No. 08-964

In The
Supreme Court of the United States

BERNARD L. BILSKI and RAND A. WARSAW,

Petitioners,

v.

JOHN J. DOLL, ACTING UNDER SECRETARY OF COMMERCE FOR INTELLECTUAL PROPERTY AND ACTING DIRECTOR OF THE UNITED STATES PATENT AND TRADEMARK OFFICE,

Respondent.

On Writ Of Certiorari To The United States Court Of Appeals For The Federal Circuit

BRIEF OF FRANKLIN PIERCE LAW CENTER AS AMICUS CURIAE IN SUPPORT OF PETITIONERS

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INTEREST OF AMICUS CURIAE[1]

The Franklin Pierce Law Center (FPLC) is an independent law school with a long history of intellectual property expertise. The intellectual property faculty of FPLC has authored many scholarly papers and has filed amicus briefs in this Court as well as lower courts. FPLC has established an Intellectual Property Amicus Brief Clinic. With faculty guidance and student participation, the Clinic seeks to file amicus briefs that will lead to the development and predictable application of intellectual property law to promote innovation and competition. The Clinic selects cases where it is hoped that the amicus brief it submits will contribute

[1] The parties have consented to the filing of this brief. The Petitioner has filed a general consent for amicus curiae briefs with the Court. Consent has been obtained from the Solicitor General to file this brief.

Pursuant to this Court's Rule 37.6, amicus represents that this brief was not authored in whole or in part by counsel for any party. FPLC discloses that it maintains an Advisory Committee on Intellectual Property (ACIP) that includes representatives from industry, trade organizations and various law firms. Until recently, the chairman of ACIP was Ronald Myrick who participated in the preparation of the Petitioner's brief. However, neither Mr. Myrick nor any other non-faculty member of ACIP played any role in the consideration of whether to file this brief nor any role in its preparation. No person or entity other than FPLC has made any monetary contribution to its preparation or submission.

important perspectives that might not be adequately represented by the parties.

FPLC expressly declines to take any position regarding the ultimate conclusion with respect to the patentability of Petitioners' claims. More particularly, FPLC takes no position regarding the novelty or unobviousness of Petitioners' claims nor any position regarding whether their invention is adequately described in their application. The only issue of concern to FPLC in this case is the test for determining the eligibility of the method claims under the provisions of 35 U.S.C. § 101. FPLC believes that the mandate for the patent system found in the Constitution has been broadly implemented by Congress. This Court has repeatedly recognized this expansive implementation. The decision below is not consistent with this broad mandate. The decision below narrowly restricts the type of methods that are eligible for patent protection. Implementation of the Court of Appeals for the Federal Circuit's (CAFC) decision in this case would a) disturb existing property rights and b) severely decrease incentives for further innovation.

SUMMARY OF THE ARGUMENT

In the decision below, the CAFC has established the "machine-or-transformation" test to determine whether a method is patentable under the provisions of 35 U.S.C. § 101. This Court has repeatedly

confirmed that Congress intends 35 U.S.C. § 101 to be interpreted broadly, leaving it up to other parts of the statute to weed out inventions not worthy of patent protection. Up until this recent decision, the CAFC has followed the Court in its application of the broad standard for patentability. In fact, the exact test that the CAFC now says is the exclusive test for patent eligible subject matter of methods has been considered and rejected by this Court as an exclusive test.

Since the Court has last taken up the issue of patent eligible subject matter under 35 U.S.C. § 101, two industries the Court weighed in on, biotechnology and software, have been high growth areas in the U.S. market. The United States remains at the forefront of these fields due, at least in part, to these broad intellectual property rights confirmed by this Court.

In recent years, this Court has dealt with cases that have involved computer software and "business methods" without difficulty. The provisions of 35 U.S.C. § 101 are and should be a coarse filter leaving to other parts of 35 U.S.C. the task of insuring that only worthy inventions receive patent protection.

Since this Court's last pronouncements on the topic of 35 U.S.C. § 101, there have been several critical studies of the patent system. None have suggested a change to the concept that "anything under the sun made by man" should be patent eligible. As a result, even with ample opportunity to do so, Congress has chosen to leave 35 U.S.C. § 101

alone. In fact, Congress has acknowledged that "business methods," all of which will have difficulty under the CAFC's "machine-or-transformation" test, are indeed patentable subject matter. 35 U.S.C. § 273 recognizes the existence of "a method of doing or conducting business" and provides for a prior user right. Last year, there was a proposal in Congress to limit damages for tax planning methods. The solution to the perceived problem was to limit damages, not redefine methods. Notably, the measure did not pass.

For ten years, the CAFC used the "useful, concrete and tangible result" test for determining whether or not an invention was directed to an "abstract idea" – one of the prohibited areas defined by this Court. That test has served well. That test has been followed in numerous cases in the CAFC and has been consistently applied in the Patent Office by the Board of Patent Appeals and Interferences. There is an expectation on the part of thousands of patentees that their inventions are adequately protected. That is now all in question.

Clearly, the Patent Office initially struggled with "business methods." Now, however, the Patent Office has developed examination guidelines and memoranda following this Court's and the CAFC's precedents. Examiners have been trained, new examiners with appropriate business backgrounds have been hired and collections of prior art have been established. As a result, the allowance rate in the area of the Patent Office dealing with "business methods" is in the 20% range compared to the

average allowance rate for all areas of the Patent Office which for 30 of the last 34 years has been higher than 60%. The Patent Office is now clearly able to apply all of the sections of the statute to this type of invention.

FPLC urges this Court to overturn the decision below and to reaffirm that only "laws of nature, natural phenomena and abstract ideas" are not patent eligible. With respect to methods, we urge that this Court confirm that a "useful, concrete and tangible result" test is adequate to exclude abstract ideas.

ARGUMENT

I. The Supreme Court Should Confirm A Broad Standard For Patentability Of Method Claims

1. Broad Patentability Standards Have Served The Country Well

The Constitution, Article I, Section 8, Clause 8, authorizes Congress to establish a patent system, "[t]o promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries." The question of exactly what constitutes the type of invention eligible for patent protection has been implemented expansively by Congress. Section 101 of 35 U.S.C. defines patentable subject matter as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.[2]

This Court has acknowledged that Congress intended statutory subject matter to "include anything under the sun made by man" citing the Committee Reports for the 1952 revision of the Patent Act.[3] The last decisions of this Court relating to patentable subject matter placed only logical and understandable limits on patentable subject matter excepting only "laws of nature, natural phenomena, and abstract ideas."[4] Since *Chakrabarty* and *Diehr*, industries affected by those decisions have thrived.

2. Permitting Biotechnology Patents Spawned An Industry

The dawn of the modern era in biotechnology is widely attributed to the 1970 invention of the method of recombinant DNA by Cohen and Boyer.[5] A short 10 years later, this Court interpreted 35 U.S.C. § 101

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[2] 35 U.S.C. § 101 (2006).

[3] S. Rep. No. 82-1979, at 5 (1952).

[4] *Diamond v. Diehr*, 450 U.S. 175, 182, 185 (1981); *Diamond v. Chakrabarty*, 447 U.S. 303, 309 (1980).

[5] Biotechnology Industry Organization, Biotechnology Industry Facts, http://bio.org/speeches/pubs/er/statistics.asp (last visited July 28, 2009).

broadly and held that something could be patentable even if it were living. While the *Chakrabarty* invention was directed to a "manufacture" within the meaning of 35 U.S.C. § 101, we believe that this decision sent a strong signal.

In *Chakrabarty*, this Court acknowledged, "Congress plainly contemplated that the patent laws be given wide scope."[6] Just as the Patent Office opposes the patentability of "business methods" today, so did Congress oppose the invention in *Chakrabarty*.[7]

What has been the result? While the biotechnology industry is hard to define and is constantly changing, one report puts the number of biotechnology companies, *in the United States*, at 1,452 as of December 2006. Publicly traded U.S. biotechnology companies spent $27.1B on research in 2006. Employment in the U.S. was 180,000 in 2006, and these were generally high value jobs. The market cap of the publicly traded U.S. biotechnology companies was $360B as of April 2008.[8] In spite of the naysayers at the time,[9] this Court's confirmation of the broad scope of patentable subject matter to

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[6] 447 U.S. at 308.

[7] *Id.* at 306-07.

[8] Biotechnology Industry Organization, *supra* note 5.

[9] Brief for The People's Business Commission as Amicus Curiae Supporting Appellant, *Diamond v. Chakrabarty*, 447 U.S. 303 (1980) (No. 79-136).

include living things was at best a resounding success in promoting the constitutional purpose in the United States. It clearly was not an impediment.

3. The Software Industry In The United States Is Thriving

The other "success story" is illustrated by the aftermath of this Court's decision in *Diehr*. *Diehr* did involve a method – a programmable process or "software." Similar to restrictions on certain biotechnology inventions, other countries impose severe restrictions such that the patenting of software is almost impossible.[10] Like the situation with *Chakrabarty*, the Patent Office opposed the patentability of the invention in *Diehr*.[11] Like the situation with *Chakrabarty*, the naysayers believed

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[10] *E.g.* Convention on the Grant of European Patents (European Patent Convention), arts. 52(2) and 52(3), Oct. 5, 1973, 1065 U.N.T.S. 255, 271-72, *available at* http://treaties.un.org/doc/Publication/UNTS/Volume%201065/volume-1065-I-16208-English.pdf (explicitly excludes from patentability "programs for computers as such"); Agreement On Trade-Related Aspects of Intellectual Property Rights [TRIPS Agreement] pt. II § 5 arts. 27(2) and 27(3), Apr. 15, 1994, 33 I.L.M. 1197, 1208, *available at* http://www.wto.org/english/docs_e/legal_e/27-trips.pdf (allowing countries to exclude certain subject matter). The U.S. has chosen not to adopt those exclusions.

[11] 450 U.S. at 181.

that the patenting of software would mean the end of the industry.[12]

What has been the result? In 2008, 7 out of 10 of the largest software companies in the world were U.S. based.[13] In 2007, 1662 patents were issued to Microsoft; in 1984, they were not in the top 200 companies receiving patents, thus, fewer than 38 patents were issued to Microsoft.[14] At least 17,000 applications that were published in 2008 and at least 7200 patents that issued in 2008 contained at least one claim directed to software.[15] The top 5 companies having patents in the software class 717 in the Patent

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[12] *See id.* at 291 (Stevens, J., dissenting) (discussing critics of policy of patenting software).

[13] *The Global 2000*, Forbes, Apr. 2, 2008, http://www.forbes.com/lists/2008/18/biz_2000global08_The-Global-2000_IndName_17.html.

[14] Intellectual Property Owners Association, *Top 300 Organizations Granted U.S. Patents in 2007* 2, *available at* http://www.ipo.org/AM/TemplateRedirect.cfm?template=/CM/ContentDisplay.cfm&ContentID=18241 (2008); Intellectual Property Owners Association, *Top 200 Organizations*, *available at* http://www.ipo.org/AM/TemplateRedirect.cfm?template=/CM/ContentDisplay.cfm&ContentID=3377 (1985).

[15] Ann M. McCrackin, *Trends in Software and Business Method Patents*, in Electronic and Software Patents: Law and Practice, §§ 1.01-.05 (2d ed. Supp. forthcoming 2009). The chart in Appendix 1 titled "Software Beauregard Claim Patenting Over Time" shows the total number of patents granted and applications published between 1996 and 2008 by the USPTO that contain a Beauregard-type claim to computer software.

Office are U.S. companies.[16] In 1996, only 149 patents issued into Class 717. In 2008, 1156 patents issued and 1723 patent applications were published.[17] Is all of this patent activity a bad thing? In 2007, Professor Merges from the University of California published a paper concluding that entry and competition in the software industry is robust.[18] The abstract is revealing:

> In the 1980s and early 1990s, it was commonly said that patents would severely damage the software industry. . . . I conclude that the early predictions were wrong. This helps explain why we are experiencing what might be called the "normalization" of software patents. Now, the frontier legal issues pertaining to software no longer center on whether it should be patentable in

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[16] *Id*. at 1-9 (IBM, Microsoft, Sun Microsystems, HP and Intel). The chart in Appendix 1 titled "Top 15 Assignees in Software Class 717" lists the top assignees for software patents granted in the U.S. in class 717. The horizontal bar represents the number of granted patents from class 717 assigned to a particular assignee between 1996 and 2008.

[17] *Id*. at 1-11. Class 717 is one of many Patent Office classes with patents directed to software. Analysis of Class 717 shows general trends in the software field. Analysis using additional or different Patent Office classes is expected to show similar trends. The chart in Appendix 1 titled "Software Patenting Over Time in Class 717" shows the combined number of patents granted and applications published in Class 717 from 1996 through 2008.

[18] Robert P. Merges, *Software and Patent Scope: A Report from the Middle Innings*, 85 Tex. L. Rev. 1627 (2007).

> the first place. . . . This serves as an interesting case study in how software firms are acquiring and using patents in their competitive strategies. The overall theme of the Article is normalization: the legal system is integrating software into the fabric of patent law, and software firms are integrating patents into the competitive fabric of the industry.[19]

In her dissent, Circuit Judge Newman takes notice of the success of the software industry in the United States: "By revenue estimates, in 2005 the software and information sectors constituted the fourth largest industry in the United States, with significantly faster growth than the overall U.S. economy."[20]

As with biotechnology, the robust protection of software inventions has been a boon to innovation and to U.S. industry. As with biotechnology employment, jobs in the innovative software industry tend to be high value jobs.

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[19] *Id.* at 1627.

[20] *In re Bilski*, 545 F.3d 943, 992 (Fed. Cir. 2008) (en banc) (Newman, J., dissenting) (citing Software & Info. Indus. Ass'n, Software and Information: Driving the Knowledge Economy 7-8 (2008), http://www.siia.net/estore/globecon-08.pdf), *cert. granted*, 77 U.S.L.W. 3442 (U.S. Jun. 1, 2009) (No. 08-964).

4. There Is Much Confusion As To The Applicability Of The Machine-Or-Transformation Test To Claims In Statutory Categories Other Than The Process Category

The courts and the Patent Office have already applied the *Bilski* "machine-or-transformation" test to numerous patents and pending applications. Although the CAFC held that the machine-or-transformation test is the applicable test to determine whether a *method* claim is drawn to patent eligible subject matter under 35 U.S.C. § 101,[21] the courts and the Patent Office are applying the test to claims that are in statutory categories other than the process category.[22] For example, the U.S. District

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[21] *Id.* at 949.

[22] *Every Penny Counts, Inc. v. Bank of America Corp.*, No. 2:07-cv-042, slip op. (M.D. Fla. May 27, 2009) (Held a "system" claim invalid in view of *Bilski*); *Ex parte Mitchell*, No. 2008-2012 (B.P.A.I. Feb. 23, 2009) (Held that a claim to an information processing "system" failed the machine-or-transformation test); *Ex parte Cornea-Hasegan*, No. 2008-4742 (B.P.A.I. Jan. 13, 2009) (Held the "computer readable media including program instructions" of claim 18 is not statutory subject matter).

Yet another example, in *Ex parte Atkin*, Appeal 2008-4352, 2009 WL 247868 (B.P.A.I. Jan. 30, 2009) the Board of Patent Appeals and Interferences (BPAI) reviewed a system claim which has also been considered a machine for purposes of the categories of patentable subject matter defined in 35 U.S.C. § 101. Although the Examiner had not rejected the system claim under 35 U.S.C. § 101, the BPAI indicated that the system claim in *Atkin* was not directed to patentable-eligible subject matter as

(Continued on following page)

Court for the Northern District of California recently applied the machine-or-transformation test to a computer readable medium claim.[23] A computer readable medium claim is drawn to an article, which is in a different statutory category than a process. As a result of these various decisions, there is much uncertainty among patent applicants as to the applicability of the machine-or-transformation test to claims in statutory categories other than the process category. [24]

5. In Contexts Other Than Patentable Subject Matter, This Court Has Had No Difficulty Dealing With A Broad Range Of Business Related Claims In Recent Cases

In *Markman v. Westview Instruments, Inc.*,[25] the patented invention was to a system for inventory control, arguably a "business method."[26] Query

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defined in *Bilski* and added a new grounds of rejection under 35 U.S.C. § 101 for the system claim.

[23] *CyberSource Corp. v. Retail Decisions, Inc.*, No. C 04-03268 MHP, 2009 WL 815448 (N.D. Cal. Mar. 27, 2009), *appeal docketed*, No. 2009-1358 (Fed. Cir. May 22, 2009).

[24] More information about claim types and claims generally can be found in Appendix 2.

[25] 517 U.S. 370 (1996).

[26] In fact, the claims in *Markman* are "system" claims. "System" claims can be thought of as dispersed machine components that interact with each other. The significant limitations in the system claims in *Markman* are in fact means-plus-function

(Continued on following page)

whether the claimed invention in *Markman* would pass the CAFC's "machine-or-transformation" test, particularly since the test has already been expanded so as to be applied to non-method claims? The issue was claim interpretation and more particularly, whether claim interpretation was an issue for the jury or the court. This Court could have remanded *Markman* for a determination of whether the subject matter was patentable under 35 U.S.C. § 101; it did not.

In *Microsoft Corp. v. AT&T Corp.*,[27] the patented invention was to AT&T's speech processing computer.[28] The issue however, was whether or not the software sent by Microsoft to foreign manufacturers was a "component" within the meaning of § 271(f). While it found otherwise in the case before it, this Court acknowledged that software could be a component:

> Until it is expressed as a computer-readable "copy," e.g., on a CD-ROM, Windows software – indeed any software detached from an activating medium – remains uncombinable. It cannot be inserted into a CD-ROM drive or

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limitations written in terms of a "means for" performing a specific function. Claim 1 of the Markman reissue patent is reproduced in Appendix 3.

[27] 550 U.S. 437 (2007).

[28] The AT&T patents contain a number of claim types, including "speech processor" claims and apparatus claims. A representative method claim is reproduced in Appendix 3.

> downloaded from the Internet; it cannot be installed or executed on a computer. Abstract software code is an idea without physical embodiment, and as such, it does not match §271(f)'s categorization: "components" amenable to "combination."[29]

By implication, while software code might be abstract, where it is on computer readable media, it is not. As noted above, even in its short life so far, the "machine-or-transformation" test in the decision below has already been used to reject article claims directed to computer instructions on computer readable media. Clearly, the "machine-or-transformation" test for methods is overly broad if some believe it can be applied in such a manner.

In *eBay Inc. v. MercExchange, L.L.C.*,[30] the claimed invention was to an online auction method. While couched in terms of a "system," this Court characterized the invention as "a business method patent for an electronic market designed to facilitate the sale of goods between private participants."[31] Query whether the claimed invention in *eBay* would pass the CAFC's "machine-or-transformation" test? Lower courts had been able to deal with the MercExchange claims and had found the patent to be valid and infringed. This Court found that the test

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[29] *Microsoft*, 550 U.S. at 449.

[30] 547 U.S. 388 (2006).

[31] *Id.* at 390. Claim 1 of the MercExchange patent, U.S. Patent No. 5,845,265, is reproduced in Appendix 3.

employed by the CAFC for determining whether an injunction should issue was too rigid and remanded for a consideration of traditional equitable factors. This Court could have remanded *eBay* for a determination of whether the subject matter was patentable under 35 U.S.C. § 101; it did not.

In *Quanta Computer, Inc. v. LG Electronics, Inc.*,[32] the inventions involved several computer implemented methods, as described by the Court:

> When copies of data are stored in both the cache and main memory, problems may arise when one copy is changed but the other still contains the original "stale" version of the data. [U.S. Patent No. 4,939,641] addresses this problem. . . . [U.S. Patent No. 5,379,379] relates to the coordination of requests to read from, and write to, main memory. . . . [U.S. Patent No. 5,077,733] addresses the problem of managing the data traffic on a bus connecting two computer components, so that no one device monopolizes the bus.[33]

All of the methods are carried out on a general purpose computer having standard components.

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[32] 128 S. Ct. 2109 (2008).

[33] *Id.* at 2113-14 (internal citations omitted). The claims in U.S. Patent No. 4,939,641 are, in fact, "system" claims. U.S. Patent No. 5,379,379 contains claims to a "memory control unit," a "system" and various methods. Independent Claim 7 of U.S. Patent No. 5,379,379 is reproduced in Appendix 3. U.S. Patent No. 5,077,733 contains claims to both "apparatus" and "method" inventions.

Query whether the claimed method inventions in *Quanta* would pass the CAFC's "machine-or-transformation" test?

One of the issues in *Quanta* was whether the "patent exhaustion" doctrine applied to method claims. This Court held that it does.

> Nothing in this Court's approach to patent exhaustion supports LGE's argument that method patents cannot be exhausted. It is true that a patented method may not be sold in the same way as an article or device, but methods nonetheless may be "embodied" in a product, the sale of which exhausts patent rights. Our precedents do not differentiate transactions involving embodiments of patented methods or processes from those involving patented apparatuses or materials.[34]

This Court could have remanded *Quanta* for a determination of whether the subject matter was patentable under 35 U.S.C. § 101; it did not.

6. This Court Has Already Considered And Rejected The Test Now Adopted By The CAFC

In *Gottschalk v. Benson*,[35] this Court found that a process claim directed to a mathematical algorithm

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[34] 128 S. Ct. at 2117.

[35] 409 U.S. 63 (1972).

was non-statutory subject matter because "the 'process' claim [was] so abstract and sweeping as to cover both known and unknown uses of the BCD to pure-binary conversion."[36] That language, however, seems less addressed to subject matter than it is to the scope of claims in relationship to the scope of the teaching. This is, as well it should be, a recurring consideration. In a case from this Court in 1853, *O'Reilly v. Morse*[37] it is said that:

> Whoever discovers that a certain useful result . . . is entitled to a patent for it; provided he specifies the means he uses in a manner so full and exact, that any one skilled in the science to which it appertains, can, by using the means he specifies, without any addition to, or subtraction from them, produce precisely the result he describes. . . . And any one may lawfully accomplish the same end without infringing the patent, if he uses means substantially different from those described. Indeed, if the eighth claim of the patentee can be maintained, there was no necessity for any specification, further than to say that he had discovered that, by using the motive power of electro-magnetism, he could print intelligible characters at any distance.[38]

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[36] *Id.* at 68.

[37] 56 U.S. (15 How.) 62 (1853).

[38] *Id.* at 109-10.

Some then construed that opinion to restrict patent eligible subject matter. *Tilghman v. Proctor*,[39] for example, states:

> it has been supposed that the decision in *O'Reilly v. Morse* was adverse to patents for mere processes. The mistake has undoubtedly arisen from confounding a patent for a process with a patent for a mere principle. We think that a careful examination of the judgment in that case will show that nothing adverse to patents for processes is contained in it. The eighth claim of Morse's patent was held to be invalid, because it was regarded by the court as being not for a process, but for a mere principle.[40]

The opinion elucidates the meaning of "principle" by stating, "It was not a claim of any particular machinery, nor a claim of any particular process for utilizing the power; but a claim of the power itself, – a claim put forward on the ground that the patentee was the first to discover that it could be thus employed."[41] Thus, from the beginning, permissible subject matter has been confounded with other matters such as the permissible scope of protection.

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[39] 102 U.S. 707 (1880).

[40] *Id.* at 726.

[41] *Id.* at 726-27.

In *Benson,* this Court considered the test that the CAFC now says is the only permissible test:

> It is argued that a process patent must either be tied to a particular machine or apparatus or must operate to change articles or materials to a "different state or thing". We do not hold that no process patent could ever qualify if it did not meet the requirements of our prior precedents. . . . It is said that we freeze process patents to old technologies, leaving no room for the revelations of the new, onrushing technology. Such is not our purpose.[42]

7. 35 U.S.C. § 101 Should Be A Coarse Filter, To Be Applied Along With Other Criteria To Insure That The Statutory Purpose Is Met

There are numerous other statutory requirements that must be met before a patent is awarded in addition to the expansive definition of patentable subject matter found in 35 U.S.C. § 101. The invention itself must be new, 35 U.S.C. § 102,[43] useful, 35 U.S.C. § 101, and unobvious, 35 U.S.C. § 103.[44] To get the patent, the applicant must describe the

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[42] *Benson,* 409 U.S. at 71.

[43] "New" and "Useful" are both found in 35 U.S.C. § 101: "New" is extensively defined in 35 U.S.C. § 102.

[44] 35 U.S.C. § 103(a).

invention, must enable the full scope of the claims and must disclose the best mode, 35 U.S.C. § 112.[45]

These statutory provisions, when properly applied by the Patent Office and the courts, stand as strong barriers to the grant of exclusive rights that do not promote the statutory objectives. For example, the "obviousness" standard was recently reviewed by this Court in *KSR Intern. Co. v. Teleflex Inc*.[46] By allowing a finding that an invention is obvious in more situations than would the CAFC's "teaching-suggestion-motivation" test, this Court "raised the bar" for patentability under 35 U.S.C. § 103.

The concept of "new" has been able to change with the times so as to maintain the "new" requirement as a strong barrier. For example, 35 U.S.C. § 102(a) and (b) both refer to "printed publication." In the modern Internet age, a great deal of information is available that is neither "printed" nor "published" as those terms were understood when the statute was enacted. Never-the-less, if a document is "reasonably accessible" it qualifies as prior art under 35 U.S.C. § 102(a) or (b) as a "printed publication."[47]

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[45] 35 U.S.C. § 112 ¶ 1.

[46] 550 U.S. 398 (2007).

[47] *SRI International v. Internet Security Systems,* 511 F.3d 1186 (Fed. Cir. 2008). It is noted in passing that the claims at issue in *SRI* were to "[a] computer-automated method of hierarchical event monitoring and analysis within an enterprise network including deploying network monitors in the enterprise network, detecting, by the network monitors, suspicious network

(Continued on following page)

So too the concept of patentable subject matter should be able to adapt to various method types. This is exactly what this Court pronounced in *Benson*.

8. There Has Been Adequate Opportunity For Congress To Amend The Statute In The Face Of Extensive Studies And Ongoing Developments, And It Has Not Chosen To Do So

A. Recent Studies Of The Patent System Have Not Recommended Changes To The Definition Of Patentable Subject Matter

Over a 10 year period, the National Academy of Sciences (NAS) undertook an extensive study of the patent system. The result was a report, published in 2004, that concluded that there were numerous aspects of the U.S. patent system that could use improvement.[48] However, the scope of patentable subject matter was not one of them, despite the fact that much of the study and the final report were after *State Street Bank & Trust Co. v. Signature Financial Group, Inc.*,[49] ending speculation on whether there was a "business method" exception to patentability.

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activity based on analysis of network traffic data." It is possible that the claims in *SRI* would not pass muster under the "machine-or-transformation" test announced by the same court the following year.

[48] *A Patent System for the 21st Century* 1 (Steven A. Merrill et al., eds., 2004).

[49] 149 F.3d 1368 (Fed. Cir. 1998).

The NAS report confirms the point we have made above. Broad interpretation of patentable subject matter since 1980, for example, this Court's decisions in *Chakrabarty* (1980) and *Diehr* (1981), has been a positive force.[50] The NAS report supports the position that "patentable subject matter" should be a coarse filter and that the system can be improved merely by rigorous application of the the other criteria for patentability.

Similarly, the Federal Trade Commission conducted thorough hearings and recommended areas of improvement in the patent system to promote competition. One of the speakers, then Patent Office Director Rogan, discussed the history of innovation in the U.S. as spurred by the world's leading patent system.

> Another development has been the expansion of the subject matter of patents. Whenever new technologies are prepared for patenting, such as with microorganisms or computer software, the entry of patent law in these areas was greeted with predictions of disaster. Yet today, the United States is the international leader in these and all other areas of technological advancement.[51]

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[50] *Id.*

[51] Federal Trade Commission, *In the Public Hearing on: Competition and Intellectual Property Law and Policy in the Knowledge-Based Economy,* 25 (2002), *available at* http://www.ftc.gov/opp/intellect/020206ftc.pdf.

Harvard economists Lerner and Jaffe published *Innovation and its Discontents: How our Broken Patent System is Endangering Innovation and Progress, and What To Do About It.*[52] They were very critical of several aspects of the U.S. patent system. However, with respect to patentable subject matter, this is what they had to say:

> There is no fundamental reason why an entrepreneur who does come up with a novel and non-obvious method of doing business needs patent protection less than an entrepreneur trying to make a go of comfortable high-heeled shoes or a new way of using radio spectrum for cell phones.[53]

B. The Scope Of Patentable Subject Matter Is Not Part Of The Current Debate On "Patent Reform"

More than ten years ago, the CAFC held that there was no "business method" exception to patentable subject matter and applied a "useful, concrete, and tangible result"[54] test to determine if a

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[52] Adam B. Jaffe & Joshua Lerner, *Innovation and Its Discontents: How Our Broken Patent System is Endangering Innovation and Progress, and What To Do About It* (2004).

[53] *Id.* at 200.

[54] The phrase "useful, concrete, and tangible" as it relates to patent eligibility appears first in *In re Alappat*, 33 F.3d 1526, 1544 (Fed. Cir. 1994).

practical application existed for an abstract idea.[55] Since *Chakrabarty*, *Diehr* and *State Street Bank*, there have been numerous opportunities for Congress, under the banner of "Patent Reform," to take up and amend the standard for patentable subject matter. They easily could have established a "machine-or-transformation" test for method claims. They did not.[56]

One of the battles in Congress to amend the Patent Act was waged shortly after the *State Street Bank* case was decided. The issue was whether the United States should have a "prior user right." The proponents wanted a broad prior user right, applicable to a wide variety of manufacturing processes. The opponents wanted no prior user rights. The compromise is found in 35 U.S.C. § 273. Part (b)(1) of this section provides for a prior user right for commercially used methods. The caveat is found in 35 U.S.C. § 273(a)(3): "For the purposes of this section . . . the term 'method' means a method of doing or conducting business."[57]

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[55] *State Street Bank & Trust Co. v. Signature Financial Group, Inc.,* 149 F.3d 1368 (Fed. Cir. 1998).

[56] *See also A Patent System for the 21st Century* 84 (Steven A. Merrill et al., eds., 2004) ("Apart from the very recent congressional ban on human organism patents, clearly a special case, there have been no successful legislative attempts to circumscribe patenting.").

[57] These amendments were made to the statute in 1999. *State Street Bank* was decided in 1998.

Congress was therefore aware that methods of doing or conducting business were being patented. They had the opportunity during the passage of that bill to amend 35 U.S.C. § 101 to eliminate "business methods" from the scope of patentable subject matter. They chose not to do so. Rather, they provided that prior user rights were only applicable to "a method of doing or conducting business." This is a clear statement by Congress that they consider "business methods" to be within the scope of patentable subject matter.

Over the intervening years, there have clearly been other opportunities for Congress to establish a "machine-or-transformation" test to limit the possible scope of method claims. Pertinent to this issue, a bill was introduced in the last Congress which included a provision to make methods for avoiding taxes not subject to the damages provision of Sections 281, 283, 284 and 285.[58] Two things are significant about this proposal. First, the proposal defined "tax planning method" as follows:

> [T]he term "tax planning method" means a plan, strategy, technique, or structure that is designed to reduce, minimize, or defer, or has, when implemented, the effect of reducing, minimizing or deferring, a taxpayer's tax liability, but does not include the

[58] H.R. 2365, 110th Cong. (2007).

> use of tax preparation software or other tools used solely to perform or model mathematical calculations or prepare tax or information returns.[59]

By attempting to limit damages on plans, strategies and techniques, the drafters of this proposal clearly acknowledged that these tax planning methods fell within the scope of patentable subject matter. There was no attempt to redefine patentable methods. Adopting a "machine-or-transformation" test would have excluded tax plans strategies and techniques. Instead, the perceived problem was approached from a limitation of damages perspective. Second, even the narrow restriction on damages for tax planning methods did not pass into law. Clearly, Congress is aware that "business method" patents are being granted and enforced and has chosen not to take any action to redefine methods.

In the current Congress, two bills are pending. House Bill 1260 has been introduced in the House and a similar bill, Senate Bill 515 has been reported out by the Senate Judiciary Committee. Roughly speaking, there are about 25 features of the bills that are being debated.[60] Significantly, none of the

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[59] *Id.* (Proposed amendment to Section 287 adding new provision (d)(2)).

[60] The proposed changes to 35 U.S.C. are extensive. Proposals relate to first to file, search and examination duties, assignee filing, willful infringement, prior user rights, "virtual" marking, post grant review, inter partes reexamination, best

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proposals relate to redefining any aspect of what constitutes patentable subject matter under 35 U.S.C. § 101. Of particular interest, neither of the current bills contain the limitation of damages on "methods of tax planning" found in the failed patent bill from the last Congress. As Circuit Judge Newman pointed out in her dissent to the decision below, "Where, as here, Congress has not acted to modify the statute in the many years since *Diehr* and the decisions of this court, the force of stare decisis is even stronger."[61]

II. The Supreme Court Should Adopt The "Useful, Concrete, And Tangible Result" Test For Patentability Of Method Claims

1. The Long-Standing Use Of The "Useful, Concrete, And Tangible Result" Test Is Well Established For Process Patents

The "useful, concrete, and tangible result" test first appeared in *In re Alappat*,[62] which stemmed from

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mode requirements, prior art submissions, venue for patent infringement actions, interlocutory appeals, fee setting authority, venue for certain appeals from the USPTO, ending of fee diversion, residency requirements for CAFC judges, establishing a micro-entity status, royalty income distributions under Bayh-Dole, USPTO telework program, district court patent pilot program, inequitable conduct, applicant quality submissions and 18-month publication for all applications.

[61] *Bilski*, 554 F.3d at 993 (Newman, J., dissenting).

[62] 33 F.3d 1526, 1544 (1994).

the interpretation of *Diehr* that an invention is not "abstract" as long as the invention has "practical application to a useful end."[63] Shortly after *Alappat*, the CAFC officially adopted the "useful, concrete, and tangible result" test in *State Street Bank* and found that a final share price is a useful, concrete, and tangible result.

Over the past ten years, patent owners and patent applicants have followed the CAFC's guidance in *Alappat* and *State Street Bank* that a process that produces a "useful, concrete and tangible result" is patent eligible, a standard also embraced by Congress in its update of the Patent Act in 1999 noted above.[64] The Board of Patent Appeals and Interferences (BPAI) also has consistently applied the "useful, concrete, and tangible result" test in many of its appeal cases involving process inventions.[65] For example, in 2006, the BPAI in *Ex parte Nuijten*[66]

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[63] *Id.* at 1552.

[64] When Section 273 of the Patent Act was enacted in 1999, Congress embraced this flexible approach, describing the "useful, concrete, and tangible result" test as the "essential question" of patent eligibility. H.R. Rep. No. 106-464, at 122 (1999) (Conf. Rep.).

[65] *See, e.g.*, *Ex parte Watanabe*, Appeal 2007-1251 (B.P.A.I. Aug. 3, 2007) ("[T]he result of claim 37 is a numerical representation of a quantity of a feature. However, a number is neither concrete nor tangible. Thus, claim 37 is an abstract idea that is nonstatutory under 35 U.S.C. § 101.").

[66] 84 U.S.P.Q.2d 1335, Appeal 2003-0853 (B.P.A.I. Jan. 24, 2006).

rejected a patent application seeking to patent a signal with embedded data on the ground that "the signal . . . has no concrete tangible physical structure." The BPAI's decision in *Ex parte Nuijten* also was affirmed by the CAFC, in which the Court held that a signal is not a "tangible" article under the meaning of "manufacture" as defined in 35 U.S.C. § 101.[67]

2. Patent Examiners Are Well Acquainted And Trained In Adopting The "Useful, Concrete, And Tangible Result" Test

The USPTO also has issued interim examination guidelines and memorandums that are consistent with the decisions of this Court and the CAFC. These guidelines and memoranda assist patent examiners in identifying judicial exceptions to statutory subject matter (i.e., abstract idea, law of nature and natural phenomenon) and resolving issues pertaining to process inventions. In 1996 and again in 2005 after the *State Street Bank* decision, the USPTO published training materials to bring the Computer Guidelines and their application in line with *State Street Bank*.[68]

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[67] *In re Nuijten*, 500 F.3d 1346, 1356 (Fed. Cir. 2007).

[68] U.S. Patent & Trademark Office, Examination Guidelines For Computer-Related Inventions Training Materials Directed to Business, Artificial Intelligence, and Mathematical Processing Applications (2005), *available at* http://www.uspto.gov/web/offices/pac/compexam/examcomp.pdf; Examination Guidelines for Computer Related Inventions, 61 Fed. Reg. 7478 (U.S. Patent & Trademark Office Feb. 28, 1996).

The training materials outlined patent examining procedures for evaluating patent eligible subject matter, particularly in the area of business, artificial intelligence and mathematical processes, to provide enhanced technical training for the examiners. Since the inception of the "useful, concrete, and tangible result" test, patent examiners are instructed to determine what it is that a patent applicant has invented and is seeking to patent. Patent examiners are obliged to review the entire application to determine whether the invention as a whole would produce a "useful, concrete, and tangible result."[69]

To harmonize the patent examining system with the latest legal precedents, the USPTO has adopted in 2005, as Interim Guidelines,[70] the "useful, concrete, and tangible result" test as one of two principal ways to determine whether an invention includes an appropriate application of a § 101 judicial exception in an effort to follow the guidance in *State Street*

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[69] U.S. Patent & Trademark Office, Manual of Patent Examining Procedure § 2106 II (8th ed., rev. 6, 2007) (citing *In re Alappat*, 33 F.3d at 1544) [hereinafter MPEP].

[70] U.S. Patent & Trademark Office, Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility (2005), *available at* http://www.uspto.gov/web/offices/pac/dapp/opla/preognotice/guidelines101_20051026.pdf [hereinafter "Interim Guidelines"]. The substantive portion of the Interim Guidelines has since been incorporated into Chapter 2100 of the Manual of Patent Examining Procedure. *See* MPEP, *supra* note 69, § 2106 II. The MPEP is the comprehensive guide patent examiners use throughout the prosecution of a patent application.

Bank.[71] To that end, the Interim Guidelines instruct the patent examiners to proceed with traditional patent prosecution inquiries, beginning with the determination of the inventor's perceived utility of, or practical application for, the invention.[72] The Interim Guidelines provide guidance to the patent examiners by giving a brief overview of the relevant case law, including precedent from the Supreme Court, Court of Customs and Patent Appeals, and CAFC to insure that the examiners are aware of the traditional breadth of eligible subject matter and the framework of the judicial exceptions.[73] Including legal precedents in the Interim Guidelines insures that the patent examiners are acquainted with the traditional

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[71] *AT&T Corp. v. Excel Communications Inc.*, 172 F.3d 1352 (Fed. Cir. 1999); Interim Guidelines, *supra* note 70, at 19. The other principal way required patent examiners to decide whether "[t]he claimed invention 'transforms' an article or physical object to a different state or thing."

[72] *Id.* at 3-4.

[73] Interim Guidelines, *supra* note 70, at 11-14 (citing *Diamond v. Chakrabarty*, 447 U.S. 303 (1980); *Funk Bros. Seed Co. v. Kalo Inoculant Co.*, 333 U.S. 127 (1948); *Gottschalk v. Benson*, 409 U.S. 63 (1972); *In re Alappat*, 33 F.3d 1526 (Fed. Cir. 1994)). The Interim Guidelines cite the Federal Circuit's decision in *State Street Bank & Trust Co. v. Signature Financial Group Inc.*, 149 F.3d 1368 (1998) in different sections. *Id.* at 1, 4, 15. Additionally, Annex II of the Interim Guidelines provides a more thorough exposition on the relevant case law interpreting eligible subject matter. *Id.* at 32-41.

breadth of eligible subject matter and the framework of the judicial exceptions.[74]

The Interim Guidelines also explicitly set forth the meaning and application of the "useful, concrete, and tangible result" test. Using *State Street Bank* and *AT&T* as supporting frameworks, the Interim Guidelines craft a series of factors for the examiners to consider in determining whether a claim provides a practical application that produces a useful, concrete and tangible result.[75] In support of the Interim Guidelines, the Manual of Patent Examining Procedure ("MPEP") also provides definitions for "substantial utility" and "credible utility" that encompass the definitions of "concrete" and "tangible" presented in the Interim Guidelines.[76] In particular, "substantial utility" requires that the invention have a "real-world" use (i.e., the invention is not abstract),[77] and "credible utility" addresses the requirement in the Interim Guidelines that the invention be repeatable.[78]

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[74] Charles A. Damschen, *Patentable Subject Matter: Do The 2005 USPTO Interim Guidelines Intersect State Street At A Roundabout?*, 93 U. Miami Inter-Am. L. Rev. 1889, 1908 (2008).

[75] Interim Guidelines, *supra* note 70, at 20-21.

[76] MPEP, *supra* note 69, § 2107.01.

[77] Interim Guidelines, *supra* note 70, at 4.

[78] *Id.*

3. USPTO Allowance Rate Of Business Method And Process Patents Show The "Useful, Concrete, And Tangible Result" Test Is Well Suited For Examining Business Processes And Methods Patents

Patent examiners are well trained to tackle subject matter eligibility issues related to process inventions including business processes. The USPTO internal guidelines and memorandums have provided great resources through which the patent examiners are educated in this complex arena. These effects also are suggested from the USPTO filing and issuance statistics for business process applications. After *State Street Bank* and *AT&T*,[79] the USPTO has devoted significant resources to the examination of these applications including instituting extra patent searches and management reviews, and hiring additional patent examiners with background in finance, tax and insurance.[80] As a result of these organizational changes for examining business process applications, the allowance rate for business process applications has decreased from above 50% before 2000 to 44% in 2002, 16% in 2003, 11% in 2004, 11% in 2005, and remained steady at 19% in

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[79] 172 F.3d 1352 (Fed. Cir. 1999).

[80] Interim Guidelines, *supra* note 70, at 4; John Love, Steps Taken To Improve Patent Quality (2002), *available at* http://www.ftc.gov/opp/intellect/020227johnlove.pdf.

2006, 20% in 2007, and 17% in 2008.[81] These allowance rates are significantly lower than for other applications and the overall average allowance rate for all applications, which for 30 of the last 34 years has been higher than 60%.[82] These data confirm that the "useful, concrete, and tangible result" test can be properly applied by the USPTO to improve quality of the issued business process patents while flagging those that are simply not novel, obvious or do not meet utility or disclosure requirements. Accordingly, should the settled expectations of patent owners and the inventing public be abruptly disturbed, it would take enormous resources to restore the current rule-oriented, workable patent examining framework for determining the patentability of process inventions.

Finally, our position is consistent with Circuit Judge Newman's observation that the "useful, concrete and tangible result" test has been a workable test to exclude abstract ideas:

> The now-discarded criterion of a "useful, concrete, and tangible result" has proved to be of ready and comprehensible applicability

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[81] Wynn W. Coggins, *Update on Business Methods for the Business Methods Partnership Meeting* (2007), *available at* www.uspto.gov/web/menu/pbmethod/partnership.pps.

[82] James A. Toupin, *Practitioner Responsibilities: Should We Rethink Whether The Duty Of Reasonable Inquiry Requires Prior Art Searches?*, IPO 2008 Annual Meeting, September 21-23, 2008 (2008), *available at* http://www.bustpatents.com/toupin.pdf.

> in a large variety of processes of the information and digital ages. The court in *State Street Bank* reinforced the thesis that there is no reason, in statute or policy, to exclude computer-implemented and information-based inventions from access to patentability. The holdings and reasoning of *Alappat* and *State Street Bank* guided the inventions of the electronic age into the patent system, while remaining faithful to the *Diehr* distinction between abstract ideas such as mathematical formulae and their application in a particular process for a specified purpose. And patentability has always required compliance with all of the requirements of the statute, including novelty, non-obviousness, utility, and the provisions of Section 112.[83]

FPLC expressly declines to take any position regarding whether the Petitioners' claims meet the "useful, concrete and tangible result" test.

CONCLUSION

The "machine-or-transformation" test is contrary to this Court's precedent and Congressional intent in enacting and preserving 35 U.S.C. § 101. Furthermore, entire industries have grown out of an expansive approach to patentability. The "useful,

[83] *In re Bilski*, 545 F.3d 943, 991-92 (Fed. Cir. 2008) (en banc) (Newman, J., dissenting).

concrete and tangible result" test is the correct test for patentability as it is a workable standard that does not allow for the patenting of laws of nature, natural phenomena nor abstract ideas. As this test is broad, it is well suited for a future of innovation in whatever form.

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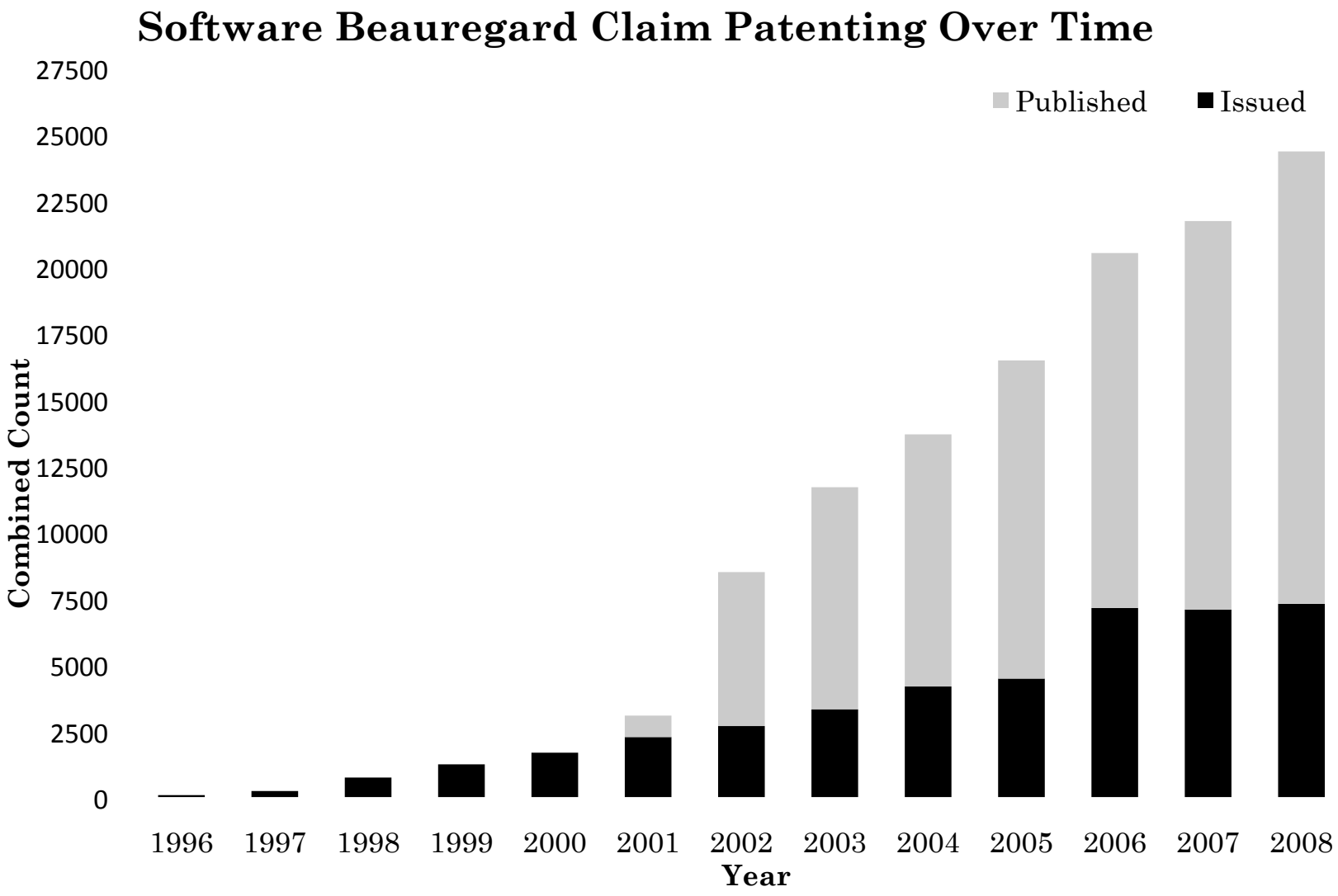
APPENDIX 1

App. 1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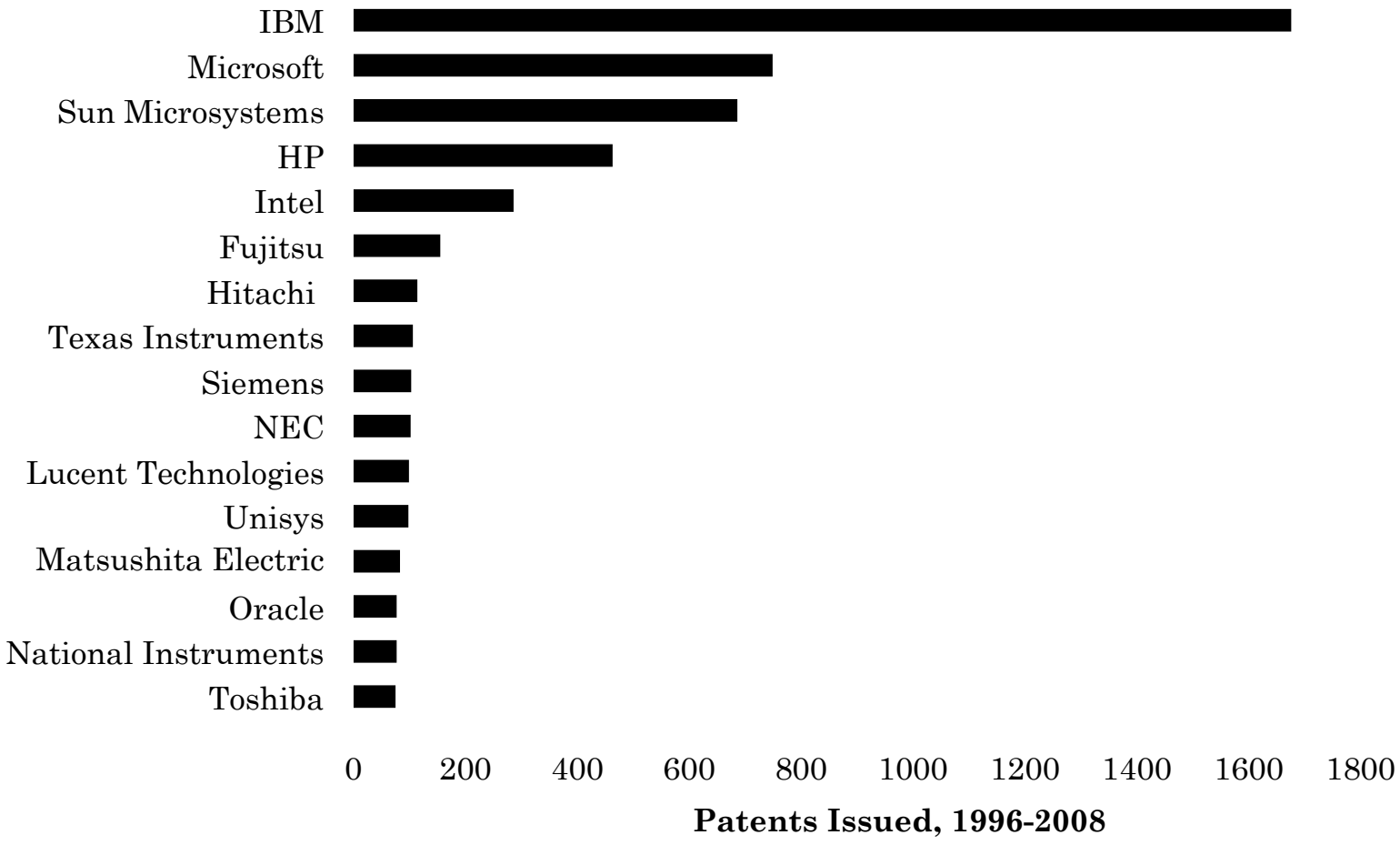
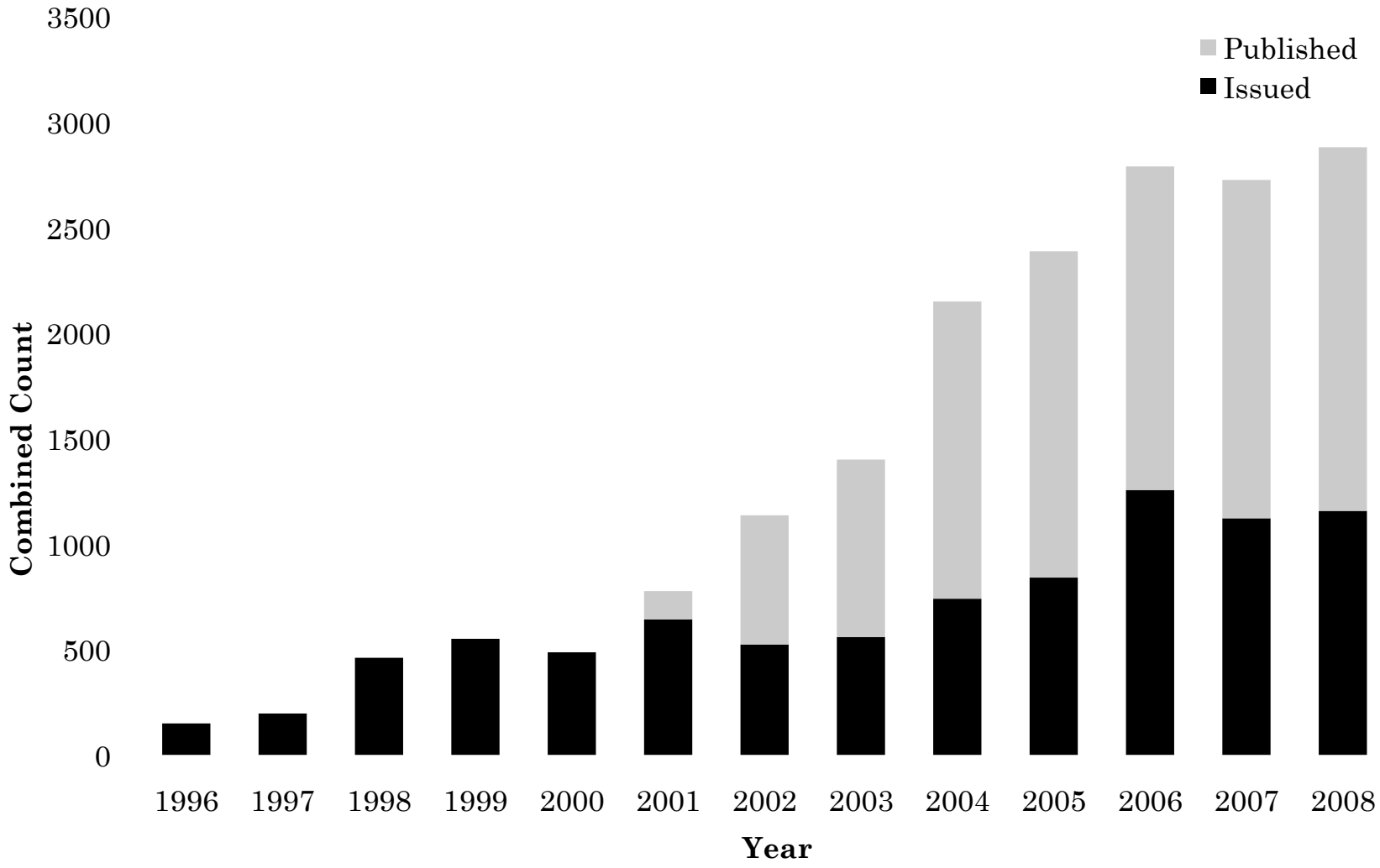
App. 2

Top 15 Assignees in Software Class 717



App. 3

Software Patenting Over Time in Class 717



APPENDIX 2

The claims in a patent describe the metes and bounds of an invention. All claims have three principal components: a preamble, a transitional phrase, and a body.

The preamble is generally a short introductory phrase to frame the context of the claim. The purpose of the preamble is to "indicate the statutory class of the claim (often by implication from the words in the preamble) and to name or define the thing that is to be claimed."[84] Most patent applications contain more than one claim. If some of the claims are directed to different statutory classes of invention, the preambles of the claims to each statutory class will be different.[85]

The transitional phrase separates the preamble from the body of the claim. The term "comprising" is the most frequently used transitional phrase. The body of the claim includes the limitations of the invention.

All claims have a preamble, a transition phrase and a body regardless of the type of claim. Some basic types of claims include method claims, apparatus claims and article of manufacture claims each of

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[84] Robert C. Faber, *Landis on Mechanics of Patent Claim Drafting* § 2.4 (5th ed., release 7, 2008)

[85] Jeffery G. Sheldon, *How to Write a Patent Application* § 6.3.3 (Release 24, 2009)

which correspond to a different statutory category in 35 U.S.C. § 101

Method claims are used to define an invention as one or more acts. Method claims define the invention in terms of what the invention does or how it is done, as opposed to what the invention is structurally. Using method claims allows the applicant to divorce the function of the invention from the structure of the invention within a given claim. A method claim can be identified by the presence of the term "method" or "process" in the preamble of the claim. The terms "method" and "process" are used interchangeably in this type of claim. A method claim is infringed when the acts of the method are performed.

Apparatus claims are used to define an inventive device or system that usually has active components. An apparatus claim defines the invention in terms of the components of the invention, that is, in terms of what the invention *is* as opposed to what the invention *does*. The Patent Statute also permits an apparatus claim to be defined with means-plus-function elements.[86] An apparatus claim can be identified by the terms in the preamble. Although

[86] As stated in 35 U.S.C. § 112, paragraph 6, "[a]n element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereon, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof."

apparatus claims have more variation in the terminology used in the preamble than method claims, the preamble of an apparatus claim frequently includes one of the following terms "apparatus," "device," or "system." "Systems" can be thought of as dispersed machine components that interact with each other. For example, a system might include a "transmitter" in one location and a "receiver" in another. An apparatus claim is different than a method claim because an apparatus claim generally describes the components of the device or system in terms of physical or structural characteristics. An apparatus claim is infringed by the actual device or system.

An article claim includes claims drawn to an inventive device with no active components. Such claims are not legally distinct from apparatus claims. Article claims can sometimes be used to cover products of electronic or software inventions. Following *In re Beauregard,*[87] article claims have been written for computer-readable mediums such as computer disks containing novel computer programs. Computer-readable medium claims, also called Beauregard claims, provide a mechanism to claim inventive software products. This type of claim is important when it is desirable to be able to identify those making or selling a disk or other medium as direct infringers. A typical computer readable medium claim will have a preamble such as "[a] computer-readable

[87] 53 F. 3d 1583 (Fed. Cir. 1995).

medium having computer executable instructions for performing a method comprising. . . ." The claim elements following the transitional phrase in the body of the claim may appear similar to the elements of a method claim; however, a computer readable medium claim is different than a method claim. A computer readable medium claim describes a product and is infringed by the product, not by performing the method.

The Patent Statute sets out the requirements for a patent application, which include providing a description of the invention and one or more claims.[88] The description of the invention is often referred to as the specification. One purpose of the specification is to describe the invention in such "full, clear, concise and exact terms as to enable any person skilled in the art . . . to make and use the [invention]."[89] The specification may also describe the general subject matter of the invention or the environment in which the invention is practiced.

The specification concludes with one or more claims that define the invention.[90] The purpose of the claims is to define the metes and bounds of the invention. In other words, the exclusive right provided by a patent is determined by the claims.

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[88] 35 U.S.C. § 112, ¶¶ 1 and 2.

[89] 35 U.S.C. § 112, ¶ 1.

[90] 35 U.S.C. § 112, ¶ 2.

APPENDIX 3

Markman Westview Instruments, Inc., 517 U.S. 370 (1996).

Reissue No. 33054: Inventory Control and Reporting System for Drycleaning Stores

1. The inventory control and reporting system, comprising;

a data input device for manual operation by an attendant, the input device having switch means operable to encode information relating to sequential transactions, each of the transactions having articles associated therewith, said information including transaction identity and descriptions of each of said articles associated with the transactions;

a data processor including memory operable to record said information and means to maintain an inventory total, said data processor having means to associate sequential transactions with unique sequential indicia and to generate at least one report of said total and said transactions, the unique sequential indicia and the descriptions of articles in the sequential transactions being reconcilable against one another;

a dot matrix printer operable under control of the data processor to generate a written record of the indicia associated with sequential transactions, the written record including optically-detectable bar codes having a series of contrasting spaced bands, the bar codes being printed only in coincidence with each

said transaction and at least part of the written record bearing a portion to be attached to said articles; and,

at least one optical scanner connected to the data processor and operable to detect said bar codes on all articles passing a predetermined station, whereby said system can detect and localize spurious additions to inventory as well as spurious deletions therefrom.

Microsoft Corp. v. AT & T Corp., 550 U.S. 437 (2007).
Reissue 32580: Digital Speech Coder

2. A method for processing a speech pattern comprising the steps of:

partitioning the speech pattern into successive time intervals;

generating a set of signals representative of said speech pattern of each time interval responsive to said interval speech pattern;

generating a signal representative of the differences between said interval speech pattern and the interval speech pattern representative signal set responsive to said interval speech pattern and said interval speech pattern representative signals;

forming a first signal corresponding to the interval speech pattern responsive to said interval speech pattern representative signals and the interval differences representative signal;

forming a second interval corresponding signal responsive to the interval speech pattern representative signals;

generating a signal corresponding to the differences between said first and second interval corresponding signals; and

producing a third signal responsive to said interval differences corresponding signal for altering said second signal to reduce the interval differences corresponding signal.

eBay Inc. v. MercExchange, L.L.C., 547 U.S. 388 (2006).

U.S. Patent No. 5,845,265

1. A system for presenting a data record of a good for sale to a market for goods, said market for goods having an interface to a wide area communication network for presenting and offering goods for sale to a purchaser, a payment clearing means for processing a purchase request from said purchaser, a database means for storing and tracking said data record of said good for sale, a communications means for communicating with said system to accept said data record of said good and a payment means for transferring funds to a user of said system, said system comprising:

a digital image means for creating a digital image of a good for sale;

a user interface for receiving textual information from a user;

a bar code scanner;

a bar code printer;

a storage device;

a communications means for communicating with the market; and

a computer locally connected to said digital image means, said user interface, said bar code scanner, said bar code printer, said storage device and said communications means, said computer adapted to receive said digital image of said good for sale from said digital image means, generate a data record of said good for sale, incorporate said digital image of said good for sale into said data record, receive a textual description of said good for sale from said user interface, store said data record on said storage device, transfer said data record to the market for goods via said communications means and receive a tracking number for said good for sale from the market for goods via said communications means, store said tracking number from the market for goods in said data record on said storage device and printing a bar code from said tracking number on said bar code printer.

Quanta Computer, Inc. v. LG Electronics, Inc., 128 S.Ct. 2109 (2008).

U.S. Patent No. 5,379,379

7. In an information processing system . . . , a method of reading and writing the information units comprising the steps of:

buffering write requests, including write addresses, as they are received from the system bus;

buffering read requests, including read addresses, as they are received from the system bus; comparing when received each read address against buffered write addresses, if any, to determine if a received read address has an address value within a predetermined range of address values of a buffered write address;

if a received address is determined not to be

within the predetermined range of addresses of any buffered write addresses then:

first executing in sequence all buffered read requests; and

then executing in sequence all buffered write requests;

else if a received address is determined to have an address value within the predetermined range of address values of any buffered write address:

first executing in sequence all buffered read requests up to but not including the received read request which was determined to be within the predetermined range;

then executing all buffered write requests; and

then executing the buffered read request which was determined to be within the predetermined range.