2007-1130
(Serial No. 08/833,892)

IN THE

UNITED STATES COURT OF APPEALS

FOR THE FEDERAL CIRCUIT

IN RE BERNARD L. BILSKI
and RAND A. WARSAW

Appellants.

Appeal from the United States Patent and Trademark Office, Board of Patent Appeals and Interferences.

CORRECTED BRIEF FOR AMICUS CURIAE ACCENTURE IN SUPPORT OF APPELLANTS

Of Counsel

WAYNE P. SOBON
ACCENTURE
50 West San Fernando Street
Suite 1200
San Jose, CA 95113
(408) 817-2170

J. MICHAEL JAKES
ERIKA H. ARNER
FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER, L.L.P.
901 New York Avenue, NW
Washington, DC 20001-4413
(202) 408-4000

RONALD E. MYRICK
DENISE W. DEFRANCO
FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER, L.L.P.
55 Cambridge Parkway
Cambridge, MA 02142
(617) 452-1600

Attorneys for Amicus Curiae Accenture

April 7, 2008

UNITED STATES COURT OF APPEALS
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2007-1130
(Serial No. 08/833,892)

CERTIFICATE OF INTEREST
for AMICUS CURIAE ACCENTURE

Counsel for Amicus Curiae Accenture certifies the following:

1. The full name of every party represented by us is:

Accenture LLP and Accenture Global GmbH

2. The name of the real party in interest (if the party named in the caption is not the real party in interest) represented by us is:

Accenture LLP and Accenture Global GmbH

3. All parent corporations and any publicly held companies that own 10 percent or more of the stock of the party represented by us are:

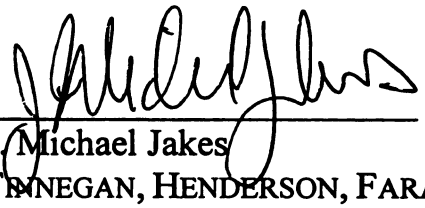
Accenture Holdings GmbH, Accenture International Sarl,
Accenture SCA, and Accenture, Ltd.

4. The names of all law firms and the partners or associates that appeared for the party or amicus now represented by us in the trial court or agency or are expected to appear in this Court are:

Wayne P. Sobon
Accenture

J. Michael Jakes
Ronald E. Myrick
Denise DeFranco
Erika H. Arner
FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER, L.L.P.

Dated: April 3, 2008



J. Michael Jakes
FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER, L.L.P.
901 New York Avenue, N.W.
Washington, D.C. 20001-4413

Attorney for Amicus Curiae Accenture

TABLE OF CONTENTS

TABLE OF AUTHORITIES

CASES

STATUTES

LEGISLATIVE HISTORY

OTHER AUTHORITIES

Gavriel Salendy, *Handbook of Industrial Engineering* (John Wiley & Sons, Inc., 3d ed. 2001). 11, 12, 13

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Manual of Patent Examining Procedure § 2173.06 24

Noah Webster, *Dictionary of the English Language* (11th ed. 1833) 7, 8

Oxford English Dictionary Vol. V. 338, Vol. XVII 705 (2nd Ed. 1991) 8

Nicholas A. Smith, *Business Method Patents and their Limits: Justifications, History, and the Emergence of a Claim Construction Jurisprudence*, 9 Mich. Telecomm. & Tech. L. Rev. 171 (2002) 10

S. Robson Walton, *WAL-MART, Supplier Partners, and the Buyer Power Issue*, 72 Antitrust L. J. 509 (2005) 10

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CONSTITUTIONAL PROVISIONS

I. STATEMENT OF INTEREST OF *AMICUS CURIAE*

Accenture[1] is a global consulting firm that regularly serves 94 Fortune Global 100 companies and more than two-thirds of the Fortune Global 500. Accenture got its start in the mid-1950s developing tools for managing businesses using mainframe computers. Today, Accenture uses industrial and management science disciplines to address problems of human organization, collaborating with clients to help them become high-performance businesses and governments. Accenture's vision—"bringing innovations to improve the way the world works and lives"—focuses on applying scientific and engineering methods to organizing businesses, non-profit groups, and the public sector.

Now over 50 years old, Accenture employs over 33,000 people in the United States and over 178,000 people throughout the world (49 countries), and generates nearly $20 billion in revenues annually. Last year, Accenture spent more than $300 million in research and development, not only on software and computer network applications, but also in applying management and industrial engineering principles to various enterprises. Accenture's innovation has resulted in nearly 300 United States patents and almost 600 more United States patent applications.

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[1] "Accenture" refers to the Accenture group of companies including Accenture LLP, an Illinois limited liability partnership, doing business on behalf of Accenture within the United States, and Accenture Global Services GmbH, a Switzerland limited liability company, registered owner of many of Accenture's United States patents.

Many of the patents and patent applications in Accenture's portfolio are directed to methods for managing or improving business.

Accenture submits this brief pursuant to this Court's order dated February 15, 2008, inviting amicus briefs on the five questions presented to the parties.

II. SUMMARY OF ARGUMENT

Innovative business processes, patentable for over a century, remain crucial to our modern economy, which is increasingly based on services and information. This appeal presents this Court the opportunity to reaffirm how the Supreme Court's test in *Diamond v. Diehr* provides an adaptable framework for judging the patentability of all practical, specific applications of human ingenuity, including cutting-edge processes for managing human organizations, whether implemented by computer, by a human, or otherwise.

In *Diehr*, the Supreme Court clarified that a process claim that includes an abstract idea presents statutory subject matter so long as the claimed process, taken as a whole, recites a practical application that produces a useful result. The Supreme Court noted that its earlier *Benson* and *Flook* cases held that abstract ideas, standing alone, remain unpatentable "basic tools of scientific and technological work." But the *Diehr* Court took pains to distinguish those cases, holding that the same abstract idea, embodied in a claim directed as a whole to a new, useful and specific result, was the very essence of a patentable invention

under the Constitution and in accord with Congress' enduring intent. The *Diehr* distinction between a practical application and an abstract principle established a rational framework equally appropriate for reviewing claims directed at business management processes.

The Supreme Court's careful, case-by-case jurisprudence should not be misused to create a straitjacket that shackles patentable processes to the understandings of former days. The specific holdings rendered as the Supreme Court and this Court "grappled with the question of patent eligibility for a then relatively new technology—computer-based programming inventions that employ a mathematical formula or algorithm," Brief for Appellee U.S. Patent & Trademark Office ("PTO") at 3, should not create artificial boundaries constraining the protection of innovative methods for organizing human groups or managing businesses. The PTO would like to limit protection of such methods by forcing them either to be machine-implemented or to transform an article to a different state or thing. While that test might be appropriate for determining whether a computer-based invention claims a practical application or simply an abstract principle, it does not comprise, by the Supreme Court's clear precedent, the only way to judge the patentability of other processes. Fundamentally, computer-related inventions are necessarily implemented on machines (i.e., computers), but business-related methods need not be. Organizations or individuals may

implement business-related methods in many different ways, according to well-defined processes, and a particularly claimed process does not become non-statutory subject matter simply because a human implements the method.

To be sure, the general prohibition against patenting abstract ideas and laws of nature, should also apply to business methods, but the Supreme Court's flexible standard: "a practical application of processes that produces a useful result," can properly sift claimed business processes from unpatentable abstract ideas or laws of nature.

Moreover, the patent statute expressly recognizes patent protection for business methods. When revising the patent statute in 1999, Congress acknowledged the patentability of methods of "doing or conducting business," and far from disputing or overruling that result, enacted a prior user defense to infringement of such patents. Since then, Congress has repeatedly declined further opportunities to legislate restrictions on business method patents. With clear Congressional acknowledgement and expressly legislated support for patent protection of methods of conducting business, it would be a violation of both the law and clear precedent for any court to hold such methods as ineligible for patent protection. As the Supreme Court has held, courts must respect and maintain the settled expectations of inventors in the absence of a clear Congressional mandate to the contrary.

Finally, to bring clarity to an issue that has become muddled in recent years, this Court should seize this opportunity to reaffirm that section 101 is but a threshold inquiry into whether a claimed invention falls within the categories of subject matter statutorily eligible for patent protection. This threshold question should not function as a broad-brush short-cut that avoids the often difficult task of establishing whether a process is novel, obvious in light of the prior art, or so indefinite or vague that one cannot say what the inventor has claimed. In this case, the Bilski claim, as a formal matter, appears to recite statutory subject matter—it meets the section 101 threshold by claiming a practical application with a useful result, reciting defined process steps between real-world actors. Despite that, the claim may yet remain too vague or may not encompass truly novel and nonobvious subject matter; the patent statute requires the PTO to perform those analyses and not just roll its whole job into simply dismissing the claim as non-statutory.[2]

[2] The public record does not indicate whether, prior to appeal, the PTO examiner rejected the Bilski claim on any ground other than section 101.

III. ARGUMENT

A. The Supreme Court's Test in *Diamond v. Diehr* Remains an Adaptable Framework for Analyzing Business Method Claims Under 35 U.S.C. § 101 (Questions 2, 5)

The Supreme Court set forth the broad framework for analyzing the eligibility of process claims for patent protection under 35 U.S.C. § 101 in *Diamond v. Diehr*, 450 U.S. 175 (1981):

> It is for the discovery or invention of ***some practical method or means of producing a beneficial result or effect***, that a patent is granted, and not for the result or effect itself. It is when the term process is used to represent the means or method of producing a result that it is patentable, and it ***will include all methods or means which are not effected by mechanism or mechanical combinations***.

Id. at 182 n.7 (quoting *Corning v. Burden*, 56 U.S. (15 How.) 252, 267-68 (1853)) (emphasis added). Thus, patent protection for processes under section 101 encompasses practical applications of methods that produce useful results, including those not "effected by mechanism or mechanical combinations." *Id.*

The Supreme Court emphasized that section 101 must be interpreted broadly. *See, e.g., Diamond v. Chakrabarty*, 447 U.S. 303, 315 (1980) ("The subject-matter provisions of the patent law have been cast in broad terms to fulfill the constitutional and statutory goal of promoting 'the Progress of Science and the useful Arts' with all that means for the social and economic benefits envisioned by Jefferson."). Particularly, in the context of addressing a process claim, the *Diehr*

Court noted that "the Committee Reports accompanying the 1952 Act . . . inform us that Congress intended statutory subject matter to 'include anything under the sun that is made by man.'" *Diamond v. Diehr*, 450 U.S. at 182 (quoting S. Rep. No. 82-1979 at 5 (1952), *reprinted in* 1952 U.S.C.C.A.N. 2394, 2399; H.R. Rep. No. 82-1923 at 6 (1952)).[3] The statute itself broadly defines "process" as "process, art, or method, and includes a new use of a known process, manufacture, composition of matter, or material." 35 U.S.C. § 100(b).[4]

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[3] Both the Supreme Court and this Court have acknowledged that "[t]he use of the expansive term 'any' in § 101 represents Congress' intent not to place any restrictions on the subject matter for which a patent may be obtained beyond those specifically recited in § 101 and the other parts of Title 35." *In re Alappat*, 33 F.3d 1526, 1542 (Fed. Cir. 1994); *see also State Street Bank & Trust Co. v. Signature Fin. Group, Inc.*, 149 F.3d 1368, 1372 (Fed. Cir. 1998), *cert. denied*, 525 U.S. 1093 (1999); *Chakrabarty*, 447 U.S. at 308 (stating that "Congress plainly contemplated that the patent laws would be given wide scope" considering its use of the comprehensive word "any").

[4] The Supreme Court has noted that the original patent statutes used "art" in the sense of the broad, Constitutional phrase "useful arts," which was replaced by "process" in later statutes, but that the two terms had roughly the same meaning. *Diehr*, 450 U.S. at 182. *See also General Dictionary of the English Language by Thomas Sheridan, A.M.* (1780) (hereinafter "*Sheridan's 1780 Edition*") ("***art***: "the power of doing something not taught by nature and instinct; a science, as the liberal arts; a trade; artfulness; skill, dexterity; cunning"; "***process***: tendency, progressive course; regular and gradual progress; methodical management of any thing; course of law"; "***useful***: convenient, profitable to any end, conducive or helpful to any purpose"); *Dictionary of the English Language by Noah Webster, L.L.D.* 35 (11th Ed. 1833) (hereinafter "*Webster's 1833 Edition*") ("art: cunning, device, skill or trade"; "useful: serviceable, profitable"). Further, it is interesting and instructive to note that the original sense of "***technology***" derives from the Greek "technē", the primary meaning of which is simply "art, craft" (as opposed to "episteme"--- which referred to "scientific knowledge, a system of understanding"). *See Oxford English Dictionary* Vol. V. 338, Vol. XVII 705 (2nd Ed. 1991); *see also Webster's 1833 Edition* 436 ("***technology***: a treatise on the arts, an explanation of terms of art"); *Sheridan's 1780 Edition* ("***technical***:

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Given the broad statutory language defining patent-eligible subject matter, the *Diehr* test for processes has proven flexible enough to adapt to many man-made innovations, just as Congress intended. Over the years, this Court has applied the *Diehr* test to evolving technical subject matter, such as a data processing system for managing a financial services configuration of a portfolio,[5] a method for automatically routing interexchange calls in a telecommunications system,[6] and a method for analyzing electrocardiograph signals to detect heart

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belonging to arts, not in common or popular use"). The current association of "technology" only with more complicated machines, chemical processes, or electrical systems represents a post-Industrial Revolution overlay on what originally embraced all forms of practical human ingenuity, or "art." The PTO's insistence that claimed processes must be embodied in machines or transform matter represents a similar confusion about what "technology" and the useful arts embrace. Although the PTO strings together citations from early textbooks (PTO Br. at 26 n.4) to suggest some connection between "useful arts" and manufacturing processes, the early dictionaries make no such connection.

[5] *State Street Bank*, 149 F.3d at 1373 ("In *Diehr*, the Court explained that certain types of mathematical subject matter, standing alone, represent nothing more than abstract ideas until reduced to some type of practical application, i.e., 'a useful, concrete and tangible result.'" (quoting *In re Alappat*, 33 F.3d at 1544)). Because this Court properly applied the *Diehr* test in the *State Street* case to a computer-based invention, there is no need to reconsider that case. (**Question 5**.)

[6] *AT&T Corp. v. Excel Commc'ns, Inc.* 172 F.3d 1352, 1356-57 (Fed. Cir.) ("In *Diehr*, the Court expressly limited its two earlier decisions in *Flook* and *Benson* by emphasizing that these cases did no more than confirm the 'long-established principle' that laws of nature, natural phenomena, and abstract ideas are excluded from patent protection." (quoting *Diehr*, 450 U.S. at 185)), *cert. denied*, 528 U.S. 946 (1999). Because this Court properly applied the *Diehr* test in the *AT&T* case to a computer-based invention, there is no need to reconsider that case. (**Question 5**.)

problems,[7] among many others. As these cases demonstrate, requiring a process to have a practical application toward a useful end, has proven an adaptable and reliable test for subject matter eligibility. That test can and should be applied to business-related process patents as well.

1. Innovative business methods may or may not be implemented on a computer.

Practical innovation thrives beyond the "traditional" scientific and engineering fields. To remain competitive today, companies and governments rely on new and useful business processes, whether as methods for managing organizations of people; as processes provided through software, internet, and computer interfaces; or as other innovative methods of promoting their business ends.[8] Business processes focus on concrete and useful methods to affect the activities of both people and organizations, helping them to achieve their goals in much the same way electrical engineering methods focus on changing the activity

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[7] *Arrhythmia Research Tech., Inc. v. Corazonix Corp.*, 958 F.2d 1053, 1057 (Fed. Cir. 1992) ("In *Diamond v. Diehr*, the Court explained that non-statutory status under section 101 derives from the 'abstract', rather than the 'sweeping', nature of a claim that contains a mathematical algorithm." (citing *Diehr*, 450 U.S. at 188)).

[8] *See* Steven Andersen, *IP Management Outgrows the Legal Department*, Corp. Legal Times, Dec. 2003, at 18, col. 1.(stating that "[b]ut for most traditional companies, the new frontier lies in innovations of business methods, not in the technology itself").

of electrons in circuits.[9] In both cases, the fruits of scientific, mathematical and engineering principles are harnessed to achieve practical results, operating on real entities in the world.

Critics of business method patents focus on trivial and obvious examples of poor patents,[10] largely ignoring the fact that engineering and scientific principles applied to the management of people, organizations, and businesses have been recognized as innovative for more than a century, providing society with useful, concrete, and tangible advancements.

What has been termed variously *industrial engineering* or *management science* encompasses a variety of practical and technical disciplines. Industrial

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[9] *See* Nicholas A. Smith, *Business Method Patents and their Limits: Justifications, History, and the Emergence of a Claim Construction Jurisprudence*, 9 Mich. Telecomm. & Tech. L. Rev. 171, 184 (2002) (explaining that "[t]he only remaining reason to set aside business method patents as somehow different and undesirable requires one to embrace the untenable (and rather insulting) proposition that business persons are incapable of drawing from the innovations of others when innovating for themselves, even though chemists, biologists, and engineers are fully capable of doing so"); *see also* S. Robson Walton, *WAL-MART, Supplier Partners, and the Buyer Power Issue*, 72 Antitrust L. J. 509, 524 (2005) (explaining that "Wal-Mart's success thus far has depended on good [business] practices . . . continual innovation in our business processes; and investing in information technology").

[10] *E.g.*, U.S. Patent No. 6,368,227(C1) (method for swinging swings); U.S. Patent No. 6,329,919(C1) (handing out automated lavatory tickets in airplanes); U.S. Patent No. 6,874,409 and U.S. Patent No. 6,004,596(C1) (crust-less peanut butter and jelly sandwiches). *See, e.g.*, Hal R. Varian, *Patent Protection Gone Awry*, N.Y. Times, Oct. 21, 2004, *available at* http://www.nytimes.com/2004/10/21/business/21scene.html?_r=1&pagewanted=2&oref=slogin.

engineering broadly includes fields of mathematics, logic, economics, operations research, engineering, and social sciences, deployed to improve the operations of integrated systems of industry, finance, and business management.

The American Institute of Industrial Engineers defines "industrial engineering" as:

> concerned with the design, improvement and installation of integrated systems of people, materials, equipment and energy. It draws upon specialized knowledge and skill in the mathematical, physical and social sciences together with the principles and methods of engineering analysis and design to specify, predict and evaluate the results to be obtained from such systems.

Gavriel Salendy, *Handbook of Industrial Engineering* 5 (John Wiley & Sons, Inc., 3d ed. 2001).

Industrial engineers focus their applied scientific, mathematical, and engineering improvements upon systems of human organizations ("enterprises"), which can be anything from a single person's activity, to a larger corporate, non-profit, or governmental organization. "[T]he systems designed by industrial engineers involve ***people*** as basic components." Wayne C. Turner et al., *Introduction to Industrial and Systems Engineering* 3, (Prentice Hall, 3d ed. 1993) (hereinafter "*Introduction to Industrial and Systems Engineering*") (emphasis added). The PTO has long accepted "industrial engineering" as a "recognized technical subject" for eligibility to become a patent attorney. *See* U.S. Patent &

Trademark Office, *General Requirements Bulletin for Admission to the Examination for Registration to Practice in Patent Cases Before the United States Patent and Trademark Office*, Jan. 2008, http://www.uspto.gov/web/offices/dcom/olia/oed/grb.pdf; *see also* Adedeji B. Badiru, *Handbook of Industrial and Systems Engineering* 1-8 (Taylor & Francis Group 2006) (hereinafter "*Handbook of Industrial and Systems Engineering*") ("An important aspect of industrial engineering is its concern with the ***human element*** in industrial processes.") (emphasis added).

The development and history of industrial engineering as a field includes the systematic measurement and analysis made by Charles Babbage of factory operations during the early 1800s, the development of early scientific techniques for managing industry by numerous innovators, and the development of the first mass production system by Eli Whitney in 1798. *Introduction to Industrial and Systems Engineering* at 13; *Handbook of Industrial and Systems Engineering* at 4. In the later 1800s, Frederick W. Taylor developed his theory of "scientific management," by measuring production steps and introducing new improvements to increase efficiency. His methods brought significant and rapid increases in productivity. Other researchers and engineers such as Frank and Dr. Lillian Gilbreth, Henry Gantt (of the "Gantt chart"), and W.A. Shewhart, introduced new methods including time and motion studies, planning and scheduling methods, and

statistical quality control. Henry Ford developed the innovations of his car assembly line, bringing automobile products to the mass market. *Introduction to Industrial and Systems Engineering* at 13-15; *see also, Handbook of Industrial and Systems Engineering* at 4-8 (describing the development of industrial and systems engineering from the year 1440 to present).

As a testament to the importance of these developments, the Society of Industrial Engineers was formed in the early 20th century, the American Management Association in 1922, and the American Institute of Industrial Engineers in 1948 (*see* www.iienet.org). The first course in Industrial Engineering was introduced in 1908 at Pennsylvania State University, the same year Ford produced the Model T. *Handbook of Industrial and Systems Engineering* at 6. More recently, the application of science and engineering to the problems of human organizations in industry and government expanded with the development of digital computers. The field now spans the separate but often interrelated specialties of information technology, manufacturing and production systems, service industry systems, performance improvement management, human factors and ergonomics, quality management and control, decision analysis, and optimization systems and methods. *Handbook of Industrial Engineering* at xxiv to xxxiv.

The unquestioned economic progress that the innovative, practical application of science and engineering to business organizations and processes has produced, especially for the United States, underscores the importance of that application to the "[p]rogress of [s]cience and useful [a]rts," U.S. Const. art. I, § 8, cl. 8. This evokes the fundamental question: why would our patent system make these particular practical fruits of human progress uniquely unpatentable? The answer: it does not and the Supreme Court has never interpreted the patent statute that way. As explained more fully below, so long as the steps of a business-related method are clearly and distinctly claimed, as required by 35 U.S.C. § 112, and so long as those steps taken as a whole represent more than just an abstract principle, the business-related method should be eligible for patent protection under section 101.

2. The *Diehr* test applies to business-related processes whether or not the claim recites a physical transformation of an article or is tied to a machine. (Question 4)

The *Diehr* test can be applied to modern-day business processes as readily as it is to manufacturing processes, or even to the paper-based business systems of the patent statute's earliest days.[11] As the Supreme Court has acknowledged, neither it

[11] *E.g.*, U.S. Patent No. 465,485 ("Means for Securing Against Excessive Losses by Bad Debts" (1891)); U.S. Patent No. 480,426 ("Method of Preventing Fraud in the Sale of Newspapers and Other Publications" (1892)). The PTO has long-recognized its long history of issuing similar business-related patents, often

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nor Congress intended to "freeze process patents to old technologies, leaving no room for the revelations of the new, onrushing technology." *Gottschalk v. Benson*, 409 U.S. 63, 71 (1972).

Rather than establish some new test to replace *Diehr*'s durable requirement of a practical application of a process toward a useful end, this Court need only clarify that the *Diehr* test can and should continue to be applied to modern business methods. In doing so, however, the prohibition on patenting abstract ideas and natural laws must be respected. It is well settled that "[a] principle, in the abstract, is a fundamental truth; an original cause; a motive; these cannot be patented, as no one can claim in either of them an exclusive right." *Diehr*, 450 U.S. at 185 (quoting *Le Roy v. Tatham*, 55 U.S. (14 How.) 156, 175 (1852)).[12]

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mediated by nothing more "technical" than pieces of paper between humans. *See* A USPTO White Paper: Automated Financial or Management Data Processing Methods (Business Methods), ver. 1.43, http://www.uspto.gov/web/menu/busmethp/whitepaper.pdf (last visited Mar. 27, 2008) (hereinafter "PTO White Paper"), at App. A (citing U.S. Patent No. X2301 ("Bank Note Printing"); U.S. Patent No. 871 ("Bank Note"); U.S. Patent No. 63,889 ("Hotel Register"); U.S. Patent No. 138,891 ("Revenue Stamps"); U.S. Patent No. 575,731 ("Insurable Property Chart"); U.S. Patent No. 853,852 ("Insurance System"); U.S. Patent No. 1,406,561 ("Business Form"); U.S. Patent No. 3,556,563 ("Booklet and Cards for Use in a Limited Credit System")).

[12] The Supreme Court and this Court have noted that all inventions in one way or another embody abstract principles in specific form. *Diehr*, 450 U.S. at 189 n.12 ("[A]ll inventions can be reduced to underlying principles of nature which, once known, make their implementation obvious."). For example, basic chemical processes can be specifically linked to achieve a specific effect; a certain lever can be coupled with a specific pulley and a defined gear, all of which can be

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The PTO asserts that the only way section 101 can be applied to prevent patenting abstract ideas, mathematical algorithms, and laws of nature is by applying standards developed specifically in the context of computer-based inventions: when a process (1) physically transforms articles to another state or thing or (2) is tied to a machine. PTO Supp. Br. at 3, 7, n.3 (citing *Flook*, 437 U.S. at 589). But the Supreme Court has already rejected that argument. *See Benson,* 409 U.S. at 71 ("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.") (emphasis added); *Flook*, 437 U.S. at 589 n.9 (same); s*ee also Diehr*, 450 U.S. at 192 (where, when referring to a "structure or process . . . which the patent laws were designed to protect (***e.g.***, transforming or reducing an article to a different state or thing)," the Court

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described by abstract mathematics; electrons will obey Maxwell's equations to achieve a certain amplification of sound in a circuit. And new methods for organizing humans in businesses can follow certain basic or abstract principles (e.g., game theory or economics or statistics) to achieve new, nonobvious practical effects in the real world. None of this renders such practical inventions non-statutory subject matter. *See generally, Arrhythmia*, 958 F.2d at 1603 (Rader, J., concurring) ("The operation of a machine, the generation of electricity, the reaction of two chemicals, a baseball batter's swing, a satellite's orbit--all are within the descriptive power of mathematics.").

specifically uses the ***open*** "e.g.," to indicate that these are simply exemplars of patentability, not its *sine qua non*) (emphasis added).[13]

Moreover, the Supreme Court has "more than once cautioned that 'courts should not read into the patent laws limitations and conditions which the legislature has not expressed.'" *Diehr*, 450 U.S. at 182 (quoting *Chakrabarty*, 447 U.S. at 308 (further quotations omitted)). Absent clear legislative guidance that process patents must produce some physical transformation or be tied to a machine, manufacture, or composition of matter, this Court should not so limit section 101.[14]

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[13] To support its argument, the PTO quotes a passage from *Diehr* in which the Supreme Court repeated a quote from *Benson*: "Transformation and reduction of an article 'to a different state or thing' is the clue to the patentability of a process claim that does not include particular machines." PTO Br. at 13-14. Because the Supreme Court stated in the very same case, however, that it did "not hold" that physical transformation or tethering to a machine is necessary, *Benson*, 409 U.S. at 71, that statement must be read to mean that transformation can be a clue to patentability when an invention is not tied to a machine, not that physical transformation or tethering to a machine is a per se requirement. At a minimum, it certainly cannot be the "singular focus" as the PTO proposed. PTO Br. at 13-14.

[14] By stating that a process recites statutory subject matter only if it "operates on, transforms, or otherwise involves another class of statutory subject matter," *Comiskey*, 499 F.3d 1365, 1376 (Fed. Cir. 2007), the panel in *Comiskey* appeared to have so limited section 101. However, the panel's analysis did not seem to turn on that pronouncement. Rather, the case seemed to turn on the panel's view that the ***entire*** claimed process could purportedly be performed in someone's mind. *Comiskey*, 499 F.3d 1365, 1379 (Fed. Cir. 2007); *but see infra* note 17.

3. A claim that recites both mental and physical steps may be patent-eligible under the *Diehr* test. (Question 3)

The Supreme Court has neither held nor suggested that a method involving human instrumentalities is not patentable. The Supreme Court has stated that it "cannot be disputed" that "a process may be patentable, irrespective of the particular form of the instrumentalities used." *Cochrane v. Deener*, 94 U.S. 780, 787 (1876). Thus, it should not matter for patent-eligibility whether a robot or a human performs a step in a claimed method.[15] Nor should it matter whether a computer program or a human mind performs a "deciding" step or the process generates a piece of paper or a legal relationship.[16] The "particular form of instrumentality" used to perform the process step should not change the analysis.

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[15] Most chemical process patents can be implemented by a researcher mixing chemicals directly or by automated chemical equipment. Use of a human actor in that situation should not (and currently does not) make such a claimed process unpatentable.

[16] As the PTO itself has noted, some of the earliest granted patents claimed such things. The PTO's position in this case (and *Comiskey*) does not easily square with its own centuries' long history of issuing such patents. *See, e.g.*, A USPTO White Paper: Automated Financial or Management Data Processing Methods (Business Methods), ver. 1.43, *available at* http://www.uspto.gov/web/menu/busmethp/whitepaper.pdf; U.S. Patent No. 853,852 ("Insurance System") (claiming simply a two-part insurance policy consisting of a paper containing an insurance contract, and a post card having appropriate identification marks, that a person on a journey could send when they needed insurance for the next leg of travel).

The Supreme Court has said that a claim does not become non-statutory just because it includes a mathematical formula or a law of nature. *Diehr*, 450 U.S. at 176 ("[A] claim drawn to subject matter otherwise statutory does not become nonstatutory simply because it uses a mathematical formula, computer program, or digital computer."); *Flook*, 437 U.S. at 590 ("[A] process is not unpatentable simply because it contains a law of nature or a mathematical algorithm"). Similarly, just because a claim includes a mental step, or a human actor, it does not become non-statutory. As the Supreme Court stated in *Diehr*, "[t]he fact that one or more of the steps in respondents' process may not, in isolation, be . . . independently eligible for patent protection is irrelevant to the question of whether the claims ***as a whole*** recite subject matter eligible for patent protection under § 101." *Diehr*, 450 U.S. at 193 n.15 (emphasis altered).

That is not to say, however, that the *Diehr* test is so broad that a method that can be performed entirely in someone's mind would be patentable.[17] At that extreme, the claim would violate the Supreme Court's analysis in *Benson*, where a

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[17] The *Comiskey* panel rejected claims for that reason. *Comiskey*, 499 F.3d at 1379 (Fed. Cir. 2007) (concluding that the claimed invention merely recited "the mental process of resolving a legal dispute between two parties by the decision of a human arbitrator"). But Comiskey's rejected claim does not involve simply mental processes. Rather, it expressly recites tangible steps involving non-mental instrumentalities, including "documents," "arbitration language," and "request for arbitration resolution." While that claim language raises issues under sections 112 and 103 (as the PTO had originally held), it does not recite simply mental processes under section 101.

claim directed simply to converting binary-coded decimal numerals into pure binary numerals was held non-statutory because the entire claim could "be done mentally." *Benson*, 409 U.S. at 67. As *Diehr* holds, one looks to the process claim, taken as a whole, to determine whether the invention comprises a patentable, practical application of an idea or simply the idea itself. *Diehr*, 450 U.S. at 193 n.15.

B. Congress Has Recognized the Patentability of Business Methods

Congress has affirmatively recognized the patentability of business methods. Crucially, in 1999, Congress enacted the First Inventor Defense Act of 1999. Pub. L. No. 106-113, § 4302, 113 Stat. 1501A-555, 555-57 (1999) (to be codified at 35 U.S.C. § 273 (2000)). That statute provided a personal defense to infringement of claims reciting "a method of doing or conducting business." 35 U.S.C. § 273.[18] Congress further noted that a patented business method may be used "in connection with an internal commercial use or an actual arm's-length sale or other

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[18] Particularly, 35 U.S.C. § 273(b)(1) provides: "It shall be a defense to an action for infringement under section 271 of this title with respect to any subject matter that would otherwise infringe one or more claims for a method in the patent being asserted against a person, if such person had . . . actually reduced the subject matter to practice at least 1 year before the effective filing date of such patent, and commercially used the subject matter before the effective filing date of such patent." Section 273(a)(3) defines "method" in that subsection broadly as "a method of doing or conducting business," notably untied to any of the instrumentality "tests" proffered by the PTO. *See* 35 U.S.C. § 273(a)(3).

arm's-length commercial transfer of a useful end result." 35 U.S.C. § 272(a)(1). The statute does not require the method to be implemented on a computer or to transform matter. *See generally* 145 Cong. Rec. S14696, S14716 (daily ed. Nov. 17, 1999) (stating that section 273 was enacted to strike "an equitable balance between the interests of U.S. inventors who have invented and commercialized business methods and processes, many of which until recently were thought not to be patentable, and U.S. or foreign inventors who later patented the methods and processes").[19]

Furthermore, since enacting section 273, Congress has declined several additional opportunities to legislate in the area of business method patents. In each of the last four Congresses, bills have been introduced to curtail the patent statute as it relates to business methods. *See* H.R. 5364, 106th Cong. (2d Sess. 2000); H.R. 1332, 107th Cong. (1st Sess. 2001); H.R. 5299, 108th Cong. (2d Sess. 2004);

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[19] As Congress acknowledged, "As the Court [in *State Street Bank*] noted, the reference to the business method exception had been ***improperly applied*** to a wide variety of processes, blurring the essential question of whether the invention produced a 'useful, concrete, and tangible result.' In the wake of *State Street*, thousands of methods and processes used internally are now being patented." 145 Cong. Rec. S14696-03, S14717 (daily ed. Nov. 17, 1999) (emphasis added). Congress further elaborated that the bill "focuses on methods for doing and conducting business, including methods used in connection with internal commercial operations as well as those used in connection with the sale or transfer of useful end results-whether in the form of physical products, ***or in the form of services***, or ***in the form of some other useful results***; for example, ***results produced through the manipulation of data*** or other inputs to produce a useful result." *Id.* (emphasis added). Far from disputing this Court's analysis in *State Street*, Congress embraced it as the proper interpretation of its Code.

H.R. 5096, 109th Cong (2d Sess. 2006). None of those bills has been enacted into law. As the Supreme Court has repeatedly held, and as this Court has expressly acknowledged, where Congress has declined to place limitations on the patent laws, the courts should not impose them. *Chakrabarty*, 447 U.S. at 308; *Diehr*, 450 U.S. at 182; *State Street Bank Co. v. Signature Financial Group, Inc.*, 149 F.3d 1368, 1372 (Fed. Cir. 1998), *cert. denied*, 525 U.S. 1093 (1999).

C. It Would be Improper for the Courts or the PTO to Limit Patent Protection Available to Business Methods In Light of the Settled Expectations of the Inventing Public

The Supreme Court has warned that "courts must be cautious before adopting changes that disrupt the settled expectations of the inventing community." *Festo Corp. v. Shoketsu Kinzoju Kogyo Kabushiki Co., Ltd.*, 535 U.S. 722, 739 (2002). Changes require Congressional action. *Id.* (stating that "[t]he responsibility for changing [the law] rests with Congress" (citing *Warner-Jenkinson Co. v. Hilton Davis Chem. Co.*, 520 U.S. 17, 28 (1997))). Requiring Congressional action to change well-settled rules is necessary because "[f]undamental alterations in these rules risk destroying the legitimate expectations of inventors in their property."[20] *Id.*

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[20] To date, more than 15,000 patents have issued in Class 705, which is entitled United States Patent & Trademark Office, *Data Processing: Financial, Business Practice, Management, or Cost/Price Determination, Class Definition for Class 705*, July 2006, http://www.uspto.gov/go/classification/uspc705/defs705.pdf.

Like the doctrine of equivalents issue in *Festo*, the patentability of business processes is settled. Business methods were patentable before *State Street*, and they remain patentable in accordance with Congress' intent, as evidenced by 25 U.S.C. § 273. *See State Street*, 149 F.3d at 1375 (stating that a "business method exception has never been invoked by this court, or the CCPA, to deem an invention unpatentable"). "To change so substantially the rules of the game now could very well subvert the various balances the PTO sought to strike when issuing the numerous patents which have not yet expired and which would be affected by our decision." *Festo*, 535 U.S. at 739 (quoting *Warner-Jenkinson*, 520 U.S. at 32 n.6.) It would also subvert the policy balance implicit in the patent statute enacted by Congress.

D. The Bilski Claim Appears to Recite Statutory Subject Matter Under Section 101, But It Remains Subject to Sections 102, 103, and 112 of Title 35 (Question 1)

As noted, a section 101 analysis is simply the first threshold inquiry that precedes analysis under sections 102, 103 and 112 of the patent statute. *Flook*, 437 U.S. at 593 ("The obligation to determine what type of discovery is sought to be patented must precede the determination of whether that discovery is, in fact, new or obvious."); *see also Diehr*, 450 U.S. at 188 (concluding that the claimed "process is at the very least not barred at the threshold by § 101"). Attempts to import into section 101 the other requirements of patentability are simply

improper. *Id.* at 189-90 ("The 'novelty' of any element or steps in a process, or even of the process itself, is of no relevance in determining whether the subject matter of a claim falls within the § 101 categories of possibly patentable subject matter.").[21]

Claim definiteness under section 112, however, does relate in a limited fashion with section 101. For example, before an analysis of patent eligibility can be made, it must be clear what the claim covers. The Manual of Patent Examining Procedure ("MPEP") instructs examiners to "first determine the scope of a claim by thoroughly analyzing the language of the claim before determining if the claim complies with each statutory requirement for patentability." MPEP § 2106(C), at 2100-06.[22]

But in this appeal, the PTO (like so many critics of "business method" patents), goes too far in commingling its analysis of the subject matter requirement of section 101 with both sections 102 and 112.[23] First, the PTO asserts that "the

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[21] This Court has recognized as much. *See, e.g., State Street*, 149 F.3d at 1372 n.2 (noting that the "first door which must be opened on the difficult path to patentability is § 101. . . . If the invention . . . falls into any one of the named categories, [the inventor] is allowed to pass through to the second door, which is § 102").

[22] The MPEP further states that "if there is a great deal of uncertainty as to the proper interpretation of the limitations of a claim, it would be improper to reject the claim on the basis of prior art." MPEP § 2173.06, at 2100-226.

[23] The same might be true in *Comiskey*, 499 F.3d 1365. The claim there may be indefinite under section 112. Those issues could, and should, have been

(continued on next page)

body of [Bilski's] claim essentially tracks the definition of a commodity cost hedge" (PTO Br. at 8), and that a "hedge is a well-known strategy" (*id.* at 5). Such complaints sound in section 102 or 103, not section 101.[24] Similarly, the PTO asserts that Bilski's claim is "untethered from any means for carrying out his hedging concept of balancing two sets of transactions." PTO Supp. Br. at 22. Such a complaint sounds in section 112, para. 1 (written description and/or enablement), not section 101.[25]

Bilski's claim recites a process implemented in the physical world, e.g., "initiating a series of transactions" between a "commodity provider and

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(continued from previous page)
addressed by the PTO. Moreoever, the prior art rejections originally before the Comiskey panel could have avoided the section 101 issue that created broad dicta affecting otherwise definite, novel, and non-obvious business-related inventions.

[24] The early Second Circuit *Hotel Security* case cited by the PTO in support of its section 101 argument (PTO Br. at 37-38) likewise sounds in section 102 or 103, not section 101. See *Hotel Security Checking Co. v. Lorraine Co.*, 160 F. 467, 470 (2d Cir. 1908) (the claimed invention "required no exercise of inventive facilities" and "adds nothing of substance to the art"). The Court affirmatively stated that it did not need to address the "question whether a new and useful system of cash-registering and account checking is such an art is as patentable under the statute" because the inventor did not otherwise "make a contribution to the art." *Id.* at 472.

[25] Justice Kennedy concurred in *eBay Inc. v. MercExchange, L.L.C.*, noting that the "potential vagueness and suspect validity of some [business method] patents." 547 U.S. 388, 397 (2006). That concern is directed at the section 112 requirements of an adequate written description and definite claims, not the patentability of business methods as a class under section 101.

consumers"; "identifying market participants"; and "initiating a series of transactions between" the "commodity provider" and "said market participants." Because the process claims specific interactions between human actors, such as market participants and commodity providers, it represents a practical application with a useful result. Further, Bilski does not attempt to patent an abstract idea or force of nature. The claim does not preempt all forms of hedging, but instead covers the particular set of practical claims steps. Thus, the formal structure of the Bilski claims, as such, presents statutory subject matter under section 101, although the claims on appeal may not be patentable under other sections of Title 35. Since the full file history of the *Bilski* patent, including its specification, remain under secrecy, *amici* cannot address whether the claim on appeal fulfills the other stringent requirements of patentability. Those issues can be addressed with a proper remand to the PTO.

IV. CONCLUSION

The United States patent system has remained a durable vessel, both nurturing and channeling innovation for over two centuries. The Constitutional mandate has been clear: all new and useful processes are patentable under section 101. The Supreme Court has been equally clear: only claimed processes which simply and improperly encompass or preempt abstract ideas, law of nature, or natural phenomena remain unpatentable. And if the matter were not clear enough,

Congress has not only affirmed the legitimacy of this Court's holding in *State Street Bank*, but codified certain defenses to infringement of so-called business method patents.

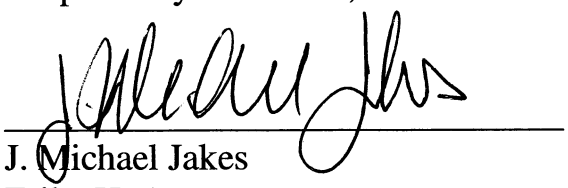
Nothing in the patent laws or in any Supreme Court decision make process claims directed to business processes or claims that require human instrumentalities non-statutory. The PTO must examine those claims as it would any other. If the law were otherwise, a grave injustice would be played against the hard-won efforts of so many innovators, like Accenture, who seek nothing less and nothing more than to protect their true, practical innovations.

This Court should continue to apply the *Diehr* standard for statutory subject matter to business processes. Per *Diehr*, a process is patentable under section 101

so long as it presents a practical application with a useful result. Patentable processes should not require physical transformation or tethers to a machine.

Dated: April 7, 2008

Respectfully submitted,



J. Michael Jakes
Erika H. Arner
FINNEGAN, HENDERSON, FARABOW,
GARRETT & DUNNER, L.L.P.
901 New York Avenue, NW
Washington, DC 20001
(202) 408-4000

Ronald E. Myrick
Denise W. DeFranco
FINNEGAN, HENDERSON, FARABOW,
GARRETT & DUNNER, L.L.P.
55 Cambridge Parkway
Cambridge, MA 02142
(617) 452-1600

Attorneys for Amicus Curiae
Accenture

Of Counsel:

Wayne P. Sobon
Associate General Counsel
Director of Intellectual Property
ACCENTURE
50 West Fernando Street, Suite 1200
San Jose, CA 95113
(408) 817-2170

CERTIFICATE OF SERVICE

I hereby certify that on this 7th day of April 2008, two true and correct copies of the foregoing BRIEF FOR AMICUS CURIAE ACCENTURE IN SUPPORT OF APPELLANTS were served by first-class mail on the following counsel:

David C. Hanson
The Webb Law Firm
700 Koppers Building
436 Seventh Avenue
Pittsburgh, PA 15219

Stephen Walsh
OFFICE OF THE SOLICITOR
Post Office Box 15667
Arlington, VA 22215

CERTIFICATE OF COMPLIANCE

I certify that the foregoing BRIEF FOR AMICUS CURIAE ACCENTURE IN SUPPORT OF APPELLANTS contains 6,997 words as measured by the word processing software used to prepare this brief.

Dated: April 7, 2008

Respectfully submitted,