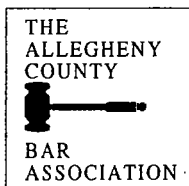


Understanding the Intellectual Property & Communications Omnibus Reform Act of 1999

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**Pennsylvania
Bar Institute**

THE CONTINUING LEGAL EDUCATION ARM
OF THE PENNSYLVANIA BAR ASSOCIATION

CHAPTER ONE:

**Prior User Defense for Business Methods—
Part of the American Inventors Protection
Act of 1999**

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**THE PRIOR USER DEFENSE FOR BUSINESS METHODS
PART OF THE AMERICAN INVENTORS PROTECTION ACT OF 1999**

I. BACKGROUND

A. Patents

1. **Basis of Patent Protection**

U.S. Constitution Article I, Section 8, Clause 8: “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].” (Brackets and emphasis added.) Title 35 of U.S.C. is the federal patent statute.

2. **Right Conferred**

The patent owner has the right to exclude all others from making, using, offering to sell, or selling in the United States, or importing into the United States, the patented invention. This right is temporary (now 20 years from the filing date) but, with few exceptions (e.g., government compulsory licenses, inventions related to sensitive areas such as defense), exclusive. In return for that right, the inventor makes full disclosure in the patent of the invention so that the public can use the invention after the patent term ends.

3. **Defensive Attribute**

Patent also publish and place in the “prior art” an invention so that another, who might happen independently to later make the same invention, cannot obtain a patent and exclude the first inventor from using the invention.

B. Trade Secrets

1. **Basis of Trade Secret Protection**

Tort and contract statutes and common law of states; Economic Espionage Act of 1996, codified at 18 U.S.C. §§ 1831-39 (represents a fundamental change in the landscape of trade secret law; for the first time, theft of trade secrets has been criminalized at the federal level).

2. **Right Conferred**

The trade secret owner can prevent wrongful misappropriation and use of the trade secret by another at any time. A trade secret is information used in a business (hence “trade”) which gives the business person a competitive advantage over competitors who do not know the information (hence “secret”) because the owner takes reasonable measures to protect it.

C. Patents Versus Trade Secrets (See Appendix A)

1. Duration
20 years v. infinite
2. Confidentiality
Secret v. disclosure; note prior art implications
3. Independent discovery
Third party independent discovery; note reverse engineering

D. *State Street Bank* Case (See Appendix B)

The U.S. Court of Appeals for the Federal Circuit broadly held that a computer programmed to process data reflecting the monetary value or price of a financial product is patentable subject matter under U.S. patent law. The court specifically rejected the “business method” exception that many thought to exist to patentable subject matter. The U.S. Patent and Trademark Office (PTO) has since been flooded with “business method” patent applications. This has created a potential problem for many users of business software systems. Before *State Street Bank*, developers and users of business-related software considered their business methods unpatentable and maintained them as trade secrets. They could now be precluded from using their own business software methods by others who later obtained a patent for the same business method.

E. Need for New Patent Legislation?

1. Section 102(g)
Note 35 U.S.C. § 102(g), which precludes a patent to B if before B’s invention A made the invention and did not abandon, suppress, or conceal the invention, typically does not help because A “concealed” the invention by maintaining it as a trade secret.
2. Section 102(b) for third party use
The “on sale” or “public use” bars of 35 U.S.C. § 102(b) do not help because, although there is some precedent to the contrary, a third party’s secret use typically does not constitute a bar to another’s patent application. *Woodland Trust v. Flowertree Nursery Inc.*, 148 F.3d 1368, 1370-71, 47 USPQ2d 1363, 1365-66 (Fed. Cir. 1998); *W.L. Gore & Assocs., Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983); 2 D. Chisum, *Patents*, § 6.02[5][c] at 6-54 (1999). Note, however, that courts rarely hold “secret” a third party’s commercial use of a process or machine.
3. Section 102(b) for inventor use
The first inventor also could not obtain a patent (even if for defensive purposes) because the inventor’s own commercial use, albeit secret, constitutes a public use or sale under Section 102(b). *Woodland Trust v. Flowertree Nursery Inc.*, 148 F.3d 1368, 1370-71, 47 USPQ2d 1363, 1365-66 (Fed. Cir. 1998); *TP Laboratories v. Professional Positioners*,

Inc., 724 F.2d 965, 972 (Fed. Cir. 1984); *Egbert v. Lippman*, 104 U.S. 333, 336 (1881); 2 D. Chisum, Patents, § 6.02[5][b] at 6-50 (1999).

F. The Legislative Players

1. Proponents
Large, multi-national companies (e.g., Intel, IBM, GE, P&G, Microsoft, Ford, GM); foreign (e.g., Japanese) conglomerates
2. Why a need for the first inventor defense?
 - a. Harmonize U.S. patent law with the laws of other countries. Many countries in Europe have prior user rights: any person who has used or possessed a patented invention (typically, a process) before issuance of the patent may have a right to continue to use the invention. *See* Art. 37 of the European Community Patent Convention. In Japan, a third party who on the date a patent application is filed (or if priority was claimed, on the priority date) was already using the invention in good faith in Japan, or who had made preparations to use it, has a non-exclusive license to use the invention within the scope of its business.
 - b. Large companies also may be frustrated by the leverage that small inventors and competitors can obtain by patenting profitable inventions.
3. Opponents
Independent inventors, small businesses, universities (including 27 Nobel Laureates associated with universities)
4. Why no need for the first inventor defense?
 - a. "If it 'aint broke . . ."; no need to change a U.S. patent system that fosters more breakthrough inventions than all other nations combined.
 - b. Capital markets for small, entrepreneurial start-ups may evaporate.
 - c. Universities argue that, because the exclusive right conferred by a patent is undermined, the lucrative field of technology transfer through licensing will suffer (i.e., revenue from licensing agreements will shrink).

G. Legislative History

1. The 1990's
Since the early 1990's much legislative attention has been focused on changes to U.S. patent law. The focus is largely driven by international negotiations and the renewed importance of patents to our economy. H.L. 3460 ("Inventor Rights Protection and Patent Reform Act of 1996") included "Defense to Patent Infringement Based on Prior

Domestic Commercial Use.” The last Congress had considered but not passed H.R. 400 and S. 507.

2. **The House**
House Resolution 1907, offered by Howard Coble (R-NC), was passed (by a vote of 376-43) on Aug. 4, 1999. Title II is the “First Inventor Defense.”
3. **The Senate**
Senate Bill 1798, introduced by Orrin Hatch (R-UT), was voted out of the Senate Judiciary Committee on Nov. 3, 1999.
4. **The IP & Communications Omnibus Reform Act**
H.R. 1907 and S. 1798 differed. Members of the House and Senate met, agreed upon acceptable language for the legislation, attached the legislation to H.R. 1554 (a bill addressing satellite television service), and called the combined legislation “Intellectual Property and Communications Omnibus Reform Act of 1999.”
5. **The Consolidated Appropriations Act**
The language of the patent bill was removed from the satellite bill and instead attached as Title IV (“American Inventors Protection Act Of 1999”) to H.R. 3194 / S. 1948, Public Law No. 106-113, a huge bill titled “Consolidated Appropriations Act of 2000.”
6. **The Final Legislation**
As passed on Nov. 29, 1999, the Act has eight subtitles. Subtitle C is the “First Inventor Defense Act of 1999.” In combination, the eight subtitles represent compromise among the lobbying interests.

II. THE FIRST INVENTOR DEFENSE

A. Introduction (Codified as new 35 U.S.C. § 273)

The American Inventors Protection Act creates a new defense, the first inventor defense, that can be asserted by inventors accused of patent infringement. The defense applies to accused infringers who can establish that they reduced the patented invention to practice at least a year before the patent’s effective filing date.

B. Effective Date

The defense is effective on Nov. 29, 1999, the date of enactment, except for pending or past litigation.

C. Defense to Infringement (§ 273(b)(1))

The Act provides a defense to an action for infringement for practicing a method that would otherwise infringe one or more claims of the patent being asserted. The defense is available if the accused infringer had, acting in good faith, actually reduced the invention to practice in the United States at least one year before the “effective filing date” of the patent. The accused infringer must also have “commercially used” the invention in the United States before the effective filing date of the patent.

D. Definitions (Selected terms are defined in the Act)

1. The terms “commercially used” and “commercial use” (§ 273(a)(1))
These terms are limited by the Act to the use of a method in the United States. The use must be in connection with an internal commercial use, an actual arm’s length sale, or other arm’s-length commercial transfer of a useful end result. It does not matter whether the invention at issue is accessible to or otherwise known to the public. The invention is also deemed to be “commercially used” and in “commercial use” during a regulatory review period if commercial marketing or use of the invention is subject to a pre-marketing regulatory review period during which safety or efficacy of the invention is established (including any period under 35 U.S.C. § 156(g)). (Because Section 156(g) defines a review period for drugs, biological products, food additives, and medical devices, it suggests a broad definition of “method of doing business.”)
2. “Use” by nonprofits (§ 273(a)(2))
As for activities performed by a nonprofit research laboratory or nonprofit entity (e.g., university, research center, or hospital), a use for which the public is the intended beneficiary is considered to be a commercial use. Such use may be asserted as a defense, however, only for continued use by and in the laboratory or nonprofit entity. Also, such use may not be asserted as a defense with respect to any subsequent commercialization or use outside such laboratory or nonprofit entity.
3. The term “method” (§ 273(a)(3))
The term “method” is limited by the Act to a method of doing or conducting business. Earlier versions of the legislation broadly granted companies (with trade secrets rights) a defense to infringement actions based on another’s patent for the same subject matter. As enacted, however, the first inventor defense is narrowly tailored to address the precedent set forth by the *State Street Bank* case, which eliminated the business-method exception to patentability.
4. The “effective filing date” (§ 273(a)(4))
The “effective filing date” of a patent is the earlier of the date on which the application for the patent was filed or the date any earlier United

States, foreign, or international application was filed for the same subject matter under Section 119, 120, or 365.

E. Exhaustion of Rights (§ 273(b)(2))

The first inventor defense can limit, or “exhaust,” a patent owner’s rights. Such exhaustion of rights results from a sale or other disposition of a useful end product produced by a patented method by a person entitled to assert the defense. The patent owner’s rights under the patent are exhausted to the extent such rights would have been exhausted had such a sale or disposition been made by the patent owner. In other words, a sale or disposition by a first inventor is attributable to the patent owner for purposes of exhaustion of the patent owner’s rights.

F. Limitations and Qualifications of the Defense (§ 273(b)(3))

The Act places several significant limitations and qualifications on the first inventor defense. First, the invention for which the defense is asserted must be for a method. Second the invention on which the defense is based cannot have been derived from the patentee or persons in privity with the patentee. Finally, the defense extends only to the specific subject matter claimed in the patent with respect to which the person can assert the defense and not to all claims of the patent at issue. In other words, the defense does not provide a general license under all claims of the asserted patent. Nevertheless, the defense does extend to variations in the quantity or volume of use of the claimed invention. The defense also extends to improvements to the invention that do not infringe additional specifically claimed subject matter of the patent.

G. Burden of Proof (§ 273(b)(4))

One asserting the first inventor defense is required to satisfy a high burden of proof. Specifically, entitlement to the defense must be established by clear and convincing evidence. The “clear and convincing” standard of proof of facts is an intermediate standard that lies between “beyond a reasonable doubt” and a “preponderance of the evidence.” *Addington v. Texas*, 441 U.S. 418, 424 (1979); *see also SSIH Equip. S.A. v. United States Int’l Trade Comm’n*, 718 F.2d 365, 380, 218 USPQ 678, 691 (Fed. Cir. 1983) (Nies, J., additional views). Although not susceptible to precise definition, “clear and convincing” evidence has been described as evidence that produces in the mind of the trier of fact “an abiding conviction that the truth of [the] factual contentions are ‘highly probable.’” *Colorado v. New Mexico*, 467 U.S. 310, 316 (1983); *see also C. McCormick, Evidence* § 340, at 796 (2d ed. 1972).

H. Abandonment of Use (§ 273(b)(5))

Abandonment of use on behalf of one asserting the first inventor defense may prove to be an obstacle. The Act provides that a person who has abandoned commercial use of the subject matter at issue may not rely on activities

performed before the date of such abandonment to establish a defense with respect to actions taken after the date of abandonment. In other words, the defense is not available for infringing activities of a person after abandonment of commercial use by that person.

I. Personal Defense (§ 273(b)(6))

The first inventor defense is a personal defense. It can only be asserted by the person who performed the acts necessary to establish the defense. The defense can be transferred to the patent owner. Generally, however, the right to assert the defense cannot be licensed, assigned, or transferred to another person.

J. Transfer of Right to Defense--Limitation on Sites (§ 273(b)(7))

An exception to the prohibition against the transfer of the defense to another person exists only if the right to assert the defense is an ancillary and subordinate part of a good faith assignment or transfer for other reasons of the entire enterprise or line of business to which the defense relates. When the defense is acquired by such a transfer, however, the defense can only be asserted for uses at sites where the subject matter is in use before the effective filing date of the patent or the date of the assignment or transfer of the enterprise or line of business, whichever occurs later. Thus, the original owner of the defense may continue to add sites to its business and expand indefinitely, but a later assignee of the business cannot expand the number of sites once an original patent application has been filed.

K. Unsuccessful Assertion of Defense (§ 273(b)(8))

There can be a penalty for unsuccessful assertion of the defense. A court is required by the Act to find a case exceptional for the purposes of awarding attorney fees if the person asserting the defense is found to infringe the patent and if the person fails to demonstrate a reasonable basis for asserting the defense.

L. Invalidity (§ 273(b)(9))

The owner of the patent is protected from assertions that the patent is invalid based on the prior use. The Act makes it clear that a patent is not deemed to be invalid under Sections 102 (novelty) or 103 (obviousness) solely because the first inventor defense is raised and established. Thus, the patent may be asserted against other parties and even against the party asserting the defense for a use that is not subject to the defense. This avoids questions under Sections 102(a) and 102(g) with respect to the prior use. For a general discussion of whether secret use before the date of invention of the patent applicant anticipates under Section 102(a) and 102(g), see 2 D. Chisum, Patents, § 3.05[2][a] and § 3.05[4][c] (1999).

III. LIKELY CONSEQUENCES (FALLOUT) (AMONG OTHERS)

A. Constitutionality

Some view the defense as forcing a patent holder to grant a free license to a trade secret owner and as a violation of the Constitution (note "exclusive right"). The defense may be challenged in court.

B. The Scope of "Method"

The courts must clarify what inventions fall into the category of "a method of doing or conducting business." The defense apparently covers software-related inventions, such as the programmed machine at issue in *State Street Bank*, if the invention could have been claimed as a method. Apparently, form will not overrule substance. The defense does not seem to cover industrial processes, which could have been patented before *State Street Bank*. (See Congressional Record.) Between the extremes, a line must be drawn. The legislative history of the Senate bill (S. 1948) indicates that the defense may not be limited to the facts of the *State Street Bank* case. One senator explained, "the method that is the subject matter of the defense may be an internal method for doing business or a method for conducting business such as a preliminary or intermediate manufacturing procedure, which contributes to the effectiveness of the business by producing a useful end result for the internal operation of the business or for external sale."

C. Role of the PTO

The defense is oriented to litigation. Other than perhaps being involved in defining what constitutes a method of doing business, the PTO will have little role.

D. Effect on Business

The right to exclude conferred by a patent is certainly less clear given the defense. What will be the effect on business efforts to protect and commercialize inventions?

E. Affected industries

The defense is not limited to any particular industry, such as the financial services industry, but applies to any industry that relies on trade secrets to protect methods of doing or conducting business.

Chapter One:
**Prior User Defense for Business Methods—
Part of the American Inventors Protection Act of 1999**

APPENDIX A:
Patents Versus Trade Secrets

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Type of Protection Subject Matter	PATENTS	TRADEMARKS	COPYRIGHTS	TRADE SECRETS
Subject Matter	Any new and useful process, machine, manufacture, or composition of matter, or new and useful improvement thereof; new variety of plant; new, original, and ornamental design for an article of manufacture.	Mark by which the goods or services (in the case of a servicemark) of one person may be distinguished from the goods or services of others. A trademark is not a noun.	Original works of authorship fixed in a tangible medium. Works may be literary, musical, dramatic, pantomime, choreo-graphic, audiovisual, audio, architectural, software.	Any formula, pattern, device, or compilation of information which is used in one's business, and which give him or her an opportunity to obtain an advantage over competitors who do not know or use it.
Degree of Federal Preemption	Total federal preemption. See <i>Sears v. Stiffel</i> 376 U.S. 225 (1964); <i>Compco v. Day-Brite</i> , 376 U.S. 234 (1964) and <i>Bonito Boats v. Thundercraft</i> , 489 U.S. 141 (1989).	States many register trademarks for intrastate use. Federal registration applies to all states and precludes later-acquired common law and state rights.	Total Federal preemption for works which fall within the scope of the statute. See 17 U.S.C. § 301.	No federal preemption since each state promulgates its own statutes to codify misappropriation of trade secrets. Tort-based Common law cause of action also exists.
How Protection Obtained	Application prepared and submitted to the United States Patent and Trademark Office. Provisional application may be filed to reserve, but not confer, protection.	Common law protection obtained through use of the mark. Federal registration obtained by preparation of an application and submission to the United States Patent and Trademark Office.	Copyright attached as soon as the work is "fixed in a tangible medium." Marking not necessary but recommended. Federal registration may be obtained upon application to the Copyright Office.	Common law basis, but see 18 P.S. 3930 (criminal penalties). See Restatement of Torts (1939) Section 757, Comment b. Protection arises from lack of disclosure from the time the secret is developed.
Scope of Protection & Protectible Elements	New, useful, and non-obvious subject matter, and defined by the patent claims, are protectible along with a varying range of equivalents. Owner is granted the right to exclude others from making, using, offering to sell, selling, or importing the patented invention. NO RIGHT TO USE IS GRANTED.	Protection against other marks which are "likely to cause confusion." Proper determination must take into account similarity in marks and goods, trade channels, and strength of mark. Generic marks not protectible, descriptive marks must acquire distinctiveness.	Expression or form of the work are protectible, idea and content of the work are not. Intrinsic utilitarian functions are not protectible. Expression may not be protectible if it is the only way to express the idea. Owner has exclusive right to: Reproduce, prepare derivatives of, distribute copies of, publicly perform, and display the work.	Protection against wrongful appropriation and use of the subject matter by another. No protection against independent development or reverse engineering.
Ownership	Inventor(s), unless assigned.	First user of the mark, who brought about the association of the mark with the goods.	Author, who may be an employer.	Developer of the trade secret, who may be an employer.
Duration	Utility and Plant patents, filed before June 8, 1995, the greater of 17 years from issue or 20 years from filing; filed on or after June 8, 1995: 20 years from the filing date (utility patent extendible for delays in FDA approval of certain inventions); Design patent, 14 years. No Renewals	For as long as qualified use continues. Federal registration granted for 10 years with 10 year renewals available.	Works created after 1/1/78: life of author plus 50 years. Where author is a corporation: shorter of 75 years from 1st publication and 100 years from creation. Copyrighted pre-1978 works: 75 years (with renewal). Non-registered, non-published pre-1978 works: life of the author plus 50 years.	Potentially unlimited duration provided proper precautions against disclosure are maintained. Public disclosure destroys that trade secret.
Transfer of Rights	Assignable by instrument in writing; recordation within 3 months protects against later purchasers and mortgagees. See 35 U.S.C. 261. Can also be licensed.	Assignable by instrument in writing; recordation within 3 months protects against later purchasers and mortgagees. Assignment must include goodwill associated with the mark. See 15 U.S.C. 1060. Can be licensed provided the owner exercises control over the quality of the goods or services provided under the mark.	Copyright or any of the exclusive rights associated therewith assignable by instrument in writing. Ownership in a copyright should be distinguished from ownership of the work itself. Copyright or any portion thereof may also be licensed. Licensor or Assignor may terminate license or assignment generally from 35 to 40 years from date of grant.	Can be licensed or sold as business know-how. Licensor must be careful to include stringent provisions absolutely barring any disclosure to a third party without permission of the licensor, as a public disclosure would destroy the trade secret.
Infringement (Except for trade secrets and state trademark registrations, all are federal causes of action, pursued in federal court.)	Anyone who makes, uses, offers to sell, sells, or imports the patented invention without permission of an owner of the patent. Anyone who contributes to or induces infringement by another.	Use of a mark in a manner likely to cause confusion with the goods or services of trademark owner.	Anyone who reproduces, prepares derivatives of, distributes copies of, publicly performs, or displays the work without the permission of the copyright owner. There is an exception for fair use.	Misappropriation of trade secrets gives rise under common law tortious principles or by statute to liability to those injured.
Marking	"Patent Pending" or "Patent Applied For" means an application for patent has been filed in the U.S. Patent Office. "Patent #"(e.g., 3,733,309) means the Article, or portion thereof, or process for making is covered by Patent # (3,733,309).	"TM," "SM" gives Notice to others that the mark is being used as a trademark or servicemark, mark need not be registered. "®" or "Reg. U.S. Pat. & Tm. Off." or "Registered in U.S. Patent and Trademark Office" means Mark is federally registered.	"© 1989 Joe Smith" means the work was published in 1989, and Joe Smith claims copyright in the work. No registration needed to use this.	

Chapter One:
**Prior User Defense for Business Methods—
Part of the American Inventors Protection Act of 1999**

APPENDIX B:
**The Demise of the Business Method Exception
in *State Street Bank & Trust Co. Case***

**The Demise of the Business Method Exception
in
STATE STREET BANK & TRUST CO.**

I. Section 101

35 U.S.C. § 101 provides:

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.

Not everything is patentable. To be patentable, an invention must fall into one of four categories: (1) process [e.g., process of manufacture or method of use], (2) machine [parts move, e.g., typewriter], (3) manufacture [no moving parts, e.g., hammer], or (4) composition of matter [e.g., chemical composition such as a drug].

II. Judicial Exceptions

The Supreme Court has identified three categories of subject matter that are unpatentable as “exceptions” to statutory subject matter:

A. Laws of Nature [e.g., Newton’s $F=ma$]

B. Natural Phenomena [e.g., “Claims that recite nothing but the physical characteristics of a form of energy, such as a frequency, voltage, or the strength of a magnetic field, define energy or magnetism, per se, and as such are non-statutory natural phenomena.” See “Examination Guidelines for Computer-Related Inventions” of the U.S. Patent and Trademark Office, 61 Fed. Reg. 7,478 (effective on March 19, 1996) (“Guidelines”). Another example is a method of how grass grows.]

C. Abstract Ideas [e.g., copyright covers medium of expression for idea of “boy meets girl”; abstract idea for a bid or a bubble hierarchy without some claimed practical application; disembodied data structures or computer programs are collections of information and are expressions of abstract ideas]

State Street Bank & Trust Co. v. Signature Financial Group, Inc., 149 F.3d 1368, 1373, 47 USPQ2d 1596, 1600 (Fed. Cir. 1998) (citing *Diamond v. Diehr*, 450 U.S. 175, 185 (1981)), *cert. denied*, 119 S. Ct. 851 (1999).

III. Business Method Exception

Hotel Security Checking Co. v. Lorraine Co., 160 F. 467 (2d Cir. 1908) (a patent covering a bookkeeping system of cash registering and account checking for waiters was invalid because “a system of transacting business disconnected from the means for carrying out the system” was not patentable), is relied upon as establishing the business method exception to statutory subject matter.

A patent owned by Merrill Lynch described a system for combining a brokerage security account, a money market fund, and a charge/checking account constituted patentable subject matter per *Paine, Webber, Jackson & Curtis, Inc. v. Merrill Lynch Pearce Fenner and Smith, Inc.*, 564 F. Supp. 1358, 218 USPQ 212 (D. Del. 1983). The district court placed overriding significance on the fact that the method described in the patent was practiced on a computer.

In *In Re Schrader*, 22 F.3d 290, 30 USPQ2d 1455 (Fed. Cir. 1994), the Federal Circuit panel upheld a decision of unpatentability by the PTO Board of Patent Appeals. The patent claimed a method for competitive bidding on a number of related items such as continuous tracts of land. Judge Pauline Newman dissented. Judge Newman’s dissent had significant influence on the drafters of the Guidelines; the Guidelines cite the dissent several times.

The Guidelines state: “Office personnel have had difficulty in properly treating claims directed to methods of doing business. Claims should not be categorized as methods of doing business. Instead such claims should be treated like any other process claims, pursuant to these Guidelines when relevant.” Guidelines, 61 Fed. Reg. at 7,479. The Guidelines provide some practical advice as to how to draft allowable patent applications covering “business methods.” Simply stated, the application should be drafted in a manner such that it is “computer related.” “Computer-related inventions” are defined to include any invention implemented in a computer or employing computer readable media. *Id.* at n.2.

IV. State Street Bank Case

State Street Bank and Trust Co. v. Signature Financial Group, Inc., 927 F. Supp. 502, 516, 38 USPQ2d 1530, 1542 (D. Mass. 1996), *rev’d*, 149 F.3d 1368, 47 USPQ2d 1596 (Fed. Cir. 1998), *cert. denied*, 119 S. Ct. 851 (1999).

A. *Technology At Issue*

In *State Street Bank*, the subject matter was U.S. Patent No. 5,193,056 titled “Data Processing System for Hub and Spoke Financial Services Configuration.” The ‘056 patent, owned by Signature Financial Group, contains means plus function claims directed to a data processing system for implementing an investment structure for use

in administering mutual funds. State Street Bank was managing mutual funds in a manner likely to be found to infringe the '056 patent. Following unsuccessful license negotiations, State Street Bank brought a declaratory judgment action asserting that the '056 patent was invalid.

B. *District Court Opinion*

The district court granted a partial summary judgment motion holding the patent claims invalid for failing to claim statutory subject matter under 35 U.S.C. § 101. In reaching this conclusion, the district court held that the claimed subject matter fell into one or both of the “mathematical algorithm” or “business method” exceptions to statutory subject matter. More specifically, the court noted that the claimed invention did not involve any physical transformation of numbers. *State Street Bank and Trust Co. v. Signature Financial Group, Inc.*, 927 F. Supp. 502, 516, 38 USPQ2d 1530, 1542 (D. Mass. 1996).

Perhaps the district court’s decision might be characterized as based on overbreadth and claim invalidity: “If Signature’s invention were patentable, any financial institution desirous of implementing a multi-tiered funding complex modelled on a Hub and Spoke configuration would be required to seek Signature’s permission before embarking on such a project. This is so because the ‘056 Patent is claimed sufficiently broadly to foreclose virtually any computer-implemented accounting method necessary to manage this type of financial structure.” 927 F. Supp. at 516, 38 USPQ2d at 1542.

C. *Appellate Court Opinion*

1. Holding

A unanimous Federal Circuit panel (Judges Rich, Plager, and Bryson) overturned the summary judgment finding of invalidity. The opinion by Judge Rich begins with an affirmation of the broad nature of Section 101 by citing Congressional reports stating that Section 101 was intended to extend patentable subject matter to “anything under the sun that is made by man.” Moreover, courts should not read limitations into the patent laws which were not expressed by Congress. *State Street Bank*, 149 F.3d at 1373, 47 USPQ2d at 1600 (citing S. Rep. No. 1979, 82nd Cong., 2d Sess. 5 (1952), and quoting *Diamond v. Chakrabarty*, 447 U.S. 303, 309, 206 USPQ 193 (1980)).

2. Business Method

The Federal Circuit was clear in overruling the district court’s reliance on the “business method exception” citing with approval both Judge Newman’s dissent in *Schrader* and the U.S. Patent and Trademark Office Examination Guidelines. The

court pronounced, “[w]e take this opportunity to lay this ill-conceived [business method] exception to rest.” *State Street Bank*, at 1375, 47 USPQ2d at 1602. The court also stated, “[w]hether the claims are directed to subject matter within § 101 should not turn on whether the claimed subject matter does ‘business’ instead of something else.” *Id.* at 1377, 47 USPQ2d at 1604.

“The business method exception has never been invoked by this court, or the CCPA, to deem an invention unpatentable.” *Id.* at 1376, 47 USPQ2d at 1603. Even *Hotel Security Checking Co. v. Lorraine Co.*, 160 F. 467 (2d Cir. 1908) (a patent covering a bookkeeping system was invalid because “a system of transacting business disconnected from the means for carrying out the system” was not patentable), relied upon as establishing the business method exception to statutory subject matter, found the patent at issue invalid for lack of novelty and “invention” not because the invention was improper subject matter for a patent.

Principle of Law or Rule: performance by a machine of a mathematical algorithm, formula or calculation is patentable if it produces a “useful, concrete and tangible result.” *State Street Bank*, at 1373, 47 USPQ2d at 1601 (means plus function limitations recite a machine). The key question now may be whether the claimed invention is a “practical application” of an algorithm or business method. See Box 13 of PTO “Examination Procedures for Computer-Related Inventions.”

D. *Supreme Court*

State Street Bank petitioned for the Supreme Court to decide the case. The petition for certiorari stated the question presented for the Supreme Court as: “Whether the computer application of a mathematical algorithm to produce a useful result, without more, is sufficient to satisfy the patentable subject matter requirements of 35 U.S.C. § 101.” State Street Bank’s petition argued that such a rule is overly broad, would allow “the Pythagorean theorem [to] be patentable subject matter whenever it is applied to any useful end,” and might adversely impact “areas that have flourished without the patent system.” The petition was denied.

V. Implications

A. What Change?

For two decades, the PTO has been issuing patents directed to business-related software. Subclasses 401-08 of Class 364 include over 1,300 patents covering business-related software for business practice and management (401), operations research (402), inventory (403), cash register management (405), accounting (406), reservations (407), and finance (408) (securities and commodities).

B. Lots of Discussion

The ramifications of the Federal Circuit's decision for the business community have been the subject of considerable commentary. This has been a newsworthy case. See, for example:

1. Teresa Riordan, *Patents; An appeals court says a mathematical formula can be patented, if it is a moneymaker*, New York Times, August 3, 1998, at D2, Col. 4 (citing "the very broad, very sweeping" nature of the decision);
2. *Federal Circuit Disposes of 'Business Method Exception*, Computer Law Strategist (Aug. 1998);
3. *The Rest of the Wall Comes Down: Federal Circuit Holds Software is Freely Patentable*, Intellectual Property Today (Sept. 1998);
4. Robert C. Scheinfeld & Parker H. Bagley, *State Street: Virtually Anything is Patentable*, New York Law Journal, September 23, 1998, at 3 (The Federal Circuit's decision "stands for the proposition that any method, including a business method (and even one accomplished without the aid of a computer), constitutes statutory subject matter if it has practical utility");
5. Scott Thurm, *Online: A Flood of Web Patents Stirs Dispute Over Tactics*, Wall Street Journal, October 9, 1998, at B1, Col. 3 (describing the decision as making it easier to obtain patent protection on World Wide Web business methods and referencing fears of the consequences);
6. *Federal Circuit Clarifies Rules for Business Service Patents*, Intellectual Property Perspectives, A Supplement to the National Law Journal (Oct. 1998); and
7. The George Washington University Symposium (March 25, 1999).

C. Existing Materials

1. "Examination Guidelines for Computer-Related Inventions" of the U.S. Patent and Trademark Office, 61 Fed. Reg. 7,478 (effective on March 19, 1996);
2. "Training Materials Directed to Business, Artificial Intelligence, and Mathematical Processing Applications" of the U.S. Patent and Trademark Office; and

3. "Flow Chart Analysis Worksheet" of the U.S. Patent and Trademark Office (May 21, 1996).

D. Potential

It would appear that there are few business methods that are not at least partially implemented in a computer or that do not use computer readable media. Thus, the *State Street Bank* holding may have wide-ranging effects on the scope of patent protection available for software--particularly on the type of business and financially oriented software at issue in *State Street Bank*. These effects are of particular importance to "deep pocket" companies such as banks and insurance companies that may find themselves increasingly exposed to potential infringement claims.

The landmark holding of the Federal Circuit in *State Street Bank* should cause a careful reevaluation of strategic intellectual property planning by financial institutions and any other organization heavily dependent on computer execution of mathematical algorithms or business methods. Proper planning should analyze both the opportunities and the risks presented by *State Street Bank*. On the opportunity side, it is clear that business methods implemented on a computer are now protectable from use by a competitor as long as the method is otherwise novel, nonobvious, and meets the requirements of Section 112 (enablement, written description, best mode, etc.). The risk now presented is, however, that the business methods of a financial institution may be covered by a patent of another. These risks are particularly acute for financial institutions handling large amounts of money via computer systems. The size of these transactions may be a major factor in measurement of damages in future patent infringement litigation. Financial institutions should discuss ways of minimizing exposure to such litigation with competent counsel at the earliest opportunity.