent law.”⁵⁰ The Federal Circuit, which merged experienced, pro-patent judges from the U.S. Court of Customs and Patent Appeals (most notably Judge Rich) with the appellate division of the U.S. Court of Claims, set about broadening and strengthening patent protection.⁵¹

The software patent tide shifted in the late 1980s and early 1990s. Texas Instruments (“TI”) and IBM, the aging computer device and hardware giants that had been actively patenting a wide range of computer-related inventions, looked to monetize these investments as upstart microcomputer and software businesses were supplanting their product revenue streams.⁵² TI initially went to court: the U.S. International Trade Commission⁵³ and E.D. Tex.⁵⁴

50. See H.R. REP. NO. 96-1307 (1980) (commenting on the legislation that would become the Federal Courts Improvement Act of 1981, Pub. L. No. 97-164, 96 Stat. 25); see also COMM’N ON REVISION OF THE FEDERAL COURT APPELLATE SYS., STRUCTURE AND INTERNAL PROCEDURES: RECOMMENDATIONS FOR CHANGE 15, as reprinted in 67 F.R.D. 195, 220–21 (1975) (quoting Judge Henry Friendly describing “mad and undignified races between a patentee who wishes to sue for infringement in one circuit believed to be benign toward patents, and a user who wants to obtain a declaration of invalidity or noninfringement in one believed to be hostile to them”) (citing HENRY J. FRIENDLY, FEDERAL JURISDICTION: A GENERAL VIEW 155 (1973)); see generally Peter S. Menell, *API Copyrightability Bleak House: Unraveling and Repairing the Oracle v. Google Jurisdictional Mess*, 31 BERKELEY TECH. L.J. 1515, 1578–81 (2016) (discussing the legislative history behind the establishment of the Federal Circuit).

51. See Donald R. Dunner et al., *A Statistical Look at the Federal Circuit’s Patent Decisions: 1982-1994*, 5 FED. CIR. B.J. 151, 154–55 (1995) (finding that the Federal Circuit was significantly more likely to affirm judgments in favor of patent owners than accused infringers); Stuart Minor Benjamin & Arti K. Rai, *Fixing Innovation Policy: A Structural Perspective*, 77 GEO. WASH. L. REV. 1, 17 (2008) (concluding that the Federal Circuit’s behavior was “arguably consistent with standard accounts of capture of regulatory processes by well-represented interest groups”); WILLIAM M. LANDES & RICHARD A. POSNER, *THE ECONOMIC STRUCTURE OF INTELLECTUAL PROPERTY LAW* 335 (2003) (characterizing the Federal Circuit as predictably “pro-patent”); John R. Allison & Mark A. Lemley, *Empirical Evidence on the Validity of Litigated Patents*, 26 A.I.P.L.A. Q.J. 185, 251 (1998) (reporting that findings of patent validity have increased since the establishment of the Federal Circuit); Rochelle Cooper Dreyfuss, *The Federal Circuit: A Case Study in Specialized Courts*, 64 N.Y.U. L. REV. 1, 3 (1989).

52. See Colleen V. Chien, *From Arms Race to Marketplace: The Complex Patent Ecosystem and Its Implications for the Patent System*, 62 HASTINGS L.J. 297, 304–06 (2010).

53. In February 1986, Texas Instruments filed a complaint with the U.S. International Trade Commission against 19 chip manufacturers alleging that they had violated Section 337 of the Tariff Act of 1930, 19 U.S.C. § 1337, by importing into and selling in the United States computer components that infringed 10 of TI’s patents. The Commission instituted an investigation of the complaint. During the ensuing Commission proceedings, 17 of the 19 respondents either settled with TI or the investigation was terminated with respect to them. See *In the Matter of Certain Dynamic Random Access Memories Components Thereof, and Products Containing Same, Inv. No. 337-TA-242* (1986); *Certain Dynamic Random Access Memories, Etc., USITC Pub. 2034, Inv. No. 337-TA-242* (Nov. 1987), *aff’d in part, rev’d in part, and vacated in part*, *Tex. Instruments Inc. v. U.S. Intern. Trade Comm’n*, 871 F.2d 1054 (Fed. Cir. 1989).

54. See Thomas C. Hayes, *Texas Instruments Is Suing 5 Chip Makers Over a Patent*, N.Y. TIMES (July 10, 1990), <https://www.nytimes.com/1990/07/10/business/texas-instruments-is-suing-5-chip-makers-over-a-patent.html>; Brenda Sapino Jeffreys, *How TI’s Discovery Transformed the Eastern District*, TEXAS LAWYER (Oct. 24, 2011) (reporting that in the early 1990s, “Texas Instruments devised

These efforts produced a robust patent licensing revenue stream.⁵⁵ IBM pursued licensing directly.⁵⁶ It also used the pressure of litigation.⁵⁷

Meanwhile, at the upstart end of the computer industry, Stac Electronics, a small software developer, sued software industry titan Microsoft for infringement of data compression technology patents in 1993.⁵⁸ After a Los Angeles jury awarded Stac \$120 million, the software industry took notice.⁵⁹

a moneymaking litigation strategy intended to ensure customers renewed their licensing agreements with the Dallas-based tech company or face a patent infringement suit. And where better to file those suits than the Eastern District, where cases went to trial in months instead of years, due to a small number of criminal cases on the district's docket?"); *see also* *Tex. Instruments v. Hyundai Elecs. Indust.*, 49 F. Supp. 2d 893 (E.D. Tex. 1999); *Tex. Instruments v. Hyundai Elecs. Indust.*, 42 F. Supp. 2d 660 (E.D. Tex. 1999); *Texas Instruments, Hyundai Settle Dispute With \$1 Billion Agreement*, *INDUSTRYWEEK* (Jan. 13, 2005), <https://www.industryweek.com/archive/texas-instruments-hyundai-settle-dispute-1-billion-agreement>.

55. *See* Competition and Intellectual Property Law and Policy in the Knowledge-Based Economy: Joint Hearings Before the Fed. Trade Comm'n & Dep't of Justice 653 (Feb. 28, 2002), <http://www.ftc.gov/opp/intellect/020228ftc.pdf> [hereinafter *FTC/DOJ Hearings*] (statement of Fred Telecky, Senior Vice President and General Patent Counsel, Texas Instruments, Inc.) (describing TI's enforcement campaign against foreign semiconductor manufacturers that led to its patent licensing program); RIVETTE AND KLINE, *supra* note 49, at 125 ("Texas Instruments . . . was reportedly saved from bankruptcy in the mid-1980s by an all-out patent licensing and litigation effort. In 1992 alone, TI earned \$391 million from patent licenses—43 more than its \$274 million in operating income for that year. Its current licensing revenues are thought to be about \$800 million a year. All told, analysts estimate that TI has earned more than \$4 billion in royalties since it began enforcing its patents in the mid-1980s." (footnote omitted)); FRED WARSHOFSKY, *THE PATENT WARS: THE BATTLE TO OWN THE WORLD'S TECHNOLOGY* 115–23 (Wiley 1994); 2005 *U.S. Patent Landscape*, *supra* note 49, at 4.

56. *See* MARSHALL PHELPS & DAVID KLINE, *BURNING THE SHIPS: TRANSFORMING YOUR COMPANY'S CULTURE THROUGH INTELLECTUAL PROPERTY STRATEGY* 17–32 (Wiley 2009); JULIE L. DAVIS & SUZANNE S. HARRISON, *EDISON IN THE BOARDROOM: HOW LEADING COMPANIES REALIZE VALUE FROM THEIR INTELLECTUAL ASSETS* 80–81 (Wiley 2001); Michael Miller, *Microsoft to Pay a Patent Fee in IBM Accord*, *WALL ST. J. B1* (June 29, 1992) (reporting that as part of the Microsoft/IBM divorce over PC operating systems, Microsoft paid IBM a one-time fee estimated to be \$20–30 million to license IBM's portfolio of more than 1,000 software-related patents); Gary L. Reback, *Patently Absurd*, *FORBES* (June 24, 2002) (recounting how IBM was able to extract upwards of \$20 million from Sun Microsystems for seven patents of questionable validity), <https://www.forbes.com/asap/2002/0624/044.html>.

57. *See* Steve Lohr, *I.B.M. Sues Amazon.com over Patents*, *N.Y. TIMES* (Oct. 24, 2006), <https://www.nytimes.com/2006/10/24/technology/24amazon.html>; *see also* Anne Broache & Dawn Kawamoto, *Amazon Pays \$40 Million to Settle Patent Dispute*, *CNET NEWS.COM* (Aug. 11, 2005), http://news.com.com/Amazon+pays+40+million+to+settle+patent+dispute/2100-1030_3-5829193.html (settling lawsuits relating to e-commerce patents).

58. *See* PHELPS AND KLINE, *supra* note 56, at 12–14 (explaining that Microsoft had invented around Stac's original patent, but that Stac had also acquired a second data compression patent for \$250,000 that proved critical to its infringement suit).

59. *See* Lawrence M. Fisher, *Microsoft Loses Case on Patent*, *N.Y. TIMES* (Feb. 24, 1994), <https://www.nytimes.com/1994/02/24/business/microsoft-loses-case-on-patent.html>; Amy Harmon, *Microsoft Loses Patent Lawsuit, Must Pay Rival \$120 Million*, *L.A. TIMES* (Feb. 23, 1994), http://articles.latimes.com/1994-02-24/business/fi-26671_1_software-patent; *see also* Ed Scannell & Stuart J. Johnston, *Patents may be key to survival*, *COMPUTERWORLD* (Mar. 7, 1994) (quoting Gary Clow, Stac's President and CEO: "I think we have shown a prototype for how small, innovative companies can

As a result of these developments, software companies began developing their own patent portfolios primarily for defensive purposes.⁶⁰ Software patents were popping up all over the software innovation frontier. As the Internet emerged in the mid-1990s, venture capitalists came to see software and business method patents as a useful tool for screening start-up investments.⁶¹ By that time, the Federal Circuit had liberalized patent eligibility standards for software,⁶² and the Patent Office had come to view software patents more favorably.⁶³ Software, Internet, and mobile start-ups, as well as established technology companies, flooded the Patent Office with all manner of computer-related patent applications. And then in 1998, the

compete We have shown the way for securing patents for intellectual property against a very strong competitor.”).

60. See PHELPS AND KLINE, *supra* note 56, at 40; Chien, *supra* note 52, at 308–09, 321–22; Gideon Parchomovsky & R. Polk Wagner, *Patent Portfolios*, 154 U. PA. L. REV. 1, 31–43 (2005) (discussing a wide range of benefits associated with developing large and diverse patent portfolios); 2005 U.S. Patent Landscape, *supra* note 49, at 3–4; The Evolving IP Marketplace: The Operation of IP Markets: Hearing Before the Fed. Trade Comm’n 82 (Mar. 18, 2009), <http://www.ftc.gov/bc/workshops/ipmarketplace/mar18/090318transcript.pdf> (statement of Russ Slifer, Chief Patent Counsel, Micron Technologies, Inc.) (“[In the] late ‘70s, early ‘80s, we were somewhat late to the game There was already an awful lot of innovation from Texas Instruments, IBM and others in a large patent portfolio, so we found ourselves in a position where[,] to be able to participate in the industry, we had to pay license fees to those companies, and we did so. As we were paying those fees and innovating our own technology, we sought our own patent portfolio as the technology advanced. We acquired a fairly substantial patent portfolio based on strong innovation, which allowed us to enter into cross-licensing agreements with other manufacturers.”); FTC/DOJ Hearings, *supra* note 55, at 674 (statement of Robert Barr, Vice President for IP and Worldwide Patent Counsel, Cisco Systems, Inc.) (testifying that “[b]etween 1984 and [19]93, the first [ten] years of the company, [Cisco] filed only one patent. . . . [In] 1994 the company had grown to over [\$1 billion] in annual revenue. This growth was obviously not fuelled [sic] by patents, it was fuelled [sic] by competition and by open, nonproprietary interfaces. But in 1994, the company . . . [started] a program to obtain more patents. . . . We filed six patents in 1994. . . . We increased each year . . . [and] we’re now [in 2002] filing over [750] patents a year.”).

61. See Clarissa Long, *Patent Signals*, 69 U. CHI. L. REV. 625, 651, 653 (2002); Bronwyn H. Hall & Rosemarie Ham Ziedonis, *The Patent Paradox Revisited: An Empirical Study of Patenting in the U.S. Semiconductor Industry, 1979-95*, 32 RAND J. ECON. 101, 104 (2001) (finding that start-ups are more eager to obtain patents than are established firms); Mark A. Lemley, *Reconceiving Patents in the Age of Venture Capital*, 4 J. SMALL & EMERGING BUS. L. 137, 143–44 (2000); Mark A. Lemley, *Rational Ignorance at the Patent Office*, 95 NW. U. L. REV. 1495, 1505–06 (noting that “venture capitalists use client patents (or more likely, patent applications) as evidence that the company is well managed, is at a certain stage in development, and has defined and carved out a market niche”); Samuel Kortum & Josh Lerner, *Assessing the Contribution of Venture Capital to Innovation*, 31 RAND J. ECON. 674, 689 (2000) (suggesting “a strong relationship between venture capital (funding) and patenting”); David L. Hayes, *What the General Intellectual Property Practitioner Should Know about Patenting Business Methods*, 16 COMPUT. LAWYER 3, 4 (Oct 1999) (“Patent protection is increasingly a factor that investors such as venture capitalists consider in deciding whether to invest in a company, especially in its early stages.”).

62. See *In re Alappat*, 33 F.3d 1526 (Fed. Cir. 1994) (en banc) (Rich, J.) (holding that the display of data on a computer screen constituted sufficient post-solution activity to establish patent eligibility).

63. See U.S. Patent and Trademark Office, Examination Guidelines for Computer-Related Inventions, 61 FED. REG. 7478 (Feb. 28, 1996) (implementing the principles reflected in the *Alappat* decision).

Federal Circuit opened the patent floodgates in *State Street Bank and Trust Company v. Signature Financial Group, Inc.*,⁶⁴ by ruling that any business method was eligible for patent protection so long as it produced a “useful, concrete and tangible result.” Unfortunately, the Supreme Court was inattentive to this development and allowed a deeply flawed decision to stand.⁶⁵

The patent acquisition race was on. Software companies big and small were acquiring software patents on all aspects of e-commerce and software.⁶⁶ Many of these patents were hastily and loosely drafted to reduce costs and provide flexibility. They were seen primarily as defensive assets—available to cross-license should IBM or another patentee with a large portfolio come knocking.⁶⁷

The proliferation of software patents in the mid to late 1990s did not initially generate patent litigation. Rather it promoted the flow of venture capital into the dot-com sector as well as licensing activity. The NASDAQ stock index—which tracks many Silicon Valley companies—skyrocketed five-fold from 1995 to early 2000. But on March 11, 2000, the tech bubble burst. The NASDAQ plummeted by more than half by year-end and continued to drop to nearly its 1995 level by late 2001. Venture capital investment quickly dried up, and many of the dot-com companies went bankrupt, leaving only Herman Miller Aeron chairs and software patents as their principal assets. Bankruptcy trustees quickly auctioned off these assets at bargain basement prices and a new breed of patent owners bought them up. Around that time, Nathan Myhrvold, Microsoft’s former Chief Technology Officer, co-founded Intellectual Ventures with the aim of

64. 149 F.3d 1368, 1375 (Fed. Cir. 1998).

65. *St. Street Bank and Trust Co. v. Signature Fin. Grp., Inc.*, 525 U.S. 1093 (1999) (denying petition for writ of certiorari; noting that Justice Breyer took no part in the decision).

66. See, e.g., Ina Fried, *Gates wants patent power: Can Microsoft win itself 3,000 patents this year? The answer could have an effect on its bottom line.*, CNET (July 29, 2004), <https://www.cnet.com/news/gates-wants-patent-power/>.

67. See Scott Herhold, *Patent War*, SAN JOSE MERCURY NEWS (July 18, 1999) (quoting a venture capitalist as saying, “[n]one of my companies seek patent protection because they actually think it will protect them from competition . . . [r]ather, they seek patents to protect themselves from other people who have patents”); Lemley, *Reconceiving Patents in the Age of Venture Capital*, *supra* note 61, at 143 (“One of the major reasons that companies get patents is that they’re afraid that their competitors have them, and they don’t want to be the only one left who doesn’t have the ability to play in this game.”).

building and monetizing a vast patent portfolio.⁶⁸ These new-age patent enterprises launched assertion campaigns to profit from these assets.⁶⁹

The bursting of the dot-com bubble opened a new wild west in which a fearless breed of patent owners, non-practicing entities (“NPEs”), wielding patent portfolios with hundreds of claims came to N.D. Cal. Like landmines, these patents were difficult to trace. The Patent Office records were not easily accessible at that time, and start-ups were focused on speed to market, not due diligence or rights clearance. And like digital barbed wire, they fenced off parts of the frontier. Further complicating the terrain, there remained serious questions about the validity and scope of such patents.⁷⁰

At first, these patentees could credibly threaten to enjoin technology products and services. Successful plaintiffs were nearly assured of injunctive relief at that time,⁷¹ striking fear in the hearts of Silicon Valley general

68. See Nathan Myhrvold, Wikipedia, https://en.wikipedia.org/wiki/Nathan_Myhrvold#Intellectual_Ventures; Intellectual Ventures, Wikipedia, https://en.wikipedia.org/wiki/Intellectual_Ventures. Somewhat ironically, Peter Detkin, who coined the term “patent troll” while serving as Intel’s Assistant General Counsel in Charge of Patent Litigation, Licensing, and Antitrust, co-founded Intellectual Ventures. See Roger Kay, *Where did the Patent Troll Narrative Come From?*, MEDIUM (Feb. 12, 2018) (reporting that while at Intel and frustrated by the rising tide of patent cases that the company had to defend, Detkin came up with the term “patent troll” to describe “somebody who tries to make a lot of money from a patent that they are not practicing, have no intention of practicing, and in most cases never practiced”), <https://medium.com/@rogerkay/where-did-the-patent-troll-narrative-come-from-301b20072dac>; see also Mike Masnick, *This American Life Followup on Patents Reveals Intellectual Ventures Is Even Slimier Than Previously Believed*, TECHDIRT (June 3, 2013), <https://www.techdirt.com/articles/20130603/11295023297/this-american-life-followup-patents-reveals-intellectual-ventures-is-even-slimier-than-previously-believed.shtml>.

69. See David Drummond, *When Patents Attack Android*, GOOGLE OFFICIAL BLOG (Aug. 3, 2011) (Drummond is Google Senior Vice President and Chief Legal Officer) (asserting that “[a] smartphone might involve as many as 250,000 (largely questionable) patent claims”); Joe Mullin, *Patent war goes nuclear: Microsoft, Apple-owned “Rockstar” sues Google: Rockstar paid \$4.5 billion for Nortel patents and has launched a major attack*, ARS TECHNICA (Oct. 31, 2013), <https://arstechnica.com/tech-policy/2013/10/patent-war-goes-nuclear-microsoft-apple-owned-rockstar-sues-google/>.

70. See Peter S. Menell & Michael J. Meurer, *Notice Failure and Notice Externalities*, 5 J. LEGAL ANALYSIS 1, 2–4, 18–21 (2013).

71. See *MercExchange, LLC v. eBay Inc.*, 401 F.3d 1323, 1338–39 (Fed. Cir. 2005) (citing the general rule and reversing the district court’s denial of permanent injunctive relief), *vacated*, 547 U.S. 388 (2006); *Tristrata Tech., Inc. v. Mary Kay, Inc.*, 423 F. Supp. 2d 456, 470 (D. Del. 2006) (same); *Century Wrecker Corp. v. E.R. Buske Mfg. Co.*, 913 F. Supp. 1256, 1924 (N.D. Iowa 1996) (same); *Hesston Corp. v. Sloop*, 734 F. Supp. 952, 953 (D. Kan. 1990) (same); *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1247 (Fed. Cir. 1989) (characterizing issuance of a permanent injunction following a finding of patent infringement as the “general rule” and reversing the district court’s denial of permanent injunctive relief); *Connell v. Sears, Roebuck & Co.*, 722 F.2d 1542, 1547 (Fed. Cir. 1983) (observing that “the right to exclude recognized in a patent is but the essence of the concept of property”). Only in rare circumstances did the courts not order a permanent injunction following a finding of patent infringement. See, e.g., *City of Milwaukee v. Activated Sludge, Inc.*, 69 F.2d 577, 593 (7th Cir. 1934) (reversing the granting of an injunction that an injunction “would close the sewage plant, leaving the entire community

counsels. Unless their clients could obtain summary judgment, the risk of an injunction was often too great to bear.⁷² Many technology companies reluctantly settled these cases rather than go to trial. Moreover, just the cost of discovery and adverse publicity could force defendants to the negotiating table. Technology start-ups pursuing initial public offerings could not risk the dark cloud of patent exposure, and many quietly cut deals with “patent trolls.”

As noted earlier, the N.D. Cal. jurists came to see early case management—careful claim construction and summary judgment⁷³—as a means for weeding out the more questionable claims and preventing NPEs from railroading technology companies into a settlement. These efforts led many NPEs to look elsewhere, and with the Federal Circuit’s broad interpretation of the patent venue, they headed to more trial-oriented venues, notably E.D. Va.’s “rocket docket,” D. Del., and, especially, E.D. Tex.⁷⁴

Some practicing technology companies came to see patent licensing as not just a critical line of defense,⁷⁵ but also a necessary and, for some, promising offensive business strategy.⁷⁶ In 2003, Bill Gates lured Marshall Phelps, the architect of IBM’s patent licensing campaign, out of retirement

without any means for the disposal of raw sewage other than running it into Lake Michigan, thereby polluting its waters and endangering the health and lives of that and other adjoining communities”).

72. David V. Radack, *Patent Trolls: Pay up or Fight?*, 8 LAW. J. 3, 3 (2006) (reporting that Research in Motion settled an NPE patent infringement suit brought by NTP, Inc. for \$612.5 million in order to avoid a permanent injunction shutting down the Blackberry service, which, at the time, had over four million U.S. subscribers); Press Release, Research in Motion, Research in Motion and NTP Sign Definitive Settlement Agreement to End Litigation (Mar. 3, 2006), <http://www.marketwired.com/press-release/research-in-motion-and-ntp-sign-definitive-settlement-agreement-to-end-litigation-nasdaq-rimm-582911.htm>.

73. See PCMJG3d, *supra* note 12, at Chapters 2, 4, 5, and 6.

74. See Melissa Repko, *How Patent Suits Shaped a Small East Texas Town Before Supreme Court’s Ruling*, DALL. NEWS (May 23, 2017) (reporting that “Marshall may be a small town in far East Texas, but in the world of patent litigation, it has been a giant.”), <https://www.dallasnews.com/business/technology/2017/05/24/east-texas-supreme-court-ruling-setback-towns-final-verdict-locals-say>; Susan Decker, *Texas District Is Heaven for Patent Holders Under Siege*, THE SEATTLE TIMES (May 1, 2006), http://old.seattletimes.com/html/business/technology/2002963706_btpatentheaven01.html; Daniel Klerman & Greg Reilly, *Forum Selling*, 89 S. CAL. L. REV. 241, 265–70 (2016); Ryan Davis, *Delaware Patent Suits Dwindle as Plaintiffs Flock to EDTX*, LAW360 (Feb. 10, 2016), <https://www.law360.com/articles/756753/delaware-patent-suits-dwindle-as-plaintiffs-flock-to-edtx>; Roderick R. McKelvie, *Forum Selection in Patent Litigation: A Traffic Report*, 19 INTELL. PROP. & TECH. L.J. 1, 1–3 (2007) (noting that several district courts have “hung out a welcome sign for patent cases by expressing interest in the cases, forming advisory committees, or adopting local rules”).

75. See generally James M. Rice, *The Defensive Patent Playbook*, 30 BERKELEY TECH. L.J. 725 (2015).

76. See 2005 U.S. Patent Landscape, *supra* note 49, at 7–14.

to transform Microsoft's intellectual property strategy.⁷⁷ Phelps oversaw a multi-faceted approach, including massive software patent acquisition, strategic partnerships, and targeted patent assertion.⁷⁸ Microsoft also invested in Intellectual Ventures to further hedge its business strategy.⁷⁹

The publicity surrounding patent trolls awakened the most powerful lawmen and lawwomen in the land to the dangers of the patent frontier. After missing a prime opportunity to head patent bandits off at the pass in *State Street Bank and Trust Company v. Signature Financial Group, Inc.*,⁸⁰ the Supreme Court raised the bar for obtaining injunctive relief in 2006.⁸¹ A year later, the Court pushed back on the Federal Circuit's rigid non-obvious standard for invalidating patents.⁸² The Federal Circuit also became alarmed by the potential for excessive patent awards.⁸³

77. See *Microsoft Appoints Marshall Phelps Corporate Vice President And Deputy General Counsel for Intellectual Property*, MICROSOFT (June 5, 2003), <https://news.microsoft.com/2003/06/05/microsoft-appoints-marshall-phelps-corporate-vice-president-and-deputy-general-counsel-for-intellectual-property/>; PHELPS AND KLINE, *supra* note 56, at 1–3.

78. See PHELPS AND KLINE, *supra* note 56, at 6–9, 16–19, 33–65.

79. See PHELPS AND KLINE, *supra* note 56, at 15; Taylor Soper, *Intellectual Ventures Gets Investment from Microsoft While Apples Stays Away*, GEEKWIRE (Apr. 11, 2014, 9:56 AM), <https://www.geekwire.com/2014/apple-microsoft-patent/>.

80. See 149 F.3d 1368 (Fed. Cir. 1998), *cert. denied*, 525 U.S. 1093 (1999).

81. See *eBay Inc. v. MercExchange, L.L.C.*, 547 U.S. 388 (2006) (ruling that the granting of permanent injunctions following a finding of patent infringement should not be automatic; rather the patentee bears the burden of showing the balance of the following four factors weigh in its favor: (1) irreparable harm; (2) remedies available at law are inadequate to compensate for the harm caused by infringement; (3) considering the balance of hardships between the plaintiff and defendant, a remedy in equity is warranted; and (4) that the public interest would not be disserved by a permanent injunction). On remand, the district court denied injunctive relief to MercExchange, an NPE, and instead ordered monetary damages of \$30 million. See Mylene Mangalindan, *eBay Is Ordered To Pay \$30 Million In Patent Rift*, WALL. ST. J. (Dec. 13, 2007), <https://www.wsj.com/articles/SB119751056840625503>.

82. See *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398 (2007).

83. See *In re Seagate Tech., LLC*, 497 F.3d 1360 (Fed. Cir. 2007) (en banc) (raising the bar for proving enhanced damages), *overruled*, *Halo Elecs., Inc. v. Pulse Elecs., Inc.*, 136 S. Ct. 1923 (2016); *Uniloc USA, Inc. v. Microsoft Corp.*, 632 F.3d 1292 (Fed. Cir. 2011) (invigorating the trial court's gatekeeping role in scrutinizing damages experts); *LaserDynamics, Inc. v. Quanta Comput., Inc.*, 694 F.3d 51, 67–68 (Fed. Cir. 2012) (holding that use of the "entire market value" as a royalty base is a "narrow exception" to general apportionment rule when claims are drawn to an individual component of a multicomponent product; patentee can recover "damages as a percentage of revenues or profits attributable to the entire product" only when the patentee can show that the "patented feature drives the demand for an entire multi-component product"); see also *VirnetX, Inc. v. Cisco Sys., Inc.*, 767 F.3d 1308, 1327 (Fed. Cir. 2014) (requiring apportionment to be scaled to the "smallest saleable patent-practicing unit").

The escalating costs of acquiring⁸⁴ and maintaining⁸⁵ patent portfolios gradually took a financial toll on technology companies that had invested heavily in building defensive portfolios. Some of these firms looked for ways to capitalize on these investments.⁸⁶ In 2010, Micron Technology, a successful semiconductor manufacturing company, spun out much of its portfolio of 4,500 patents for memory chip technology, directory assistance capability, image chips, and other smartphone-related features, to Round Rock Research for exploiting the value of these patents. Micron persuaded John Desmarais, a prominent patent litigator who had built his reputation defending against NPE lawsuits, to lead Round Rock Research.⁸⁷ When Micron owned these patents, it could not credibly assert them against competitors without triggering patent infringement counterclaims. As an NPE, however, Round Rock Research could freely assert these patents against Micron's competitors as well as other technology firms without any risk of retaliation.⁸⁸ Micron reserved licenses for itself, and hence was not at risk, yet it profited from Round Rock Research's enforcement and licensing activities.

Soon after its creation, Round Rock Research asserted smartphone technology patents against HTC in D. Del.⁸⁹ In addition, Desmarais LLP brought infringement actions in E.D. Tex. on behalf of Intellectual Ventures.⁹⁰ With the enforcement threat established, Desmarais pursued a successful licensing campaign that brought Apple, Nokia, Samsung, Sony, and other technology companies to the table.⁹¹

84. The typical fee for prosecuting a relatively complex electrical/computer patent runs about \$10,000. See AMERICAN INTELLECTUAL PROPERTY LAW ASSOCIATION, REPORT OF THE ECONOMIC SURVEY 2015 29 (June 2015). In addition, prosecuting patents imposes direct costs on technology companies, most notably the imposition on scientist/engineer time.

85. See *USPTO Fee Schedule*, USPTO, <https://www.uspto.gov/learning-and-resources/fees-and-payment/uspto-fee-schedule>. The PTO has escalating fees to maintain patents of \$1,600 (3.5 years), \$3,600 (7.5 years), and \$7,400 (at 11.5 years). Small and micro entities receive 50 percent and 75 percent discounts, respectively. See *Entity Status for Fee Purposes*, USPTO, <https://www.uspto.gov/patents-application-process/applying-online/entity-status-fee-purposes>.

86. See Ashby Jones, *Patent 'Troll' Tactics Spread*, WALL ST. J. (July 8, 2012), <https://www.wsj.com/articles/SB10001424052702303292204577514782932390996>; Chien, *supra* note 52.

87. Zach Lowe, *John Desmarais Takes His First Shot as a Patent Owner*, THE AMLAW DAILY (Oct. 4, 2010), <https://amlawdaily.typepad.com/amlawdaily/2010/10/desmaraiscase.html>.

88. See Lowe, *supra* note 87; see also David Bario, *John Desmarais's Round Rock Research Is Selling 'Covenants Not to Sue' at an Upcoming Auction*, CORPORATECOUNSEL (Mar. 10, 2011) (reporting Round Rock Research, would auction off four lots of "covenants not to sue" at an upcoming IP auction).

89. See Ryan Davis, *HTC Sued by Ex-Kirkland Partner's Patent-Holding Co.*, LAW360 (Oct. 4, 2010), <https://www.law360.com/articles/198549>.

90. See Bario, *supra* note 88.

91. See *id.*

As patent litigation skyrocketed,⁹² and threats of injunctions, outsize verdicts,⁹³ and eye-popping settlements⁹⁴ galvanized the business community, the Supreme Court increased its policing on the patent frontier.⁹⁵ The Court restricted patent eligibility, although its analysis has produced a doctrinal morass.⁹⁶ Most recently, the Supreme Court loosened the standard for awarding attorneys' fees in patent cases,⁹⁷ which moderately increases

92. See USPTO, *The Drastic Rise in Patent Litigation*, USPTO (2000-2015) (observing that patent case filings in U.S. district courts have been rising at an alarming rate since 2009), <https://www.uspto.gov/learning-and-resources/ip-policy/economic-research/drastic-rise-patent-litigation-2000-2015>.

93. See, e.g., Andrew Longstreth, *Federal Circuit Upholds \$290 Million Judgment Against Microsoft*, THE AMERICAN LAWYER (Dec. 23, 2009), <https://www.law.com/americanlawyer/almID/1202437219530/?id=1202437219530&slreturn=2019031143710>.

94. See, e.g., Radack, *supra* note 72 (reporting Research in Motion's \$612.5 million settlement).

95. The legislative lawmen and lawwomen also showed interest, but delayed action until after the Supreme Court had tackled several of the more controversial issues (remedies and nonobviousness). Congress eventually took action in passing the Leahy-Smith America Invents Act of 2011, Pub. L. No. 112-29, 125 Stat. 284-341, which afforded defendants a more reliable system of administrative patent review.

96. See *Bilski v. Kappos*, 561 U.S. 593 (2010); *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66 (2012); *Ass'n for Molecular Pathology v. Myriad Genetics*, 569 U.S. 576 (2013); *Alice Corp. v. CLS Bank Int'l*, 573 U.S. 208 (2014). Unfortunately, the Supreme Court has had trouble shooting straight. It missed a prime opportunity to eliminate business method patents in *Bilski*, see Menell, *Forty Years of Wondering in the Wilderness*, *supra* note 11, and then missed the target entirely in *Mayo*, taking out medical diagnostics—an area in which patents could promote progress—based on a misreading of a nineteenth century English case. See Jeffrey A. Lefstin, *Inventive Application: A History*, 67 FLA. L. REV. 565, 580–87 (2015). The *Alice* decision reinforced the error and the Court again missed a prime opportunity to correct the mistake by not granting certiorari in *Sequenom, Inc. v. Ariosa Diagnostics, Inc.* See Brief of Professors Jeffrey A. Lefstin & Peter S. Menell as Amici Curiae in Support of Petitioner for a Writ of Certiorari at 4–14, *Sequenom, Inc. v. Ariosa Diagnostics, Inc.*, 136 S. Ct. 2511 (2016). The Court's jurisprudence has produced a bewildering body of doctrine that has bedeviled the Federal Circuit, Patent Office, and district courts. See *Berkheimer v. HP Inc.*, 890 F.3d 1369, 1374–76 (Fed. Cir. 2018) (Lourie, J., concurring in the denial of the petition for rehearing en banc) (“I believe the law needs clarification by higher authority, perhaps by Congress, to work its way out of what so many in the innovation field consider are § 101 problems.”); *Ariosa Diagnostics Inc. v. Sequenom, Inc.*, 788 F.3d 1371, 1380–81 (Fed. Cir. 2015) (Linn, J., concurring) (noting that “[t]he Supreme Court's blanket dismissal of conventional post-solution steps” bars patent eligibility to Sequenom's “truly meritorious” invention and that the invention at issue would have been valid under the standards reflected in *Le Roy v. Tatham*, 63 U.S. 132, 135–36 (1859)); USPTO, *2019 Revised Patent Subject Matter Eligibility Guidance*, 84 FED. REG. 50 (Jan. 7, 2019); Ryan Davis, *Fed. Circ. Patent Eligibility Angst Spurs Sens. Urging Revamp*, LAW360 (Feb. 22, 2019) (reporting that “legislators appear ready to put in the work to draft legislation that would rewrite the law defining what is eligible for a patent”; noting that Senator Coons “indicated that congressional action may be needed due to decisions where Federal Circuit judges have recently expressed frustration with the difficulty under current precedent of determining whether an invention is patent-eligible under Section 101 of the Patent Act”), <https://www.law360.com/articles/1129865/fed-circ-patent-eligibility-angst-spurs-sens-urging-revamp>; see generally BCLT 101 Report, *supra* note 11; John M. Golden, *Flook Says One Thing, Diehr Says Another: A Need for Housecleaning in the Law of Patentable Subject Matter*, 82 GEO. WASH. L. REV. 1765 (2014).

97. See *Octane Fitness, LLC v. ICON Health & Fitness, Inc.*, 572 U.S. 545 (2014) (holding that “an ‘exceptional’ case is simply one that stands out from others with respect to the substantive strength of a

NPEs' exposure from asserting questionable patents and vexatious litigation tactics.⁹⁸ More significantly, in 2017 the Supreme Court reined in patent venue,⁹⁹ holding that defendants could be sued only where they reside or have committed acts of infringement and have a regular and established place of business.¹⁰⁰ This has channeled more patent cases to D. Del., C.D. Cal, and the N.D. C[orr]al.¹⁰¹

B. Patent Case Management Prior Art

Jurists have long experimented with staging of claims and bellwether trials to streamline litigation and promote settlement.¹⁰² The patent litigation field has been a particularly active and inventive testing ground for such techniques.

Long before the software patent litigation explosion, then-District Judge Jon O. Newman successfully used this approach to resolve one especially thorny issue in the complex patent-antitrust litigation between

party's litigating position (considering both the governing law and the facts of the case) or the unreasonable manner in which the case was litigated"). The Patent Act provides that the court may award attorneys' fees to the "prevailing party" in "exceptional cases." 35 U.S.C. § 285 (2019).

98. See PCMJG3d, *supra* note 12, at 9-11 – 9-16; Jeffrey D. Mills, *Patent Litigation Two Years After Octane Fitness: How to Enhance the Prospect of Recovering Attorneys' Fees*, 45 AIPLA Q.J. 27 (2017) (surveying post-*Octane Fitness* case law).

99. 28 U.S.C. § 1400(b) (2019).

100. See *TC Heartland LLC v. Kraft Foods Grp. Brands LLC*, 137 S. Ct. 1514 (2017); see also *In re Cray*, 871 F.3d 1355 (Fed. Cir. 2017); see generally J. Jonas Anderson, *Reining in a "Renegade" Court: TC Heartland and the Eastern District of Texas*, 39 CARDOZO L. REV. 1569 (2018).

101. See Geneva Clark, *TC Heartland, Legal Trends, One Year Later*, LEX MACHINA BLOG (May 23, 2018) (reporting that in the year following the *TC Heartland* decision, 3,936 patent cases were filed, with D. Del. receiving 23 percent of filings (907), E.D. Tex. receiving 13 percent (525), C.D. Cal. receiving 9 percent (363), and N.D. Cal. receiving 7 percent (295); by contrast, in the year preceding *TC Heartland*, 36 percent (1,627) of patent filings were in E.D. Tex.), <https://lexmachina.com/tc-heartland-legal-trends-one-year-later/>.

In light of this shift in venue law, Apple has decided to exit E.D. Tex. entirely. See Ryan Davis, *Apple Shuts Stores In EDTX, But Will Other Cos. Follow?*, LAW360 (Feb. 25, 2019) (reporting that "Apple is closing its only two retail stores in the Eastern District of Texas, a move widely viewed as a bid to avoid being sued in a district where the company has been hit with massive patent verdicts"), <https://www.law360.com/articles/1131879>. See *VirnetX Inc. v. Cisco Sys., Inc.*, 748 Fed. Appx. 332 (Fed. Cir. 2019). Another E.D. Tex. verdict against Apple for \$596 million is currently on appeal. See Daniel Siegel, *VirnetX Says \$93M Added to \$503M Verdict in Apple IP Row*, LAW360 (Sept. 24, 2018) (noting that all four patents asserted in that case have been found invalid in PTAB proceedings), <https://www.law360.com/articles/1085597/virnetx-says-93m-added-to-503m-verdict-in-apple-ip-row>. According to Lex Machina, Apple has been sued other 250 times in E.D. Tex. since 2009. See Davis, *supra* note 101.

102. See generally Alexandra D. Lahav, *Bellwether Trials*, 76 GEO. WASH. L. REV. 576 (2008).

Xerox Corp. and SCM that unfolded in the late 1970s.¹⁰³ When that litigation arose, Xerox had dominated the plain paper copying industry for two decades. After its pioneering innovation in the late 1930s,¹⁰⁴ Xerox accumulated thousands of patents on related technologies to make plain paper copying less expensive and superior to alternative reprography technologies. The SCM antitrust case concerned in part whether Xerox's refusal to license its massive patent portfolio to competitors constituted exclusionary conduct proscribed by antitrust law. SCM alleged that many of the patents had been obtained merely to block competitors and were not used in Xerox's own products. Thus, the court needed to determine how many of Xerox's 2,200 patents were actually being used in its products.¹⁰⁵

Judge Newman asked counsel to divide the patents into three buckets: those being used, those not being used, and those in dispute.¹⁰⁶ The attorneys reported back that "only" 200 patents were in dispute. As an alternative to litigating 200 patents, Judge Newman applied a then-existing obscure National Basketball Association rule used to prevent a fouled player from faking an injury to enable a better player to take the free throw: the coach of the opposing team selects the replacement foul-shooter. As applied to the *SCM v. Xerox* antitrust trial, Judge Newman asked SCM to select what it thought were the two patents most clearly not being used (the weakest "players" on Xerox's "team") and asked Xerox to select the two it thought were most clearly being used. The court took testimony on the four patents in a mere two days.¹⁰⁷ Based on its view of these four patents, the jury found that Xerox had not obtained patents primarily to block competitive products, which supported the court's ultimate ruling for Xerox.¹⁰⁸

As the bursting of the dot-com bubble triggered a software patent litigation explosion, district judges increasingly faced an onslaught of challenging patent cases. Much of the PATENT CASE MANAGEMENT JUDICIAL GUIDE focuses on managing these challenges fairly and efficiently. The GUIDE recommends that judges surface dispositive issues early in the

103. See *SCM Corp. v. Xerox, Corp.*, 463 F. Supp. 983 (D. Conn. 1978), *aff'd, on consideration of certified questions, as to denial liability for damages, remanded to dismiss claim for equitable relief*, 645 F.2d 1195 (2d Cir. 1981).

104. See U.S. Patent No. 2,297,691, Electrophotography (issued Oct. 6, 1942).

105. See JON O. NEWMAN, *BENCHED* 119 (2017).

106. See *id.*

107. Litigating all 200 disputed patents would have added three months to an already lengthy trial. See *id.*

108. See *SCM Corp.*, 463 F. Supp. at 1007; see generally Lisa A. Huestis, *Patent and Antitrust Law: The Second Circuit Strives Toward Accommodation*, 48 *BROOK. L. REV.* 767 (1982).

litigation process and implement staged, tailored case management plans—including patent, patent claim, and claim construction term winnowing.¹⁰⁹ Most patent-intensive districts have revised their Patent Local Rules to require the parties to jointly identify ten terms “likely to be most significant to resolving the parties’ dispute, including those terms for which construction may be case or claim dispositive” before the Markman hearing.¹¹⁰

In addition, judges have required patentees to winnow the number of patent claims asserted to manageable levels.¹¹¹ In the most prominent example, Judge R. Gary Klausner confronted a consolidated multidistrict patent litigation case where the patentee (Ronald A. Katz, Technology Licensing LP) asserted 1,975 patent claims from more than a dozen patents against 165 defendants in 50 groups of related defendants. As a way of reducing the duplicative claims, Judge Klausner ordered the patentee to winnow the number of patent claims being asserted—initially requiring selection of no more than 40 claims per defendant group, with further winnowing down to 16 claims per defendant group following discovery, subject to various provisos.¹¹² The Federal Circuit condoned this practice provided that the district court’s method for requiring the patentee to select claims allowed the patentee the opportunity to add claims that presented unique issues as to liability or damages later.¹¹³

109. See PCMJG3d, *supra* note 12, at § 2.1.3 (Managing Claim Winnowing and Construction of Claim Terms); § 2.5 (Case Management Conference); § 2.6 (Salient Early Case-Management Issues) (dealing with multi-defendant litigation, early claim construction, patentable subject matter, early motions to dismiss indirect liability and willfulness, damage theories, nuisance-value litigation, and proportional discovery); § 2.7 (Settlement and Mediation); Appendix 2.1 (Initial Case-Management Conference Summary Checklist); § 5.1.2.1.3 (Mechanisms for Limiting the Number of Claim Terms to Construe); § 5.1.2.1.3.1 (Severance Versus Postponement); § 6.1.3 (Recommended Dual-Track Approach to Summary Judgment); § 6.2.1 (Issues More Amenable to Summary Judgment); § 8.1.1 (Separate Trials).

110. See N.D. Cal. Patent L.R. 1-2; *see also* N.D. Ill. LPR 4.1(b) (requiring parties to limit terms submitted for construction to ten, absent a showing of good cause); *see generally* PCMJG3d, *supra* note 12, at § 5.1.2.1.3.

111. *See, e.g.*, *Hearing Components, Inc. v. Shure, Inc.*, 2008 U.S. Dist., 2008 WL 2485426, at *1 (E.D. Tex. June 13, 2008) (limiting plaintiff to three claims per asserted patent); *Fenster Family Patent Holdings, Inc. v. Siemens Med. Sols. USA, Inc.*, 2005 U.S. Dist., 2005 WL 2304190, at *3 (D. Del. Sept. 20, 2005) (limiting plaintiff to ten patent claims and five asserted products).

112. *See In re Katz Interactive Call Processing Patent Litig.*, 712 F. Supp.2d 1080 (C.D. Cal. 2010), *aff’d in part, vacated in part, and remanded in part*, 639 F.3d 1303 (Fed. Cir. 2011).

113. *See In re Katz Interactive Call Processing Patent Litig.*, 639 F.3d 1303, 1312–13 (Fed. Cir. 2011) (affirming the district court’s ruling on the motion to sever and stay claims); Jason Rantanen, *In re Katz: Managing Complex Patent Suits*, PATENTLYO (Feb. 21, 2011), <https://patentlyo.com/patent/2011/02/in-re-katz-managing-complex-patent-suits.html>; *see also* *Stamps.com Inc. v. Endicia, Inc.*, 437 F. App’x 897, 902–03 (Fed. Cir. 2011) (holding that district court did not abuse its discretion by limiting a patentee to fifteen claims because the limit was not “immutable”).

In 2013, the Federal Circuit Advisory Council promulgated a general framework for streamlining patent cases, reducing the complexity of patent cases and litigation costs.¹¹⁴ The Model Order provides a phased process for winnowing the number of asserted patent claims:

§ 2. Not later than 40 days after the accused infringer is required to produce documents sufficient to show the operation of the accused instrumentalities, the patent claimant shall serve a Preliminary Election of Asserted Claims, which shall assert no more than ten claims from each patent and not more than a total of 32 claims.¹¹⁵

§ 3. Not later than 28 days after the Court issues its Claim Construction Order, the patent claimant shall serve a Final Election of Asserted Claims, which shall identify no more than five asserted claims per patent from among the ten previously identified claims and no more than a total of 16 claims.¹¹⁶

The Model Order encourages parties to discuss lower limits based on:

case-specific factors such as commonality among asserted patents, the number and diversity of accused products, the complexity of the technology, the complexity of the patent claims, and the complexity and number of other issues in the case that will be presented to the judge and/or jury. In general, the more patents that are in the case, the lower the per-patent limits should be. The parties shall jointly submit any proposed modifications in their Federal Rule of Civil Procedure 26(f) Discovery Plan.¹¹⁷

C. The Patent Showdown: A Method for Improving Patent Case Management

Judge Alsup came to see the assertion of vast numbers of vague software claims as a potentially abusive litigation tactic aimed at raising defendants' costs and extracting unwarranted settlements.¹¹⁸ He also recognized that the complexity and strategic maneuvering surrounding patent cases could clog his docket. Judge Alsup developed the showdown

114. See Model Order Limiting Excess Patent Claims and Prior Art (Fed. Cir. Advisory Council, 2013), reproduced in PCMJG3d, *supra* note 12, at 2–12. The Model Order reflects the recommendations of the Federal Circuit Advisory Council, but not necessarily the views of all members of the Federal Circuit, and is not binding on district courts.

115. See *id.*

116. See *id.* The Model Order relaxes these limitations when only one patent is asserted, increasing the per-patent limits “by 50%, rounding up.” See *id.* at 2–12, n.1.

117. See *id.* at 2-12 n.1, 2-12 – 2-13.

118. See Alsup, *supra* note 1, at 114–16.

procedure as a potent means for winnowing and staging resolution of patent infringement claims.

There is no question that Judge Alsup's showdown procedure goes well beyond prior art claim winnowing, discovery limits, and bellwether trial approaches. Nor does *Gunfight at the O.K. Corral* anticipate the patent showdown. Judge Alsup requires the parties to identify early in the litigation process the *one* patent claim that they believe will most favor their side. He then affords the parties expedited discovery on those two claims and *requires* them to bring summary judgment motions on the two claims on an expedited schedule. The showdown resolves the two claims, either by summary judgment or a limited trial. Judge Alsup emphasizes the likely severity of the showdown—an injunction (and possibly attorney fees against the defendant) if the patentee wins or attorney fees if the defendant prevails.

Judge Alsup discloses two working examples.¹¹⁹

1. Comcast Cable Communications, LLC v. OpenTV, Inc.

Judge Alsup first unveiled the showdown method in *Comcast Cable Communications, LLC v. OpenTV, Inc.*¹²⁰ Comcast filed its declaratory judgment action in October 2016. The showdown concluded by August 2017, with the patentee dismissing its claims.¹²¹

Some background about the parties will put the case and case management approach in perspective. The patentee, OpenTV, was founded in 1994 as a joint venture between Thomson Consumer Electronics, marketer of RCA TVs and digital satellite system decoders, and Sun Microsystems to provide an interactive software platform for interactive television systems.¹²²

119. See USPTO, Manual of Patent Examining Procedure § 2164.02 Working Example (“Compliance with the enablement requirement of 35 U.S.C. 112(a) . . . does not turn on whether an example is disclosed. An example may be “working” or “prophetic.” A working example is based on work actually performed. A prophetic example describes an embodiment of the invention based on predicted results rather than work actually conducted or results actually achieved.”).

120. See Complaint For Declaratory Judgment Of Patent Noninfringement, Comcast Cable Commc'ns, LLC v. OpenTV, Inc., 3:16-cv-06180-WHA (N.D. Cal. Oct. 26, 2016) (Document 1); Cara Bayles, *Frustrated Alsup Orders 'Shoot Out' In Comcast's Patent Row*, LAW360 (Mar. 8, 2017), <https://www.law360.com/articles/899710/frustrated-alsup-orders-shoot-out-in-comcast-s-patent-row>.

121. See Stipulation Resolving All Outstanding Issues In Dispute In Pending Case And For Dismissal Of All Claims And Counterclaims; Order, Comcast Cable Commc'ns, LLC v. OpenTV, Inc., 3:16-cv-06180-WHA (N.D. Cal. (Document 190) Aug. 15, 2017) (order stipulating that OpenTV provides Comcast with covenants not to sue on 10 patents, that Comcast will terminate inter partes review proceedings (“IPRs”) on two of the patents and will not initiate future IPRs on any of the patents in the complaint, and that Comcast will not seek attorneys' fees or sanctions relating to the N.D. Cal. litigation).

122. See Sun Microsystems, *Thomson Multimedia Set Commercial Launch for OpenTV*, BUSINESS WIRE (Apr. 4, 1995), <http://besser.tsoa.nyu.edu/impact/w95/RN/apr7news/Merc-news-opentv.html>; Ira Teinowitz, *Thomson Touts Interactive TV System*, ADAGE (Jan. 16, 1995),

It traces its technological roots to the renowned Java programming environment. Sun software engineers initially set out to develop a new programming language.¹²³ This project evolved into a programming language for digitally controlled consumer products (such as televisions). After Sun struggled to commercialize this project, Sun's team pivoted to Java, a programming language for website interactivity.¹²⁴

Despite its name, OpenTV commercialized *proprietary* set-top box technology. It developed a range of tools for interface design, interactive broadcasting, and advertising delivery. OpenTV emerged as an early leader in the interactive broadcasting field. A range of companies licensed its technology that bridged the transition from analog to digital television and provided tools for interactive broadcasting. As it developed its software products, OpenTV sought and acquired numerous patents during and after the dot-com bubble.¹²⁵ Hence, it benefited from the Federal Circuit's easing of patent standards in the 1990s.

With the interactive broadcasting sector struggling to grow, Liberty Media acquired OpenTV in May 2002, noting that “[t]hey have a great customer base, fantastic technology and a significant intellectual property portfolio that will lay the groundwork to help us to change the business model over time, with a new and expanded focus on applications, interactive advertising and [television commerce].”¹²⁶ Several months later, OpenTV cut its operations.¹²⁷ The Kudelski Group, which specialized in digital security, acquired OpenTV in 2006.¹²⁸ It launched a patent enforcement

<https://adage.com/article/news/thomson-touts-interactive-tv-system/83926/>;
<http://informitv.com/resources/glossary/opentv/>.

OpenTV,

123. See Menell, *supra* note 6, at 348–49.

124. See *id.*; cf. Bill Menezes, *Sun Kicks off Java TV Push*, MULTICHANNEL NEWS (Sept. 19, 1999) (describing one of Sun's last ditch efforts to monetize its Java investments), <https://www.multichannel.com/news/sun-kicks-java-tv-push-137780>. Judge Alsup played a central role in the battle over Java following Sun's demise. See Menell, *supra* note 6, at 355–57 (section entitled “The Setting Sun”).

125. The USPTO database shows that OpenTV was the assignee of 169 patents issued between 1996 and 2019. See USPTO Patent Full-Text and Image Database (assignee name search: OpenTV), <http://patft.uspto.gov/netahtml/PTO/search-adv.htm>.

126. See Monica Hogan & Karen Brown, *Liberty Unit Buys OpenTV, ACTV*, MULTICHANNEL NEWS (May 12, 2002), <https://www.multichannel.com/news/liberty-unit-buys-opentv-actv-137833>.

127. See Richard Shim, *OpenTV to lay off nearly half of staff*, CNET (Oct. 14, 2002), <https://www.cnet.com/news/opentv-to-lay-off-nearly-half-of-staff/>.

128. See Press Release, Kudelski Acquires Controlling Interest in OpenTV (Oct. 19, 2006), <https://www.nagra.com/media-center/press-releases/kudelski-acquires-controlling-interest-opentv>.

campaign around 2012 and obtained settlements with Google, Cisco, Netflix, and Apple by 2016.¹²⁹

As alleged in Comcast's complaint, OpenTV's Vice President for Licensing contacted Comcast in October 2015 "to start a dialogue" about licensing its patent portfolio, which it was then asserting against various companies in related lines of business (Verizon, Yahoo!, Time Warner Cable, and Hulu) and threatening to assert against Comcast.¹³⁰ After two meetings in which OpenTV identified several patents that it believed Comcast was infringing, Comcast filed a complaint in October 2016 seeking a declaratory judgment that its devices and services did not infringe ten OpenTV patents relating to set-top box user interface and user experience. In December 2016, NagraVision, another division of the Kudelski Group, filed an infringement complaint against Comcast alleging infringement of three set-top box security patents in E.D. Tex.¹³¹ In January 2017, OpenTV (in conjunction with NagraVision and Kudelski SA) filed a complaint with the U.S. International Trade Commission seeking to exclude Comcast products from the United States based on alleged infringement of three OpenTV patents—two being asserted in the N.D. Cal. complaint and one in the E.D. Tex. litigation.¹³² Comcast amended its N.D. Cal. complaint to add the three security patents asserted in the E.D. Tex. case.¹³³

Judge Alsup announced the patent "shootout" at the March 8, 2017 hearing:

The plaintiff [Comcast] would . . . pick one claim out of one patent that's being asserted. And you bring a motion that shows how ridiculous this is, if you think it's ridiculous.

[OpenTV] pick[s] . . . just one claim, your silver bullet, which may lead to a preliminary injunction if you win. You pick your best claim.

129. See Reuters, *Apple and the Owner of OpenTV Just Settled Their Patent Dispute*, FORTUNE (Aug. 3, 2016) (reporting that the deal settled a N.D. Cal. patent case and includes a "comprehensive patent license agreement" with Apple; and that UBS estimates that Kudelski "likely received one-time payments totaling . . . \$62 million to \$83 million"), <http://fortune.com/2016/08/03/apple-kudelski-patent-dispute-europe-germany-settled/>.

130. See Complaint For Declaratory Judgment Of Patent Noninfringement, *supra* note 120, at ¶¶ 18–19.

131. See *NagraVision SA v. Comcast Cable Commc'ns, LLC*, No. 2:16-cv-1362-JRG, 2017 WL 5257009 (E.D. Tex. Nov. 13, 2017) (NagraVision is a wholly owned subsidiary of the Kudelski Group, which owns the OpenTV patents).

132. See *In re Matter of Certain Dig. Television Set-Top Boxes, Remote Control Devices, And Components Thereof*, Inv. No. 337-TA-1041 (Jan. 27, 2017), <http://www.itcblog.com/images/kudelskicomplaint.pdf>.

133. See First Amended Complaint For Declaratory Judgment Of Patent Noninfringement, *Comcast Cable Commc'ns, LLC v. OpenTV, Inc.*, No. 3:16-cv-06180-WHA (N.D. Cal. Dec. 27, 2016).

Then in a few weeks we'll have a hearing, a shootout. You [Comcast] get to shoot down the one that is the most ridiculous. You get to shoot—present the one that has the most traction. And I promise you, if they win, maybe there's going to be a preliminary injunction.

This will bring an end to this case. This is the way to get—you-all are throwing patents around like they're candy. But we've got to get down to the meat of it at some point, instead of just blather.

So you can pick out one. You ought to know by now which one your best one is. If you don't, you haven't done your job. And you ought to know which one is the most weakest. You ought to know how—you ought to know whether they read on your products or not.

...

I have seen this over 17 years on the bench. The plaintiff, the patent holder, doesn't actually have a clue. I'm not saying this is . . . what I've learned about the patent cases.

Your side generically—maybe not you—has no clue. They just think probably we can make a case once we got in their files, we would find some dumb email that they wrote that looks like it reads on our patent, something that said, oh, maybe we ought to get a license to the '586 [patent]. Find something like that. And then suddenly you've got the one smoking gun that makes a case.

That—I don't like that. Now maybe you had done a better—you should have reverse engineered every one of these. It's possible to do. You buy one of these boxes, take it apart. An engineer can tell you in one day whether or not it infringes.

And you ought to be able to pick out the one where you definitely don't infringe and—but we're going to start doing it one claim at a time until . . . one of you is shown to be ridiculous. Because I believe that if there is—if there is infringement, then we'll just enter the preliminary injunction. All these set-top boxes will be ceased to be used.

On the other hand, if you convince me that this claim is ridiculous, I am not going to pay a big—a sanction. So there will be some skin in the game here. You two can't just keep litigating this forever. That's the way I think this ought to be managed . . .¹³⁴

Shortly thereafter, Judge Alsup issued a case management order providing for summary judgment motions to be filed by June 26, 2017, for a hearing scheduled for early August.¹³⁵

Only one party brought a patent to the big showdown on August 3, 2017, at the N.D. C[orr]al. After Comcast identified its first claim, OpenTV

134. Transcript of Proceedings at 26–27, 35–36, Comcast Cable Commc'ns, LLC v. OpenTV, Inc., No. 3:16-cv-06180-WHA (N.D. Cal. Mar. 8, 2017)(Document 79) .

135. See Case Management Order Re Pilot Summary Judgment Motions, Comcast Cable Commc'ns, LLC v. OpenTV, Inc., No. 3:16-cv-06180-WHA (N.D. Cal. Mar. 13, 2017).

granted Comcast a covenant not to sue on the patent.¹³⁶ When Comcast identified another claim for the showdown, OpenTV again granted Comcast a covenant not to sue on that patent.¹³⁷ This occurred, as Judge Alsup had foretold, on the other two claims (and patents) that Comcast identified, as well as two of the three patents asserted in the E.D. Tex. case.¹³⁸

As foreshadowed, things did not go well for OpenTV at the showdown. Judge Alsup opened the summary judgment hearing by announcing: “Well, let me just say there is one issue in which I’m inclined to rule for Comcast. . . .”¹³⁹ Judge Alsup entertained OpenTV’s argument that the accused device infringed the asserted claim, but was not swayed.¹⁴⁰

He then turned to the issue of attorneys’ fees:

When you started this case, you asserted a portfolio [of] patents, all in this general area, and I think you just assumed that somewhere—somewhere deep in the bowels of one of these—that you’d be able to pull a rabbit out of the hat . . . but . . . specific claims [] have to be proven.

And so I think you should have done more homework before you launched this lawsuit. I know they launched the lawsuit, but you made them launch it by threatening to sue them.

So is this really what the patent system is supposed to do to the federal court system? I mean, part of this is your fault, Comcast’s side.

You wanted me just to be your [early neutral evaluation] guy. . . . That I’m supposed to come in here and spend hours, days, weeks, pouring over these claims and trying to figure out what they mean, and it would go on forever, and meanwhile, other cases would suffer because of Comcast.

We have a lot of cases to do, and I’ve given your case a lot of time. And I asked you to bring the very best, strongest claim, and this is how strong it is: In my opinion, it’s very weak.¹⁴¹

In the end, the parties settled the case with OpenTV granting Comcast covenants not to sue on the ten patents asserted in the original complaint, and Comcast agreeing to terminate its Inter Partes Review (“IPR”) proceedings on two of the patents while also agreeing that it would not initiate any future IPR proceedings on the patents at issue so long as OpenTV or a future

136. See Transcript of Proceedings of Aug. 3, 2017, at 36–37, *Comcast Cable Commc’ns, LLC v. OpenTV, Inc.*, No. 3:16-cv-06180-WHA (N.D. Cal. Aug. 4, 2017). (Document 184).

137. See *id.*

138. See *id.* at 37–38.

139. See *id.* at 4.

140. See *id.* at 4–17, 32–33.

141. See *id.* at 35–36.

assignee does not threaten or bring any further action against Comcast on these patents.¹⁴² Furthermore, OpenTV relinquished its right to appeal the showdown. Finally, Comcast agreed not to file any motion for fees, costs, or sanctions arising out of the N.D. Cal. litigation.

Judge Alsup's procedure appears to have called OpenTV's bluff, although due to the confidential nature of the settlement of all of the various actions between OpenTV and Comcast, it is impossible to know for sure how the parties fared. But circumstantial evidence supports the conclusion that the procedure unraveled OpenTV's assertion strategy. First, OpenTV agreed not to pursue any appeal. Second, and most revealing, the Kudelski Group announced at the end of 2017 that it "has undertaken a deep transformation of its structure, processes and business, with the objective of ensuring the Group's growth and success over the long term[,]...has continued its efforts to align its digital TV operations with the new market realities, [and] [is] expanding out of traditional pay TV."¹⁴³

2. *Finjan, Inc. v. Juniper Networks, Inc.*

Shortly after the *Comcast v. OpenTV* litigation wrapped up, Finjan sued Juniper Networks on September 29, 2017, in N.D. Cal. alleging infringement of eight U.S. patents relating to computer security.¹⁴⁴ The case was assigned to Judge Alsup. Encouraged by the apparent success of the *Comcast v. OpenTV* experiment, Judge Alsup implemented the second showdown in *Finjan, Inc. v. Juniper Networks, Inc.*

Before turning to the showdown, it is useful to examine Finjan's development arc. Finjan traces back to the mid-1990s when Shlomo Touboul, an Israeli inventor and entrepreneur, developed methods to protect the emerging Internet from hackers.¹⁴⁵ The Internet was just taking off, and

142. See Stipulation Resolving All Outstanding Issues In Dispute In Pending Case And For Dismissal Of All Claims And Counterclaims; Order, *Comcast Cable Commc'ns, LLC v. OpenTV, Inc.*, No. 3:16-cv-06180-WHA (N.D. Cal. Aug. 15, 2017) (Document No. 190).

143. See *Kudelski Group transformation is accelerating in H2 2017*, NAGRA KUDELSKI (Dec. 20, 2017) ("Concerning Intellectual Property licensing, the evolution of these initiatives continues to be marked by high volatility In this context, the Group entered into a settlement agreement with Comcast Corporation and Comcast Cable Communications LLC pursuant to which all pending patent litigations between the companies have been dismissed. The terms of the settlement were not disclosed.") <https://dtv.nagra.com/kudelski-group-transformation-accelerating-h2-2017>.

144. See Complaint For Patent Infringement; Demand For Jury Trial, *Finjan, Inc. v. Juniper Networks, Inc.*, No. 3:17-cv-05659-WHA (N.D. Cal. Sept. 29, 2017) (Document 1)[hereinafter *Finjan complaint*].

145. See *Finjan Cybersecurity, Annual Report 2016*, at 2, http://www.annualreports.com/HostedData/AnnualReportArchive/f/NASDAQ_FNJN_2016.pdf.

Touboul foresaw that the Java programming environment, which was rapidly being adopted, created some security vulnerabilities. Touboul's first patents claimed methods for identifying suspicious patterns and behaviors of Internet-delivered content.¹⁴⁶ Finjan attracted significant research and development investment and obtained three patents based on its founder's early research.¹⁴⁷ It initially commercialized this technology by selling security products and operating a Malicious Code Research Center.¹⁴⁸ Finjan continued to pursue research and development on cybersecurity, for which it pursued and obtained a steady flow of patents building on its pioneering works and advances in Internet technology.¹⁴⁹

In 2005, Finjan negotiated an \$8 million investment/patent license with Microsoft after Finjan disclosed security vulnerabilities in Microsoft's XP operating system.¹⁵⁰ It also embarked on a patent enforcement campaign against alleged infringers.¹⁵¹

In 2009, Finjan spun off hardware and technology assets in a merger and entered into a non-compete agreement that barred its continued operations.¹⁵² Upon the expiration of that agreement in 2015, Finjan re-entered the market for secure mobile consumer products and embarked on a widespread patent enforcement campaign.¹⁵³ It currently earns approximately 90 percent of its revenues from patent licensing.¹⁵⁴

146. See, e.g., System and Method for Protecting a Computer and a Network from Hostile Downloadables, U.S. Pat. No. 6,092,194 (issued July 18, 2000).

147. See *id.*; System and method for attaching a downloadable security profile to a downloadable, U.S. Pat. No. 6,154,844 (issued Nov. 28, 2000); System and method for protecting a client during runtime from hostile downloadables, U.S. Patent No. 6,167,520 (issued Dec. 26, 2000).

148. See Finjan Complaint, *supra* note 144, at 2.

149. See Finjan Holdings, Form 10-K (U.S. Securities and Exchange Commission, Fiscal Year ended Dec. 31, 2017), at 11–12 (listing over 60 patents, of which 10 had expired), <https://ir.finjan.com/annual-reports/content/0001366340-18-000013/0001366340-18-000013.pdf>.

150. See Scott Bekker, *Finjan Gets Investment from Microsoft*, REDMOND MAGAZINE (July 21, 2005), <https://redmondmag.com/articles/2005/07/21/finjan-gets-investment-from-microsoft.aspx>; Finjan Holdings, Form 10-K, *supra* note 149 at 4.

151. See Demand For Jury Trial, *Finjan Software Ltd., v. Secure Computing Corp., et al.*, No. 1:06-cv-00369-GMS (D. Del. June 4, 2006) (asserting U.S. Pat. No. 6,092,194); Demand For Jury Trial, *Finjan, Inc. v. McAfee, Inc., et al.*, No. 1:10-cv-00593-UNA (D. Del. July 12, 2010) (asserting U.S. Pat. No. 6,092,194 and U.S. Pat. No. 6,480,962).

152. See Finjan Complaint, *supra* note 144, at 2.

153. See Finjan Holdings, Form 10-K, *supra* note 149, at 4; Joseph Marks, *Finjan Is Cybersecurity's Top Patent Litigator*, BLOOMBERG LAW (Aug. 8, 2016) (reporting that "Finjan Holdings Inc. has sued a who's-who of cybersecurity companies for patent infringement, including four of the 10 largest pure-play cybersecurity companies in the business"), <https://www.bna.com/finjan-cybersecuritys-top-n73014445998/>.

154. See Marks, *supra* note 153.

Finjan's lawsuit against Juniper Networks is part of a widespread patent enforcement campaign in N.D. Cal.¹⁵⁵ Several of those cases have produced sizeable recoveries.¹⁵⁶ In addition, Finjan has derived substantial patent licensing revenue as direct and indirect results of its enforcement campaign.¹⁵⁷

Judge Alsup viewed the *Finjan* case, which like *OpenTV* involved a large number of patent claims, as a prime candidate for his innovative case management method. The February 22, 2018 hearing set the stage for this digital frontier showdown:

THE COURT: Unless you're about to tell me you've settled your case, I have a plan for your case. . . . It's a two-part plan. First part is a normal schedule. Second is the shoot-out schedule. Are you ready?

Any initial disclosures should have already been done The pre-trial conference would be June 6—D Day—next year. Trial will be [July 8, 2019] And that will be a jury trial. . . .

And I will have to ask this question: These patent cases are so contentious and so unreasoned, the lawyers are so unreasonable in these cases that I normally keep all discovery disputes. But patent cases the lawyers can't agree on anything. However, if you promise me you will be reasonable on both sides and that there will be very few discovery disputes I will keep all discovery disputes.

COUNSEL FOR JUNIPER NETWORKS (DEFENDANT): Your Honor, we intend to be reasonable. Assuming that the other party is reasonable, I think we can limit discovery motions.

COUNSEL FOR FINJAN (PATENTEE/PLAINTIFF): Your Honor, we're very reasonable. We give up everything.

THE COURT: All right I'm going to keep [discovery matters] for myself and see if it works So that's the overall case schedule. Do you have any heartburn on this?

COUNSEL FOR JUNIPER NETWORKS: Your Honor, one comment. The parties had actually worked together to come to an agreed schedule.

THE COURT: I know. It was too leisurely. It would call for a trial in 2020 I won't even be alive probably in 2020. I've never set a case that far out in my entire career. You lawyers are going to have to get going. This is plenty of time.

155. Finjan has filed more than two dozen patent enforcement actions in N.D. Cal. since 2013. *See* Bloomberg Law Dockets Search (Mar. 1, 2019).

156. *See* Finjan Holdings, Form 10-K, *supra* note 149, at 4, 7–8 (noting a \$39.5 jury verdict against Blue Coat Systems (N.D. Cal.) in 2015 and a \$15 million jury verdict against Sophos (N.D. Cal.) in 2016).

157. *See* Finjan Holdings, Form 10-K, *supra* note 149, at 4, 6–9 (reporting that Finjan generated gross revenue of approximately \$50.5 million in 2017, \$18.4 million in 2016, and \$4.7 million in 2015).

COUNSEL FOR FINJAN: Your Honor, it's fine for plaintiff. Works for us.

COUNSEL FOR JUNIPER NETWORKS: Your Honor, we think it's a little advanced given the number of patents at issue in the case and then—

THE COURT: Too bad. You can do this. That's where the shoot-out comes in. Are you ready? The shoot-out is a great thing that I have come up with. It works as follows:

How many claims are involved here?

COUNSEL FOR FINJAN: We've agreed to limit it to 16 claims on the patents.

THE COURT: Sixteen from how many patents?

COUNSEL FOR FINJAN: Eight patents.

...

THE COURT: Okay. So of the 16, each of you get to pick one. Plaintiff gets to pick your strongest claim and Juniper gets to pick the weakest of the claims. And then you're going to both make motions. [You]re going to each have discovery. I'll give you reasonable discovery into those two. This is in addition to all the other discovery that's going on. But you get discovery into each of those two on kind of a compressed schedule. And if anybody stonewalls, believe me their motion won't get granted. You better cooperate on this discovery. So you both are going to cross-move for summary judgment. This is in addition to all the other discovery that's going on. But you get discovery into each of those two But in the past it's quite clear that one side or the other is absolutely correct. What does that mean? It means that it either leads to an immediate preliminary injunction—that would be bad for Juniper—or, it leads to a sanctions motion against the plaintiff. Or it might even be a sanctions motion against the defendant.

This is—it just cuts to the heart of the case so quickly. I promise you by August of this year [2018] the case will be over because one of you—I know these patent cases. They're very few where there's a fact issue; maybe one out of three. Two out of three it's quite clear that either the plaintiff is way off base, which was true in the last case that I did, or that the Juniper side is way off base.

And there's nothing wrong with a preliminary injunction right off the bat. In fact, it would be a permanent injunction because it's the result of summary judgment if you in fact are infringing. You don't have to wait until the end of the case. Whamo, the product goes off the shelf.

So this gets it do[w]n[] to one—each side has one.

Now here's the other trick I found in doing this. That as soon as the Juniper side decides, ["Oh, we're going to go with claim number eight on the XYZ patent,"] and you [Finjan] withdraw that patent. They withdrew eight—eight—claims in seriatim. And finally—this is how bad it was in the other case. I don't know if you're going to do that or not.

So I'm going to give you two weeks from today to withdraw whatever you want. After that you're stuck with it . . . So after two weeks [defendant counsel] can pick the weakest [claim that the patentee has]. That's what I want you to do. Pick the weakest one they're asserting against you. And if it turns out you're just crystal clear on that one, even if you might lose on the other one, you're going to get sanctions against them if it warrants sanctions. And they will have to pay that right off the bat. Could be hundreds of thousands of dollars for having brought a bogus claim against Juniper.

But if they win on theirs, it's injunction city. So this is why it's called a shoot-out. It's like the shoot-out at the OK Corral in Tombstone, Arizona. Where the lawyers go in there and they just shoot it out and one of them comes out alive.

I shouldn't use that. That's a terrible example to use these days so I'm going to take that back. Maybe I'll call it something else.

COUNSEL FOR FINJAN: It would be the Earps on this side.

THE COURT: It's not going to be—it is not going to be—maybe shootout is the—showdown. That's what it is. It's a showdown.

All right. So I'm giving you two weeks from today to do . . . the withdrawal. [Each side will notify the other [as to which patent claim you are] going to be pursuing [by March 22].

And then the summary judgment motions on [these] have to be filed June 7. So you have a period of a few months in there to do your discovery . . . [Y]ou'll have a chance to depose the experts on the other side. So there's one week built in there for each of you to have an extra week on opposition . . .

So on July 26[,] I anticipate that there will be banners in the sky for one side or the other as total victory is proclaimed. At least—so on the other hand I could be wrong and it could turn out to be one of those cases where there's fact issues and I have to deny [summary judgment].

But I'll tell you, I learn a lot about even if that's the way it is, I will learn a lot. It will be effectively a tutorial for me.

So that's the way we're going to proceed. Go back and tell your clients that the day of reckoning is close at hand.

All right. I'll get out an order that be sure to read the order whenever it comes out on this summary procedure.

And then we'll eventually get around to all the other claims in the case. So don't worry that there will be some there will be other—we'll deal with everything. But it may be that as the case goes along we have a permanent injunction against a product that's no longer being sold. That could happen. Or it could be [the patentee] has to pay \$300,000 in fees to the other side for bringing a frivolous claim. Or maybe [the defendant has] to pay \$300,000 to [the patentee] because [the defendant] picked a bad [claim].

So this gets to the heart of the matter so quickly and so cleanly instead of you all treating me like your early neutral evaluation judge and two years later I'm still trying to figure out which end is up.¹⁵⁸

The parties proceeded toward the showdown, but the process proved less decisive than promised. Finjan selected claim 10 of U.S. Patent No. 8,677,494 (the '494 patent) as its best claim. Juniper Networks selected claim 1 of U.S. Patent No. 6,804,780 (the '780) patent as the most vulnerable claim. The parties filed their motions on June 28 and their replies on July 12.¹⁵⁹ The court heard argument on the parties' respective motions for summary judgment on July 26, 2018.¹⁶⁰

On August 9, Judge Alsup granted summary judgment (based on non-infringement) for Juniper Networks on claim 1 of the '780 patent.¹⁶¹ The decision turned on a contested claim construction distinction on which Judge Alsup disagreed with a claim construction ruling issued by another N.D. Cal. judge in a separate Finjan case.¹⁶² On August 24, Judge Alsup granted in part Finjan's motion for summary judgment on claim 10 of the '494 patent while reserving for trial whether the accused products meet the "database" limitation of the claim, Juniper's Section 101 invalidity defense, and specific damages issues.¹⁶³

Judge Alsup presided over a limited jury trial that began on December 10, 2018. The parties stipulated that Judge Alsup could decide the patent eligibility question after the jury trial.¹⁶⁴ Judge Alsup excluded Finjan's

158. See Transcript of Proceedings of Feb. 22, 2018, at 2–9, *Finjan, Inc. v. Juniper Network, Inc.*, No. 17-cv-05659-WHA (N.D. Cal. Mar. 7, 2018) (Document 44); Amended Case Management Order And Reference To Magistrate Judge For Mediation/Settlement, *Finjan, Inc. v. Juniper Network, Inc.*, No. 17-cv-05659-WHA (N.D. Cal. Feb. 23, 2018) (Document 35).

159. See Amended Case Management Order And Reference To Magistrate Judge For Mediation/Settlement, *supra* note 158.

160. See Transcript Of Proceedings of July 26, 2018, at 41–115, *Finjan, Inc. v. Juniper Network, Inc.*, No. 3:17-cv-05659-WHA (N.D. Cal. Aug. 6, 2018) (Document 175)

161. See Order Granting Early Motion For Summary Judgment On '780 Patent (Aug. 9, 2018), *Finjan, Inc. v. Juniper Network, Inc.*, No. 3:17-cv-05659-WHA (N.D. Cal. Aug. 12, 2018) (Document 175).

162. See *id.* at 9–10; *Finjan, Inc. v. Cisco Sys., Inc.*, No. C 17–00072 BLF, 2018 WL3537142 (N.D. Cal. July 23, 2018).

163. See Order Granting In Part Early Motion For Summary Judgment On '494 Patent, *Finjan, Inc. v. Juniper Network, Inc.*, No. 3:17-cv-05659-WHA (N.D. Cal. Aug. 31, 2018) (Document 189).

164. See Scott Graham, *Juniper Gets Double Trial Win in Cybersecurity Spat With Finjan: Irell persuaded Judge William Alsup to block Finjan from seeking \$60 million in damages and got the jury to find the patent claim was not infringed*, THE RECORDER (Dec. 17, 2018), <https://www.law.com/therecorder/2018/12/17/juniper-gets-double-trial-win-in-cybersecurity-spat-with-finjan/>. In light of the jury's non-infringement verdict, Judge Alsup determined that the patent eligibility

damages expert and lay witnesses from testifying.¹⁶⁵ The jury returned a verdict of non-infringement of the '494 patent.¹⁶⁶

Judge Alsup's ominous warning to the litigants back in February 2017 that "the day of reckoning is close at hand" has not yet come to fruition, and is unlikely to occur any time soon. The parties continue to litigate other patent claims in the case.¹⁶⁷ Finjan has not backed down¹⁶⁸ and the case is either headed for a second showdown (and possibly more)¹⁶⁹ or an interlocutory appeal of the showdown procedure.¹⁷⁰

D. Examination of the Patent Showdown

As noted at the outset, I share Judge Alsup's stated goals of streamlining patent litigation, discouraging the assertion of numerous, vague, and dubious claims, and providing litigants with a "fair hearing."¹⁷¹ Based on the disclosures in Judge Alsup's essay and the publicly available filings in the

challenge was moot. *See* Post-Trial Order, *Finjan, Inc. v. Juniper Network, Inc.*, No. 3:17-cv-05659-WHA (N.D. Cal. Jan. 2, 2019) (Document 348).

165. *See id.*

166. *See* Special Verdict Form, *Finjan, Inc. v. Juniper Network, Inc.*, No. 3:17-cv-05659-WHA (N.D. Cal. Dec. 14, 2018) (Document 333); Scott Graham, *Juniper Gets Double Trial Win in Cybersecurity Spat With Finjan: Irell persuaded Judge William Alsup to block Finjan from seeking \$60 million in damages and got the jury to find the patent claim was not infringed*, THE RECORDER (Dec. 17, 2018), <https://www.law.com/therecorder/2018/12/17/juniper-gets-double-trial-win-in-cybersecurity-spat-with-finjan/>.

167. *See, e.g.*, Plaintiff *Finjan, Inc.*'s Opening Claim Construction Brief For U.S. Patent No. 7,418,731, *Finjan, Inc. v. Juniper Network, Inc.*, No. 3:17-cv-05659-WHA (N.D. Cal. Dec. 21, 2018) (Document 347); Defendant *Juniper Networks, Inc.*'s Reply To Plaintiff *Finjan, Inc.*'s Opening Claim Construction Brief For U.S. Patent No. 7,418,731, *Finjan, Inc. v. Juniper Network, Inc.*, No. 3:17-cv-05659-WHA (N.D. Cal. Jan. 4, 2019) (Document 347).

168. Graham, *supra* note 164 (quoting *Finjan* Chief Intellectual Property Office Julie Mar-Spinola following the trial stating "[w]e're disappointed, but not discouraged" and noting that post-trial motions lay ahead, and that *Finjan* is asserting other claims against *Juniper* that have yet to be tried.).

169. *See* Post-Trial Order, *supra* note 164 (noting that the second showdown procedure is scheduled to commence on Jan. 24, 2019); Plaintiff *Finjan, Inc.*'s Notice Of Motion And Second Motion For Early Summary Judgment, Regarding Infringement Of Claim 1 Of U.S. Patent No. 8,141,154; Memorandum Of Points And Authorities, *Finjan, Inc. v. Juniper Network, Inc.*, No. 3:17-cv-05659-WHA (N.D. Cal. Feb. 14, 2019) (Document 369); Defendant *Juniper Networks, Inc.*'s Motion For Summary Judgment Regarding Claim 9 Of U.S. Patent No. 6,804,780, *Finjan, Inc. v. Juniper Network, Inc.*, No. 3:17-cv-05659-WHA (N.D. Cal. Feb. 14, 2019) (Document 371) (.

170. *See* Letter from Rebecca L. Carson and Paul Andre to Judge Alsup (Feb. 28, 2019), *Finjan, Inc. v. Juniper Network, Inc.*, No. 3:17-cv-05659-WHA (N.D. Cal. Feb. 28, 2019) (Document 381) (requesting more time to consider Judge Alsup's suggestion at the Feb. 21 hearing that it would "certify the orders from the first phase of the 'Patent Showdown' proceedings for appeal if the parties agreed that the outcome of the appeal would dispose of the entire case, including the other asserted patents."); Hannah Albarazi, *Alsup Rips 'Obstinate' Attys, Patent 'BS' in Finjan-Juniper War*, LAW 360 (May 9, 2019), <https://www.law360.com/technology/articles/1157965/alsup-rips-obstinate-attys-patent-bs-in-finjan-juniper-war>.

171. *See* Alsup, *supra* note 1, at 111.

two showdowns to date, however, I question whether the patent showdown works for all three intended purposes.

The jury is still out on whether showdowns will result in swifter and less costly patent litigation. While the *Comcast v. OpenTV* showdown experiment achieved a quick resolution, it may well reflect the declaratory judgment posture of the litigation. Comcast, the patent infringement defendant, drove the litigation. It is unclear whether OpenTV would have selected so many patents (and claims) to assert. And it is likely that more traditional winnowing procedures would have narrowed the case. By contrast, the *Finjan v. Juniper Networks* case is a more typical litigation. It is not at all clear that the showdown procedure has or will produce more efficient or swift litigation.

Thus, patent showdowns could well result in more costly and time-consuming litigation. Moreover, the patent showdown approach raises serious fairness and due process concerns. Finally, while the patent showdown approach will likely discourage the assertion of patent filings in N.D. Cal., it will also shift such litigation elsewhere.

As noted above,¹⁷² many patent jurists have implemented successful tools for winnowing patent claims before trial. The question is whether the showdown procedure improves upon this prior art based on the three principal criteria: streamlining efficiency, due process, and fairness. The premise of the showdown procedure is that litigating the single “best” and single “worst” patent claims can serve as a fair proxy for the entire litigation. This rests on several critical, and questionable, assumptions.

First, the parties to a complex patent litigation may need discovery to assess the viability of their claims. Forcing parties to select the best and worst claims at a preliminary stage could skew assessment of the case, especially given the ambiguity in patent law standards. The state of patent eligibility law,¹⁷³ for example, creates tremendous uncertainty regarding whether patent claims are viable. Similarly, the uncertainty surrounding claim construction,¹⁷⁴ which was a critical issue in both of the showdowns, can make claim selection especially difficult.

Second, even strong patent claims might not be good candidates for summary adjudication. There might well be factual issues that a litigant is comfortable pursuing even if they do not have a valid basis for summary judgment. Requiring parties to proceed through summary judgment forces

172. See *supra*, Section I(B).

173. See *supra* note 96.

174. See generally Anderson and Menell, *supra* note 11 (discussing the relatively high reversal rate for claim construction).

an artificial process. It can also skew the choice of the “best” or “worst” patent claims. A party should be entitled to determine whether or not and how to pursue summary judgment.

Third, some patent cases involve multiple technologies.¹⁷⁵ The fact that one patent fails does not necessarily mean that other patents and technologies are doomed to failure. Judge Alsup’s approach puts tremendous pressure on the patentee to pursue one path. Although he leaves open the possibility of more showdowns, the sanction warnings, high costs, and tough talk create a Hobson’s choice. As reflected in the *Finjan v. Juniper Networks* case, Judge Alsup conditioned certification of an interlocutory appeal of the first showdown on the parties’ agreement that “the outcome of the appeal would dispose of the entire case, including the other asserted patents.”¹⁷⁶ In essence, the patentee is forced to choose between pursuing its litigation through a series of showdowns or relinquish its remaining claims to get appellate review of the showdown process.

Fourth, Judge Alsup’s admonitions that a ruling in the showdown for the patentee will result in “injunction city”¹⁷⁷ and a ruling for the defendant will result in “big” sanctions¹⁷⁸ mischaracterizes the law.¹⁷⁹ Under the Supreme Court’s *eBay* decision, the granting of permanent injunctions following a finding of patent infringement should not be automatic, and the patentee bears the burden of proving that the equitable factors support the granting of injunctive relief.¹⁸⁰ In fact, courts have rarely granted injunctive relief in NPE cases since the *eBay* ruling.¹⁸¹ Thus, the threat that a defendant

175. See Matthew Bultman, *Don’t Expect a Rash of ‘Shootouts’*, LAW360 (Aug. 14, 2017), <https://www.law360.com/articles/954146> (quoting Paul Ainsworth, a director at Sterne Kessler Goldstein & Fox PLLC: “[P]atent cases can be a little more complicated than just a single issue. I think it’s a little troubling to have to try and pick one claim to go forward on because there can be multiple types of technologies involved in any patent case.”).

176. See Letter from Rebecca L. Carson and Paul Andre to Judge Alsup (Feb. 28, 2019), *supra* note 170.

177. See Transcript of Proceedings (Feb. 22, 2018), *supra* note 158, at 6.

178. See Transcript of Proceedings (Mar. 8, 2017), *supra* note 134, at 36; Transcript of Proceedings of Feb. 22, 2018, *supra* note 158, at 8 (threatening \$300,000 sanctions).

179. See Transcript of Proceedings of Feb. 22, 2018, *supra* note 158, at 5 (warning that the showdown procedure “means that it either leads to an immediate preliminary injunction—that would be bad for Juniper—or, it leads to a sanctions motion against the plaintiff. Or it might even be a sanctions motion against the defendant.”).

180. See *supra* note 81.

181. See Christopher B. Seaman, *Permanent Injunctions in Patent Litigation After eBay: An Empirical Study*, 101 IOWA L. REV. 1949, 1953, 1983 fig. 1, and 1988 fig. 3 (2016) (concluding that “district courts appear to have adopted a de facto rule against injunctive relief for [NPEs] and other patent owners who do not directly compete . . . against an infringer”; finding that injunctions were granted 72.5 percent of the time after *eBay*, but only 16 percent of the time for NPEs); cf. Ryan T. Holte & Christopher B. Seaman, *Patent Injunctions on Appeal: An Empirical Study of the Federal Circuit’s Application of*

faces “injunction city” if they lose a showdown does not comport with the applicable standard.

Similarly, under the Patent Act¹⁸² and the Supreme Court’s *Octane Fitness* decision,¹⁸³ district courts may only award attorneys’ fees in “exceptional cases,” i.e., cases which “stand[] out from others with respect to the substantive strength of a party’s litigating position (considering both the governing law and the facts of the case) or the unreasonable manner in which the case was litigated.”¹⁸⁴ Judge Alsup’s stern warning that losing the showdown will likely result in “big” sanctions raises questions about whether he will be exercising the reasoned, case-by-case discretion that the law requires or has prejudged the case based on his prior experience. Perhaps losing the “best” and “weakest” claims is a proxy for “exceptional,” but given the rush to select claims and the uncertainty of patent law, such a threatened sanction raises concerns.

Fifth, and perhaps most significantly, requiring a patentee to pursue its case through a patent showdown or a series of patent showdowns arguably undermines the Seventh Amendment jury trial right.¹⁸⁵ A key element of a jury trial is presenting a cohesive account of the underlying conduct and facts as alleged and further developed through the discovery process.¹⁸⁶ In *Gasoline Products Co. v. Champlin Refining Co.*,¹⁸⁷ the Supreme Court recognized that partial trials could violate the Seventh Amendment guarantee.¹⁸⁸ The Federal Circuit’s decision in *In re Katz Interactive Call*

eBay, 92 WASH. L. REV. 145, 187–88 (2017) (finding that the Federal Circuit is generally more favorable to prevailing patentees regarding injunctive relief than the district courts following *eBay*).

182. 35 U.S.C. § 285.

183. *Octane Fitness, LLC v. ICON Health & Fitness, Inc.*, 572 U.S. 545 (2014); *supra* note 97.

184. *Id.*

185. See U.S. CONST. AMENDMENT VII (“In suits at common law, where the value in controversy shall exceed twenty dollars, the right of trial by jury shall be preserved, and no fact tried by a jury, shall be otherwise reexamined in any court of the United States, than according to the rules of the common law.”); *Gasoline Prods. Co. v. Champlin Refining Co.*, 283 U.S. 494, 500 (1931).

186. Cf. Greg Reilly, *Linking Patent Reform and Civil Litigation Reform*, 47 LOY. U. CHI. L.J. 179, 233, 241 (2015) (questioning whether jury trials should be drama events and advocating staged litigation). As reflected in the PCMJG3d, *supra* note 12, staged litigation often provides the best approach to patent case management. That said, the patent showdown model is an extreme form that arguably goes too far in dividing the patent causes of action into discrete questions.

187. 283 U.S. 494, 500 (1931).

188. See *Gasoline Prods. Co.*, 283 U.S. at 500 (holding that “the question of damages on the counterclaim is so interwoven with that of liability that the former cannot be submitted to the jury independently of the latter without confusion and uncertainty, which would amount to a denial of a fair trial.”).

*Processing Patent Litigation*¹⁸⁹ upheld winnowing of duplicative claims¹⁹⁰ but warned that:

[i]n approving the district court’s procedure, we do not suggest that a district court’s claim selection decisions in a complex case such as this one are unreviewable. Katz could have sought to demonstrate that some of its unselected claims presented unique issues as to liability or damages. If, notwithstanding such a showing, the district court had refused to permit Katz to add those specified claims, that decision would be subject to review and reversal.^{[9] 191}

^[9] It is also conceivable that a claim selection order could come too early in the discovery process, denying the plaintiff the opportunity to determine whether particular claims might raise separate issues of infringement or invalidity in light of the defendants’ accused products and proposed defenses. Katz makes no such argument in this appeal.

Footnote 9 speaks directly to concerns that have been raised about the showdown procedure.¹⁹² Notwithstanding district courts’ “broad discretion

189. 639 F.3d 1303 (Fed. Cir. 2011); *see supra*, text accompanying notes 111–13.

190. *See In re Katz Interactive Call Processing Patent Litigation*, 639 F.3d at 1311 (observing that “[w]hen the claimant is in the best position to narrow the dispute, allocating the production burden to the claimant will benefit the decision-making process and therefore will not offend due process unless the burden allocation unfairly prejudices the claimant’s opportunity to present its claim.”).

191. *Id.* at 1312–13.

192. For example, Counsel for OpenTV expressed the need for discovery:

Judge Alsup: . . . You ought to know. You should have done reverse engineering. You ought to have an expert who can read your patent right on it. You don’t need any discovery.

OpenTV counsel: Well, this —

Judge Alsup: I’m going to give you discovery. But don’t give me that old “I need discovery” excuse. Come on. You should have reverse engineered this product up and down instead of just speculating.

OpenTV counsel: Your Honor, as a declaratory judgment defendant who was [haled] into court here on our patents — we were trying to negotiate a license. We find ourselves in court, Your Honor—

Judge Alsup: You can reverse engineer. Better hurry up and get your reverse engineering going.

OpenTV counsel: We are about to give infringement contentions that will have the information we have. It will be detailed. However, as a litigant in federal court, we are entitled to at least some discovery.

Judge Alsup: You are going to get discovery. I’m telling you, you should have reverse engineered this already. And you should have an expert who is prepared to come in here and be cross-examined that can prove up that your claim reads on that product.

OpenTV counsel: Your Honor, we are . . . very happy with the work that we have done. We have a lot of evidence —

Judge Alsup: It sounds to me like you’re not happy with it, and you’ve got to find something in their files to make your case because you don’t have a case. That’s what — that’s the way I read what you’re telling me.

See Transcript of Proceedings (Mar. 8, 2017), *supra* note 134, at 29–30; *see also* Bultman, *supra* note 175 (quoting Michael Sandonato, a partner at Fitzpatrick Cella Harper & Scinto, stating that restricting a patent owner’s case has the potential to raise some concerns about fairness).

to administer the proceeding” in complex cases,¹⁹³ the strict and rigid constraints of the showdown procedure could “prejudice . . . the claimant’s opportunity to present its claim.”¹⁹⁴

Finally, looking to the broader effects of the showdown procedure on the larger patent system, competition, and innovation, the N.D. Cal. patent showdown is more likely to steer patentees away from N.D. Cal. than solve the fundamental problems posed by software patents.¹⁹⁵ Judge Alsup’s view of the patent system reflects his particular vantage point. He characterizes the ten-fold increase in N.D. Cal. patent filings between 1981 and 2017 as proof that software patent litigation has transformed patent litigation.¹⁹⁶ Almost all of that growth, however, took place *before* the software patent explosion. Patent filings in have been relatively stable since the bursting of the dot-com bubble, hovering between 160 to 260 per year during the past two decades.

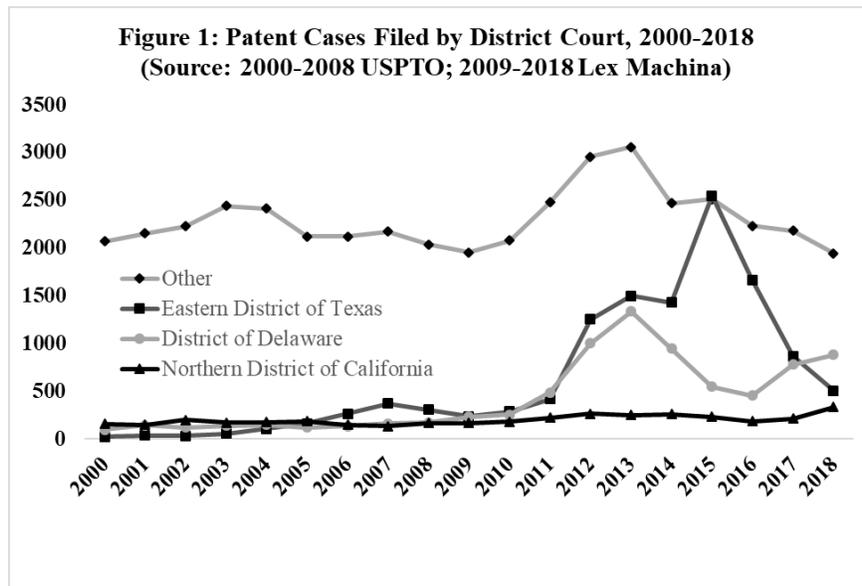
By contrast, patent case filings in E.D. Tex. and D. Del. have truly skyrocketed in the post-dot-com bubble burst era. As reflected in Figure 1, patent filings in E.D. Tex. grew from 285 in 2010 to over 2,500 in 2015. In one year, E.D. Tex. attracted more patent filings than N.D. Cal. witnessed during the past 20 years! Patent filings in D. Del. grew from 253 in 2010 to 1,334 in 2013. Moreover, these districts have far fewer judges than N.D. Cal. And, E.D. Tex. cases are concentrated with a just a handful of judges.

193. *In re Phenylpropanolamine (“PPA”) Prods. Liab. Litig.*, 460 F.3d 1217, 1232 (9th Cir. 2006).

194. *See In re Katz Interactive Call Processing Patent Litigation*, 639 F.3d at 1311.

195. Even before the introduction of the patent showdown procedure, many litigators representing patentees already viewed the Northern District of California skeptically. *See* Paul R. Gugliuzza & Megan M. La Belle, *The Patently Unexceptional Venue Statute*, 66 AM. U. L. REV. 1027, 1054–55 (2017); *See* Adam Mossoff & Ted M. Sichelman, Letter to Congress from 28 Law Professors & Economists Urging Caution on the VENUE Act 1 (Aug. 1, 2016), <https://ssrn.com/abstract=2816062> (“The reality is that the major proponents of changing the venue rules are primarily large high-tech companies and retailers with an online presence sued in the Eastern District of Texas that would rather litigate in a small number of more defendant-friendly jurisdictions.”).

196. *See* Alsup, *supra* note 1, at 112 Fig. 1.



The Supreme Court's *T.C. Heartland* venue decision sought to address the *national* forum shopping problem by limiting patentees' ability to select the inconvenient, trial-oriented culture E.D. Tex. Yet D. Del will remain an available venue for many cases since more than half of U.S. publicly traded companies and 64 percent of Fortune 500 companies are incorporated in Delaware.¹⁹⁷ Furthermore, many start-ups choose Delaware as their state of incorporation.¹⁹⁸

Thus, notwithstanding *T.C. Heartland*, Judge Alsup's heavy-handed patent showdown procedure will channel software patent cases away from N.D. Cal. to D. Del. or other available venues.¹⁹⁹ Even though there is a relatively small probability that a new patent filing will be assigned to Judge Alsup,²⁰⁰ the risks associated with the showdown procedure will increase the

197. See Christopher Wink, *64% of Fortune 500 Firms Are Delaware Incorporations: Here's Why*, TECHNICAL.LY DELAWARE (Sept. 23, 2014) (identifying three reasons for Delaware's popularity for incorporation: "an established and business-friendly legal framework, a widely respected and specialized court system and pro-business priorities from state government"), <https://technical.ly/delaware/2014/09/23/why-delaware-incorporation/>.

198. See *id.* (noting that in 2012, more than 90 percent of IPOs were from Delaware legal entities, including Facebook and Yelp).

199. See Bultman, *supra* note 175 (noting that "Judge Alsup's procedure is one more factor for patent owners to consider when deciding where to file their lawsuit [T]his is the type of practice that attorneys would look at when doing their venue analysis").

200. There are more than 20 district judges and magistrate judges on the N.D. Cal. wheel. See U.S. District Court, Northern District of California, <https://cand.uscourts.gov/judges>.

propensity for patentees to shop elsewhere. A shift of cases away from N.D. Cal. is unfortunate because N.D. Cal. has a very strong and experienced bench with a well-developed set of sound patent case management practices. Moreover, it is a convenient forum for technology companies. Furthermore, D. Del. is swamped with patent cases and, unlike E.D. Tex., is not looking to increase its patent docket.

None of this is to suggest that the patent showdown procedure should not be used with the consent of the parties. There may well be circumstances in which the parties would find such a procedure to fit their particular dispute. But it is important to note N.D. Cal.'s pioneering Patent Local Rules were developed with the input of the patent bar and promulgated under the authority of the Federal Rules of Civil Procedure.²⁰¹ The carefully balanced quality of these rules and the manner in which they were adopted promoted their acceptance within the patent litigation bar and has earned the support of the Federal Circuit.²⁰²

II. THE LONG-STANDING NEED FOR SOFTWARE PATENT REFORM

As Judge Alsup's essay suggests, the problems surrounding software patent litigation run deep. At best, the patent showdown addresses some of the symptoms of the larger pathology. And as discussed above, it is not at all clear that it ameliorates them. As Judge Alsup recognizes, there are significant limitations on a "lowly district judge[']s" ability to address the larger software patent disease.²⁰³

Notwithstanding that digital technology traces back well over a half century, Congress has never directly confronted the challenges of fitting this revolutionary new technology into the "one-size-fits-all" technologies patent system. Judge Alsup's mentor, Justice William O. Douglas, presciently raised the issue in the Supreme Court's first software patent case. He ended the *Benson v. Gottschalk* decision with the following suggestion:

If [computer] programs are to be patentable, considerable problems are raised which only committees of Congress can manage, for broad powers of investigation are needed, including hearings which canvass the wide variety of views which those operating in this field entertain. The

201. See FED. R. CIV. P. 83(a) ("After giving public notice and an opportunity for comment, a district court, acting by a majority of its district judges, may adopt and amend rules governing its practice.").

202. See, e.g., *O2 Micro Int'l Ltd. v. Monolithic Power Sys., Inc.*, 467 F.3d 1355, 1366 (Fed. Cir. 2006) ("[W]e see nothing in the Federal Rules that is inconsistent with [the Northern District of California's] local rules requiring the early disclosure of infringement and invalidity contentions . . .").

203. See Alsup, *supra* note 1, at 111.

technological problems tendered in the many briefs before us indicate to us that considered action by Congress is needed.²⁰⁴

Congress has yet to take up that suggestion.

Like Judge Alsup, I have long been concerned with the challenges to the intellectual property system posed by digital technology. I began a 1987 article with the observation that “[i]t became evident by the mid-1970s that intellectual work embodied in new technologies—in particular, computer software—did not fit neatly within the traditional forms of legal protection for intellectual property.”²⁰⁵ Based on the insights of network economics, the nature of computer programming, and the array of available intellectual property modes (patent, trade secrets, and copyright), I proposed that Congress develop a *sui generis* regime for protecting computer software: relatively short duration and allowance for compulsory licensing of widely adopted platform standards.²⁰⁶

As Part I(A) explained, the intellectual property system for computer software muddled through the formative years. With the bursting of the dot-com bubble, patent protection for computer software has become, as Judge Alsup recognized, a “plague on innovation.” While I don’t doubt that the inventors behind OpenTV’s and Finjan’s patents made technical advances, I question affording these inventions 20 years of protection. Trade secret and copyright provide significant protection for much computer software research and development. And computer software innovation does not typically require high capital investment or involve substantial scientific uncertainty.

The problems lie well upstream from patent case management. As I suggested more than 30 years ago, the computer software industry and the public would be better served by a *sui generis* intellectual property regime for protecting computer software: far shorter duration, safety valves for network effects, better screening of patents and the vagueness of patent claims, and possibly greater leeway for judges to shift litigation costs.

204. See *Gottschalk v. Benson*, 409 U.S. 63, 73 (1972); see also REPORT OF THE PRESIDENT’S COMMISSION ON THE PATENT SYSTEM, “TO PROMOTE THE PROGRESS OF . . . USEFUL ARTS” IN AN AGE OF EXPLODING TECHNOLOGY 20–21 (1966) (recommending against patent protection for computer programs on several grounds: (1) lack of an adequate classification system; (2) the tremendous volume of prior art being generated, which would reduce patent examination to little more than registration; (3) the advancement of software innovation in the absence of patent protection; and (4) the availability of copyright protection).

205. See Menell, *Tailoring Legal Protection for Computer Software*, *supra* note 8, at 1329.

206. *Id.* at 1371.

Any solution, however, must survive the legislative gantlet. While software patent legislation might have been achieved in the late 1980s before many of the major players had invested in software patent acquisition, the prospects for achieving broad consensus diminished by the mid-1990s.²⁰⁷ Congress is struggling to address the confusion wrought by the Supreme Court's incoherent guidance on patent eligibility, with software patents at the center of the controversy.²⁰⁸

In the spirit of Judge Alsup's showdown invention, I offered my own provocative method for addressing the political impediments to software patent reform a little over a decade ago.²⁰⁹ Recognizing that the many companies that have developed vast patent arsenals would not be willing to walk away from these assets, I claimed:²¹⁰

1. A method for reforming the patent system comprising:
 - diagnosing problems of the existing patent system in promoting progress in the useful arts;
 - identifying and evaluating the net benefits of non-technology field-specific reforms (systemic reforms);
 - identifying and evaluating the net benefits of technology field-specific reforms (categorical reforms);
 - evaluating the net benefits of combined systemic and categorical reforms;
 - selecting the patent system reform or reforms offering the highest expected net benefits.
2. The method described in Claim 1, wherein the categorical reforms are implemented through legislation that applies only prospectively.²¹¹

207. See Peter S. Menell, *The Challenges of Reforming Intellectual Property Protection for Computer Software*, 94 COLUM. L. REV. 2644, 2651–53 (1994) (observing that “In view of the substantial vesting of economic interests that has already occurred around the existing legal regime for computer software, it is difficult to imagine Congress giving serious attention to a comprehensive reform effort without a crying need”); cf. Brenda Sandburg, *A Modest Proposal: After Six Years of the Status Quo, Software Companies Urge Congress to Revamp the Patent System*, THE RECORDER (May 5, 2005), <http://www.law.com/jsp/article.jsp?id=1115370308794>.

208. See Davis, *supra* note 96 (observing that “[r]ewriting patent eligibility law will be a challenge, however, judging from what attendees said was a stark divergence of opinion among the industry representatives at the meeting. Life sciences and pharmaceutical companies, whose businesses are based on strong patents, called for the law to change so that fewer patents are invalidated on eligibility grounds. ¶ However, representatives in the tech sector, which are often the target of patent suits and have benefited from current standards that make it relatively easy to invalidate patents, largely said at the meeting that no changes are needed. The members of Congress appeared to recognize that accounting for those conflicting views while drafting legislation will be challenging.”).

209. Peter S. Menell, *A Method for Reforming the Patent System*, 13 MICH. TELECOMM. TECH. L. REV. 487 (2007).

210. I dedicated this invention to the public. See *id.* at note †.

211. *Id.* at 508.

As suggested in that paper/patent application, Claim 1 would likely result in abolition or substantial shortening of the duration of software patents. It is Claim 2 that does the heavy lifting. By implementing the reforms on a prospective basis, the existing companies would gain immediate advantage from not having to deal with new (or as powerful) patentees and hence could see a direct benefit from passage of this legislation. Furthermore, they could stanch the wasteful flow of resources devoted to patent acquisition and patent litigation.

I don't have high hopes that this proposal will be adopted any time soon, but I do believe that it provides the best cure to the "plague on innovation" to which Judge Alsup refers.²¹²

III. JUDICIARY OVERLOAD

Judge Alsup alludes to acute docket pressures as one of the forces driving him to implement strict patent case management practices:

[T]here's a guy the government wants to put away for 135 months, and then I have to go to a case where they want me to construe 135 claims. My heart sinks that it would be like that today. . . .²¹³

The lawyers were presenting it to me as if I have to go through 133 claims and construe them, read 13 patents and the prosecution histories and figure out what they meant and hear expert testimony. I said, "I have other things to do. People are going to miss out on their social security check because I can't rule on their case. There's got to be a better way."²¹⁴

You wanted me just to be your [early neutral evaluation] guy. . . . That I'm supposed to come in here and spend hours, days, weeks, pouring over these claims and trying to figure out what they mean, and it would go on forever, and meanwhile, other cases would suffer We have a lot of cases to do, and I've given your case a lot of time.²¹⁵

I frequently hear similar concerns from judges at patent case management programs.²¹⁶ The pressures are even greater in districts where judges carry five to ten times the patent caseloads handled by N.D. Cal.

212. See Alsup, *supra* note 1 at 112.

213. See *id.* at 112.

214. See *id.* at 122.

215. See Transcript of Proceedings (Aug. 3, 2017), *supra* note 136, at 35-36.

216. See HEARINGS BEFORE THE COMMISSION ON REVISION OF THE FEDERAL COURT APPELLATE SYSTEM (1974-75), at 204-06 (testimony of Judge Henry Friendly) (noting that although patent appeals constitute only 2 percent of the caseload of the courts of appeals, the actual burden is "three to five times that figure" due to their difficulty).

judges. The problems of rising caseloads long predate the software patent explosion and pose a serious problem for a nation that believes in due process and the rule of law.

Unfortunately, increasing caseloads are pushing judges to implement case management approaches that undermine due process. Judge Learned Hand warned that “[i]f we are to keep our democracy, there must be one commandment: Thou shalt not ration justice.”²¹⁷ Judge Alsup’s essay unwittingly highlights the dilemma.²¹⁸ He justifies heavy-handed case management innovation based on his understandable concerns about the spillover effects of complex patent cases on urgent criminal law and public benefits cases.

The solution, however, requires addressing much larger judiciary policy and resource questions. Nearly a century ago, Justice Felix Frankfurter and Professor James M. Landis remarked that “great judiciary acts, unlike great poems, are not written for all times.”²¹⁹ From the time of the American Revolution through the early twentieth century, the United States reformed the federal judiciary at approximately 25-year intervals. Nearly half a century later, Professor Paul Carrington observed that “we have now set a new record for consecutive years of restraint from tinkering with the system.”²²⁰ Unfortunately, little has been done since that time to relieve the growing caseloads per federal judge.²²¹

These concerns should be confronted directly. The federal judiciary has a responsibility to ensure due process, fidelity to law, and fairness in all cases. The growth of patent litigation over the past several decades has added significantly to the burdens on the judiciary, especially in several district court outposts. Thus, in addition to fixing patent law, Congress needs to ensure that district judges in patent-heavy districts have the resources and

217. Cf. Learned Hand, Address before the Legal Aid Society of New York, (Feb. 16, 1951), <http://www.legal-aid.org/en/las/thoushaltnotationjustice.aspx>; quoted in Victor Williams, *A Constitutional Charge and a Comparative Vision to Substantially Expand and Subject Matter Specialize the Federal Judiciary: A Preliminary Blueprint for Remodeling our National Houses of Justice and Establishing a Separate System of Federal Criminal Courts*, 37 WM. & MARY L. REV. 535, 671 n. 38 (1996).

218. A much younger William Alsup contributed to the judiciary reform debate in the 1970s. See William H. Alsup, *A Policy Assessment of the National Court of Appeals*, 25 HASTINGS L.J. 1313 (1974); William H. Alsup, *Reservations on the Proposal of the Hruska Commission to Establish a National Court of Appeals*, 7 U. TOL. L. REV. 431, 452–55 (1976) (endorsing Judge Friendly’s alternative “counterplan” to the establishment of a National Court of Appeals).

219. See FELIX FRANKFURTER & JAMES M. LANDIS, *THE BUSINESS OF THE SUPREME COURT* 107 (The Macmillan Company 1927).

220. See Paul Carrington, *Crowded Dockets and the Courts of Appeals: The Threat to the Function of Review and the National Law*, 82 HARV. L. REV. 542, 543 (1969).

221. See Peter S. Menell & Ryan Vacca, *Revisiting and Confronting the Federal Judiciary Capacity “Crisis”*: Charting a Path for Federal Judiciary Reform, CAL. L. REV. (forthcoming June 2020).

time to administer justice fairly across the broad range of cases on their dockets.