

2007-1130
(SERIAL NO. 08/833,892)

UNITED STATES COURT OF APPEALS
FOR THE FEDERAL CIRCUIT

IN RE BERNARD L. BILSKI
and RAND A. WARSAW

HEARING EN BANC OF
APPEAL FROM THE UNITED STATES PATENT AND TRADEMARK
OFFICE, BOARD OF PATENT APPEALS AND INTERFERENCES

BRIEF OF *AMICUS CURIAE*
SOFTWARE & INFORMATION INDUSTRY ASSOCIATION
IN SUPPORT OF NEITHER PARTY AND
AFFIRMANCE OF THE DECISION BELOW

SCOTT E. BAIN
ATTORNEY OF RECORD
SOFTWARE & INFORMATION
INDUSTRY ASSOCIATION (SIIA)
1090 VERMONT AV. NW, SUITE 600
WASHINGTON, DC 20005
(202) 789-4492

APRIL 7, 2008

ATTORNEY FOR AMICUS CURIAE SIIA

CERTIFICATE OF INTEREST

Counsel for the amicus Software & Information Industry Association certifies the following:

1. The full name of every party or amicus represented by me is:

The Software & Information Industry Association (SIIA).

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 me is:

The Software & Information Industry Association (SIIA).

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

N/A. SIIA has no parent corporation and issues no stock.

4. There is no such corporation as listed in paragraph 3.

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

No law firms are appearing for the SIIA. Scott Bain is appearing for the SIIA in this Court, and the SIIA did not appear in the agency proceedings below.

April 7, 2008



Scott E. Bain
Software & Information Industry Association

TABLE OF CONTENTS

CERTIFICATE OF INTEREST	i
TABLE OF AUTHORITIES	iii
INTEREST OF THE AMICUS	1
SUMMARY OF THE ARGUMENT	3
ARGUMENT.....	5
I. THE COURT SHOULD NOT OVERRULE THE <i>STATE STREET</i> AND <i>AT&T</i> CASES	5
A. <i>State Street</i> and <i>AT&T</i> Were Correctly Decided	5
B. The Software and Information Industries Have Continued to Grow and Thrive in the Decade Following <i>State Street</i> and <i>AT&T</i>	8
II. PURELY MENTAL PROCESSES, AND PROCESSES NOT IMPLEMENTED ON A MACHINE OR TRANSFORMING MATTER, PRESUMPTIVELY ARE NOT PATENTABLE SUBJECT MATTER	11
III. BILSKI’S CLAIM 1 IS NOT PATENTABLE SUBJECT MATTER	17
CONCLUSION.....	22
CERTIFICATE OF COMPLIANCE WITH TYPE-VOLUME LIMITATION, TYPEFACE REQUIREMENTS, AND TYPE STYLE REQUIREMENTS	21
CERTIFICATE OF SERVICE	22

TABLE OF AUTHORITIES

Federal Cases

<i>Arrhythmia Research Technology, Inc. v. Corazonix Corp.</i> , 958 F.2d 1053, 1060 (Fed.Cir.1992)	7
<i>AT&T Corp. v. Excel Communications, Inc.</i> , 172 F.3d 1352 (Fed. Cir. 1999)	<i>passim</i>
<i>Clark v. Martinez</i> , 543 U.S. 371 (2005).....	14
<i>Diamond v. Diehr</i> , 450 U.S. 175 (1981)	<i>passim</i>
<i>Gottschalk v. Benson</i> , 409 U.S. 63 (1972)	6, 15
<i>General Foods Corp. v. Studiengesellschaft Kohle mbH</i> , 972 F.2d 1272, 1278 (Fed. Cir. 1992)	16
<i>In re Alappat</i> , 33 F.3d 1526 (Fed. Cir. 1994) (<i>en banc</i>)	6, 8
<i>In re Bergy</i> , 596 F.2d 952 (CCPA 1979).....	15
<i>In re Comiskey</i> , 499 F.3d 1365 (Fed. Cir. 2007)	<i>passim</i>
<i>In re Grams</i> , 888 F.2d 835 (Fed. Cir. 1989)	19
<i>In re Lowry</i> , 32 F.3d 1579 (Fed. Cir. 1994)	8, 9
<i>In re Nuijten</i> , 500 F.3d 1346, 1352 (Fed. Cir. 1997).....	<i>passim</i>
<i>Mackey v. Lanier Collection Agency & Service, Inc.</i> , 486 U.S. 825, 837 (1988)	20

<i>McNally v. U.S.</i> , 483 U.S. 350, 370 (1987)	13
<i>Parker v. Flook</i> , 437 U.S. 584	15
<i>Paulik v. Rizkalla</i> , 760 F.2d 1270, 1276 (Fed.Cir.1985) (<i>en banc</i>)	15
<i>Princeton Biochemicals, Inc. v. Beckman Coulter, Inc.</i> , 411 F.3d 1332, 1337 (Fed. Cir. 2005).....	16
<i>Public Citizen v. United States Dep't of Justice</i> , 491 U.S. 440 (1989).....	14
<i>State Street Bank & Trust Co. v. Signature Financial Services Group, Inc.</i> , 149 F.3d 1368 (Fed. Cir. 1998).....	<i>passim</i>

Statutes and Legislative Sources

35 U.S.C. §101	<i>passim</i>
35 U.S.C. § 103	16, 17
35 U.S.C. § 112	17, 20
H.R. REP. NO. 82-1923 (1952)	16
S. REP. NO. 82-1979, at 5 (*2399) (1952)	12, 13, 16

Other Authorities

ESKRIDGE, WILLIAM JR., DYNAMIC STATUTORY CONSTRUCTION 323 (Harvard University Press 1994)	13
--	----

Forecast: Banking IT Spending, Worldwide, 2005-2010, (Gartner, Inc., Stamford, CT), February 20, 2007, http://www.gartner.com/DisplayDocument?id=501396&ref=g_sitelink.....10

Giles S. Rich, *Principles of Patentability*, 28 GEO. WASH. UNIV. L. REV. 393, 393-94 (January, 1960)14

Software and Information: Driving the Knowledge Economy (Software & Information Industry Association, Washington, DC), January 24, 2008, <http://www.siiia.net/estore/globecon-08.pdf>.....9, 10, 11

U.S. Bureau of Labor Statistics, *National Industry-Specific Occupational Employment and Wage Estimates*, <http://www.bls.gov/oes/current/oessrci.htm#51> (last modified Oct. 24, 2007)9

U.S. CONST. art 1, § 8, cl. 812

INTEREST OF THE AMICUS

Amicus, the Software & Information Industry Association (“SIIA”), is the U.S. trade association of the software and digital content industries. It includes divisions for software, financial information services, online content, and education technology businesses. SIIA’s collective membership sits at the crossroads of the countervailing interests argued in this case, as well as in the ongoing debate surrounding software and “business method” patents generally. SIIA members have benefited from owning thousands of patents in these fields. Yet they also rely critically on the boundaries to patent protection, as these boundaries, too, preserve their ability to innovate.

SIIA is in a position to offer a balanced view on the issues raised in this case, informed by the business realities of the industries most affected by them. It favors neither an expansive nor restrictive view of patentable subject matter. Rather, SIIA urges, on behalf of its members, a rational, predictable application of the statute consistent with established principles of patent law, within constitutional limits.

SIIA has grappled with important intellectual property issues in the software and content industries for many years. SIIA is the nation’s oldest and

largest association representing software and content companies.¹ Its members range from start-up firms to some of the largest and most recognizable corporations in the world. SIIA member companies are leading providers of, among other things:

- software publishing, graphics, and photo editing tools
- corporate database and data processing software
- financial trading and investing services, news, and commodities exchanges
- online legal information and legal research tools
- protection against software viruses and other threats
- education software and online education services
- open source software
- and many other products and services in the digital content industries.

A list of the more than 500 SIIA member companies may be found at

<http://www.sii.net/membership/memberlist.asp>.

¹ The Software Publishers Association (“SPA”) was founded in 1984. The increasing convergence of the software and information services industries led to a 1999 merger between SPA and the Information Industry Association (“IIA”), creating the SIIA.

SUMMARY OF THE ARGUMENT

The Court's holdings in *State Street Bank & Trust Co. v. Signature Financial Services Group, Inc.*, 149 F.3d 1368 (Fed. Cir. 1998) and *AT&T Corp. v. Excel Communications, Inc.*, 172 F.3d 1352 (Fed. Cir. 1999) confirmed the patent eligibility of software or computer-implemented inventions, including those that carried out "business methods" or used "mathematical algorithms." These holdings were well grounded in Supreme Court and constitutional authority. Moreover, the United States software and information industries have thrived in the decade following the *State Street* and *AT&T* decisions. Software patent eligibility under the *State Street* and *AT&T* standards has played a role in this success. And companies in these industries have relied upon the *State Street* and *AT&T* standards for years in formulating their intellectual property and business strategies.

Material change in the application of section 101 to computer software inventions would be contrary to settled law and detrimental to the software and information industries. To ensure the continued integrity of the statute and the Supreme Court's holdings, however, SIIA does believe the Court may need to provide clarification relating to inventions that are not software or computer-based.

Part I of the Argument asserts that the holdings of *State Street* and *AT&T*, applying to business methods and algorithms that are part of computer software related inventions, should not be disturbed.

Part II, however, explains that dicta in the *State Street* and *AT&T* opinions have sometimes been misunderstood in the years following those decisions. The U.S. Constitution and Supreme Court authority limit the meaning of “new and useful process” in section 101 such that processes carried out only by mental steps or human action or interaction (without involving another statutory category of matter as part of the invention) presumptively, if not conclusively, will be unpatentable. *See In re Comiskey*, 499 F.3d 1365 (Fed. Cir. 2007). These limitations apply to purported business method inventions as they do any other invention.

Part III concludes that Bilski’s claim 1 is distinguished from the computer-based inventions in *State Street* and *AT&T*, and is not directed to patentable subject matter. Debating the extent to which claim 1 is “abstract” may be an esoteric and confusing exercise, and ultimately is unnecessary here. The claim does not encompass a “useful process” as that term has been interpreted by the courts.

ARGUMENT

I. THE COURT SHOULD NOT OVERRULE THE *STATE STREET* AND *AT&T* CASES

State Street and *AT&T* did not hold that business methods or algorithms were, without more, patentable subject matter. Rather, the cases put to rest these two previous judicial exceptions to otherwise-statutory computer and software related inventions. If the Court reconsiders the *State Street* or *AT&T* cases in any respect, it should not overrule them. Rather, as explained in Part II, the Court might clarify statements in those cases that arguably have suggested a broader reading of section 101 than the cases actually held.

A. *State Street* and *AT&T* Were Correctly Decided

The patent before the Court in the *State Street* case was a “Data Processing System for Hub and Spoke Financial Services Configuration.” Claim 1 recited a “data processing system” comprising “a computer processing means,” a “storage means,” and various other means to perform functions recited in the claim. *State Street*, 149 F.3d at 1371. Pursuant to section 112, paragraph 6, the written description of the patent provided (physical) structure to the claimed means, including elements such as a “personal computer including a CPU,” a “data disk,” and multiple “logic circuits” having specified functions and configurations. *Id.* The claimed invention was, as the Court expressly stated, “a machine.” *Id.* at 1372 (emphasis added). And “a ‘machine’ is proper

statutory subject matter under section 101.” *Id.* The Court’s conclusions on these points broke no new ground. *See, e.g., In re Alappat*, 33 F.3d 1526, 1540-41 (Fed.Cir.1994) (*en banc*).

The dispositive issue in *State Street* was whether this claimed machine, despite falling into one of the section 101 categories of patentable subject matter, nevertheless was unpatentable because it implemented a “business method.” The Court ruled that it was patentable subject matter, and held that there is no “business method exception” to otherwise-statutory subject matter. *See State Street*, 149 F.3d at 1372-73 (citing *Diamond v. Diehr*, 450 U.S. 175, 185 (1981); *Gottschalk v. Benson*, 409 U.S. 63 (1972); *In re Alappat*, 33 F.3d at 1543-44); (additional citations omitted); *see also In re Comiskey*, 499 F.3d at 1374 (the Court in *State Street* “conclude[ed] patentability does not turn on whether the claimed subject matter does ‘business’ instead of something else”) (quotations omitted).

Similarly, the invention in *AT&T* claimed a process to be performed on a set of machines, namely, switches and computers in a telecommunication system. *See AT&T*, 172 F.3d at 1354-55. The district court held that the claims at issue, “though otherwise within the terms of section 101, implicitly recite a mathematical algorithm” and thus fall within the judicially created

“mathematical algorithm” exception to statutory subject matter. *Id.* at 1355-56

(citation omitted). This Court began its analysis by stating:

[b]ecause § 101 includes processes as a category of patentable subject matter, the judicially-defined proscription against patenting of a “mathematical algorithm,” to the extent such a proscription still exists, is narrowly limited to mathematical algorithms in the abstract.”

Id. at 1356.²

The Court found that AT&T’s claim was more than a mere mathematical algorithm in the abstract. The claim included an algorithm that was applied through “switching and recording mechanisms” and produced a “useful, concrete and tangible result without pre-empting other uses of the mathematical principle.” *Id.* at 1358; *accord State Street*, 149 F.3d at 1373; *Diehr*, 450 U.S. at 192. While the claim necessarily relied on mathematical Boolean principles, it did not purport to cover these principles applied in contexts outside of the recited telecommunications system, or to achieve results other than generating the records recited in the claim. *See AT&T*, 172 F.3d at 1358 (citing *Arrhythmia Research Technology, Inc. v. Corazonix Corp.*, 958 F.2d 1053, 1060 (Fed.Cir.1992)). Thus, the claim was patentable subject matter.

² Moreover, the Court noted that all computer-implemented processes, at their core, involve the “manipulation of numbers,” implicitly an algorithm. *See AT&T*, 172 F.3d at 1356. So literally excluding “mathematical algorithms,” without more, may improperly exclude software from patentability.

The *State Street* and *AT&T* cases therefore did not hold that business methods or algorithms were, without more, patentable subject matter. Rather, they eliminated two previously perceived judicial exceptions to otherwise-statutory computer and software related inventions. The holdings also confirmed the more general principle that software, whether viewed as a programmed machine or a process, is patentable subject matter. *See AT&T*, 172 F.3d at 1357-58 (“we consider the scope of section 101 to be the same regardless of the form – machine or process – in which a particular claim is drafted”); *see also In re Alappat*, 33 F.3d at 1581 (en banc) (Rader, J., concurring); *In re Lowry*, 32 F.3d 1579, 1583 (Fed. Cir. 1994) (claim to “functional characteristics of [] memory,” *i.e.*, data structures, is statutory subject matter).³ These well grounded principles should not be disturbed.

B. The Software and Information Industries Have Continued to Grow and Thrive in the Decade Following *State Street* and *AT&T*

The prevailing interpretation of section 101 as to software has not given rise to circumstances justifying a change. To the contrary, the United States software and information industries thrive a decade after the *State Street* and *AT&T* decisions. Revenues generated by the nation’s software and information

³ *But see In re Nuijten*, 500 F.3d at 1354, 57-58 (transient signal is not patentable subject matter); *id.* at 1367 (Linn, J., dissenting-in-part) (hardware should not be distinguished from software, the instructions that cause electrons to change state in transistors in a microprocessor).

industries reached \$564 billion annually by 2005, up by more than 10 percent since the beginning of this decade. *See Software and Information: Driving the Knowledge Economy* (Software & Information Industry Association, Washington, DC), January 24, 2008, <http://www.siiia.net/estore/globecon-08.pdf>, at 7-8 (“*Driving the Knowledge Economy*”). It is now the fourth largest industry in the U.S. (behind transportation equipment manufacturing, hospital care, and chemicals manufacturing). *See id.* The software and information industries employed more than 2.7 million Americans in 2006, up 17% from 1997. *See id.* at 8. This increase added more than 400,000 American jobs. *See id.* And the Bureau of Labor Statistics predicts there will be more than two million additional openings in software and information occupations between 2006 and 2016. *See* U.S. Bureau of Labor Statistics, *National Industry-Specific Occupational Employment and Wage Estimates*, <http://www.bls.gov/oes/current/oessrci.htm#51> (last modified Oct. 24, 2007).

The functionality, and practical utility, of software have made it a ubiquitous and integral tool in almost every U.S. industry. Software programs “allow[] organizations to fundamentally re-engineer processes,” lower barriers to entry, reduce various costs, improve customer service and product delivery, and ultimately better meet market demands.” *Driving the Knowledge Economy* at 14. Moreover, the integration of software with information services such as

databases and financial research has resulted in new and useful functionality – and ultimately a more convenient, more productive, and better user experience. *See id.* at 14-17. Innovations have spawned entirely different paradigms, such as the growing “software as a service” (“SaaS”) offerings, which themselves have triggered further software related innovation. *Id.* at 5, 19. One cannot predict the future path of innovation and, for example, what forms “software” might take. It is important that the law not constrain that path, and that the same principles apply regardless of such form.

State Street was prescient in its analysis of the computer-implemented business method in that case. “Perhaps no sector of the ‘old’ economy has been more directly affected by IT [information technology, including software] than the financial-services sector.” *Driving the Knowledge Economy* at 14. New functions enabled by computer technology have “powered [the] transformation” of the industry, resulting in “superior offerings,” “new distribution channels,” “easier [] consumer[] access,” and more competition and consumer choice in the decade following *State Street*. *Id.* at 14-15. In short, “software and information have become essential to financial services.” *Id.* at 15. In 2007, the banking sector alone invested over \$240 billion worldwide in computer, software, and IT services. *See Forecast: Banking IT Spending, Worldwide, 2005-2010*, (Gartner, Inc., Stamford, CT), February 20, 2007,

http://www.gartner.com/DisplayDocument?id=501396&ref=g_sitelink.

Similarly, software and related technology have substantially driven innovations in the health care, education, and other industries. *See Driving the Knowledge Economy* at 14-16.

Many (though not all) participants in the software and information industry have relied on the existing patent regime, to various extents, to justify and validate their investment in new innovation. Thousands of new patents are acquired in this industry each year, and thousands of licenses on computer and software-related inventions currently are in force.⁴ There may have been a time many years ago when the patent-eligibility of a computer or software related invention was in question, and pursuit thereof rare. But that is no longer the case nor practice in the industry.

II. PURELY MENTAL PROCESSES, AND PROCESSES NOT IMPLEMENTED ON A MACHINE OR TRANSFORMING MATTER, PRESUMPTIVELY ARE NOT PATENTABLE SUBJECT MATTER

In *State Street* and *AT&T*, the Court put to rest longstanding misconceptions that use of a business method or mathematical algorithm

⁴ To the extent some observers have expressed concern that the software and information industries may become ensnared in a thicket of patents, this concern highlights the need for continued, diligent enforcement of the novelty and nonobviousness standards, not a change to section 101.

disqualified from patentability an otherwise statutory invention. But the underlying reasoning as explained by the Court has sometimes been taken out of context. As the PTO asserts, Supp. Br. at 3, these cases “have been too often misunderstood to mean that any innovation with a beneficial effect is automatically patent-eligible.” That approach can wrongly “collapse[] the eligibility inquiry into nothing more than a question of utility.” *Id.* The present case may present an opportunity to clarify the meaning of “useful process” in section 101.

Section 101 of the Patent Act states:

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

35 U.S.C. § 101. The term “process” is understood to have the same meaning as “art,” the term it replaced from the 1793 Act and other incarnations before 1952. *See In re Comiskey*, 499 F.3d at 1375.

The categories of patentable subject matter, and their meaning and limits, derive from the constitutional grant of authority and early patent laws. The Court’s recent discussion in *In re Comiskey*, starting with the Patent Clause and historical context, is instructive. 499 F.3d at 1374-75; *see also In re Nuijten*, 500 F.3d 1346, 1352 (Fed. Cir. 1997); *id.* at 1358 (Linn, J., concurring-in-part and dissenting-in-part). Article 1, Section 8, clause 8 of the Constitution merged

proposed provisions authorizing copyrights and patents, respectively. *See* S.

REP. NO. 82-1979, at *2396 (1952). It states:

The Congress shall have Power ... 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.

U.S. CONST. art 1, § 8, cl. 8. The terms “useful Arts,” “Inventors,” and “Discoveries” refer to the patent authority. Thus, the first and subsequent patent laws have been “acts to promote the useful arts.” S. REP. NO. 82-1979, at *2396.

In the late 18th century, “Art” referred to “[t]he power of doing something not taught by nature and instinct”; “[a] science”; “[a] trade”; “[a]rtfulness, skill, dexterity.” *In re Nuijten*, 500 F.3d at 1361 (Linn, J., dissenting-in-part) (citing contemporary dictionary). This understanding is relevant to the scope of today’s statute. *See, e.g.*, ESKRIDGE, WILLIAM JR., DYNAMIC STATUTORY CONSTRUCTION 323 (Harvard University Press 1994) (when construing a statute, “consider dictionaries of the era in which the statute was enacted”); *McNally v. United States*, 483 U.S. 350, 370 (1987) (consulting dictionaries of the time of the act). Moreover, as explained in *In re Comiskey*, the Founders included the specific limits in the patent clause purposely, in part to prevent certain kinds of monopolies previously granted by the English Crown, such as exclusive rights over entire areas of doing business. *See In re Comiskey*, 49 F.3d at 1375.

These foregoing definitions and historical context suggest that the constitutional grant of authority, and original scope of the law related to patentable processes (arts), was not meant to encompass any and all series of steps that had some beneficial use. *See also* Giles S. Rich, *Principles of Patentability*, 28 GEO. WASH. UNIV. L. REV. 393, 393-94 (January, 1960) (not all useful processes are patentable subject matter).

Accordingly, in cases interpreting the phrase “useful process” in section 101, it has been constrained by the Framers’ conception of “useful arts.” *See, e.g., Diehr*, 450 U.S. 175. The Supreme Court’s guidance on statutory interpretation supports this construct. *See, e.g., Public Citizen v. United States Dep’t of Justice*, 491 U.S. 440, 466 (1989) (“It has long been an axiom of statutory interpretation that where an otherwise acceptable construction of a statute would raise serious constitutional problems, the Court will construe the statute to avoid such problems unless such construction is plainly contrary to the intent of Congress.”) (quotations omitted); *Clark v. Martinez*, 543 U.S. 371, 380 (2005) (adopt the construction that would avoid constitutional problems).

In *Diehr* and *Benson*, the Supreme Court enunciated a “clue” to what these limits to section 101 mean: “[t]ransformation 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. at 184 (quoting

Benson, 409 U.S. at 70); *see also Parker v. Flook*, 437 U.S. 584, 588 n.9 (1978) (process may be patent-eligible if tied to an apparatus or changed materials to a different state or thing). The Supreme Court has suggested that its formulation is not exclusive and may evolve with the continued progress of “technology.” *Benson*, 409 U.S. at 71. But it has not found any other process to constitute statutory subject matter. At the very least, then, courts must strongly – if not conclusively – presume that when a process claim fails to recite operation on a machine or transformation of matter as a material part of the invention, it is unpatentable subject matter.

Some courts and observers have suggested that the foregoing Supreme Court precedent together with the Patent Clause establish a “technological arts” or “technological contribution” requirement in section 101. *See, e.g.*, PTO Supp. Br. at 9-10; *In re Bergy*, 596 F.2d 952, 959 (CCPA 1979); *In re Comiskey*, 499 F.3d at 1375 (“The Constitution explicitly limited patentability to “the national purpose of advancing the useful arts – the process today called technological innovation.”) (quoting *Paulik v. Rizkalla*, 760 F.2d 1270, 1276 (Fed.Cir.1985) (en banc)). On that point, the SIIA takes no position in this brief. But whether construed broadly as a “technological arts” requirement, or merely on its express terms, the *Diehr* standard imposes significant boundaries on the kinds of processes that are eligible for patents. The application of mental

processes, determinations, or human intelligence alone – not materially including or acting upon a machine, manufacture or composition of matter – on its face falls outside these boundaries. *See, e.g., In re Comiskey*, 499 F.3d at 1378-79.⁵ And even claims directed to an otherwise-statutory “process” under section 101 will be ineligible if found, on further analysis, to encompass no more than an abstract idea, law of nature, or natural phenomena. *See Diehr*, 450 U.S. at 185.

State Street is not to the contrary. In explaining that courts should not place limits on section 101 that Congress did not intend, the *State Street* opinion repeated the oft-quoted phrase that “Congress intended section 101 to extend to ‘anything under the sun that is made by man.’” *State Street*, 149 F.3d at 1373 (quoting S. REP. NO. 82-1979, at 5 (*2399); H.R. REP. NO. 82-1923 (1952)). But Congress used that phrase only in describing machines and manufactures. *See* S. REP. NO. 82-1979, at *2399 (“A person may have ‘invented’ a machine or manufacture, which may include anything under the sun that is made by man, but it is not necessarily patentable under section 101 unless the conditions of the

⁵ A claim directed to mental processes combined with a machine or transforming matter may be patentable subject matter, for example under the standards set forth in *Diehr*. The claim as a whole then should be evaluated for compliance with the other statutory requirements, in the same manner as other patent applications. *See, e.g.,* 35 U.S.C. § 103(a); *Diehr*, 450 U.S. at 193 n. 15; *Princeton Biochemicals, Inc. v. Beckman Coulter, Inc.*, 411 F.3d 1332, 1337 (Fed. Cir. 2005); *General Foods Corp. v. Studiengesellschaft Kohle mbH*, 972 F.2d 1272, 1278 (Fed. Cir. 1992); *cf. In re Comiskey*, 499 F.3d at 1380-81.

title are fulfilled.”); H.R. REP. NO. 82-1923 (same). That legislative history thus was germane to *State Street*, in which the invention involved a machine. But it does not support the broader proposition that literally any process with useful result is patentable subject matter.

Before turning to Bilski’s claim 1, one final observation is apt.

Particularly in the computer and software related arts, the examination of claimed inventions under sections 102, 103, and 112 (and identifying prior art) continues to evolve and be refined. SIIA’s endorsement, or lack thereof, of standards for patentable subject matter under section 101 are not intended to affect the interpretation of the other requirements for patent protection, nor provisions that Congress may pass in the future. The rigorous and consistent enforcement of such requirements is critical to maintaining and improving the quality of patents in the computer and software related arts.

III. BILSKI’S CLAIM 1 IS NOT PATENTABLE SUBJECT MATTER

The Court should affirm the determination of the Patent Board of Appeals, and hold that Bilski’s claimed invention is directed to unpatentable subject matter. The Court should reach this result regardless of whether it (1) adopts the analysis of the *Comiskey* case and finds Bilski’s invention to be an attempt to patent human intelligence or an abstract idea; or (2) concludes that the

statute requires a “technological contribution,” which is absent here; or (3) finds at the outset that Bilski’s invention presumptively is unpatentable under *Diehr* because it is not “tied to a machine” nor “transforms matter;” or rules that the limits to “useful process” in section 101 are best implemented by some other approach.

Bilski’s claim 1 is similar to the arbitration method claims 1 and 32 at issue in *In re Comiskey*. The inventions in both cases primarily constitute a human being making decisions (mental processes) based upon categories of information available to him or her, and resulting in certain relationships and obligations. While these relationships or obligations may have practical, useful results, that is not enough to establish statutory subject matter. *See In re Comiskey*, 499 F.3d at 1377 (“mental processes – or processes of human thinking standing alone – are not patentable even if they have practical application.”). Comiskey’s mental process solved a legal problem. *See id.* at 1379. Bilski’s process mitigated the financial problem of risks in energy commodities trades. But both processes are “untied to another category of statutory subject matter.” *Id.* at 1378. They amount to an attempt to claim human intelligence itself. *See id.* at 1379. Thus Bilski’s claim 1, like Comiskey’s process claims 1 and 32, is unpatentable subject matter.

Alternatively, Part II, *supra*, discusses the argument some have made that section 101 (and patent law generally) historically has required an invention to include a “technological contribution” or be directed to the “technological arts.” If that were in fact the law, Bilski’s claim 1 also would not be patentable subject matter. On its face, there is nothing technological required or inherent in Bilski’s process. To the contrary, he does not attempt to limit the process to any particular technological context, or to the use of any particular technology in the method. Even if he had peripherally included some technological step, such as using email to gather initial information, the claimed invention likely would still lack a requisite technological focus. *See In re Comiskey*, 499 F.3d at 1377-78; *In re Grams*, 888 F.2d 835, 839-40 (Fed. Cir. 1989).

Finally, and perhaps most simply, Bilski’s claim 1 fails the requirement of *Diehr* that a process must be tied to a particular apparatus or transform matter to a different state or thing, in order to be patentable. *See Diehr*, 450 U.S. at 184. While the Supreme Court has declined to make this an exclusive test, *see Benson*, 409 U.S. at 71, no exceptions have emerged. In effect, these requirements have become a presumption without a known means of rebuttal. Nothing in Bilski’s claim 1 or arguments in this case suggest that this should be the first exception.

Bilski argues, Supp. Br. at 15, that claim 1 is patentable subject matter under the *State Street* and *AT&T* decisions. But as discussed in Part I, *supra*, the inventions at issue in those cases were materially tied to other statutory subject matter, namely, machines. Those cases did not, and could not, find that a business method standing alone was patentable subject matter. *See supra* Part I. Because Bilski's claim is not directed to a machine, or machine-implemented process, it does not follow that it must be patentable under those decisions. To the contrary, Bilski's claim 1 is unpatentable subject matter for the reasons discussed herein, and the distinguishable holdings of *State Street* and *AT&T* should be left undisturbed.

For the foregoing reasons, the SIIA generally supports the PTO's principal argument that claim 1 is not directed to a "useful process" as that term is properly interpreted in section 101. *See* PTO Supp. Br. at 6-11. The SIIA has concern, however, regarding the alternative argument relying upon the so-called "abstract idea exception." As the PTO notes, Supp. Br. at 17, 21, the doctrine has been something of a moving target in the various cases that have applied it. It is evident that the line between an "abstract" and "non-abstract" (concrete) process often is drawn based upon the level of detail in which the process is

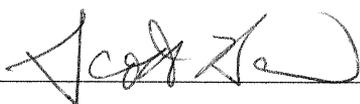
described – which may be a subjective and unpredictable inquiry.⁶ The complete lack of detail and “how-to” guidance in Bilski’s claim 1 might make the inquiry seem easy here. But focusing on what is “abstract” is an “esoteric endeavor” and in other cases “challenges will often arise.” PTO Supp. Br. at 24-25. An *en banc* holding based on this approach therefore may not serve the important purpose of making the law on section 101 more predictable and clear.

⁶ It is also an inquiry that may be implicated in section 112. *Cf. In re Nuijten*, 500 F.3d at 1354 n.3; *Mackey v. Lanier Collection Agency & Service, Inc.*, 486 U.S. 825, 837 (1988) (courts should construe a statute to avoid an interpretation that would render other provisions in the statute redundant or superfluous).

CONCLUSION

The decision of the BPAI, sustaining the rejection of Bilski's claims 1-11 as directed to non-statutory subject matter, should be AFFIRMED.

Respectfully submitted,



Scott E. Bain
ATTORNEY OF RECORD
SOFTWARE & INFORMATION
INDUSTRY ASSOCIATION (SIIA)
1090 Vermont Av. Nw, Suite 600
Washington, DC 20005
(202) 789-4492

ATTORNEY FOR AMICUS CURIAE SIIA

APRIL 7, 2008

**CERTIFICATE OF COMPLIANCE WITH TYPE-VOLUME
LIMITATION, TYPEFACE REQUIREMENTS, AND
TYPE STYLE REQUIREMENTS**

1. This brief complies with the type-volume limitation of Federal Rule of Appellate Procedure 32(a)(7)(B). It contains 4,526 words excluding the parts of the brief exempted by Federal Rule of Appellate Procedure 32(a)(7)(B)(iii).

2. This brief complies with the typeface requirements of Federal Rule of Appellate Procedure 32(a)(5) and the type style requirements of Federal Rule of Appellate Procedure 32(a)(6). The brief has been prepared in a proportionally spaced typeface using Microsoft Word in Times New Roman 14 point font.

A handwritten signature in black ink, appearing to read "Scott E. Bain", is written over a horizontal line.

Scott E. Bain
Attorney for *Amicus Curiae*
Software & Information Industry Association

April 7, 2008

CERTIFICATE OF SERVICE

I hereby certify that on April 7, 2008, two copies of the foregoing Amicus Brief in Support of Appellee, and Entry of Appearance, each were sent via U.S. Mail to the following.

Attorney for Appellant:
David C. Hanson
The Webb Law Firm
700 Koppers Building
436 Seventh Avenue
Pittsburgh, Pennsylvania 15219
(412) 471-8815

Attorneys for Appellee:
James Toupin
Stephen Walsh
Thomas W. Krause
Raymond T. Chen
OFFICE OF THE SOLICITOR
Post Office Box 15667
Arlington, Virginia 22215

Signed,

A handwritten signature in black ink, appearing to read "Raymond T. Chen", is written over a horizontal line.