

No. 08-964

IN THE
Supreme Court of the United States

BERNARD L. BILSKI and RAND A. WARSAW,
Petitioners,

v.

DAVID J. KAPPOS, UNDER SECRETARY OF
COMMERCE FOR INTELLECTUAL PROPERTY AND
DIRECTOR, PATENT AND TRADEMARK OFFICE,
Respondent.

**On Writ of Certiorari to the United States
Court of Appeals for the Federal Circuit**

**BRIEF FOR AMICUS CURIAE
MARK LANDESMANN
IN SUPPORT OF AFFIRMANCE**

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TABLE OF CONTENTS

	<i>Page</i>
STATEMENT OF INTEREST	1
SUMMARY OF THE ARGUMENT	3
ARGUMENT	4
I) THE FEDERAL CIRCUIT’S MACHINE- OR-TRANSFORMATION TEST IS UNDULY RESTRICTIVE AND INCONSISTENT WITH THE STATUTORY DEFINITION OF “PROCESS”	4
A. Rebuttal of the Federal Circuit’s Opinion	4
B. Rebuttal of the concurrence	11
C. Rebuttal of Judge Mayer’s argument ..	14
II) NO RELIABLE EVIDENCE REGARDING THE ALLEGED NEGATIVE SOCIETAL IMPACT OF NOVEL, NON-OBVIOUS, AND PROPERLY DISCLOSED BUSINESS METHOD PATENTS HAS BEEN PRESENTED TO THE COURT	18
A. Reliable and comprehensive studies of business method patents, as a category, do not support the contention that they are inherently less beneficial than other patents	19

Table of Contents (continued)

	<i>Page</i>
B. The empirical evidence presented by business method patent opponents is anecdotal, and as such, inherently unreliable and potentially misleading .	23
C. The evidence submitted by business method patent opponents does not distinguish between those patents issued before the USPTO drastically revised its review of these patents, and those issued after that change	27
D. Widespread infringement has prevented business method and software patents from attaining, and demonstrating, their full societal potential	28
E. The Bilski case can, itself, be misleading as a §101 test case	31
III) CLAIM 1 OF THE BILSKI PATENT APPLICATION IS INELIGIBLE FOR PATENT PROTECTION	33

Table of Contents (continued)

	<i>Page</i>
IV) THE COURT SHOULD NOT A <i>PRIORI</i> ELEVATE SOME FIELDS OF RESEARCH AND INQUIRY AS MORE DESERVING OF PATENT PROTECTION THAN OTHERS .	34
CONCLUSION	37

TABLE OF AUTHORITIES

	<i>Page(s)</i>
CASES:	
<i>Cochrane v. Deener</i> , 94 U.S. 780 (1877)	passim
<i>Diamond v. Chakrabarty</i> , 447 U.S. 303 (1980) . . .	12
<i>Diamond v. Diehr</i> , 450 U.S. 175 (1981)	passim
<i>Gottschalk v. Benson</i> , 409 U.S. 63 (1972)	passim
<i>In re Bilski</i> , 545 F. 3d 943 (2008)	passim
<i>Parker v. Flook</i> , 437 U.S. 584 (1978)	passim
<i>Perrin v. United States</i> , 444 U.S. 37 (1979)	12
<i>State St. Bank & Trust Co. v. Signature Fin. Group, Inc.</i> , 149 F.3d 1368 (Fed. Cir. 1998)	20, 24, 25
<i>United States v. Dubilier Condenser Corp.</i> , 289 U.S. 178, 53 S. Ct. 554, 77 L.Ed. 114 (1933) .	12
CONSTITUTIONAL PROVISIONS AND STATUTES:	
United States Constitution.	14
35 U.S.C. §100(b)	4
35 U.S.C. §101	4, 8
Patent Act of 1793, 1 Stat. 318-323, §1 (1793)	8, 11, 12
Patent Act of 1952, 66 Stat. 792, §101 (1952) . .	passim

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- U.S. Patent No. 5,855,008, *Attention Brokerage* . . . 1
- U.S. Patent No. 6,285,999, *Method for Node Ranking in a Linked Database* 36

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	<i>Page(s)</i>
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LEO J. RASKIND, <i>The State Street Bank Decision: The Bad Business of Unlimited Patent Protection for Methods of Doing Business</i> , 10 <i>Fordham Intel. Prop., Media & Ent. L. J.</i> 61 (1999)	24, 25, 34
MICHAEL SHERMER, <i>How Anecdotal Evidence Can Undermine Scientific Results</i> , <i>Scientific American Magazine</i> , August 2008	23
NATIONAL SCIENCE FOUNDATION, <i>Industry, Technology and the Global Marketplace: International Patenting Trends in Two New Technology Areas</i> ”, <i>Science And Engineering Indicators</i> , 2002	15

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	<i>Page(s)</i>
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STEPHANIE L. VALERA, <i>Damned if You Do, Doomed if You Don't: Patenting Legal Methods and Its Affect on Lawyers' Professional Responsibilities</i> , 60 Fla. L. Rev. 1145 (2008)	23
EDWARD C. WALTERSCHEID, <i>The Early Evolution Of The United States Patent Law (Antecedents (Part 1))</i> , 76 J. Pat. & Trademark Off. Soc'y 697, 698 (1994)	11
EDWARD C. WALTERSCHEID, <i>The Nature Of The Intellectual Property Clause: A Study In Historical Perspective</i> , published by William S. Hein & Co., Inc., February 2002 . . .	16, 17, 18

STATEMENT OF INTEREST¹

I am an entrepreneur with a diverse operational and industry background. In the 1990's, I built a group of companies trading foodstuffs, such as fruit juice concentrates, dried foods, and canned foods, primarily between Eastern Europe, Latin America and the United States. To break into new markets, I designed and implemented processes and structures that reduced the financing cost associated with the production and delivery of these products.

In 1999 and 2000, I was part of the senior management team of Cybergold, an internet incentive advertising company whose primary mission was implementation of the concepts disclosed in business method patent U.S. Patent No. 5,855,008 (Inventors: Nat Goldhaber and Gary Fitts). At Cybergold, I was in charge of running the company's email subscription program, which was the primary way by which the company's approximately three million more active members interacted with the Cybergold service. I was also responsible for the company's relationships with its major accounts. The company went public and merged with another company with a similar business model, MyPoints, now part of United Online, Inc.

¹ In accordance with Supreme Court Rule 37, I state that this brief was not authored, in whole or in part by counsel to a party, and that no monetary contribution to the preparation or submission of this brief was made by any person or entity other than myself. Petitioners and Respondents have consented to the filing of this brief through blanket consent letters filed with the Clerk's Office.

I am the patentee and majority owner² of one issued and several pending business method patents (primary classification in class 705). Due to the very strict and time-intensive review of business method patents at the Patent Office that has been in place since March of 2000, I have incurred significant expenses and delays in prosecuting this portfolio.

(Separately, I am the patentee and majority owner³ with respect to a portfolio of three issued and two pending software patents in the field of anti-spam technology. These issued and pending patents reflect an approach to the problem of spam emails, which has been described by major technology companies as a leading solution to that problem.)

The doubts surrounding patent-eligibility may impede my ability to prosecute and license the business method patents in my portfolio and have magnified the risks associated with starting up businesses based on a patented process. I believe that clarity in this area is extremely important, but I further believe that the Federal Circuit's "machine-or-transformation" test is a step in the wrong direction.

I hold an MBA from Harvard Business School, which I obtained on a full scholarship, and an M.A. in International Policy Studies as well as a B.A. in Economics from Stanford University. Stanford's International Policy Studies program focuses on the making of domestic and international governmental

² My ownership is through holdings in a company that is the assignee of this portfolio.

³ *Id.*

and corporate policies. I am not an attorney and have not been schooled in patent law (or any other area of the law).

SUMMARY OF THE ARGUMENT

Regarding the patent-at-issue in this case, this brief supports the affirmance, at least in-part, of the Patent Office's rejection, but on different grounds than those cited by the Patent Office.

First, this brief argues that the 1952 Patent Act, as interpreted by subsequent case law, establishes that business method processes are eligible for patent protection. Business method patents therefore should be held eligible by this Court, regardless of whether or not such patents might be deemed to be beneficial to society.

Second, this brief demonstrates that no persuasive evidence supports the notion that business method patents are not beneficial to society.

Third, this brief reviews the patent eligibility of claim 1 of the Bilski patent application and finds it ineligible because it is an expression of an abstract idea.

Fourth, this brief argues that the Court should not *a priori* hold some fields of research inquiry as more deserving of patent protection than others.

ARGUMENT**I) THE FEDERAL CIRCUIT'S MACHINE-OR-TRANSFORMATION TEST IS UNDULY RESTRICTIVE AND INCONSISTENT WITH THE STATUTORY DEFINITION OF "PROCESS"****A. Rebuttal of the Federal Circuit's Opinion**

As properly interpreted, the word "process" within the 1952 Patent Act encompasses any process within the useful arts. The Federal Circuit's machine-or-transformation test is unduly restrictive and inconsistent with the definition of "process" as defined within the 1952 Patent Act and as that word has been construed in the decisions of this Court.

Patent-eligible subject matter is defined as follows in 1952 Patent Act ("the Patent Act"):

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.

35 U.S.C §101

The 1952 Patent Act expressly defines term "process" as follows:

The term "process" means process, art or

method, and includes a new use of a known process, machine, manufacture, composition of matter, or material.

35 U.S.C. §100(b)

Because of a perceived writing flaw, the Federal Circuit disregards this definition in its analysis of the boundaries of patent eligibility for processes:

...provision [35 U.S.C. §100(b)] is unhelpful given that the definition itself uses the term "process."

Bilski, 545 F. 3d at 951, n.3.

It violates common sense to exclude the statute's very definition of the word "process" from an assessment of what the statute's intended meaning of that term was. In fact, it is the very circularity of that definition that shows that the statute meant to define "process" broadly. Clearly, what is meant is that the definition of "process", as applicable to the statute, includes what would normally be known as a process (under common usage) and, additionally, that which falls within the definition of the other enunciated categories.

The Federal Circuit then turns to U.S. Supreme Court precedent and construes those precedents as prohibiting patents that do not meet the machine-and-transformation test that the Federal Circuit has coined. That test declares a claimed process to be patent-eligible if: "(1) it is tied to a particular machine or apparatus, or (2) it transforms a particular article into a different state or thing."

In re Bilski, 545 F.3d 945, 954-55 (Fed. Cir. 2008).

The Federal Circuit relies primarily on *Gottschalk v. Benson*, 409 U.S. 63 (1972), *Parker v. Flook*, 437 U.S. 584 (1978) and *Diamond v. Diehr*, 450 U.S. 175 (1981) to argue that the Supreme Court has enunciated this test, and holds that it should be applied as a firm requirement and marker of the boundaries of patent eligibility with respect to processes. However, those cases stand for the proposition that the machine-or-transformation test is only a clue to the patent-eligibility of a process and not the solely determinative criteria.

In fact, the Federal Circuit concedes that *Benson* and *Flook* did not mean the machine and physical transformation prongs to be the solely determinative criteria for that eligibility. Both *Benson* and *Flook* explicitly state that business method patents on inventions not meeting the machine-or-transformation requirement can be allowed. The Federal Circuit acknowledges and cites the relevant excerpts:

In *Benson*:

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.

Benson, 409 U.S. at 71.

In *Flook*:

"As in Benson, we assume that a valid process patent may issue even if it does not meet [the machine-or-transformation test]."

Flook, 437 U.S. at 589 n.9 (emphasis added by the Federal Circuit).

The Federal Circuit dismisses these quotations as a mere "caveat", but they are more than just that, and stand in direct contradiction to the use of the machine-and-transformation test for determining the boundaries of patent eligibility.⁴ Using the machine-or-transformation test to include inventions that do pass the test is very different from using the test to exclude those inventions that do not. In *Benson* and *Flook*, the Supreme Court explicitly endorsed the former, and explicitly rejected the latter.

The Federal Circuit bases its decision to disregard the above cited statements in *Benson* and *Flook* primarily on the following aspects of *Diehr* and *Benson*: First, the Federal Circuit claims that the *Benson/Flook* "caveat" statements were undone by the following sentence in *Benson*:

"Transformation and reduction of an article 'to a different state or thing' is the

⁴ In the context of their respective cases, the statements *were* caveats, because the cautioned the reader not to draw conclusions about the boundaries of patent eligibility.

clue to the patentability of a process claim that does not include particular machines.”

Bilski, quoting *Benson*, 409 U.S. at 70 (emphasis added by the Federal Circuit).

However, the above *Benson* excerpt clearly shows that “*the* clue” was not meant to be understood as “*the one and only, and final, clue,*” and no added emphasis can be emphatic enough to outweigh that clear and unambiguous explanation.

Second, with respect to *Diehr*, the Federal Circuit argues that the supposed caveats in *Flook* and *Benson* were not repeated there, but that the “clue to patentability” sentence in *Benson* was.

But *Diehr* does more than this: it does cite the clue-to-patentability sentence, but only as a follow-on to a recitation of the much earlier definition of process in *Cochrane v. Deener*, 94 U.S. 780 (1877). This portion of *Diehr* reads as follows:

Although the term "process" was not added to 35 U.S.C. §101 until 1952, a process has historically enjoyed patent protection because it was considered a form of "art" as that term was used in the 1793 Act. In defining the nature of a patentable process, the Court stated:

"That a process may be patentable, irrespective of the particular form of the instrumentalities used, cannot be disputed. . . . A process is a mode of treatment of certain materials to produce a given result.

It is an act, or a series of acts, performed upon the subject matter to be transformed and reduced to a different state or thing. If new and useful, it is just as patentable as is a piece of machinery. In the language of the patent law, it is an art. The machinery pointed out as suitable to perform the process may or may not be new or patentable; whilst the process itself may be altogether new, and produce an entirely new result. The process requires that certain things should be done with certain substances, and in a certain order; but the tools to be used in doing this may be of secondary consequence."

Cochrane v. Deener, 94 U. S. 780, 94 U. S. 787-788 (1877).

Analysis of the eligibility of a claim of patent protection for a "process" did not change with the addition of that term to § 101. Recently, in *Gottschalk v. Benson*, 409 U. S. 63 (1972), we repeated the above definition recited in *Cochrane v. Deener*, adding:

"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."

Diehr 450 U.S. 175 at 192 (footnote omitted).

Making the clue-to-patentability sentence a part of the *Cochrane* definition of process moves the machine-or-transformation test closer to fulfilling the normal function of a clue: it is an investigative tool, not an absolute requirement or boundary. In this context, the machine-or-transformation test is an important and central clue, the clue that stands apart from lesser clues, but a clue nevertheless.

The context of the clue-to-patentability sentence in *Diehr* is also important, because the *Cochrane* definition appears more expansive, and less rigid, than the machine-or-transformation test by itself. For instance, with respect to the transformation prong of the machine-or-transformation test, it is an “article” that needs to be transformed. No “explicit definition” of article is given, but the *Cochrane* definition of things that can be transformed, (“substance”, “subject matter”) appears to lend a broader, clearer, and more flexible meaning and definition to “article” than is reflected in the examples given in the Federal Circuit’s opinion.

Summarizing the rebuttal of the Federal Circuit’s argument, the definition of “process” in the 1952 Patent Statute is not made irrelevant by the definition’s perceived writing flaw. With respect to the applicable Supreme Court case history, the *Flook* and *Benson* statement that process patentability should not be restricted to inventions that meet the machine-or-transformation test is clear, strong, and unambiguous. That statement is not negated by its non-repetition in *Diehr*, nor by the “clue to patentability” sentence in *Benson*.

B. Rebuttal of the concurrence

The concurring opinion of Judge Dyk and Judge Linn offers a further reason for disregarding the Patent Act's definition of process. The concurrence argues that we must go back to the 1793 Patent Act to understand the definition of process, because the Supreme Court has held that the 1952 Patent Act did not change that definition. As explained in the Concurrence, the 1952 Patent Act can therefore be disregarded for the purpose of interpreting the meaning and scope of "process."

Based on the work of Edward C. Walterscheid, who stated in *THE EARLY EVOLUTION OF THE UNITED STATES PATENT LAW* (Antecedents (Part 1), 76 J. Pat. & Trademark Off. Soc'y 697, 698 (1994) that "[T]he English common law relating to patents was what was best known in the infant United States," the concurrence then reviews contemporaneous and preceding British patent law and practice to support its contention that a process not involving manufactures, machines or compositions of matter was, at the time of the 1793 Act, not intended to be patentable subject matter.

The concurrence explains, that

[t]he criteria for patentability established by the 1793 Act remained essentially unchanged until 1952, when Congress amended § 101 by replacing the word "art" with "process" and providing in § 100(b) a definition of the term "process." The Supreme Court has made clear that this change did not alter the substantive

understanding of the statute; it did not broaden the scope of patentable subject matter.² Thus, our interpretation of § 101 must begin with a consideration of what the drafters of the early patent statutes understood the patentability standard to require in 1793. *See Diehr*, 450 U.S. at 182-83 (looking to the 1793 Act).

Bilski, at 966-967 (Dyk, J. and Linn, J., concurring).

The concurrence cites *Diehr* for support (“a process has historically enjoyed patent protection because it was considered a form of ‘art’ as that term was used in the 1793 Act”). However, the relevant *Diehr* citation, in its full context, reads as follows:

In cases of statutory construction, we begin with the language of the statute. Unless otherwise defined, "words will be interpreted as taking their ordinary, contemporary common meaning," *Perrin v. United States*, 444 U. S. 37, 444 U. S. 42 (1979), and, in dealing with the patent laws, we have more than once cautioned that "courts *should not read into the patent laws limitations and conditions which the legislature has not expressed.*" *Diamond v. Chakrabarty*, *supra*, at 447 U. S. 308, quoting *United States v. Dubilier Condenser Corp.*, 289 U. S. 178, 289 U. S. 199 (1933). The Patent Act of 1793 defined statutory subject matter as "any new and useful art, machine, manufacture or composition of matter, or any new or useful

improvement [thereof]." Act of Feb. 21, 1793, ch. 11, § 1, 1 Stat. 318. Not until the patent laws were recodified in 1952 did Congress replace the word "art" with the word "process." It is that latter word which we confront today, and, in order to determine its meaning, we may not be unmindful of the Committee Reports accompanying the 1952 Act which inform us that Congress intended statutory subject matter to "include anything under the sun that is made by man." S.Rep. No.1979, 82d Cong., 2d Sess., 5 (1952); H.R.Rep. No.1923, 82d Cong., 2d Sess., 6 (1952). Although the term "process" was not added to 35 U.S.C. § 101 until 1952, a process has historically enjoyed patent protection because it was considered a form of "art" as that term was used in the 1793 Act.

Diehr, 450 U.S. 175, 182 (1981) (the underlined emphasis was added; the other emphases were in the original).

The full excerpt, with its reference to "anything under the sun that is made by man", hardly appears to be an endorsement for disregarding the 1952 Patent Statute's definition of "process," nor does the above excerpt otherwise state or imply that the 1952 Patent Act can be disregarded in determining the scope of that definition. It should be noted that *Diehr*'s "anything under the sun" reference is separately criticized by Judges Dyk and Mayer, in their respective opinions, as being out of context and

misleading (fairly, I believe). But the preceding excerpt nevertheless makes it clear that the 1952 Patent Act was indeed very relevant to the determination of whether or not the Diehr invention constituted a patent eligible process.

The Supreme Court did not hold the 1952 Patent Act to be irrelevant to the determination of the scope of “process”, and the statute indeed speaks for itself: when the term “art” is replaced by the term “process”, and a new definition of “process” is added that specifically and explicitly holds that “process” is defined to comprise art *and* several other types of processes, then the definition of the word “process” has, by definition, expanded (beyond arithmetic doubt).

C. Rebuttal of Judge Mayer’s argument

In dissent, Judge Mayer adds a further argument in for disregarding the definition of “process” in the 1952 Patent Act in determining business method patent eligibility. He argues that the 1952 Patent Act does not apply, because “business method patents lack (...) constitutional (...) support.” *Bilski*, 545 F. 3d at 998 (Mayer, J., dissenting).

The Constitution’s Patent Clause reads as follows:

To 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.

Part of Judge Mayer's argument is his contention that the terms "science" and "useful arts" were not meant to comprise business method patents. In originating and interpreting these words, Judge Mayer also relies on British Patent law and practice to explain the probable mindset of the Framers and the meaning they attributed to these words. In particular, he refers to the crown's abusive granting of monopoly powers simply for the purpose of raising revenues or rewarding those it favored, and to the resulting STATUTE OF MONOPOLIES, 21 Jac. 1 c. 3 (1623). Although that 1623 British statute forbade abusive monopolies, it specifically provided for the granting of monopolies to "the true and first inventor" of inventions, subject to other restrictions (ENCYCLOPEDIA BRITANNICA, Entry for "Statute of Monopolies", see <http://www.britannica.com>). Judge Mayer concludes that "useful arts" can best be defined by the word Technology (the exclusion of business methods in that definition, although unusual by today's standards,⁵ is implicit to his argument).

Admittedly, it is possible that the pre-1623 abuse of monopolies may have directly or indirectly had an impact on the mindset of the Framers, and created a psychological policy bias against the granting of monopolies, even against those granted for a benign purpose.

⁵ See, for instance, the definition of "technology" in *Industry, Technology and the Global Marketplace: International Patenting Trends in Two New Technology Areas*", *SCIENCE AND ENGINEERING INDICATORS*, 2002. National Science Foundation.

But more importantly, rather than originating and defining the terms “science” and “useful arts” by looking, on either side of the argument, for potential unarticulated, and perhaps even subconscious, biases or predispositions on the part of the Framers, it seems far more expedient to instead interpret the words in the Patent Clause by reviewing the direct evidence on the meaning that was, in fact, attributed to these words at the time that the Constitution was written. Tellingly, Mr. Walterscheid, although he had indeed noted, in a separate context, the British influence on the US Patent system, sees no need to rely on British patent law or practice when he himself originates and interprets the terms Science and Useful Arts in Originating and Interpreting the Words Science and Useful Arts.⁶ With respect to the meaning of “useful arts,” Mr. Walterscheid offers a wealth of contemporaneous and direct evidence to support the meaning of these words, and concludes:

The origin of the words “useful arts” can also be plausibly determined. In 1787 “useful arts” meant basically helpful or valuable trades. Thus to promote the progress of “useful arts” presupposed an intent to advance or forward the course or procession of such trades.

Id., page 126.

⁶ Part B of Chapter 4, Parsing the Patent Clause, in The nature of the intellectual property clause: a study in historical perspective

Among other evidence, Mr. Walterscheid cites various dictionary sources,⁷ and their interpretation by other authors, the name of a new well-known and well-respected local trade association founded one month before the start of the Constitutional convention (“Pennsylvania Society for the Encouragement Of the Manufactures and of the Useful Arts”)⁸ as well as letters written by Thomas Jefferson⁹ and George Washington.¹⁰

Mr. Walterscheid further interprets the word “science” to have had “its broadest contemporary meaning”, explaining that the title of the 1790 Copyright Act, in its historical context, “indicates that the first Federal Congress equated the term ‘science’ [...] with ‘learning’ or its equivalent ‘knowledge.’”

Mr. Walterscheid also cites Bernhard Cohen’s analysis of the juxtaposition of the terms “science” and “useful arts”, in Science and the Founding Fathers, and quotes Cohen’s interpretation of “useful arts” as follows:

‘[A]rt’ implies a skill ‘in doing anything’ which is acquired by knowledge or practice, and (...) [it] implies the use of human skill and human workmanship. ‘Art’ refers to practical methods for ‘effecting certain results.’ (...) This stress on practice rather than theory explains why the framers of

⁷ *Id.* pages 127 and 128.

⁸ *Id.* page 126.

⁹ *Id.* page 128.

¹⁰ *Id.* page 126

the Constitution introduced ‘practical arts’ rather than simply ‘arts’.¹¹

Based on Mr. Walterscheid’s description, and his summary of the comments of other analysts, it seems clear that the term “useful arts” was, at the time of the Constitutional convention, a modern term used by modern people to communicate a practical, results-oriented focus, and an open-minded, unbiased receptiveness to the unknown streams, forms, and origins of new innovation and inventiveness that the future held.

II) NO RELIABLE EVIDENCE REGARDING THE ALLEGED NEGATIVE SOCIETAL IMPACT OF PATENTS ON NOVEL, NON-OBVIOUS, AND PROPERLY DISCLOSED, BUSINESS METHOD PROCESS INVENTIONS HAS BEEN PRESENTED TO THE COURT.

I believe that the subtext of the new and precedent-breaking interpretation proposed by the Federal Circuit may be an unarticulated belief by some of the judges that business method patents that do not meet the machine-or-transformation test are unfair and less beneficial to society than other patent categories. The 1952 Patent Act has been thoroughly and repeatedly interpreted in the course of the last 57 years by the Supreme Court and by the Court of Appeals. I suspect that the Federal Circuit would see

¹¹ *Id.* page 128. Cohen’s view of the terms “Science” is narrower than Walterscheid’s.

no need for a new, restrictive interpretation, if it had a strong conviction that the eligibility of a wider range of business method processes is essential to the furtherance of progress and innovation.

Although the Federal Circuit does not express an opinion as to the public policy implications of curtailing business method process patents, Judge Mayer, in his dissent, articulates his view that business method patents are detrimental to society, and so do a small number of Fortune 100 Amici.¹² Further, business method patents have often been criticized in the media, and also in a small number of articles in academic journals, especially in the years from 1999 to 2003.

A. Reliable and comprehensive studies of business method patents, as a category, do not support the contention that they are inherently less beneficial than other patents.

To test the popular belief that business method patents are, categorically, of inferior quality, studies have been undertaken to objectively and methodically measure that quality. These studies, cited below, found that business method patents were in fact as good, or better, than other patents. Starling Hunter, the author of one of the empirical studies, described, in 2003, the apparent dissonance

¹² See for instance, the IBM Amicus Brief in the present case, as well as the Legal OnRamp brief. (Legal OnRamp was started by the General Counsel of Cisco, and is sponsored by Cisco and others.)

between the reputation and reality of business method patents:

One of the more striking facts about the controversy surrounding business method patents, especially in the wake of the *State Street* decision, is the manner in which the consensus about these patents' quality appears to have been formed. Contrary to some expectations, the many and varied criticisms and the calls for remedial measures were rarely, if ever, supported with empirical evidence. Rather, it seems that the consensus was reached, in large part, on the basis of expert opinion supported by anecdotal *evidence*. It was *opinion* informed by extensive experience with and a broad understanding of the legal and economic issues attendant to software and internet based technologies, but which also displayed considerable disdain for business method patents themselves, distrust of the motives for and processes by which the patents were evaluated, and dismay at the anticipated consequences of their unchecked proliferation. Further, it was opinion typically supported by *evidence* obtained from the examination of a handful of arguably unrepresentative business method patents, namely those assigned to high-profile internet start-ups (...). The above observations raise the distinct possibility that patents on methods of doing business have been both misjudged

and prejudged, that remedial measures that have been implemented may not have been necessary, and that legislation specific to these patents might have been passed and/or proposed without a sound basis for doing so.

STARLING HUNTER, *Have Business Method Patents Gotten A Bum Rap? Some Empirical Evidence* (MIT Sloan School of Management, 2003), available at <http://ebusiness.mit.edu>.

Continuing with the above cited discussion of business method patents, Mr. Hunter writes:

[W]ith no empirical studies of the quality of business method patents yet published, a systematic and theoretically grounded evaluation of the relative quality of business method patents is as warranted as it is overdue. To that end, I herein develop two hypotheses concerning the quality of business method patents and empirically test them using a random sample of over 3500 data processing patents granted by the USPTO between 1975-1999. In short, I find almost no support for the "conventional wisdom" concerning patents on methods of doing business. Rather, I find that they compare very favorably to other patents on two fundamental dimensions of quality - the number of citations to the "prior art" and on their scope.

Id., Abstract.

In what appears to be the only other comprehensive quantitative study of business method patents, authors John Allison and Emerson Tiller pursue a similar inquiry and find similar results:

Internet business method patents have been roundly criticized by most observers as being singularly inferior to most other patents. Many have even argued that business methods should not be patentable subject matter. As a result, Congress and the Patent and Trademark Office (PTO) singled them out for special treatment. All of these criticisms were voiced without empirical support. We gathered data on most Internet business method patents issued through the end of 1999 and compared them with a large contemporaneous data set of patents in general. We also compared them with patents in fourteen individual technology areas within the general patent data set. Our comparison focused on several metrics that we believe serve as good proxies for patent quality and value. We found that Internet business method patents appear to have been no worse than the average patent, and possibly even better than most.

See JOHN R. ALLISON AND EMERSON H. TILLER , *The Business Method Patent Myth*, Berkeley Technology

Law Journal, Vol. 18, Fall 2003, available at www.ssrn.com/abstract=421980.

B. The empirical evidence presented by business method patent opponents is anecdotal, and as such, inherently unreliable and potentially misleading.

The arguments submitted in the present case regarding the adverse societal consequences of business method patents appear to rely exclusively on anecdotal evidence as the sole empirical basis for the claims that are being made. This is surprising, in part because it has long been known, and been a very basic tenet of scientific research and statistical analysis, that any group, class or category, can easily, and drastically, be misrepresented by simply relying on a few self-selected examples or anecdotes. See for instance, MICHAEL SHERMER, *How Anecdotal Evidence Can Undermine Scientific Results*, SCIENTIFIC AMERICAN MAGAZINE, August 2008.

Several academic articles are cited that were written in opposition to business method patents.¹³ In most cases, these articles do not present these arguments as proven but rather as new hypotheses that should,

¹³ See for instance, JAMES S SFEKAS, *Controlling Business Method Patents: How The Japanese Standard For Patenting Software Could Bring Reasonable Limitations To Business Method Patents In The United States*, Pacific Rim Law & Policy Journal. Vol. 16, 197, Seattle, January 2007; or Stephanie L. Valera, *Damned if You Do, Doomed if You Don't: Patenting Legal Methods and Its Affect on Lawyers' Professional Responsibilities*, 60 Fla. L. Rev. 1145 (2008).

ideally, be tested, by subsequent empirical study. In the following three instances, however, the anecdotal evidence is claimed to be more significant and determinative than that.

Leo Raskind's 1999 article, *The State Street Bank Decision: The Bad Business of Unlimited Patent Protection for Methods of Doing Business*, (10 Fordham Intel. Prop., Media & Ent. L.J. 61) is cited along with its argument that business method patents are unnecessary because of the "substantial anecdotal evidence that competition alone serves as a sufficient spur to innovation in business methods." Raskind, pages 92-93.

What is that anecdotal evidence? Raskind explains:

The rapid cluster of development in the following businesses casts doubt on the need for the added incentive of patents. Consider the growth of fast food restaurants, self-service gasoline stations, quick oil change facilities, supermarkets for food and office supplies, automatic teller devices and other banking services, electronic fund transfers, supplemental insurance for physician services, and alternatives for long-distance telephone services.

Raskind, page 93.

How exactly the growth in self-service gas stations or quick oil change facilitates supports the conclusion that business method patents did not or

would not have spurred innovation at the time of that growth is left unclear. While a complicated chain of assumptions can be constructed that could explain such a link,¹⁴ no empirical evidence specific to business method patents as a category is given by Raskind to support it.

Second, business method opponents make reference to the fact that some participants at Federal Trade Commission hearings on patent policy made negative comments about business method patents, as mentioned in the 2003 Federal Trade Commission (FTC) report TO PROMOTE INNOVATION: THE PROPER BALANCE OF COMPETITION AND PATENT LAW AND POLICY (FTC, 2003). (See for instance, the Supreme Court Amicus Curiae Brief by Legal OnRamp in the present case, on page 8.) However, the FTC report

¹⁴ First, that business methods were not patentable at the time of that growth (contradicted by the USPTO White Paper in this regard, and Judge Rich's Federal Circuit opinion in State Street). Second, that these particular services would somehow have qualified as patentable based on their novelty and non-obviousness had State Street been decided prior to the beginning of that growth. Third, that these patents would have slowed this growth (Raskind offers references to other non-comprehensive studies in this regard, but those studies did not look at business method patents). Fourth, following Raskind's logic, that, with business method patentability, no new inventions and ideas would have been disclosed that would have improved the provision of these services, which would have attenuated or outweighed that negative impact of these patents. And fifth, that whatever negative effect patents would have had on the growth or cost of these services would not have been outweighed by the beneficial impact of business method patents in other areas. All of these assumptions would have to be true for that evidence to be relevant, and none are shown to be true by Raskind's empirical support.

itself did not oppose the eligibility of such patents, and specifically and explicitly declined to take a position in this regard. In the interest of obtaining views from a broad cross-section of business and industry, representatives from companies, who had taken a vocal position in opposition to business method patents, and whose business model is adverse to such, and to many other, patents, were among those invited to the hearings. It is therefore not surprising, that some of these participants expressed their opposition to business method patents, and the very fact that negative comments were made is hardly an independent and objective empirical basis for a judicial decision. No other evidence against business method patents is cited in the FTC report.

Third, it was stated that the USPTO is “inundated by business method applications.¹⁵” This is not a fair characterization of the present state of affairs at the Patent Office. In fact, class 705 business method patent grants in fiscal year 2008 were less than one percent of all USPTO patent grants.¹⁶ And, as illustrated immediately below, the Patent Office has implemented a well-managed program to rigorously

¹⁵ “*State Street* has launched a legal tsunami, inundating the patent office with applications seeking protection for common business practices.” *Bilski*, 545 F. 3d at 1004 (Mayer, J., dissenting).

¹⁶ 0.89%. A total of 185,224 patents were issued, according to U.S. Patent Statistics Chart, Calendar Years 1963 – 2008, http://www.uspto.gov/go/taf/us_stat.htm, of which 1,643 were business method patents according to the USPTO, see <http://www.uspto.gov/web/menu/pbmethod/applicationfiling.htm>

(and vigorously) evaluate business method applications.

C. The evidence submitted by business method patent opponents does not distinguish between those patents issued *before* the USPTO drastically revised its review of these patents, and those issued *after* that change.

The empirical evidence submitted in opposition to the patent eligibility of certain business method patents does not distinguish between those patents issued before the USPTO implemented, beginning in March 2000, drastic changes in its review of business method applications, and those issued afterwards. That distinction, however, is crucial. If obvious or non-novel patents have been issued due to problems in USPTO patent examination procedure, that should have no bearing on the eligibility of non-obvious and novel patents in that category.

As a consequence of the Patent Office's implementation of its more stringent "Second Pair of Eyes Review" program, the allowance rates in Class 705 declined substantially from 45% in fiscal year 2001 to 11% in fiscal years 2004 and 2005. According to the Patent Office, the allowance rate then increased to approximately 20%, because applicants considerably narrowed their claims.¹⁷ By comparison, the Fiscal Year 2008 allowance rate for

¹⁷ Wynn Coggins, Director, Technology Center 3600, slide presentation at the 2007 USPTO Partnership Meeting. 20% was the allowance rate for the first half of FY 2007.

all patent classes was approximately 47%.¹⁸

In light of these limitations placed on the issuance of business method patents,¹⁹ it is also highly unlikely that the filing of Class 705 business method applications is yielding greater financial returns than the filing of inventions in other patent classes. Based on the allowance rate, and the types of patents selected and sold by Ocean Tomo, a company which holds public patent auctions,²⁰ it appears that business method patent fillings fare, on average, far worse than those made on inventions in other patent classes.

D. Widespread infringement has prevented business method and software patents from attaining, and demonstrating, their full societal potential

In evaluating new business ideas and concepts, venture capital and private equity companies first distinguish between those concepts that they believe would significantly and viably improve on what is presently offered in the marketplace, and those that

¹⁸ The overall allowance rate for Fiscal Year 2008 was 47.3% according to USPTO News: USPTO Announces "Highest Performance Levels in Agency's History" in 2008, by Donald Zuhn, www.patentdocs.com, November 11, 2008.

¹⁹ For additional data in this respect, please see the dissent of Judge Newman, page 39.

²⁰ See Ocean Tomo, LLC describes itself as an IP merchant bank. It holds public auction of patents and patent portfolios. It's auction business was recently sold to ICAP, and is now called ICAP Ocean Tomo. See <http://www.oceantomo.com>.

would not. Then, however, comes the more difficult inquiry: whether the business concept is “organic”, i.e. whether it is able to quickly reach critical mass and build a defensible competitive advantage.

There are those new technologies that address a particular niche market, where the first mover advantage of a startup that introduces a new solution is often substantial.²¹ But the great majority of ideas that address larger opportunities, no matter how ingenuous and useful to the market, are not organic. They require a pre-established and dominant market position, either because the new service can't be introduced into the market gradually, or because when it is introduced at great expense to the newcomer, defenses can't be built quickly enough to prevent the onslaught of larger competitors.

Venture capital firms and private equity companies generally do not fund non-organic software or business method solutions, no matter how novel or non-obvious, regardless of the strength of their patent protection and regardless of their ultimate market potential. This is because they assume that large companies will, as a matter of implicit policy, and based on their past behavior, not honor other people's issued patents. As a general rule, they therefore simply do not fund non-organic applications, even those that would have great potential and that are backed by great teams.

²¹ ROBERT J. CALVIN, *Entrepreneurial Management*, page 78, McGraw Hill, 2002.

Guy Kawasaki, most probably the world's most widely-read startup venture capitalist,²² cites "Patents make our business defensible" as the single worst answer that an entrepreneur can give when asked what makes her business defensible. He explains:

As a startup, it's highly unlikely that patents will make your company defensible because you won't have the time or money to do battle with a Microsoft-esque competitor.²³

Venture capitalists do not expect even the strongest patents on the most novel and useful inventions to deter infringers, because they have not deterred infringement in the past.²⁴ Infringement prevents startups from penetrating and establishing themselves in the marketplace, and therefore leaves the further development of the startups' technologies in the hands of established incumbents. However, because of their vested interests, these incumbents can neither be expected to fully develop these solutions, nor to compete as well and as aggressively for these solutions as their rightful owners would have, had patent protection been an effective deterrent.

²² Kawasaki's biography is on Wikipedia at http://en.wikipedia.org/wiki/Guy_Kawasaki.

²³ How to Change the World: Defensibility, October 25, 2006 entry on Guy Kawasaki's blog at <http://blog.guykawasaki.com/#axzz0SgCuR7gx>.

²⁴ Based, also, on my discussions with venture capital companies, and a top investment bank.

For some of the country's largest technology companies to, first, be repeatedly found guilty of defying, and interfering, with the government's attempted protection of patented technologies, and then come before this Court (and before the media), to argue that some of that protection has proven to be socially unbeneficial, requires an amount of chutzpah that can only be explained by the size of their lobbying, legal, and public relations budgets. The true benefit of business method patents will not be known unless and until these patents are enforced and sanctioned to the point where infringement is actually deterred, and new inventions are given the market opportunity that the patent system was designed to afford them.

E. The *Bilski* case can, itself, be misleading as a §101 test case

The *Bilski* case appears to present the Court with a stark choice: either declare its claimed subject matter ineligible for patent protection, or risk putting an entire industry, and huge swaths of economic activity, at the mercy of the licensing demands of a single patentee. In reality, this dichotomy claimed by business method patent opponents rarely, if ever, applies. In the *Bilski* case, claim 1 is very likely obvious, and, as such, is a poor candidate for a determination of the standards for patentability.

Claim 1 and other claims in the *Bilski* case were provisionally rejected by the Patent Office for obviousness; a rejection that was withdrawn when the section 101 rejection was first made in the third

office action. Claim 1 is so broad, and appears so obvious, recalling (and demonstrating) one's own business experience may itself be sufficient to prove that obviousness. In my case, I learned hedging techniques in my second business school year, in the fall of 1988, well before the Bilski patent application's priority date. I also used hedging techniques to structure so-called back-to-back contracts that I made with suppliers and customers, as part of the operations of the food trading company that I built after my graduation from business school. Some of the contracts were specifically structured to manage "consumption risk" as defined by Bilski.

A simple visit to the website of the Harvard Business School, typing "hedging" into the search box for the school's past publications, reveals that no less than 25 cases and teaching notes have been written on, or with reference to, the subject prior to 1996. See www.harvardbusiness.org/search. Bilski's invention focuses on "consumption risk", i.e. the risk associated with not knowing how much of a particular commodity will be needed by the consumer at a particular time. But claim 1's steps do not appear to be different from what would be used when hedging other types of risk. Further, the concept of developing new financial instruments to hedge risk is at least as old as 1952, when it is believed that the concept of a "hedge fund" was first introduced by Alfred Jones. See JAMES E. MCWHINNEY, A BRIEF HISTORY OF THE HEDGE FUND, available at www.investopedia.com/articles. I therefore believe that it is highly likely that a thorough and comprehensive review of the prior art

would show claim 1 to have been obvious or anticipated at the time of the initial filing.

III) CLAIM 1 OF THE BILSKI PATENT APPLICATION IS INELIGIBLE FOR PATENT PROTECTION.

Pre-Bilski law provides a variety of useful tools and prisms for an evaluation of the patent eligibility of the Bilski invention. In Bilski claim 1, no data are being transformed to produce a useful, concrete and tangible result (*State Street. Bank & Trust Co. v. Signature Fin. Group, Inc.*, 149 F.3d 1368, Fed. Cir. 1998). While the third step of the claim mentions such results—the “second fixed rate” of the second series of transactions, and the “balanc[ing of] the risk position” —the steps enunciated in Bilski do not themselves directly contribute to producing these results. Further, there is no “act, or a series of acts, [that is] performed upon [a] subject matter” (*Cochrane*), no transformation of any article (*Benson*) or substance (*Cochrane*) and no tie to a machine (*Benson*). Based on the language of the 1952 statute, and the applicable definitions, I believe the Bilski claim 1 qualifies as an “abstract idea” more than it would belong to the categories “process”, “art”, or “method”, or “new use of a known process, machine, manufacture, composition of matter, or material.”

However, I believe claim 1 is a borderline case—one could characterize it as an abstract idea in see-through process clothing. Dependent claims that add steps, which increase the “stability, predictability, and reproducibility” of the invention—terms that the

Yahoo! Amicus Brief in the present case proposes as helpful in distinguishing a process from an abstract idea—or that add an (at least, partly) enabling, and therefore intra-solution, physical transformation or machine tie, should be held patent eligible.

**IV) THE COURT SHOULD NOT A PRIORI
ELEVATE SOME FIELDS OF RESEARCH
AND INQUIRY AS MORE DESERVING OF
PATENT PROTECTION THAN OTHERS**

There is no good policy reason to determine patent eligibility not based on the usefulness, novelty, non-obviousness, and proper disclosure of the invention, but rather based on the type of thinking to which it can be attributed. No reliable evidence indicates that business method patents are inherently broader, and more preemptive, than other types of inventions. To the contrary, following the arguments of business method patent opponents, business method innovation is nothing new, and has been practiced for many centuries.²⁵ Therefore, would it not be *more* difficult, and less likely, for a new and non-obvious business method invention to be so useful as to span huge swaths of newly created economic activity? Judging by the technological developments of the past 100 years, machine inventions are more likely to affect a broad and diverse range of economic activity than business methods.

²⁵ See for instance, LEO J. RASKIND, *The State Street Bank Decision: The Bad Business of Unlimited Patent Protection for Methods of Doing Business*, 10 Fordham Intel. Prop., Media & Ent. L. J. 61 (1999)

Inventions should be evaluated based on their contribution to society, not based on whether or not the type of thinking to which they can be attributed meets an arbitrary, prejudiced, and pre-judging, standard. To indicate that certain modes of thought are *per se* less contributive violates basic principles of scientific and academic inquiry.

From the beginning, the US patent system has always been based on a democratic and equitable concept: that the doors of the patent system are open to everyone and that patent applications are examined and evaluated based on their content, not based on whether the applicant is a Fortune 100 company. Patent laws do not pre-judge and discriminate against individuals, and similarly, they should not prejudge, nor discriminate against academic disciplines, fields of inquiry, and modes of thought.

The Federal Circuit, itself, although it is, as shown above, by its opinion in the present case, apparently no friend of broad business method patentability, holds in that opinion:

We (...) reject calls for categorical exclusions beyond those for fundamental principles already identified by the Supreme Court. We rejected just such an exclusion in *State Street*, noting that the so-called "business method exception" was unlawful and that business method claims (and indeed all process claims) are "subject to the same legal requirements for patentability as applied to any other

process or method." 149 F.3d at 1375-76.
We reaffirm this conclusion.

Bilski, 545 F. 3d at 960.

The law was written to distinguish between processes and abstract ideas, not between academic or scientific disciplines.

In fact, inventions increasingly emanate, not from a single discipline, but from the synthesis of different, and heretofore disparate, fields of inquiry.²⁶ Leading technology research laboratories have rushed to retain social scientists;²⁷ and universities, like Stanford University, have established new multi-disciplinary departments and initiatives for the express purpose of combining different areas of research in the search for new solutions.²⁸ The perhaps best-known recent invention, Google's approach to the building of a better search engine (US Patent No. 6,285,999, *Method for Node Ranking in a Linked Database*) has been the result of its founders' exposure to, and innovative combination of, social science and engineering.²⁹ The Court

²⁶ See JERALD HAGE and MARIUS T. H. MEEUS, *Innovation, Science, And Institutional Change*, Oxford University Press, 2006.

²⁷ See, for instance, KATE GREENE, *Yahoo Ramps Up Research*, MIT Technology Review, August 04, 2006, available at www.technologyreview.com.

²⁸ See, for instance, the website for Stanford's Bio-X department, <http://biox.stanford.edu>.

²⁹ The impetus for the Google search engine came from the insight that the methods of citation and annotation that are

should embrace, not step away from, these new currents of progress and innovation.

CONCLUSION

In sum, applying the machine and transformation test as a solely determinative, and overly restrictive, requirement for patent eligibility, is contrary to the intent of the 1952 Patent Statute, and this Court's precedent.

Applying the law as written and intended by Congress will not have adverse societal consequences, because the empirical evidence shows that business method process patents are not, inherently, less beneficial to society than other patents.

Respectfully Submitted,

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used in academic publishing could be applied to organize the information on the World Wide Web. See John Battelle, The Search, Penguin Books, 2005, pages 71-72, and the text of the patent.