

No. 10-290

IN THE
Supreme Court of the United States

MICROSOFT CORPORATION,

Petitioner,

v.

I4I LIMITED PARTNERSHIP, ET AL.,

Respondents.

On Writ of Certiorari
To the United States Court of Appeals
For the Federal Circuit

=====

**BRIEF OF AMICI CURIAE
ELECTRONIC FRONTIER FOUNDATION,
PUBLIC KNOWLEDGE, AND APACHE
SOFTWARE FOUNDATION IN SUPPORT OF
PETITIONER**

=====

MICHAEL BARCLAY

Counsel of Record

JULIE P. SAMUELS

CORYNNE MCSHERRY

JAMES S. TYRE

ELECTRONIC FRONTIER FOUNDATION

454 Shotwell Street

San Francisco, CA 94110

Telephone: (415) 436-9333

michael@eff.org

Attorneys For Amici Curiae

[Additional Counsel Listed on Signature Page]

TABLE OF CONTENTS

	<u>Page</u>
TABLE OF AUTHORITIES	iii
INTEREST OF AMICI CURIAE.....	1
SUMMARY OF ARGUMENT	3
ARGUMENT	6
I. THE CLEAR AND CONVINCING EVIDENCE STANDARD IMPEDES THE DEVELOPMENT OF OPEN SOURCE SOFTWARE AND HARMS SMALL SOFTWARE INNOVATORS	6
A. The Standard Impedes the Development of Open Source Software	6
B. The Standard Harms Small Software Innovators	10
II. FINDING CLEAR AND CONVINCING EVIDENCE OF PATENT INVALIDITY IS A RECURRING PROBLEM IN COMPUTER SOFTWARE PATENT CASES	13
A. Patent Owners Assert that Accused Infringers Must Use the Prior Art’s Source Code to Prove Invalidity, But That Source Code Is Often Unavailable Years After the Fact	13
B. The Growth in the Number of Issued Patents and of Patent Lawsuits Since the Formation of the Federal Circuit	

Exacerbates the Problem..... 18

III. THE COURT SHOULD INTERPRET
SECTION 282 OF THE PATENT ACT
ACCORDING TO ITS PLAIN MEANING AND
THE COURT’S PRECEDENTS.....23

A. The Federal Circuit’s Standard Exceeds
Congress’ Statutory Mandate23

B. Traditional Rules Governing Standard
of Proof Should Apply26

C. The Federal Circuit’s Standard Results
from a Misapplication of This Court’s
Precedent.....28

CONCLUSION33

TABLE OF AUTHORITIESPage(s)**Cases**

<i>Am. Hoist & Derrick Co. v. Sowa & Sons, Inc.</i> , 725 F.2d 1350 (Fed. Cir. 1984)	28, 29, 30
<i>Bilski v. Kappos</i> , 561 U.S. ___, 130 S. Ct. 3218 (2010)	2, 20, 25
<i>Connell v. Sears, Roebuck & Co.</i> , 722 F.2d 1542 (Fed. Cir. 1983)	28
<i>eBay Inc. v. MercExchange, L.L.C.</i> , 547 U.S. 388 (2005).....	2, 21, 22, 23, 25
<i>Fonar Corp. v. General Electric Co.</i> , 107 F.3d 1543 (Fed. Cir. 1997)	16
<i>Grogan v. Garner</i> , 498 U.S. 279 (1991).....	24, 26
<i>Herman & MacLean v. Huddleston</i> , 459 U.S. 375 (1983).....	26, 27
<i>i4i Ltd. Partnership v. Microsoft Corp.</i> , 598 F.3d 831 (Fed. Cir. 2010)	9, 13, 16, 17
<i>In re Alappat</i> , 33 F.3d 1526 (Fed. Cir. 1994)	20
<i>Jacobsen v. Katzer</i> , 535 F.3d 1373 (Fed. Cir. 2008)	6, 7
<i>KP Permanent Make-Up, Inc. v. Lasting Impression I, Inc.</i> , 543 U.S. 111 (2004)	24

<i>KSR Int’l Co. v. Teleflex Inc.</i> , 550 U.S. 398, 127 S. Ct. 1727 (2007)	2, 23
<i>Markman v. Westview Instruments, Inc.</i> , 517 U.S. 370 (1996).....	22
<i>Microsoft Corp. v. AT&T Corp.</i> , 550 U.S. 437, 127 S. Ct. 1746 (2007)	13
<i>Northern Telecom, Inc. v. Datapoint Corp.</i> , 908 F.2d 931 (Fed. Cir. 1990)	16
<i>Radio Corp. of Am. v. Radio Eng’g Labs., Inc.</i> , 293 U.S. 1 (1934)	28, 29, 30
<i>Russello v. United States</i> , 464 U.S. 16 (1983)	24
<i>SEC v. C.M. Joiner Leasing Corp.</i> , 320 U.S. 344 (1943).....	27
<i>SSIH Equip. S.A. v. U.S. Int’l Trade Comm’n</i> , 718 F.2d 365 (Fed. Cir. 1983)	28
<i>State Street Bank & Trust Co. v. Signature Financial Group, Inc.</i> , 149 F.3d 1368 (Fed. Cir. 1998)	20
<i>Steadman v. SEC</i> , 450 U.S. 91 (1981)	27
<i>Uniloc USA, Inc. v. Microsoft Corp.</i> , Nos. 2010-1035, -1055, 2011 WL 9738 (Fed. Cir. January 4, 2011)	31
<i>United States v. Regan</i> , 232 U.S. 37 (1914)	27

Statutes

35 U.S.C. § 101	20, 25
35 U.S.C. § 103	23
35 U.S.C. § 273	24, 25
35 U.S.C. § 282	5, 24, 25, 32
35 U.S.C. § 283	23

Other Authorities

Bruce Byfield, “FOSS: Free and Open Source Software,” Datamation, May 30, 2010.....	7
D. Crouch, “Patent Litigation Statistics: Number of Patents Being Litigated,” Patently-O Blog, March 17, 2008.....	19
D. Crouch, “USPTO Patent Grant Numbers,” Patently-O Blog, August 19, 2010.....	18
Federal Trade Commission, <i>To Promote Innovation: The Proper Balance of Competition and Patent Law and Policy</i> (2003)	4, 8, 9, 12, 16
H.R. REP. NO. 97-312 (1981)	22
James Bessen & Michael J. Meurer, <i>The Patent Litigation Explosion</i> , BOSTON UNIVERSITY SCHOOL OF LAW WORKING PAPER SERIES, LAW AND ECONOMICS WORKING PAPER NO. 05-18 (2005)	21
Josh Lerner, <i>Small Businesses, Innovation, and Public Policy in the Information Technology</i>	

<i>Industry</i> , in <i>Understanding the Digital Economy: Data, Tools, and Research</i> 201 (Erik Brynjolfsson and Brian Kahin, eds., Cambridge: MIT Press, 2000).....	10-11
Kyle Jensen, “Guest Post: Counting Defendants in Patent Litigation,” Patently-O Blog, October 27, 2010.....	19
Mark A. Lemley & Julie E. Cohen, <i>Patent Scope and Innovation in the Software Industry</i> , 89 CAL. L. REV. (2001)	15, 16, 20
Michael Meurer, <i>Inventors, Entrepreneurs, and Intellectual Property Law</i> , 45 HOUS. L. REV. 1201 (2008).....	10, 11
P.R. 3-4(a) for the Eastern District of Texas	14
Patent L.R. 3-4(a) for the Northern District of California	14
Thomas Claburn, “Study Finds Open Source Benefits Business,” InformationWeek (January 17, 2007)	8
Webbink, “Red Hat’s Comments To The Joint FTC-DOJ Hearing on Competition and Intellectual Property Law,” March 20, 2002.....	15
Yochai Benkler, <i>The Wealth of Networks: How Social Production Transforms Markets and Freedom</i> (2006).	6-7

INTEREST OF AMICI CURIAE¹

The Electronic Frontier Foundation (“EFF”) is a nonprofit civil liberties organization that has worked for more than twenty years to protect consumer interests, innovation, and free expression in the digital world. EFF and its more than 14,000 dues-paying members have a strong interest in helping the courts and policy-makers in striking the appropriate balance between intellectual property and the public interest. The Federal Circuit’s requirement that an accused infringer prove patent invalidity by “clear and convincing” evidence undermines the traditional patent bargain between private patent owners and the public and threatens to impede innovation and the dissemination of knowledge. These are issues of critical importance to consumers and the public interest. As an established advocate for the interests of consumers and innovators, EFF has a perspective to share that is not represented by the parties to this appeal, neither of whom speaks directly for the interests of consumers or the public interest generally.

¹ No counsel for a party authored this brief in whole or in part, and no such counsel or party made a monetary contribution intended to fund the preparation or submission of this brief. No person other than the *amici curiae*, or their counsel, made a monetary contribution intended to fund its preparation or submission. The parties have consented to the filing of this brief. Respondents’ blanket consent and petitioner’s blanket consent were filed with the Court on December 7 and 8, 2010, respectively.

Web sites cited in this brief were last visited on January 25, 2011.

As part of its mission, the EFF has often served as amicus in key patent cases, including *Bilski v. Kappos*, 561 U.S. ___, 130 S. Ct. 3218 (2010); *Quanta Computer, Inc. v. LG Electronics Corp.*, 128 S. Ct. 2109 (2008); *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 127 S. Ct. 1727 (2007); and *eBay Inc. v. MercExchange, L.L.C.*, 547 U.S. 388 (2005).

Public Knowledge is a non-profit public interest organization devoted to protecting citizens' rights in the emerging digital information culture and focused on the intersection of intellectual property and technology. Public Knowledge seeks to guard the rights of consumers, innovators, and creators at all layers of our culture through legislative, administrative, grassroots, and legal efforts, including regular participation in patent and other intellectual property cases that threaten consumers, trade, and innovation.

The Apache Software Foundation (ASF) is a non-profit 501(c)(3) corporation that produces software projects under a pragmatic open-source license for the public good.

SUMMARY OF ARGUMENT

Allowing parties to lawsuits a fair chance to challenge the validity of patents asserted against them serves as a necessary check on illegitimate patents and helps ensure that improper patents receive independent review in a court of law. That review is essential to achieving the purposes of patent law. Properly understood, a patent is a distinct statutorily-created and limited set of rights, designed to encourage inventors to disclose their inventions to the public, thereby promoting scientific and industrial progress. Illegitimate patents inhibit that progress, the sharing of knowledge, and the pace of innovation.

Improperly unbalanced standards of proof, such as that advanced by the Federal Circuit for invalidity, impede the ability of parties—especially parties engaged in developing free and open source software and other small software innovators—to present effective challenges to illegitimate patents. As a result, illegitimate patents do not receive appropriate review, and the traditional bargain between intellectual property and the public interest is betrayed.

Amici submit this brief to call the Court’s attention to the disproportionate impact that the Federal Circuit’s improper standard of proof has had for two important innovation communities: Free and Open Source Software (“FOSS”) projects and small software innovators generally.

In recent years, FOSS projects—which involve the open development and exchange of source code—have become mainstream and are now critical to computer and Internet technology.

Federal Trade Commission, *To Promote Innovation: The Proper Balance of Competition and Patent Law and Policy* (“FTC Report”) Chap. 3, at 51 (2003)² (“software patentability has introduced new costs, such as the cost of obtaining a patent, determining whether a patent is infringed, defending a patent infringement suit, or obtaining a patent license . . . may disproportionately affect small firms and individual programmers and the open source community”).

Small software companies also play an important role in fueling innovation in the information technology industry. Small innovators make crucial contributions to our nation’s economic growth.

Software patent litigation, which has exploded in recent years, threatens the ability of FOSS and small software innovators to grow their business and engage in valuable research and development. And the problem is exacerbated by the proliferation of patents of dubious validity that have been artificially strengthened—and their holders emboldened—by an inflated standard of proving invalidity. These otherwise invalid patents operate as a tax on innovation; their economic effect diverts resources from useful R&D to fund defensive patent programs, often crippling small and growing companies that lack the resources required by patent litigation.

Furthermore, the Federal Circuit’s heightened standard for proving invalidity creates an especially pernicious effect in computer

² Available at:

<http://www.ftc.gov/os/2003/10/innovationrpt.pdf>

software patent cases. Software patent plaintiffs often argue that it is necessary to use the source code of a prior art software product to prove invalidity of a software patent. However, that source code is frequently unavailable when needed, often years after the life of the product in question. Thus, while software patent *plaintiffs* can use the accused infringer's current source code to prove infringement by a preponderance of the evidence, if the prior art source code is unavailable it will be difficult for the *defendant* to prove invalidity by that same preponderance, let alone by clear and convincing evidence. Although the unavailability of the source code does not foreclose an invalidity defense, given the complex technical issues and the heightened standard, the practical effect is that plaintiffs often have free rein to argue that the alleged infringer cannot meet its heightened standard of proof without the source code.

What is worse, this uneven playing field has no basis in the Patent Act. The statutory language of 35 U.S.C. § 282 does not contain the Federal Circuit's enhanced standard of proof. Following the statute's plain meaning and this Court's long-established rules of statutory interpretation, the proper standard of proving patent invalidity should be preponderance of the evidence.

Amici respectfully urge the Court to restore that standard, and thereby help ensure that patent law serves, rather than thwarts, the public interest in innovation.

ARGUMENT**I. THE CLEAR AND CONVINCING EVIDENCE STANDARD IMPEDES THE DEVELOPMENT OF OPEN SOURCE SOFTWARE AND HARMS SMALL SOFTWARE INNOVATORS****A. The Standard Impedes the Development of Open Source Software**

Started several decades ago by a few core groups of programmers, free and open source software (FOSS) development takes a variety of forms. However, at heart FOSS embodies a process that “invite[s] computer programmers from around the world to view software code and make changes and improvements to it. Through such collaboration, software programs can often be written and debugged faster and at lower cost than if the copyright holder were required to do all of the work independently.” *Jacobsen v. Katzer*, 535 F.3d 1373, 1378-79 (Fed. Cir. 2008).

Over approximately the past decade in particular, FOSS has blossomed into a valuable and large segment of the information technology industry, with companies such as IBM Corporation, Novell, Sun Microsystems, and Red Hat offering products built on the FOSS development process. FOSS technologies are now widely used by public and private entities, from the United States government to private corporations such as IBM, Hewlett-Packard, and Google, Inc. See Yochai Benkler, *The Wealth of Networks: How Social Production Transforms*

Markets and Freedom 64 (2006);³ Bruce Byfield, “FOSS: Free and Open Source Software,” *Datamation*, May 30, 2010.⁴

FOSS has also become an integral and valuable part of today’s scientific community. As one court noted:

Open source licensing has become a widely used method of creative collaboration that serves to advance the arts and sciences in a manner and at a pace that few could have imagined just a few decades ago. For example, the Massachusetts Institute of Technology (“MIT”) uses a Creative Commons public license for an OpenCourseWare project that licenses all 1800 MIT courses. Other public licenses support the GNU/Linux operating system, the Perl programming language, the Apache web server programs, the Firefox web browser, and a collaborative web-based encyclopedia called Wikipedia [which] has more than 75,000 active contributors working on some 9,000,000 articles in more than 250 languages.

Jacobsen, 535 F.3d at 1378.

³ Available at:

http://www.benkler.org/Benkler_Wealth_Of_Networks.pdf

⁴ Available at:

<http://itmanagement.earthweb.com/osrc/article.php/3885101/FOSS-Free-and-Open-Source-Software.htm>

In FOSS projects, unlike the closed and proprietary software developed by entities such as Petitioner, software develops openly and transparently. The public has full access to the conversations, the computer code, and each stage of development, maximizing access to scientific and industrial knowledge in the community and spurring further productivity and innovation.⁵ In addition, most FOSS collaborations involve contributors from a wide variety of companies, groups, and countries, many of whom are motivated to volunteer their time and ingenuity out of passion and dedication, rather than expectation of financial reward. One study found that open source programmers volunteer roughly \$1 billion worth of labor *per year*. Thomas Claburn, “Study Finds Open Source Benefits Business,” InformationWeek (January 17, 2007).⁶ *See also* FTC Report, Chap. 3, at 48 (open source software has been hailed as “an important organizational innovation”).

FOSS’s collaborative nature, while integral

⁵ “Free software is a matter of the users’ freedom to run, copy, distribute, study, change and improve the software.” “The Free Software Definition,” available at:

<http://www.gnu.org/philosophy/free-sw.html>

⁶ Available at:

<http://www.informationweek.com/news/software/infrast.ructure/showArticle.jhtml?articleID=196901596#>.

See also “Study on the Economic impact of open source software on innovation and the competitiveness of the Information and Communication Technologies (ICT) sector in the EU,” Final Report, November 20, 2006, at 10, available at:

http://ec.europa.eu/enterprise/sectors/ict/files/2006-11-20-flossimpact_en.pdf.

to its success, creates several problems when FOSS software is the subject of a patent lawsuit (or threat), even where the basis of the threat may be an invalid patent. First, because these collaborations are forged primarily through community rather than capital investment, many FOSS projects lack the funding to pay for patent counsel, much less litigation. Second, the FOSS collaboration model makes it difficult to collect prior art in a format that can be used to challenge validity under current Federal Circuit guidelines. To fend off patent threats, FOSS projects often depend on the collective knowledge of their members and the sometimes haphazard documentation of the projects as prior art, to the extent that such documents exist.

Much of this collective knowledge, however, arguably could not be considered as evidence under the Federal Circuit's current standard requiring alleged infringers to provide invalidity by "clear and convincing" evidence. Specifically, the opinion below may be read to hold that, without obtaining a full set of source code, a party could not rely on evidence of the operation of that source code to invalidate a patent. *i4i Ltd. Partnership v. Microsoft Corp.*, 598 F.3d 831, 848 (Fed. Cir. 2010), Pet. App., 22a.

In the FOSS context, that full set may be difficult to assemble. The nature of software development tends to be informal. FTC Report, Chap. 3, at 54. Documentation likely takes the form of emails or postings to internet message boards and newsgroups that are much more informal than traditional academic research or industry publications. For example, the

development of a particular piece of software may be “documented” primarily in emails exchanged between developers all over the world, each with different snippets of code and comments. Some of those developers may archive their email; others may not, or may not do so in an easily-searchable form. Further, more often than not, no party is tasked with creating explanatory materials of any kind, and the discussions that exist often get lost and become unobtainable at a later date when needed in litigation.

Thus, the Federal Circuit’s inflated standard of proving invalidity means that patents that might be invalidated by FOSS technology are nonetheless impervious to ordinary legal challenge. That, in turn, threatens the public interest in promoting the innovative activities that would take place but for improper lawsuits and legal threats.

B. The Standard Harms Small Software Innovators

The existing inflated standard of proof also harms small software innovators generally.

Small- and medium-sized firms play a major role in fueling innovation in the information technology industry. Indeed, small innovators are responsible for some of the most important technological advances of our day, benefiting our nation and the world by making “crucial contributions to technological progress and economic growth.” Michael Meurer, *Inventors, Entrepreneurs, and Intellectual Property Law*, 45 HOUS. L. REV. 1201, 1202 (2008); Josh Lerner,

Small Businesses, Innovation, and Public Policy in the Information Technology Industry, in *Understanding the Digital Economy: Data, Tools, and Research* 201, 202-03 (Erik Brynjolfsson and Brian Kahin, eds., Cambridge: MIT Press, 2000) (“Lerner”)⁷ (“small firms often played a key role in observing where new technologies could be applied to meet customer needs and in introducing products rapidly”).

Moreover, the proliferation of small companies, each taking a unique approach to a given problem based on their specific areas of expertise, in itself increases the likelihood that breakthrough innovations will occur. Meurer, 45 HOUS. L. REV. at 1212 (noting “an important advantage to having diverse sorts of innovators with different experience or technical knowledge. Breakthrough innovations are sometimes realized as combinations of previously known techniques. In these cases, the probability of a breakthrough will increase with the diversity of potential innovators.”).

Unlike their larger, more-traditional counterparts, small software startups primarily achieve their success by innovating, not by relying on patent protection. Most small software startups don’t even need patent protection to procure financing. *Id.* at 1232.

However, the threat of patent litigation—particularly when that litigation is based upon patents of dubious validity that have been

⁷ Available at:

[http://mitpress.mit.edu/books/BRYUH/09.lerner.p
df](http://mitpress.mit.edu/books/BRYUH/09.lerner.pdf)

artificially strengthened by a high standard of proving invalidity—hampers the ability of small software companies from doing what they do best: innovating. The time, effort, energy, and dollars that must be dedicated to litigation budgets all come at the expense of research and development, or else serve as a deterrent to entering the market at all. In essence, therefore, invalid patents operate as a tax on innovation. Their economic effect is to “divert resources from R&D to fund their defensive patent programs.” FTC Report, Chap. 3, at 52-53; Lerner at 208 (describing the “innovation tax” that “afflicts some of America’s most important and creative small firms”). This substantial burden affects some of the country’s most important and creative small businesses.

Thus, the costs associated with trumped-up patent litigation disproportionately affect small companies that often do not have the capital to absorb such costs. See FTC Report, Chap. 3, at 51 (“software patentability has introduced new costs, such as the cost of obtaining a patent, determining whether a patent is infringed, defending a patent infringement lawsuit, or obtaining a patent license, which may disproportionately affect small firms and individual programmers and the open source community.”) (footnotes omitted). In fact, a 1990 survey of 376 firms found that the time and expense associated with intellectual property litigation was a major factor in decisions concerning the R&D agendas in almost twice as many firms with fewer than 500 employees compared to their larger counterparts. Lerner at 209.

Clarifying the proof standard for invalidity would take an important step toward leveling the playing field, and encourage small software companies to fight patents they believe to be invalid. At the same time, it would discourage companies from preying on their smaller competitors with patents of questionable validity. This, in turn, would allow small software innovators to use their time and money to focus on innovation rather than mounting prolonged defenses to invalid patent claims.

II. **FINDING CLEAR AND CONVINCING EVIDENCE OF PATENT INVALIDITY IS A RECURRING PROBLEM IN COMPUTER SOFTWARE PATENT CASES**

A. **Patent Owners Assert that Accused Infringers Must Use the Prior Art's Source Code to Prove Invalidity, But That Source Code Is Often Unavailable Years After the Fact**

In this case, respondent i4i argued, and both lower courts agreed, that Microsoft could not prove its invalidity case absent access to the relevant prior art's source code.⁸ Microsoft cert.

⁸ Source code is the “human readable’ programming language” in which computer programmers write their programs. Source code “is then generally converted by the computer into a ‘machine readable code’ or ‘machine language’ expressed in a binary format.” *Microsoft Corp. v. AT&T Corp.*, 550 U.S. 437, 459, 127 S. Ct. 1746, 1760 (2007) (Alito, J., concurring). Commercial software companies such as Microsoft generally distribute their programs in machine readable code, not source code.

petition at 9, 25; *i4i v. Microsoft*, 598 F.3d at 848, Pet. App., 22a (i4i’s expert “opined that it was impossible to know whether the claim limitation was met without looking at [the prior art’s] source code.”); *see also* Pet. App., 139a (district court stated that the testimony of i4i’s expert “that no one could assess whether S4 met the claims of the ‘449 patent without the relevant source code was compelling”).

This scenario is both common and pernicious. In a software patent case, proof of infringement and/or validity will regularly involve an examination of the program’s source code. For example, in many software patents, some claim limitations may be practiced by the source code. Therefore, the source code is compared to the claims in order to establish infringement or, as in this case, invalidity. Although the unavailability of the source code does not foreclose an invalidity defense, given the complex technical issues and the heightened standard, as a practical matter plaintiffs get free rein to argue that the alleged infringer cannot establish invalidity without the source code.

And that leads to a key problem. In most cases, the patent owner can easily get the accused infringer’s *current* source code in discovery, and prove infringement by a mere preponderance that way. *See, e.g.*, Patent L.R. 3-4(a) for the Northern District of California;⁹ P.R.

⁹ Available at:

<http://www.cand.uscourts.gov/pages/56> and
<http://www.cand.uscourts.gov/filelibrary/177/Pat4.pdf>

3-4(a) for the Eastern District of Texas¹⁰ (both requiring the accused infringer to produce its source code early in the case).

In contrast, the source code for prior art is often unavailable. First, “undocumented prior art” in software is not published as in other scientific fields, and in fact “[f]requently, the source code itself is never released at all.” Mark A. Lemley & Julie E. Cohen, *Patent Scope and Innovation in the Software Industry*, 89 CAL. L. REV. 1, 13, 42-44 (2001) (“Lemley & Cohen”). As one software company explained:

Unlike most other technologies—such as pharmaceuticals, chemicals, and industrial design—there are no extensive, comprehensive databases where software prior art can be reliably found. In the computing arts, particularly in the open source community, a great amount of innovation has been and is produced by individuals who never publish in industry journals. . . . Thus, diligent searches for business methods and software are often unreliable and costly. . . . the burden typically falls to the public and small-scale innovators to consider expensive and time-consuming litigation.

¹⁰ Available at:

<http://www.txed.uscourts.gov/page1.shtml?location=rules> and
http://www.txed.uscourts.gov/cgi-bin/view_document.cgi?document=1179&download=true

Webbink, “Red Hat’s Comments To The Joint FTC-DOJ Hearing on Competition and Intellectual Property Law,” March 20, 2002,¹¹ at pages 2-3. What is worse, for confidentiality reasons, non-open source third-party companies (or even parties who later litigate these issues) often carefully guard their source code as valuable trade secrets.

Even when a software company does patent its technology, such patents often do not disclose the source code. The Federal Circuit has held that a high-level functional description will suffice, thereby negating the need to disclose source code, flowcharts, or detailed descriptions of the patented program. *See Fonar Corp. v. General Electric Co.*, 107 F.3d 1543, 1549 (Fed. Cir. 1997) (source code not needed to satisfy best mode requirement); *Northern Telecom, Inc. v. Datapoint Corp.*, 908 F.2d 931, 941-43 (Fed. Cir. 1990) (source code not needed to satisfy enablement requirement); Lemley & Cohen, 89 CAL. L. REV. at 24-25; FTC Report, Chap. 5 at 7 (“difficulties are particularly acute when non-patent prior art is important and in new areas of technology, *e.g.*, software and biotechnology, and new fields of patenting activity, *e.g.*, business methods”).

Further, while the open source code discussed above is not kept secret at the outset, it, too, can be difficult to locate when it becomes

¹¹ Available at:

<http://www.ftc.gov/opp/intellect/020320webbink.pdf>

relevant, years later, during a patent lawsuit. For example, as discussed previously, FOSS developers often do not create and/or retain explanatory materials that summarize and identify relevant parts of prior art source code. Thus, the mere passage of time means that many forms of source code likely will be difficult to find and introduce into evidence as possible prior art. *See, e.g., i4i v. Microsoft*, 598 F.3d at 846-47, Pet. App., 20a (source code was destroyed before the litigation began).

Thus, software patent litigation is necessarily skewed against alleged infringers—whether those defendants be from the FOSS community, small software innovators, or any other alleged infringer—because they are simply unable to obtain all of the evidence that could be used in their defense.

As a result, software patent litigation can appear to be a game of “gotcha.” The patent owner argues that it proved infringement by a preponderance of the evidence, using the very source code the accused infringer was required to produce in discovery. At the same time, the patent owner argues that the accused infringer did not (and could not) prove invalidity because of the absence of the prior art source code. *See, e.g., Pet. App., 138a-139a* (i4i’s expert attacked Microsoft’s expert for rendering an invalidity opinion *without* reviewing the unavailable code). Moreover, even in cases where a defendant does not require source code to prove invalidity, the lack of that very code will allow the patent owner to prejudicially argue that the accused infringer cannot even offer the *same* quantum of proof of

invalidity as the patent owner did for infringement—let alone meet the clear and convincing standard. *i4i v. Microsoft*, 598 F.3d at 848, Pet. App., 22a (Microsoft failed to meet the clear and convincing standard of proof because the source code was missing).

Equalizing the standard of proof will not, of course, resolve the longstanding issue of identifying and preserving software prior art. However, leveling the playing field should at least help ensure that defendants who can marshal other types of evidence have a fair chance to challenge improper patents.

B. The Growth in the Number of Issued Patents and of Patent Lawsuits Since the Formation of the Federal Circuit Exacerbates the Problem

The creation of the Federal Circuit in 1982 coincides with sharp increases in both the number of patents issued and the amount of patent litigation. The following table shows the number of issued patents per year since 1980:¹²

¹² D. Crouch, “USPTO Patent Grant Numbers,” Patently-O Blog, August 19, 2010, available at:

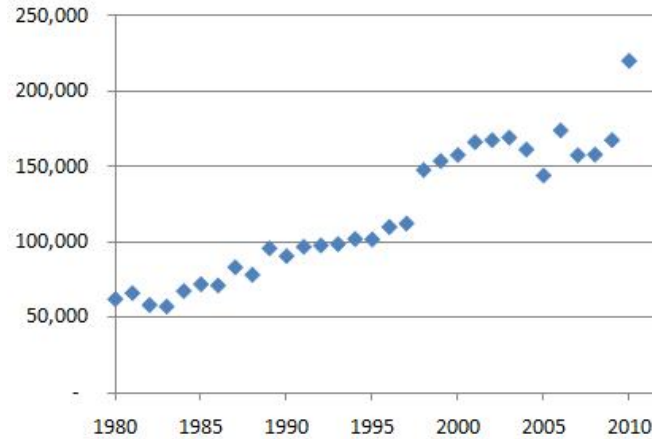
<http://www.patentlyo.com/patent/2010/08/uspto-patent-grant-numbers.html>.

(The Patently-O Blog is recognized as one of the leading patent law blogs, if not the leading blog. See, e.g.:

<http://blawgit.com/2009/08/11/50-best-patent-blogs/> and

<http://ipwatchdog.com/2009/02/11/the-top-25-patent-blogs/id=2015/>)

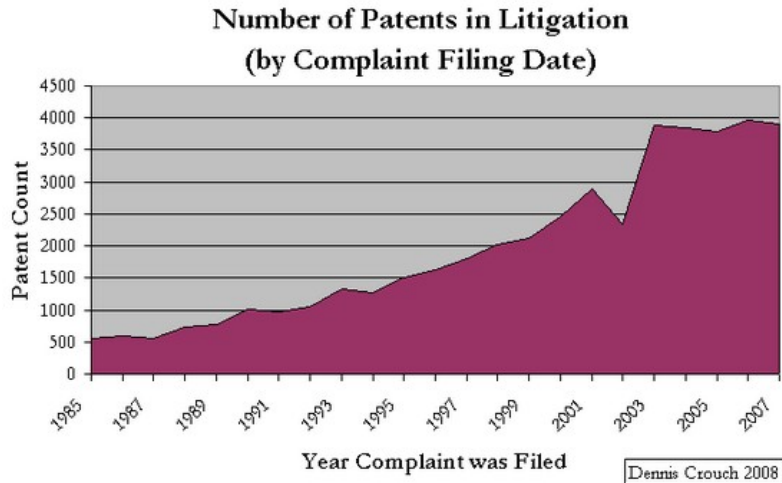
Historic Patent Grants Per Year With 2010 Forecast



The number of patent lawsuits likewise showed a “dramatic” increase since the early 1980’s:¹³

¹³ D. Crouch, “Patent Litigation Statistics: Number of Patents Being Litigated,” Patently-O Blog, March 17, 2008 (noting “an increasing trend to include more defendants in a single complaint”), available at:

<http://www.patentlyo.com/patent/2008/03/patent-litigati.html>



Moreover, in recent years, the number of defendants in each lawsuit also has grown dramatically.¹⁴

The increase in issued patents and patent litigation has had serious consequences for the software industry, particularly after the Federal Circuit expanded patent protection for software. *In re Alappat*, 33 F.3d 1526 (Fed. Cir. 1994); *State Street Bank & Trust Co. v. Signature Financial Group, Inc.*, 149 F.3d 1368 (Fed. Cir. 1998), cert. denied, 525 U.S. 1093 (1999) (both *Alappat* and *State Street* greatly expanded the definition of patentable subject matter under 35 U.S.C. § 101 so as to include computer software);¹⁵ Lemley &

¹⁴ Kyle Jensen, “Guest Post: Counting Defendants in Patent Litigation,” Patently-O Blog, October 27, 2010 (noting that the “number of named defendants increased nearly 600% between 1990 and 2010”), available at:

<http://www.patentlyo.com/patent/2010/10/guest-post-counting-defendants-in-patent-litigation.html>

¹⁵ *State Street* was probably overruled in part, at least *sub silentio*, by this Court in *Bilski v. Kappos*, 561 U.S.

Cohen, 89 CAL. L. REV. at 10-11.

One of the most serious consequences has been to discourage innovation, as software companies find themselves forced to devote more resources to litigation rather than development. As one study explained:

[T]he increase in patent litigation represents a growing disincentive to R&D that is not likely offset by growth in the number or value of innovations. Furthermore, we find evidence that this disincentive is borne by firms not only in their roles as patent holders, but also as innovators having to defend against patent lawsuits. We find that the more R&D a firm performs, the more likely it is to be sued. In most industries, this pattern of litigation is inconsistent with the view that most defendants in patent lawsuits are simple pirates or imitators. Instead, patent defendants are, to a large degree, innovators themselves, spending as much on R&D as the plaintiffs. . . . Thus an important part of the burden of patent disputes falls on defending firms. . . . Also, as Lanjouw and Schankerman (2004) find, the risk of litigation falls disproportionately on small firms.

__, 130 S. Ct. 3218 (2010). However, *State Street* permitted the issuance of broad software patents by being the law for more than ten years.

James Bessen & Michael J. Meurer, *The Patent Litigation Explosion*, BOSTON UNIVERSITY SCHOOL OF LAW WORKING PAPER SERIES, LAW AND ECONOMICS WORKING PAPER NO. 05-18 (2005),¹⁶ at 27-28.

These effects are exacerbated by the many non-practicing entities (sometimes called “patent trolls”) that have built a cottage industry in obtaining spurious patents and then using them to extract settlements. Justice Kennedy’s concurring opinion in *eBay Inc. v. MercExchange, L.L.C.*, described the practice:

An industry has developed in which firms use patents not as a basis for producing and selling goods but, instead, primarily for obtaining licensing fees. See FTC, *To Promote Innovation: The Proper Balance of Competition and Patent Law and Policy*, ch. 3, pp. 38-39 (Oct. 2003), available at <http://www.ftc.gov/os/2003/10/innovationrpt.pdf> (as visited May 11, 2006, and available in Clerk of Court's case file). For these firms, an injunction, and the potentially serious sanctions arising from its violation, can be employed as a bargaining tool to charge exorbitant fees to companies that seek to buy licenses to practice the patent.

547 U.S. 388, 396 (2005).

One way of mitigating the impact of this

¹⁶ Available at:

http://papers.ssrn.com/sol3/papers.cfm?abstract_id=831685

increase in software patent grants and resulting litigation would be to level the playing field for challenging improper patents. An even-handed standard for proving validity would be a step in the right direction. As one example, in licensing negotiations, a level playing field will help licensees negotiate license terms that more fairly reflect the true value of the patent in question. This will lead to more settlements and reduce the amount of litigation.

III. THE COURT SHOULD INTERPRET SECTION 282 OF THE PATENT ACT ACCORDING TO ITS PLAIN MEANING AND THE COURT'S PRECEDENTS

A. The Federal Circuit's Standard Exceeds Congress' Statutory Mandate

Congress created the Federal Circuit in order to “strengthen the United States patent system.” *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 390 (1996), *citing* H.R. REP. NO. 97-312, at 20-23 (1981). In practice, however, the Federal Circuit has undermined the patent system by exceeding the statutory mandates upon which that system rests.

For example, in *eBay Inc. v. MercExchange, L.L.C.*, 547 U.S. 388, the Court reviewed the Federal Circuit's implementation of its “general rule that courts will issue permanent injunctions against patent infringement absent exceptional circumstances.” 401 F.3d 1323, 1339 (2005). This Court reversed that rule, relying on the plain language of 35 U. S. C. § 283, which states that if

a patent owner wins a trial, injunctions “may” issue “in accordance with the principles of equity.” This Court held that “the Court of Appeals erred in its categorical grant” of automatic injunctions. 547 U.S. at 394.

The Federal Circuit also had read into 35 U.S.C. § 103 a heightened standard for proving obviousness, “under which a patent claim is only proved obvious if ‘some motivation or suggestion to combine the prior art teachings’ can be found in the prior art, the nature of the problem, or the knowledge of a person having ordinary skill in the art.” *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 407, 127 S. Ct. 1727, 1734 (2007). In its roughly 20-year history in the Federal Circuit, this standard greatly favored patent owners; it was often difficult or impossible for an accused infringer to prove obviousness by showing a “teaching, suggestion, or motivation.”

In 2007, this Court summarily rejected this rule, holding that the Federal Circuit’s “fundamental misunderstandings” of the Patent Act led the lower court to analyze the obviousness standard “in a narrow, rigid manner inconsistent with § 103” and this Court’s precedents. *Id.* at 422, 428, 127 S. Ct. at 1743, 1746.

Here, the Federal Circuit has once again interpreted the Patent Act and relevant case law to include unnecessary legal requirements that disproportionately burden the defense. In this case, the relevant statute does not require invalidity to be proven by clear and convincing evidence; rather, 35 U.S.C. § 282 merely states that the “burden of establishing invalidity of a patent or any claim thereof shall rest on the party

asserting such invalidity.” Of course, if Congress wanted to create a clear and convincing standard for proving invalidity, it could have included that language in § 282. It did not.

Indeed, “where Congress includes particular language in one section of a statute but omits it in another section of the same Act, it is generally presumed that Congress acts intentionally and purposely in the disparate inclusion or exclusion.” *KP Permanent Make-Up, Inc. v. Lasting Impression I, Inc.*, 543 U.S. 111, 118 (2004) (quoting *Russello v. United States*, 464 U.S. 16, 23 (1983)).

Here, § 282’s silence on the standard of proof stands in stark contrast to another section of the Patent Act, 35 U.S.C. § 273. Section 273 provides a prior invention defense to business method patents. Section 273(b)(4) expressly states that “a person asserting the defense under this section shall have the burden of establishing the defense by clear and convincing evidence.” Section 273 illustrates that when Congress intended to impose a clear and convincing standard of proof, it knew how to do so. The omission of such a standard in § 282 means that the ordinary preponderance standard of proof should apply as a general rule. *See Grogan v. Garner*, 498 U.S. 279, 286 (1991) (the silence on the standard of proof was “inconsistent with the view that Congress intended to require a special, heightened standard of proof.”)

i4i argued that the use of § 273’s express heightened standard as a rule of statutory construction “does not apply” here because § 282 and § 273 were enacted at different times. Brief

in Opposition to Petition for Certiorari, at 14 n.9.

i4i is wrong. Just last term, this Court rejected such a limitation on the use of § 273 to interpret another section of the Patent Act, namely 35 U.S.C. § 101. In *Bilski v. Kappos*, 561 U.S. ___, 130 S. Ct. 3218, 3228-29, the Court used the presence of “business” methods in § 273 to conclude that the term “process” in § 101 could not exclude business methods—or else § 273’s reference to “business” methods would be “meaningless.” The Court reached this conclusion even though § 273 was enacted at a different time than § 101. 130 S.Ct. at 3229. In fact, § 101 and § 282 were both enacted at the same time (both before § 273’s enactment), making *Bilski* directly on point.

Thus, the express *inclusion* of the “clear and convincing” standard in § 273(b)(4), and its *absence* in § 282, shows that the latter statute does not embrace a heightened standard of proof.

B. Traditional Rules Governing Standard of Proof Should Apply

When interpreting the Patent Act, this Court has applied “familiar” or “traditional” rules of jurisprudence. *See, e.g., eBay*, 547 U.S. at 391, 393-94.

Such traditional rules should apply here. The standard of proof in civil cases is normally just preponderance of the evidence. In *Grogan*, 498 U.S. 279, for example, the Court considered a section of the Bankruptcy Code providing that a debtor would not be discharged from a debt obtained by actual fraud. The question was whether a creditor seeking to prevent discharge

had to prove his claim of fraud by clear and convincing evidence, or by a preponderance of the evidence.

As here, the code section was silent on the standard of proof. *Id.* at 282. The Eighth Circuit held that the standard was one of clear and convincing evidence. *Id.* This Court reversed, *id.* at 286, stating:

Because the preponderance-of-the-evidence standard results in a roughly equal allocation of the risk of error between litigants, we presume that this standard is applicable in civil actions between private litigants unless “particularly important individual interests or rights are at stake,” *citing Herman & MacLean v. Huddleston*, 459 U.S. 375, 389-390 (1983).

The Court found no such “particularly important” interests in *Grogan*, even though it dealt with the desirable goal of permitting a debtor to obtain a “fresh start” under the Bankruptcy Code. 498 U.S. at 286-87.

Indeed, civil cases will rarely raise the “particularly important” interests with which the Court was concerned with in *Grogan*. In *Herman & MacLean v. Huddleston*, 459 U.S. at 389-90, the Court reviewed several cases where it had declined to affirm a clear and convincing standard even where there was a possibility that “severe civil sanctions” may be imposed. *Id.*, *citing, e.g., United States v. Regan*, 232 U.S. 37, 48-49 (1914) (proof by a preponderance of the evidence suffices

in civil suits involving proof of acts that expose a party to a criminal prosecution); *Steadman v. SEC*, 450 U.S. 91, 95 (1981) (preponderance standard upheld in SEC administrative proceedings where the sanctions imposed in the proceedings included an order permanently barring an individual from practicing his profession); *SEC v. C.M. Joiner Leasing Corp.*, 320 U.S. 344, 355 (1943) (preponderance of the evidence suffices to establish fraud under Section 17(a) of the 1933 Act).

Instead, the Court has affirmed such a standard only in the most extreme civil cases, such as proceedings to terminate parental rights or for involuntary commitments. *See Herman & MacLean v. Huddleston*, 459 U.S. at 389-90 (collecting cases).

No such interests exist here. A patent suit, while an important exercise in striking an appropriate balance between intellectual property and the public interest, does not implicate “particularly important individual interests or rights.” *Id.* Thus, the Federal Circuit’s decision to disregard the normal evidence standard runs contrary to this Court’s clear guidance.

C. **The Federal Circuit’s Standard Results from a Misapplication of This Court’s Precedent**

The Federal Circuit’s clear and convincing standard appears to have originated in three of its early cases. *Am. Hoist & Derrick Co. v. Sowa & Sons, Inc.*, 725 F.2d 1350, 1358–60 (Fed. Cir. 1984); *Connell v. Sears, Roebuck & Co.*, 722 F.2d

1542, 1548-49 (Fed. Cir. 1983); *SSIH Equip. S.A. v. U.S. Int'l Trade Comm'n*, 718 F.2d 365, 375 (Fed. Cir. 1983).¹⁷ Subsequent Federal Circuit cases generally cite one or more of those cases to apply the heightened standard in all circumstances.

But a careful review of those three cases shows that even they do not properly stand for the Federal Circuit's broad "clear and convincing" rule. The first such case, *SSIH Equip.*, 718 F.2d 365, did *not* expressly adopt a clear and convincing standard. Rather, the case just stated that "we find it inappropriate to speak in terms of a particular standard of proof being necessary to reach a legal conclusion." *Id.* at 375. The court cited *Radio Corp. of Am. v. Radio Eng'g Labs., Inc.*, 293 U.S. 1 (1934), merely for the proposition that "certain facts in patent litigation must be proved by clear and convincing evidence," without saying what those "certain" facts were. *SSIH Equip.* nowhere held that "clear and convincing" evidence was a general rule.

In *Connell*, 722 F.2d 1542, the Federal Circuit discussed the district court's invalidity opinion. *Id.* at 1548-49. In the course of that discussion the appeals court *assumed* that the standard of proving invalidity was clear and convincing evidence, but the case cited no authority whatsoever for that principle. *Id.* at 1549.

The third case, *Am. Hoist*, 725 F.2d 1350,

¹⁷ Other Federal Circuit cases from 1983-84 dealt with validity issues, but without discussing the standard of proof.

relied on *Radio Corp.* for the clear and convincing standard. *Am. Hoist* claimed that *Radio Corp.* stood for the proposition that the clear and convincing standard “never changes.” 725 F.2d at 1359-60.

Thus, the question is whether *Radio Corp.* truly adopted the heightened standard as a general rule in all cases. It did not.

Radio Corp. arose out of an unusual, if not unique, set of facts having to do with the development of early radio technology. Edwin Armstrong, Lee De Forest, and two others were involved in contested interference proceedings in the Patent Office (*i.e.*, unlike ordinary patent prosecution, the proceedings were adversarial). Both those interference proceedings and separate federal court litigation resulted in De Forest being adjudged the inventor. 293 U.S. at 2-5.

Armstrong thus had lost on multiple fronts, and was barred from relitigating the issue further. Nonetheless, Armstrong funded a separate company, Radio Engineering Laboratories, which was not bound by the prior judgments under *res judicata* principles. *Id.* at 7. Radio Engineering then launched a new challenge to the patents anyway, apparently based on nothing more than the same evidence on which Armstrong had already lost.

It was against this unusual background—a patent whose inventorship had previously been determined in both administrative and judicial proceedings—that this Court stated that Radio Engineering could not prove invalidity merely by a preponderance of the evidence. In a passage quoted in *Am. Hoist* (*see* 725 F.2d at 1359), this

Court stated:

Through all the verbal variances, however, there runs this common core of thought and truth, that one otherwise an infringer who assails the validity of a patent fair upon its face bears a heavy burden of persuasion, and fails unless his evidence has more than a dubious preponderance.

293 U.S. at 8. *Am. Hoist*, and subsequent Federal Circuit cases, relied on this statement to hold that the standard of proof is clear and convincing evidence in *all* cases—even though this Court clarified immediately after the above quote that it was only talking about the unusual facts of *Radio Corp.* Specifically, the Court justified a higher standard of proof in that case since the respondent had merely used a “privilege under the doctrine of *res judicata* to try the issues over again,” based on “substantial identity of evidence.” 293 U.S. at 8-9. (emphasis in original).

Thus, *Radio Corp.* stands only for the proposition that clear and convincing evidence is needed when a defendant tries to relitigate an already-adjudicated patent using the same invalidity evidence. *Radio Corp.* most certainly does not stand for the proposition that the clear and convincing standard applies in *all* cases—such as this case, where Microsoft is asserting invalidity based on new prior art not previously considered by the Patent Office, nor previously litigated. Yet, to this day, the Federal Circuit continues to rely on *Am. Hoist* for the proposition that the standard of proof is clear and convincing evidence in every case. See *Uniloc USA, Inc. v.*

Microsoft Corp., Nos. 2010-1035, -1055, slip opn. at 55, 2011 WL 9738, at *26 (Fed. Cir. January 4, 2011) (“Microsoft has made this argument before, and we held that the statutory presumption of validity can be overcome only by showing invalidity by clear and convincing evidence, even where allegedly invalidating prior art was not before the patent office,” *citing* solely this case and *Am. Hoist*).

i4i and its amici might argue that the clear and convincing standard should be retained because it supposedly comports with “settled expectations” of patent owners in a high standard of proof. The above analysis shows that any such “expectations” are not based on sound precedent.

CONCLUSION

In this case, the Federal Circuit has incorrectly interpreted a clear statute. This Court should correct the Federal Circuit's misreading of § 282 and hold that the standard of proving patent invalidity is a preponderance of the evidence.

Respectfully submitted,

MICHAEL BARCLAY

Counsel of Record

JULIE P. SAMUELS

CORYNNE MCSHERRY

JAMES S. TYRE

ELECTRONIC FRONTIER
FOUNDATION

454 Shotwell Street

San Francisco, CA 94110

(415) 436-9333

michael@eff.org

Attorneys for Amici Curiae

Electronic Frontier Foundation

Of Counsel:

Sherwin Siy

PUBLIC KNOWLEDGE

1818 N St. NW, Suite 410

Washington, D.C. 20036

(202) 861-0020

ssiy@publicknowledge.org

Lawrence Rosen
THE APACHE SOFTWARE
FOUNDATION
Rosenlaw & Einschlag
3001 King Ranch Road
Ukiah, CA 95482
(707) 478-8932
lrosen@rosenlaw.com

February 1, 2011