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RISKS ASSOCIATED WITH RESTRICTING BUSINESS METHOD AND E-COMMERCE PATENTS

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INTRODUCTION

Business method patents have taken a severe beating since the Federal Circuit decided *State Street Bank & Trust Co. v. Signature Financial Group, Inc.*¹ in July of 1998. Business method patents are practically as old as the patent system; however, given the rise of the Internet, business method patents raise new concerns. Despite their long history, there was considerable doubt prior to *State Street* whether business methods were patentable subject matter.² *State Street* has unified the patent system by eliminating the business method exception to patentability and by placing the emphasis on whether the claimed invention is useful, novel, and non-

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1. 149 F.3d 1368 (Fed. Cir. 1998), *cert. denied*, 525 U.S. 1093 (1999).

2. *See, e.g., In re Grams*, 888 F.2d 835, 837 (Fed. Cir. 1989) (listing "methods of doing business" as among categories of non-patentable subject matter); *Loew's Drive-In Theatres, Inc. v. Park-In Theatres, Inc.*, 174 F.2d 547, 552 (1st Cir. 1949) (containing language that arguably stated that methods of doing business were abstract ideas and, hence, unpatentable); *Hotel Sec. Checking Co. v. Lorraine Co.*, 160 F. 467, 469 (2d Cir. 1908); *Ex parte Murray*, 9 U.S.P.Q.2d (BNA) 1819, 1820 (PTO Bd. of Pat. App. & Interferences 1988) (declaring that a bank accounting system is non-statutory).

obvious.³ Thus, business methods are now subject to the same tests for patentability as all other subject matter.

Critics of business method patents have complained that the Internet is different from previous patentable technologies, and because of the difference, critics argue that Internet business method patents do not promote innovation.⁴ This criticism, however, relies upon anecdotal evidence rather than economic analysis to advocate changing the patent system. But such anecdotal evidence is of little use in evaluating whether changes are necessary to the patent system itself. A proper review, prior to changing the patent system, would be a thorough analysis that weighs the costs and benefits of potential changes.

One of the significant benefits of the current patent system is that it evaluates technologies in an objective manner. However, critics seeking to change the patent system in response to *State Street* largely ignore this benefit and propose changes that would treat business method patents as a separate class that would require a new method of analysis.⁵ Under the cry of “patently obvious,” the critics would introduce a subjective evaluation as part of the analysis for business method patents.⁶ Although there may be classes that warrant such special treatment, creating such a class without considering the potential costs would be imprudent. To determine whether a new class is warranted, Congress must weigh the costs and benefits of creating such an exception from the perspective of whether treating business method patents as a separate class promotes or hinders innovation.

The only constitutionally-permissible purpose for the patent system is to promote science and useful arts.⁷ The patent system presumes that only new and non-obvious inventions will promote the useful arts.⁸ Thus, the patent system is designed to

3. See *State Street*, 149 F.3d 1368.

4. See, e.g., 146 CONG. REC. E1659-60 (daily ed. Oct. 4, 2000) (statement of Rep. Berman), available at <http://www.thomas.loc.gov> [hereinafter Berman Statement]; 146 CONG. REC. E1651-52 (daily ed. Oct. 3, 2000) (statement of Rep. Boucher), available at <http://www.thomas.loc.gov> [hereinafter Boucher Statement].

5. See Boucher Statement, *supra* note 4, at E1651-52.

6. See *id.* “We’re introducing this legislation in an effort to repair the system before the PTO awards more monopoly power to people doing the patently obvious.” *Id.* at E1651.

7. See U.S. CONST. art. I, § 8, cl. 8.

8. See, e.g., 35 U.S.C. §§ 102, 103 (1994) (requiring novelty and non-obviousness).

evaluate objectively whether an invention is useful, new, and non-obvious. Objectively evaluating claimed inventions necessarily minimizes the ability of the Patent and Trademark Office (PTO) to look at a claimed invention and determine that the invention is “seemingly obvious” or “patently obvious.” The system requires objective evidence that inherently demonstrates that the claimed invention is unique and non-obvious.⁹ Yet critics would change the patent system to create an exception to the objective analysis, thereby forcing a new “patently obvious” standard on those inventions that can be compartmentalized into the created exception.¹⁰

Part I of this Article summarizes the Federal Circuit’s *State Street* decision. Part II reviews the criticism of business method patents. Part III reviews proposed solutions to the business method “crisis.” Part IV examines the constitutional, statutory, economic, and practical considerations necessary for a proper evaluation of the need for business method patents. Finally, Part V presents issues (costs) that must be considered prior to limiting the patentability of business method patents.

I. *STATE STREET BANK & TRUST CO. V. SIGNATURE FINANCIAL GROUP, INC.*

*State Street Bank & Trust Co. v. Signature Financial Group, Inc.*¹¹ is often credited with creating the business method patent. Arguably, however, the PTO has always issued business method patents: in fact, the third patent to be issued by the PTO was arguably a business method patent.¹² Nevertheless, prior to

9. See U.S. PAT. & TRADEMARK OFF., U.S. DEP’T OF COMMERCE, THE MANUAL OF PATENT EXAMINING PROCEDURE § 706.02(j) (1996) [hereinafter M.P.E.P.]; see also *In re Vaeck*, 947 F.2d 488 (Fed. Cir. 1991) (requiring evidentiary support for a patent application).

10. See *infra* Part III.

11. 149 F.3d 1368 (Fed. Cir. 1998), *cert. denied*, 525 U.S. 1093 (1999).

12. See Mark Voorhees, *One-Click Monster*, AM. LAW., May 9, 2000 (citing Ed Waltersfield, author of several books on the history of patent law, who writes about a patent that “produced a cleaner and a better grade of flour and did so much more efficiently than existing milling techniques”); see also U.S. Pat. & Trademark Off., U.S. Dep’t of Commerce, *Automated Financial or Management Data Processing Methods (Business Methods)* (providing a history of issued business method patents), available at <http://www.uspto.gov/web/menu/busmethp/index.html> (last visited Nov. 18, 2000) [hereinafter *Automated Processing Methods*].

State Street, most practitioners believed there was a business method bias that had to be considered in preparing an application.¹³ This bias became known as the “business method exception.” The bias was strong enough that many practitioners would attempt to claim the method as an apparatus prior to filing an application or else discourage the filing altogether. Usually, the solution was to prepare a creative application to make the subject matter resemble a run-of-the-mill application rather than a business method patent. Thus, in effect, the business method exception became a trap for unimaginative claim drafters.¹⁴

Regardless of the status or usefulness of a business method exception to patentability, the Federal Circuit Court used *State Street* as an “opportunity to lay this ill-conceived exception to rest.”¹⁵ *State Street* involved U.S. Patent No. 5,193,056 (the ‘056 patent), assigned to Signature Financial Group, Inc., for a “Data Processing System for Hub and Spoke Financial Services Configuration.”¹⁶ According to Judge Rich:

The ‘056 patent is generally directed to a data processing system (the system) for implementing an investment structure which was developed for use in Signature’s business as an administrator and accounting agent for mutual funds. In essence, the system, identified by the proprietary name Hub and Spoke®, facilitates a structure whereby mutual funds (Spokes) pool their assets in an investment portfolio (Hub) organized as a partnership. This investment configuration provides the administrator of a mutual fund with the advantageous combination of economies of scale in administering investments coupled with the tax advantages of a partnership.¹⁷

State Street Bank & Trust argued that the ‘056 patent was not directed to statutory subject matter, suggesting that it was either a mathematical algorithm or a business method, neither of which were patentable.¹⁸ Judge Rich, writing for the court,

13. See, e.g., cases cited *supra* note 2.

14. See Roberta J. Morris, *Business Method Patents: Old or New, Good or Bad?*, 609 P.L.I./PAT. 95, 97 (2000).

15. *State Street*, 149 F.3d at 1375.

16. *Id.* at 1370.

17. *Id.*

18. *Id.* at 1373-76.

disagreed, stating that the patent was not invalid as a mathematical algorithm because in the '056 patent, the algorithm was applied in a "useful" way.¹⁹ Judge Rich further wrote that in order to determine whether the claimed invention was unpatentable as either a mathematical algorithm or a business method, one must look to whether the claimed invention produced a "useful, concrete and tangible result."²⁰

The *State Street* court relied upon the broad language of the Patent Act, as well as the Act's legislative history, to define the statutory subject matter as encompassing business methods. Section 101 of the Patent Act, which deals with statutory subject matter, states: "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."²¹ The Patent Act defines "process" to include an "art or method."²² In interpreting section 101, the Federal Circuit Court recognized that Congress intended the section to apply to "anything under the sun that is made by man."²³ Given that the Federal Circuit had considerable trouble determining patentability in the software and bioengineering fields, the *State Street* court's broad statements regarding patentability brought stability and predictability to the analysis.²⁴

As far as the Federal Circuit Court is concerned, *State Street* has simply ended the debate regarding the patentability of business methods.²⁵ The Supreme Court declined to review the decision,²⁶ and the Federal Circuit has not shown any interest in revisiting the subject. The *State Street* decision is generally

19. *Id.* at 1373. "Unpatentable mathematical algorithms are identifiable by showing they are merely abstract ideas constituting disembodied concepts or truths that are not 'useful.'" *Id.* "The question of whether a claim encompasses statutory subject matter should not focus on *which* of the four categories of subject matter a claim is directed to . . . but rather on the essential characteristics of the subject matter, in particular, its practical utility." *Id.* at 1375 (emphasis in original).

20. *Id.* at 1373.

21. 35 U.S.C. § 101 (1994).

22. *Id.* § 100(b) (1994).

23. *State Street*, 149 F.3d at 1373 (citing *Diamond v. Chakrabarty*, 447 U.S. 303 (1981)).

24. *See id.*

25. *Id.* at 1377. "Whether 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.*

26. *State St. Bank & Trust Co. v. Signature Fin. Group, Inc.*, 525 U.S. 1093 (1999).

accepted as sound legal analysis and result, although the practical effect of the decision has been the subject of a tremendous amount of criticism.²⁷

II. DISCUSSION REGARDING THE PATENTABILITY OF BUSINESS METHOD PATENTS

The patent system is a balance between two extremely strong national interests. The first interest is the encouragement of innovation and commercialization, and second interest is the encouragement of vigorous competition. The most powerful lever for encouraging innovation is the promise of a grant of exclusive rights to the innovation in the marketplace. Granting of exclusive rights also encourages commercialization, even if at the cost of monopoly pricing. However, the second interest, encouragement of vigorous competition, is furthered by *avoiding* a grant of exclusive rights in the marketplace.

The United States Constitution reflects both interests by granting Congress the 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.”²⁸ This provision is a grant of power and a positive assertion regarding limitations on the use of that power,²⁹ thus, Congress has the power to grant an “exclusive Right” to an author or inventor, but that power is limited to situations in which that exclusive right would “*promote* the Progress of Science and *useful Arts*.”³⁰ The current debate regarding business method patents reflects deep disagreement as to whether the patent system, in its current form, promotes *useful Arts* or discoveries in the field of business methods.

The Constitution mandates an economic analysis of the effect a proposed patent statute will have on the promotion of useful arts and discoveries. Congress must weigh the costs and

27. See Leo J. Raskind, *The State Street Bank Decision: The Bad Business of Unlimited Patent Protection for Methods of Doing Business*, 10 *FORDHAM INTELL. PROP. MEDIA & ENT. L.J.* 61 (1999). “The Federal Circuit’s recent endorsement of patent protection for methods of doing business marks so sweeping a departure from precedent as to invite a search for its justification.” *Id.* at 61.

28. U.S. CONST. art. I, § 8, cl. 8.

29. See *Bonito Boats, Inc. v. Thunder Craft Boats, Inc.*, 489 U.S. 141, 146 (1989).

30. *Id.* (emphasis added).

benefits prior to modifying the patent system. Judicial interpretation of the patent system must also take into consideration the promotion of useful arts or discoveries when interpreting the Patent Act.³¹ Surprisingly, the patent system has not been subjected to as thorough an economic analysis and debate as the Constitution would seem to warrant. When subjected to economic review, the patent system generally promotes innovation to a greater extent than the costs imposed on society.³² However, the literature is far from complete and tends to be piecemeal in that it examines distinct fields rather than considering costs and benefits to society as a whole.

The economic analysis, even when applied to a particular subject matter, must take into consideration the effect of a proposed change on the entire patent system. For example, if we wish to know whether enacting legislation to bar business method patents is a good idea, we must look at the effect of that legislation on society as a whole. It is not enough to say that the individual patent does not promote useful arts or discoveries. It is not enough to say that patents for a particular subject matter do not promote useful arts or discoveries. Instead, the economic analysis must consider all of the benefits and costs that the proposed changes will have on the patent system.³³

31. See *Hilton Davis Chem. Co. v. Warner-Jenkinson Co.*, 82 F.3d 1512, 1529 (Fed. Cir. 1995), *rev'd*, 520 U.S. 17 (1997). "Our decision, like every decision of patent principle, affects the national interest in technological innovation." *Id.*

32. See *id.* at 1532-34 (Newman, J., concurring). "Most (but perhaps not all) students of technologic innovation today accept the proposition that there is a larger welfare benefit when the inventor is protected against appropriability by a competitor who did not bear the commercial risk." *Id.* at 1532 (citing Edwin Mansfield et al., *Imitation Costs and Patents: An Empirical Study*, 91 *ECON. J.* 907 (1981)). "Economic analysis is reasonably consistent in its conclusion that technologic, commercial, and public interests coincide to favor law that favors the innovator as against the second-comer. However, the application of this analysis to the complexities of patent-dependent innovation is not fully understood." *Id.* at 1534.

33. See *id.* at 1531. "I need not belabor that the economic risk in developing new technology is high, that the potential return must warrant the risk, and that the return must pay for the failures as well as the successes." *Id.*; see also PAULA A. SAMUELSON & WILLIAM D. NORDHAUS, *ECONOMICS* 658 (12th ed. 1985) (indicating that generally a higher return is required for higher risk than for lower risk investment).

The goal on which we must concentrate is the public welfare, as summarized in *Mazer v. Stein*, 347 U.S. 201, 219 (1954): "The economic philosophy behind the clause empowering Congress to grant patents and copyrights is the conviction that encouragement of individual effort by personal gain is the best way to advance public welfare through the talents

Benefits of patent protection include increasing the incentive to invest in emerging technologies through greater investment in 'research and development,'³⁴ promoting investment and commercialization of some inventions that otherwise would not make it to the market due to a fear of being overwhelmed by competitors with deeper pockets, and disclosing inventions that might otherwise be practiced in secret.³⁵ Costs of patent protection include higher costs for inventions, discouragement of research in patented areas, and the cost of maintaining the patent system.³⁶ Society may benefit from competitors who are forced to design around patented technology; however, "design arounds" that do not advance the field are a cost of the patent system.

The Patent Act is the result both of Congress' exercise of its power and its recognition of the limitations on that power.³⁷ The application of 35 U.S.C. §§ 101, 102, and 103 is of particular concern to the debate regarding business method patents. Section 101 defines patentable subject matter,³⁸ section 102 sets the standard for determining whether an invention is novel (i.e., not anticipated),³⁹ and section 103 sets the standard for determining whether an invention is non-obvious.⁴⁰ The definitions and standards for these concepts as applied by the PTO, however, do not comport with the general public's understanding of the terms "novel" and "non-obvious." Generally, the differences are the result of the PTO's attempt to

of authors and inventors in 'Science and useful Art.'"

Id.

34. *See* *Patlex Corp. v. Mossinghoff*, 758 F.2d 594, 599 (Fed. Cir. 1985), *modified*, 771 F.2d 480 (Fed. Cir. 1985). "[E]ncouragement of investment-based risk is the fundamental purpose of the patent grant . . ." *Id.*

35. *See* Berman Statement, *supra* note 4, at E1660.

36. *See id.*

37. *See supra* notes 28-30 and accompanying text.

38. 35 U.S.C. § 101 (1994). "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." *Id.*

39. *Id.* § 102. "A person shall be entitled to a patent unless . . . the invention was known or used by others . . . before the invention thereof by the applicant for patent . . ." *Id.*

40. *Id.* § 103 (precluding a patent if "the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made . . .").

make the patent system and the process of evaluating patents as objective as possible. As we shall see, the differences between the general understanding of these terms as compared to their definition within the patent system have a huge impact on the debate regarding business method patents.

Section 101 of the Patent Act, "Inventions Patentable," states, "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."⁴¹ Section 100 defines "process" to include "methods."⁴²

The *State Street* court only considered whether business method patents were barred under section 101. The Federal Circuit Court, while ruling only on the section 101 issue, indicated that it did not consider whether Signature's hub-and-spoke subject matter passed muster under section 102 or section 103.⁴³ Other courts have stated that a section 101 analysis is wholly independent of a section 102 or section 103 analysis.⁴⁴ Thus, the inventor must overcome the hurdles of sections 101, 102, and 103 separately in order to benefit from an exercise of the constitutional power associated with a grant of exclusive rights.⁴⁵

Once the inventor has overcome section 101 requirements for patentable subject matter, the next hurdle to patentability is section 102.⁴⁶ Generally, this section is concerned with whether the applicant for a patent has invented something new, and if

41. *Id.* § 101.

42. *Id.* § 100(b). "The term 'process' means process, art or method, and includes a new use of a known process, machine, manufacture, composition of matter, or material." *Id.*

43. *See State St. Bank & Trust Co. v. Signature Fin. Group, Inc.*, 149 F.3d 1368, 1377 (Fed. Cir. 1998). "Whether the patent's claims are too broad to be patentable is not to be judged under § 101, but rather under §§ 102, 103 and 112. Assuming the above statement to be correct, it has nothing to do with whether what is claimed is statutory subject matter." *Id.*

44. *See Diamond v. Diehr*, 450 U.S. 175, 188-89 (1981) ("The 'novelty' of any element or steps in a process, or even of the process itself, is of no relevance in determining whether the subject matter of a claim falls within the § 101 categories of possibly patentable subject matter."); *In re Sherwood*, 613 F.2d 809, 818 (Fed. Cir. 1980) ("[T]he novelty . . . of any element or even of all the elements or steps, or of the combination has no bearing on whether the process is encompassed by § 101.>").

45. *See Diamond*, 450 U.S. at 188-91.

46. *See* 35 U.S.C. § 102 (1994) ("Conditions for patentability; novelty and loss of right to patent").

so, whether he has abandoned his right to a patent by failing to exert the right in a timely manner.⁴⁷

The PTO's procedures to determine whether a claimed invention passes section 102 are more formal than required by the general perception of what is "novel."⁴⁸ The patent system has attempted to make patentability decisions as objective as possible to promote consistency and confidence in the system. Moreover, benefits that are inherent in a patent system are enhanced by objective standards that promote predictability. The PTO determines novelty as objectively as possible by assuming that an applicant is entitled to the presumption of novelty under section 102 unless the examiner can find a single reference that discloses all elements, features, and steps of the claim.⁴⁹ The single reference must be in the prior art. The term "prior art" has a very technical definition, but for purposes of this discussion, can be considered to be the pool of publicly accessible documents in the field of the invention from the beginning of history until the time the inventor conceived of his invention.

In regard to business methods, an examiner in the PTO searches for a single document that discloses all the elements or steps of the claimed business method.⁵⁰ Claims define the boundaries of the area in which the applicant is seeking exclusive rights.⁵¹ Claims have been compared to a fence, intended to keep others from trespassing on what the applicant considers his property. Claims are written as one sentence divided into separate clauses, which represent separate elements of the claim. This procedure differs from the public perception; it is not enough for the examiner to believe, or feel, or even subjectively know that what the applicant is doing is not new. In this objective process, the applicant is generally entitled

47. *See id.* ("A person shall be entitled to a patent unless the invention was known or used by others . . . before the invention thereof by the applicant for the patent.")

48. *See, e.g.,* M.P.E.P., *supra* note 9, § 706.02(a)-(h).

49. *See* 35 U.S.C. § 102 (1994); *see also* E.I. Du Pont de Nemours & Co. v. Phillips Petroleum Co., 849 F.2d 1430, 1434-36 (Fed. Cir. 1988).

50. *See* M.P.E.P., *supra* note 9, § 704. "After reading the specification and claims, the examiner searches the prior art." *Id.*

51. *See id.*

to a patent unless the examiner can point to a document that discloses all of the elements of the business method.⁵²

Section 103, entitled "Conditions for patentability; non-obvious subject matter," states in relevant part:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.⁵³

It is immediately apparent by the use of the term "negated" that the legal development of section 103 is also not exactly what the public would think of when considering whether something is "obvious" or even "non-obvious." The PTO must also allow a presumption of validity under section 103 unless the examiner can find a combination of references that disclose, teach, or suggest, either implicitly or explicitly, all elements, features, and steps of the claim at issue.⁵⁴

The soundness of the section 102 and section 103 analyses depends upon the prior art. Ideally, the prior art contains all of the knowledge in the field; however, what is available to the patent examiner is much more limited than the ideal. For most technologies, the examiner looks solely to the issued United States patents filed with the PTO prior to the filing date of the application being examined.⁵⁵ Prior to *State Street*, many patent applications were not filed because of a perception that business methods were not patentable.⁵⁶ Because many of those uses were undisclosed, such uses would not be considered prior art against others but would be prior art against those who used the method and kept the method undisclosed. This unintended consequence, from the ambiguity regarding a business

52. See *id.*; see also 35 U.S.C. § 102 (1994).

53. 35 U.S.C. § 103.

54. See, e.g., *In re Dow Chemical Co.*, 837 F.2d 469, 471-73 (Fed. Cir. 1988); *In re Keller*, 642 F.2d 413, 423-26 (C.C.P.A. 1981).

55. See M.P.E.P., *supra* note 9, § 706.02.

56. See, e.g., cases cited *supra* note 2.

method's patentability prior to *State Street*, resulted in passage of the First Inventor Defense Act of 1999,⁵⁷ which created a new defense to patent infringement for a certain "method of doing or conducting business."⁵⁸

The difference between the PTO's view of "obviousness" and the public's perception of "obvious" is probably responsible for more business method patent angst than any other aspect of the debate. For example, an Internet savvy person looks at a business method patent and combines his or her understanding of the universality of the Internet with his or her perception of the business method to easily determine that the method is obvious. A patent examiner, however, must find a combination of sources and a motivation to combine the sources before determining that the business method is obvious. It is largely irrelevant whether the examiner believes the linking of the business method and the Internet is obvious because such a determination would leave patentability at the mercy of one individual's (i.e., the patent examiner's) subjective beliefs.

For this reason, both sides of the business method patent debate agree that one of the main problems with the current system for examination of business method patents is the state of the prior art databases. However, all new technologies present these types of challenges regarding the scope of the new technology because of the absence of prior art in that field. Presumably, the Internet should minimize this problem as compared to prior technologies.

The Federal Circuit did not make a determination whether business method patents are good or bad. The Federal Circuit did, however, decide that distinguishing business methods as a separate class barred from patentability was not a legally supportable proposition.⁵⁹ This decision was solely based on a section 101 analysis rather than a section 102 or section 103 analysis.⁶⁰ The Federal Circuit was not in a position to weigh the costs and benefits of business method patents.⁶¹ Moreover, the

57. Pub. L. No. 106-113, 113 Stat. 1501 (1999).

58. 35 U.S.C. § 273(a)(3), (b)(1) (Supp. 1999).

59. *See State St. Bank & Trust Co. v. Signature Fin. Group, Inc.*, 149 F.3d 1368, 1377 (Fed. Cir. 1998).

60. *See id.*

61. Nor, arguably, is any court in a position to weigh these policies. *See, e.g., Diamond v. Chakrabarty*, 447 U.S. 303, 317 (1980). "The choice we are urged to make is a matter

patent system is the result of a social policy decision indicating that the benefits of a patent system (i.e., the advancement of the useful arts) are worth the costs to society (i.e., exclusive use for a limited time). Additionally, although determining the costs and the benefits is an economic matter, deciding whether the costs are worth the benefits is ultimately a political decision.

III. CRITICISM OF BUSINESS METHOD PATENTS

The *State Street* decision has ignited a furious, and mostly one-sided, debate regarding what critics claim to be “new” business method patents. Some authors have devoted countless hours and pages to attacking these patents. The headlines are ominous: “How Patent Attorneys Are Stealing Our Future,”⁶² “Patently Absurd,”⁶³ “Software Patents Tangle the Web,”⁶⁴ “A Patently Obvious Threat to E-Commerce,”⁶⁵ and “Can Feds Keep Up with E-Patents?”⁶⁶ Despite allegations by critics to the contrary, the *State Street* decision did not come as a surprise to many, or even most, practicing patent attorneys. Nor did the patent bar believe that the decision caused “dire harm” to the system, as mentioned by law review authors and the popular press.⁶⁷ For the most part, the patent bar has taken the decision as a logical conclusion to a legal anomaly.⁶⁸

of high policy for resolution within the legislative process after the kind of investigation, examination, and study that legislative bodies can provide and courts cannot.” *Id.*

62. Jesse Berst, *How Patent Attorneys Are Stealing Our Future*, ZDNet AnchorDesk, at www.zdnet.com/anchordesk/story/story_4364.html (Jan. 18, 2000).

63. James Gleick, *Patently Absurd*, N.Y. TIMES MAG., Mar. 12, 2000, at 44.

64. Seth Shulman, *Software Patents Tangle the Web*, TECH. REV., Mar.-Apr. 2000, at 68.

65. Michael Geist, *A Patently Obvious Threat to E-Commerce*, at <http://www.globetechnology.com/archive/gam/E-business/20000127/TWGEIS.html> (Jan. 27, 2000).

66. Lisa I. Fried, *Can Feds Keep Up with E-Patents?*, N.Y. L.J., Mar. 23, 2000, at 7 (interview with Q. Todd Dickinson, Assistant Secretary of Commerce and commissioner of patents and trademarks), available at <http://www.nylj.com/stories/00/03/032300a5.htm>.

67. See, e.g., John T. Aquino, *Patently Permissive: PTO Filings Up After Ruling Expands Protection for Business and Net Software*, 85 A.B.A. J. 30 (1999). The *State Street* decision “has been heralded as being to patent law what Rachel Carson’s *Silent Spring* was to the environmental movement.” *Id.*

68. But see Bill Ellis, *The Impact of State Street Bank on Patents in the Finance, Insurance, Brokerage and Banking Industries*, at http://www.foleylaw.com/PG/IP_ELEC/State_Street.html (last visited Jan. 16, 2001).

Despite being a critic of business method patents, Professor Lawrence Lessig concedes that we are better off with a patent system than without one.⁶⁹ Professor Lessig argues, however, that business method patents terrorize the Internet.⁷⁰ In particular, he believes that certain business method patents, which are not novel and non-obvious, are the “space debris of cyberspace.”⁷¹ He argues that “a billion ideas became obvious” with the creation of the Internet.⁷² Professor Lessig has led the charge for Congress to “take a stand on patents before they get out of control.”⁷³

According to Professor Lessig, the potential application of business method patents to cyberspace is limitless because “[e]very method of doing business in cyberspace by definition is instantiated in technology,” thus rendering every cyberspace method subject to a patent in principle.⁷⁴ Because of this, he predicts that cyberspace-related innovation will bottleneck, proceeding only as quickly as licenses can be consummated.⁷⁵ Although Professor Lessig recognizes the need for an economic analysis in the field, he argues that Congress should immediately consider a moratorium on the use of business method patents.⁷⁶ The patent system is designed to promote new technology; however, he feels that business method patents are in some way different from other technology fields, and this special class must be limited until proven worthy.⁷⁷

Professor Robert Merges argues we need more disclosure as well as a patent opposition system because the “patent system is in crisis.”⁷⁸ He contends the cost of the PTO granting flawed

69. See Lawrence Lessig, *The Problem with Patents*, THE STANDARD, Apr. 23, 1999, available at <http://www.thestandard.com/article/display/0,1151,4296,00.html>.

70. See *id.*

71. *Id.*

72. See *id.*

73. Lawrence Lessig, *Online Patents: Leave Them Pending*, WALL ST. J., Mar. 23, 2000, at A22.

74. Lawrence Lessig, *Patent Problems*, THE STANDARD, Jan. 21, 2000, available at <http://www.thestandard.com/article/display/0,1151,8999,00.html>.

75. See *id.*

76. See Lessig, *supra* note 73.

77. See *id.*

78. Robert P. Merges, *As Many as Six Patents Before Breakfast: Property Rights for Business Concepts and Patent System Reform*, 14 BERKELEY TECH. L.J. 577, 591, 610-15 (1999).

patents has become too high.⁷⁹ As of spring 1999, Professor Merges acknowledged that it was too soon to tell whether business method patents provide a net economic benefit.⁸⁰

Professor James Boyle claims that “[t]he Patent Office is issuing patents for blindingly obvious things just because they are being done with software or on the Internet,” causing “a chilling effect on electronic commerce.”⁸¹ Seth Shulman states, “[i]ndeed, the noxious clouds of litigation now gathering around e-commerce are renewing industry fears” of a cyber-Bhopal catastrophe.⁸²

The problem with the debate regarding business method patents is that the economic analysis is very difficult. The debate, therefore, devolves to anecdotal arguments. In fact, the economic analysis for the patent system as a whole is very difficult.⁸³ When economists have looked into the economic basis for the patent system, the results have generally supported the system.⁸⁴ In contrast, there has been no comprehensive analysis of the costs and benefits of business method patents.

Published criticisms of business method patents may be collectively outlined as follows: provide an over-simplified and over-broad description of what a particular patent claim will cover,⁸⁵ assert that this problem is completely new since the

79. *See id.* at 592-93.

80. *See id.* at 584.

81. Shulman, *supra* note 64, at 70 (quoting James Boyle, Professor of Law, American University).

82. *Id.* at 72.

83. *See* Upendra Roy, et al., *Global Assessment of Patents, R & D Investment and Economic Output: Part 1—Macro Comparisons at the Country Level*, 79 J. PAT. & TRADEMARK OFF. SOC'Y 110, 113 (1997) (citing Zvi Griliches, *Patent Statistics as Economic Indicators: A Survey*, 18 J. ECON. LIT. 1661-1707 (1990)). However, the more difficult analysis is whether patents lead to innovation. *See* *Hilton Davis Chem. Co. v. Warner-Jenkinson Co.*, 62 F.3d 1512, 1534 (Fed. Cir. 1995); JOSH LERNER, *WHERE DOES STATE STREET LEAD? A FIRST LOOK AT FINANCE PATENTS, 1971-2000*, at 29 (Nat'l Bureau of Econ. Research, Working Paper No. 7918, 2000) (discussing the impact of patenting on financial innovation and stating that “[d]espite over a century of research, the ability of economists to assess the impact of patent policy shifts on innovation remains limited”), available at <http://www.nber.org/papers/w7918>.

84. *See generally* *Hilton Davis Chem. Co.*, 62 F.3d at 1534.

85. *See* Boucher Statement, *supra* note 4, at E1651. “The press recently reported that the PTO is now on the verge of awarding a patent covering any computer-to-computer international commercial transaction.” *Id.* Presumably, Representative Boucher was referring to DT Technologies' application for a “Universal Shopping Center for

State Street decision;⁸⁶ state that such simple “ideas” should not be covered by a patent; conclude that business method patents do not provide an incentive for innovation (usually without also providing a basis for the conclusion);⁸⁷ claim that the extent of litigation involving business method patents is not justified by the benefits;⁸⁸ determine that business method patents are absurd simply because they affect the Internet;⁸⁹ contend that the subject matter protected by business method patents is patently obvious;⁹⁰ and claim that greedy patent lawyers have corrupted the system.⁹¹

In general, there has been no attempt to define business methods. Nor have there been attempts to analyze patent claims. Nor have there been attempts to provide a cost-benefit analysis related to business method patents.

One universal characteristic in the critique of business method patents is the characterization of the patented subject matter as obvious. On this point, the critics and the Federal Circuit may be closer than the critics would care to admit. Judge Rich was not blind to the possibility that business method patents may fail to surmount the other hurdles to patentability,

International Operation.” However, the patent has not been issued and the hype regarding the effect of such patents is notoriously unreliable.

86. See Geist, *supra* note 65 (asserting that “[p]roblems began with the 1998 case, *State Street Bank v. Signature Financial Corp.*”); Lessig, *supra* note 74 (“This is the ‘business method patent,’ discovered by a federal court in 1998.”).

87. See Geist, *supra* note 65.

Rather than encourage innovation, the legal actions of market leaders such as Amazon.com, Priceline.com and Doubleclick demonstrate how these patents actually curtail innovation by limiting competition. The convenience of a one-click purchase system would likely be adopted by many businesses, yet they now face the threat of legal action if they institute such a process.

Id.

88. See Robert M. Kunstadt, *Opening Pandora's Box: With Business Methods Now Readily Patentable, American Innovation Will Mire in Legal Skirmishes*, IP MAG., Jan. 1999, at <http://www.ipmag.com/99-jan/kunstadt.html> (warning that “a firestorm of litigation threatens to engulf corporate America, from Madison Avenue to Main Street”).

89. See Geist, *supra* note 65 (“The use of the Amazon.com patent to prohibit others from using a single click approach illustrates both the absurdity of such patents and the danger they pose to e-commerce growth.”).

90. See Boucher Statement, *supra* note 4, at E1651. “Something is fundamentally wrong with a system that allows individuals to get patents for doing the seemingly obvious . . . We’re introducing this legislation in an effort to repair the system before the PTO awards more monopoly power to people doing the patentably obvious.” *Id.*

91. See Berst, *supra* note 62.

such as non-obviousness. Judge Rich stated that business method patents must be held to the same standards as other patents.⁹² These standards require an analysis of whether the patent is novel, non-obvious, and useful.⁹³

The patent system is not designed to assure that the benefits associated with the issuance of every patent outweigh the costs of the individual patent. The patent system is not even designed to assure that the benefits of every patent class outweigh the costs of issuing the patents in that class. The societal cost of some patents surely will outweigh the societal benefit of the patent. Incentives other than patents will create technological advancements. The goals of the patent system are necessarily broader. The patent system is designed such that the benefits of issued patents, as a whole, outweigh the costs of the issued patents, as a whole. It may be possible to surgically excise patents, or patent classes, that do not provide a net benefit to society, but attempts to perform this surgery are fraught with dangers that threaten the entire patent system. The surgery should not take place until all the costs and benefits have been considered.

Business methods are the current subject of criticism; however, virtually every new technology has been subject to the same criticism. Solutions such as those currently being proposed to deal with business method patents were previously proposed to deal with the software patent crisis.⁹⁴ As with any policy decision based on a cost-benefit analysis, it is easy to present an argument against business method patents by simply presenting the costs to society while ignoring or downplaying the benefits. Critics of business method patents

92. See *State St. Bank & Trust Co. v. Signature Fin. Group*, 149 F.3d 1368, 1377 (Fed. Cir. 1998) (citing M.P.E.P., *supra* note 9, § 706.03(a)). "Claims should not be categorized as methods of doing business. Instead such claims should be treated like any other process claims.' . . . We agree that this is precisely the manner in which [business method] claim[s] should be treated." *Id.*

93. See 35 U.S.C. §§ 101-103 (1994).

94. See, e.g., Pamela Samuelson et al., *A Manifesto Concerning the Legal Protection of Computer Programs*, 94 COLUM. L. REV. 2308, 2310-15 (1994); Gordon Irlam & Ross Williams, *Software Patents: An Industry at Risk*, at <http://lpf.ai.mit.edu/Patents/industry-at-risk.html> (last modified May 4, 1994) (arguing that the nature of the software industry makes it an inappropriate subject for the granting of patents).

simply state that they do not provide an incentive for innovation.⁹⁵

This criticism can be met with similarly simple arguments that business method patents do provide a needed incentive to innovate. For example, most people who have access to the Internet have pondered how to use the Internet to pursue a business interest. Suppose you have come up with a new idea, but you have limited resources for exploiting your idea. Although you are willing to invest all of your resources in the venture, you may look for financial backing from other sources. Your wealthy, and cynical, Uncle Pete may be able to assist you. But before he sinks his resources into the Internet venture, he wants to know how you plan to protect your Internet business from organizations that have more resources to exploit the idea than you have. Once you implement the idea on the Internet, others will see your idea and think to themselves, "Wow! I could have thought of that." Your Uncle Pete is likely to be less than forthcoming with the financial backing if you cannot protect your business method. Thus, you need a business method patent to implement your idea.

In contrast to the typical diatribe, other writers have offered criticism of business method patents based on more thought-provoking grounds. Professor Richard Stern argues that the Federal Circuit has taken a wrong turn by failing to "develop an effective limiting principle for abstract aspects of intangible innovations."⁹⁶ Professor Stern suggests incorporating copyright law analysis into the patent law's approach to business method patents because "[i]f section 101's limitations on patent eligibility do not filter out a business method, probably nothing else will."⁹⁷ Professor Stern would offer "thin" protection to

95. See Berman Statement, *supra* note 4, at E1659 ("In the context of the Internet, many argue that rather than spurring innovation, patents interfere with innovation . . ."); Boucher Statement, *supra* note 4, at E1651 ("[R]ather than encouraging innovation, which is the purpose of the patent laws, [allowing business method patents] has the opposite effect by foreclosing entire markets to competition.").

96. Richard H. Stern, *Scope-of-Protection Problems with Patents and Copyrights on Methods of Doing Business*, 10 *FORDHAM INTELL. PROP. MEDIA & ENT. L.J.* 105, 112 (1998).

97. *Id.* at 140.

some inventions and “thick” protection to others based on a *scenes a faire* analysis.⁹⁸

Others have attempted to solve the “problem” by suggesting new definitions, which would be useful to a patentability analysis. Professor Alan Durham would have patentability turn on whether the invention falls within the definition of “industrial technology.”⁹⁹ Professor Durham acknowledges that such an approach may require expert testimony to distinguish whether a computer program implementing the business method has enough “substantive details” to be within the technological arts.¹⁰⁰ Professor Durham further acknowledges that “[o]ften the line will be difficult to draw.”¹⁰¹

Professor Leo Raskind has suggested a radical departure from the current patent system.¹⁰² Professor Raskind advocates placing the burden of establishing patent protection for a business method on the applicant.¹⁰³ The applicant would be required to identify the “inventive contribution.”¹⁰⁴ The “inventive contribution” would require an economic analysis beyond the “traditional economic model.”¹⁰⁵ Professor Raskind argues that this type of analysis, which is beyond the traditional economic analysis, should be further carried out by patent examiners.¹⁰⁶

IV. THE BUSINESS METHOD PATENT IMPROVEMENT ACT OF 2000¹⁰⁷

On October 3, 2000, Representatives Howard Berman and Rick Boucher introduced H.R. 5364, “The Business Method Patent Improvement Act of 2000.”¹⁰⁸ According to Representative Boucher, “few issues in the 107th Congress will

98. *Id.* at 143.

99. See Alan L. Durham, “Useful Arts” in the Information Age, 1999 BYUL REV. 1419, 1528 (1999).

100. *Id.*

101. *Id.* at 1523.

102. See generally Raskind, *supra* note 27.

103. *Id.* at 81.

104. *Id.*

105. *Id.*

106. *Id.*

107. H.R. 5364, 106th Cong. (2000).

108. See Boucher Statement, *supra* note 4, at E1651.

be more important than deciding whether, and under what conditions, the government should be issuing ‘business method’ patents.”¹⁰⁹ Representatives Berman and Boucher admittedly did not expect the bill to pass so late in the congressional session, but they introduced the bill in order to stimulate discussion regarding a solution to the perceived business method patent crisis.¹¹⁰ Although the bill did not aim to bar business method patents (at least not yet), Representative Boucher believed “something is fundamentally wrong” with the patent system.¹¹¹ Thus, to fix what is fundamentally wrong, the bill proposes to raise the bar for obtaining a business method patent to ensure that the PTO issues a patent only when a business method “truly represent[s] something new and innovative—in other words, something that deserves protection.”¹¹²

The proposed legislation has several facets. First, the bill would require automatic publication of all business method patent applications eighteen months after filing, regardless of whether the applicant intends to file a foreign application.¹¹³ Second, the bill would establish a public protest proceeding, which would give the public an opportunity (at the beginning of the process) to present evidence that may disqualify an application, and a new administrative opposition process through which a party can challenge the PTO’s award of a business method patent.¹¹⁴ Third, the legislation would require patent applicants to disclose whether and to what extent a patentability (prior art) search had been performed.¹¹⁵ Finally, in addition to creating a new presumption of obviousness when a computer has been used primarily to implement a known business method, the bill would also lower the burden of proof for showing invalidity of a business method patent from the current “clear and convincing evidence” standard to the

109. *See id.*

110. *See id.*; Berman Statement, *supra* note 4, at E1660.

111. Boucher Statement, *supra* note 4, at E1651. “Something is fundamentally wrong with a system that allows individuals to get patents for doing the seemingly obvious . . . We’re introducing this legislation in an effort to repair the system before the PTO awards more monopoly power to people doing the patently obvious.” *Id.*

112. *Id.*

113. *See id.* at E1652.

114. *See id.*

115. *See id.*

“preponderance of the evidence” standard.¹¹⁶ The new procedures would apply to all patent applications pending on the date the legislation is enacted and to all patents issued after enactment.¹¹⁷

In attempting to address what may be the Achilles’ heel of any legislative attempt to solve the perceived business method crisis, the bill defines a “business method” as:

- (1) a method of—
 - (A) administering, managing, or otherwise operating an enterprise or organization, including a technique used in doing or conducting business; or
 - (B) processing financial data;
- (2) any technique used in athletics, instruction, or personal skills; and
- (3) any computer-assisted implementation of a method described in paragraph (1) or a technique described in paragraph (2).¹¹⁸

The term “business method invention” is defined as “(1) any invention which is a business method (including any software

116. *See id.*

117. H.R. 5364, 106th Cong. (2000).

118. *Id.* Also, on April 3, 2001, Representatives Berman and Boucher introduced H.R. 1332, the “Business Method Patent Improvement Act of 2001.” While largely similar to H.R. 5364, this new bill presented a similarly overly broad definition for “business method”:

- (1) a method—
 - (A) of—
 - (i) processing data; or
 - (ii) performing calculation operations; and
 - (B) which is uniquely designed for or utilized in the practice, administration, or management of an enterprise;
- (2) any technique used in athletics, instruction, or personal skills; and
- (3) any computer-assisted implementation of a method described in paragraph (1) or a technique described in paragraph (2).

H.R. 1332, 107th Cong. (2001).

In addition to other distinctions, H.R. 1332 suggests a different standard to establish a presumption of obviousness for business methods, namely:

- (d)(1) A business method invention shall be presumed obvious under this section if the only significant difference between the combined teachings of the prior art and the claimed invention is that the claimed invention is appropriate for use with a computer technology, unless—
 - (A) the application of the computer technology is novel; or
 - (B) the computer technology is novel and not the subject of another patent or patent application.

Id.

or other apparatus); and (2) any invention which is comprised of any claim that is a business method.”¹¹⁹

These definitions touch upon many wars regarding patentability of methods and software that have already been fought. Because virtually all patents have some business purpose, the “administering, managing, or otherwise operating an enterprise or organization” arguably raises the bar for patentability of all methods.¹²⁰ The specific reference to “computer-assisted implementation” would arguably bar all software and hardware solutions used in conducting a business or operating an enterprise. Even the losers of the software patentability war should be troubled by the prospect of raising the bar for computer hardware patents. However, problems with defining “business method patents” are not new, and the Federal Circuit has referred to the term as “fuzzy.”¹²¹

The Patent Office considers Class 705 “Modern Business Data Processing” as the business method class.¹²² The number of Class 705 applications has been increasing.¹²³ However, Class 705 does not carry a substantial penalty or limitation on patentability.¹²⁴ If a particular class carries a substantial penalty or limitation on patentability, drafters will write applications and claims to avoid the class.

V. ISSUES (COSTS) TO CONSIDER PRIOR TO IMPOSING NEW RESTRICTIONS ON BUSINESS METHOD PATENTS

This section discusses the issues that must be considered prior to implementing any solution targeted at the perceived business method crisis.

119. H.R. 5364, 106th Cong. (2000).

120. *Id.*

121. *See In re Schrader*, 22 F.3d 290, 298 (Fed. Cir. 1994) (Newman, J., dissenting).

122. *See Automated Processing Methods*, *supra* note 12.

123. *See id.*; Aquino, *supra* note 67, at 30 (reporting a “[forty-five] percent increase in the number of data processing and computer-related patents issued during [the patent office’s] 1998 fiscal year”).

124. The PTO has instituted a second level of review for business method patents. *See* U.S. Pat. & Trademark Off., U.S. Dep’t of Commerce, *Business Methods Patent Initiative: An Action Plan*, available at <http://www.uspto.gov/web/offices/com/sol/actionplan.html> (last visited Jan. 16, 2001). The second level of review may result in some additional expense and delay in prosecuting business method patents, but the second level of review does not change the standard of patentability. *See id.*

A. Any Proposed Legislation Must Be Able To Define "Business Methods"

Even assuming that the costs of business method patents outweigh the benefits, we must be able to define the field before attempting to set a different standard for business method patents. In the two years since the *State Street* decision, there has been no precise definition for "business method." The definition put forth in H.R. 5364 is imprecise because it arguably covers virtually every computer-related device (i.e., every electronic device). Without a clear definition, the legislation specifically targeted at methods may have no effect on patentability. Patent practitioners are adept at drafting claims to avoid ill-conceived exceptions to patentability. Because the definition appears to exclude articles of manufacture, patent practitioners will simply draft the claims to articles of manufacture implementing the method. Despite the best efforts of Congressmen Berman and Boucher, the term "business methods" remains fuzzy.¹²⁵

B. Any Attempt To Define "Business Method Patents" Is Bound To Have Unintended Consequences

The Federal Circuit Court has stated that, "[w]hether the claims are directed to subject matter within [section] 101 should not turn on whether the claimed subject matter does 'business' instead of something else."¹²⁶ The PTO's position is consistent with the Federal Circuit. Before the *State Street* decision, the PTO's 1996 Examination Guidelines for Computer Related Inventions stated that "[o]ffice 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

125. The new definition of "business method" in H.R. 1332 is likewise inexact. *See supra* note 118. In essence, many ordinary methods long considered to be outside any definition of business methods could arguably be described as a "method of processing data or performing calculation operations" in the practice of an enterprise or a "computer-assisted implementation" of such. This definition could include essentially any electronic device or method of using such a device in any manner at a business location.

126. *State St. Bank & Trust Co. v. Signature Fin. Group*, 149 F.3d 1368, 1377 (Fed. Cir. 1998).

claims”¹²⁷ Thus, the courts and the PTO clearly recognize that “business methods” are not easily distinguishable from other methods.

According to the proposed legislation, a presumption of obviousness would be created if prior art “discloses a business method which differs from what is claimed only in that the claim requires a computer technology to implement the practice of the business method invention.”¹²⁸ While this sounds logical enough, the provision effectively suggests that every computerized implementation of a business method would automatically be considered obvious, regardless of how inventive any additional computer implementation steps could be.¹²⁹ Furthermore, the proposal raises the question of whether this legislation would erase the well-settled need for a “motivation to combine” the references.¹³⁰

C. There Is No Economic Analysis To Support Raising the Bar for Business Method Patents

The critics have relied upon vague references to the danger business method patents pose to the Internet.¹³¹ The criticism includes lists of business method patents and litigation involving business method patents, and the critics assume that issued patents, and any litigation involving those patents, are a threat to the Internet.¹³² But the criticism lacks an analysis of whether the patents and the related litigation are, as a whole, a

127. Examination Guidelines for Computer-Related Inventions, 61 Fed. Reg. 7478, 7470 (Feb. 28, 1996).

128. H.R. 5364, 106th Cong. (2000).

129. *See id.* Likewise, the presumption under the recently proposed H.R. 1332, as recited above in footnote 118, would first turn on whether the “only *significant* difference between the combined teachings of the prior art and the claimed invention is that the claimed invention is appropriate for use with a computer technology.” H.R. 1332, 107th Cong. (2001) (emphasis added). Obviously, determining whether one element of a claim is “the only significant difference” would be fraught with uncertainty. Moreover, the exception, “unless the application of the computer technology is novel,” adds additional confusion as to how to separate “application of” computer technology from “use with” computer technology, which appears to be a meaningless distinction.

130. *See In re Vaeck*, 947 F.2d 488 (Fed. Cir. 1991).

131. *See* Berman Statement, *supra* note 4, at E1659; Boucher Statement, *supra* note 4, at E1651.

132. *See* Berman Statement, *supra* note 4, at E1659; Boucher Statement, *supra* note 4, at E1651.

cost or a benefit.¹³³ The mere listing of patents and litigation is not a sufficient evaluation of whether business method patents provide a net benefit to the economy.

Critics have acknowledged the lack of an economic analysis of business method patents but still seek to limit their patentability. This rush to change a system with scant evidence of harm to society contradicts the consistent U.S. policy choice of granting patents for novel and non-obvious inventions. It is too simple an argument to point to the strongest economy in the world and reject any change to a patent system that has played a role in the development of that economy. To the contrary, the strength of the U.S. economy should certainly counsel against fiddling with the patent system without a firm conviction that the costs of business method patents outweigh the benefits.

D. The Patent Office Is Taking Steps To Improve Quality

Every new technology presents the PTO with the challenges of creating a sufficient prior art database and channeling the expertise necessary to evaluate the prior art. Internet business method patents are similar, in this respect, to biotechnology and software. The PTO is designed to promote and incorporate new technologies; this, however, takes time. The PTO is taking steps to improve the prior art database and the expertise of the examining core.¹³⁴ It is the authors' belief that the PTO will be able to improve the prior art database over time; thus, the costs associated with the challenges of business method patents will eventually be reduced.¹³⁵

133. See, e.g., Raskind, *supra* note 27, at 64. Even critics who claim to be "reviewing the economic analysis" of business method patents rely upon anecdotal evidence instead of a true weighing of all of the costs and benefits associated with business method patents. See *id.* Despite Professor Raskind's claim to be reviewing the economic analysis, he decides there is "reason to avoid reliance on economic theory as a basis for the expansive grant of patents on methods of doing business." *Id.* at 79. Ultimately, Professor Raskind presents no data to support his economic analysis and instead calls for a "careful case by case analysis of business method claims." *Id.* at 101.

134. See *Automated Processing Methods*, *supra* note 12; see also 17 C.F.R. § 1.105 (2000) (granting an examiner explicit authority to require the submission of such information as may be reasonably necessary for proper examination).

135. See John M. Carson & Eric M. Nelson, *Legal Victory for Electronic Commerce Companies: State Street Bank & Trust v. Signature Financial Group Signals Fall of Last Barrier to Internet Software Patents*, 21 T. JEFFERSON L. REV. 193, 206-07 (1999). "Similar arguments to those against patenting business methods were made in the past against

E. Private Groups Use the Internet To Identify Prior Art

Recently a patent attorney started a Web site, BountyQuest.com, where people can offer rewards for information leading to invalidation of patents.¹³⁶ Similar Internet sites and databases are available for software patents.¹³⁷ To the extent that these Internet innovations make prior art more available, they reduce the value of obvious business method patents. And with such publication, the public will be able to present the PTO with prior art to reduce the number of obvious business method patents. This creates a disincentive to apply for obvious business method patents.

F. Priceline.com Offers an Example of a Business Method Patent Providing an Incentive To Innovate

The criticism of Walker Digital, and its spin-off patented buyer-driven Internet commerce system, Priceline.com, is only exceeded by the criticism of Amazon.com's "1-click" patent.¹³⁸ Priceline.com lured hundreds of millions of investment dollars to finance its attempt to practice its business methods.¹³⁹ Recently, Priceline.com announced that it was cutting back on its operations.¹⁴⁰ Considering the risks involved, would the investors have taken the risk without patent protection? The efforts might have failed, but would there have even been an attempt? Will the next attempt be able to attract capital without a patent on the business method? These, and several other questions, must be addressed before reactively and impulsively seeking to revise the workings of the patent system.¹⁴¹

patenting computer software in general However, the ability of the PTO to examine software patents today is rarely questioned." *Id.*

136. See BountyQuest, at <http://www.bountyquest.com>.

137. See, e.g., Software Patent Institute, at <http://www.spi.org>.

138. See Geist, *supra* note 65.

139. See *id.*

140. See Michael Meehan, *Name Your Problem at Priceline*, COMPUTERWORLD, available at http://www.computerworld.com:8080/cwi/story/0,1199,NAV47-68_STO52092,00.html (Oct. 6, 2000).

141. Priceline and Microsoft recently announced that they settled their dispute over infringement of Priceline's "name your own price" business method patent, with Microsoft agreeing to pay Priceline royalties. See Joelle Tessler, *Expedia, Priceline Settle Suit: Patent Infringement Fight Cut Short As Microsoft Agrees To Pay Royalties*, Mercury News, at <http://www0.mercurycenter.com/svtech/news/indepth/docs/price011001.htm> (Jan. 9, 2001). That settlement provides additional evidence that the patent system is

G. Patent Protection for Technologies in the Information and Knowledge Age May Be More Critical

In the Industrial Age, most patents were issued for tangible subject matter.¹⁴² In the past, the economy was based on controlling the means of production.¹⁴³ Our economy is now based more heavily on information and knowledge. Business method patents are a natural protection for useful applications of information and knowledge. Unless as much as seventy percent of the U.S. economy is to be excluded from patent protection, information and knowledge based patents are a necessity. The successes of the vast majority of companies in previous ages were measured by whether the companies could put an object at one's disposal more efficiently than other companies. Companies are now measured by their knowledge, their ability to communicate their knowledge, their ability to create new knowledge, and their business methods (i.e., the intangibles). It would be ironic if the patent system, which has been essential in creating the current economy, now has no place in the Information and Knowledge Age.

H. Business Methods Are More Vulnerable to Copying

The most criticized business method patents are those being used on the Internet in e-commerce. Once the methods are employed on the Internet, they are easily copied. One of the benefits of the patent system is that it promotes disclosure of inventions. Critics have cited the lack of disclosure as a reason to limit business method patents.¹⁴⁴ However, vulnerability to copying is also a primary reason why business method patents will promote investment despite the ease of copying.

working as it should for business method patents.

142. See *Merges*, *supra* note 78, at 585.

143. See *Durham*, *supra* note 99, at 1526-27. "Industrial power and wealth are moving increasingly into the 'information industries' rather than the 'smokestack' industries of the past." *Id.*

144. See *Berman Statement*, *supra* note 4, at E1659; *Boucher Statement*, *supra* note 4, at E1651.

I. The Claimed Fix May Provide More Work for Patent Practitioners

Critics claim that the increased number of business method patents and the associated litigation have benefitted greedy patent practitioners.¹⁴⁵ The cost associated with securing patent rights is one of the costs of the patent system that must be evaluated prior to changing the system. However, despite the anecdotal evidence that is offered by critics listing currently litigated business methods patents,¹⁴⁶ there is no conclusive evidence that business method patents have led to a substantial increase in patent activity. Patents that are now considered business method patents could have been written as articles of manufacture or system patents prior to the *State Street* decision by writing the claims to a computer system configured to implement the business method. As a matter of fact, the patent claims in *State Street* were actually written using means-plus-functions elements and were directed to a machine.¹⁴⁷ Ironically, proposed H.R. 5364 would probably lead to more work for patent practitioners in arguing that patents either do or do not fall into the business method classification.¹⁴⁸

J. The Claimed Costs of Issued Business Method Patents Have Not Been Properly Evaluated

The typical argument against business method patents lists examples such as the Amazon.com "1-click" patent and states that purchasing over the Internet by using only "1-click" is patently obvious, severely harming other online businesses.¹⁴⁹ If the "1-click" is so patently obvious, then there must be some suggestion in the prior art to use the claimed method. If the harm to other businesses is so great, there should be objective evidence of the harm. Yet, the criticism presents no prior art suggesting the invention and no evaluation of the costs to other business other than conclusory statements.

145. See Berst, *supra* note 62.

146. See Boucher Statement, *supra* note 4, at E1651.

147. See *State St. Bank & Trust Co. v. Signature Fin. Group*, 149 F.3d 1368, 1371-72 (Fed. Cir. 1998).

148. The same would be true for the new H.R. 1332. See *supra* note 129.

149. See Geist, *supra* note 65.

K. The United States Will Concede New Internet Innovations to Foreign Copiers

As the current engine for innovation on the Internet, the United States has a great deal to lose by inhibiting patents for business methods. The business methods will be easy to copy and are likely to be copied by Internet companies outside of the United States. The relative costs of operating an Internet site are not substantial; therefore, successful business methods will migrate to where incidental costs are the lowest, likely outside of the United States.

L. The United States Will Breach International Agreements

The United States has worked hard to convince other countries to adopt intellectual property laws as strong as its own. Pursuant to our international agreements, the United States is limited in its ability to discriminate regarding patentable subject matter.¹⁵⁰ Imposing additional requirements for patentability of business methods may conflict with Article 27 of the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS), which prohibits discrimination based on the field of technology and imposition of requirements for patentability beyond novelty, non-obviousness, and utility.¹⁵¹

M. Handling All Statutory Classes in a Similar Manner Minimizes Costs

State Street has simplified the patent system by relying upon the standard tests of novelty and non-obviousness for determining whether a business method is patentable. Though patentability should not turn solely on the efficiency of the patent system, the efficiency of the patent system is certainly one of the key costs to evaluate when weighing the costs and benefits of business method patents.

150. See Agreement on Trade-Related Aspects of Intellectual Property Rights, Apr. 15, 1994, art. XXVII.

151. See *id.*

N. Reforms To Address Valid Criticism Regarding Failures in Examination Procedure Should Not Affect the Patentability of Business Method Patents

Articles from business method patent critics, particularly in the popular press and online magazines, complain about the patentability of business method patents.¹⁵² However, the critics invariably rely upon the argument that the objectionable patents are obvious or lack novelty.¹⁵³ The Federal Circuit recognized that business method patents might be more vulnerable to attacks based on lack of novelty and non-obviousness.¹⁵⁴ The Federal Circuit, in discussing a lower court case that allegedly rejected a patent based on the business method exception, noted that the “invention” was as “old as the art of bookkeeping.”¹⁵⁵

Of course, if the critics can show that the whole class of business method patents imposes such an overwhelming cost on the system because business methods are too difficult to properly examine, that point will have to be taken into account. However, simply pointing out the title of a business method patent and complaining that it is obvious or old does not support an argument for limiting the patentability of business method patents.

O. Criticism of Business Method Patents and Litigation Lacks Detail

Critics of business method patents tend to list a series of business method patents and litigation involving business method patents without providing details regarding the patents or the litigation.¹⁵⁶ The issuance of business method patents alone, however, is not a significant cost to society. Significant costs arise only when unwarranted licensing agreements,

152. See, e.g., *Patents in the Information Age: Legitimate Business Tool or Stifler of Innovation?*, CNN.com Law Center News, at <http://www.cnn.com/2000/LAW/07/12/bc.patentboom.ap/> (July 7, 2000).

153. See, e.g., *id.*

154. See *State Street*, 149 F.3d at 1377. “Whether the patent’s claims are too broad to be patentable is not to be judged under § 101, but rather under §§ 102, 103 and 112.” *Id.*

155. *Id.* at 1376 (citing *Hotel Sec. Checking Co. v. Lorraine Co.*, 160 F. 467, 469 (2d Cir. 1908)).

156. See, e.g., *Patents in the Information Age*, *supra* note 152; Shulman, *supra* note 64.

litigation, or restraint in competition arise based on improperly issued patents. Business method patents will not result in significant costs if the subject matter of the business method patents is as obvious as the critics claim. Without an analysis regarding whether the issued patent is inflicting a significant cost on society (e.g., licensing or inhibiting activity), the mere listing of business method patents in articles critical of the patents does not argue against the issuance of the patents.

Patent litigation is a significant societal cost that should be considered in the debate regarding business method patents. However, the societal cost must be evaluated in relationship to the benefits conferred. A common criticism is that patent litigation typically costs over one million dollars, and business method patents tend to be litigated more than patents in other fields.¹⁵⁷ However, it is not surprising that patents in an emerging technological field would be more litigated than patents in older technologies. Assuming business method patents are as obvious as the critics claim, the logical course for business method patent holders is to avoid litigation that would surely result in the invalidation of their patents. Instead, patent holders should concentrate on licensing or practicing the patented method. Assuming business method patents are litigated more than patents in other fields, it is likely the increased litigation rate is similar to other non-business method patents in the technologies related to the Internet. To date, the critics have presented conclusions regarding business method patent litigation without providing hard data regarding this litigation. The hard data is necessary to objectively address the costs of the litigation in order to evaluate the net benefit or cost of business method patents as a class.

157. See Gleick, *supra* note 63, at 46 (“Absurd patents can be fought and overthrown, but to challenge a patent costs, on average, more than \$1 million.”); Lessig, *supra* note 69 (“On average it takes \$1.2 million to challenge the validity of a patent, which means it is often cheaper simply to pay royalties than to establish that the patent isn’t deserved.”).

P. The Flood of Business Method Patent Applications Is Not Overwhelming the Patent Office

Critics of the *State Street* decision inevitably state that *State Street* has sparked a rash of new e-commerce patents.¹⁵⁸ One critic claims that the multitude of patents now pending on business methods has “pushed the patent system into crisis.”¹⁵⁹ However, these claims of “gusher[s] of electronic-commerce patents” predate the *State Street* decision.¹⁶⁰ Thus, these claims certainly cannot support the allegation that *State Street* instigated the rush to the patent office. In reality, Class 705 applications were only one percent of the total patent application filings in the patent office’s fiscal year 1999.¹⁶¹

Q. Business Method Patents Create an Incentive To Innovate

“In the digital economy, intellectual property rights will take a primary role, often forming the locus of value in a transaction.”¹⁶² A business method patent may be the sole asset of an Internet startup company, other than the accumulated knowledge of the personnel. Investing solely in accumulated knowledge is very risky. Potential investors will value organizations that have some form of protection for their intellectual property over organizations that do not. Interests in the patent can be assigned to secure investment in the startup company. In addition, patents provide a means of valuing a startup company independent of the idiosyncrasies of the personnel. Investors are more likely to compete to finance the startup company if the company is easier to value and is able to offer security for an investment in the company.

In addition, because “[e]very method of doing business in cyberspace by definition is instantiated in technology,” thus

158. See Aquino, *supra* note 67, at 30 (“Already, the June 1998 [*State Street*] decision appears to have set off a stampede to the patent office, which reports a [forty-five] percent increase in the number of data processing and computer-related patents issued during its 1998 fiscal year . . .”).

159. See Shulman, *supra* note 64, at 70 (quoting Robert Merges, Professor of Law, University of California, Berkeley).

160. See, e.g., Elizabeth Gardner, *E-Commerce Companies Wielding Patents in Fight for Competitive Edge*, INTERNET WORLD, Sept. 7, 1998.

161. See *Automated Processing Methods*, *supra* note 12.

162. Kalama Lui-Kwan & Kurt Opsahl, *Symposium: Foreword: The Legal and Policy Framework for Global Electronic Commerce*, 14 BERKELEY TECH. L.J. 503, 506 (1999).

rendering every cyberspace method subject to a patent in principle,¹⁶³ even critics admit that technology and business methods are connected. As a result, a reduction in the incentive to develop new business methods would inevitably reduce the incentive to develop new technologies to support those methods. Clearly, this would frustrate the constitutional objective of providing incentives for the continued advancement of the computer technology art.

R. Adoption of Copyright Principles To Evaluate Patentability of Business Methods Adds Unnecessary Complication Without Providing a Benefit

Some authors have suggested incorporating copyright principles into the evaluation of business method patents.¹⁶⁴ Incorporation of fair use, or *scenes a faire*, would gut the patent system of its central tenet of claims clearly defining the scope of protection. The increase in litigation while sorting out the application of copyright principles to the patent system would far exceed the current concern regarding increased litigation involving business method patents.

CONCLUSION

The patentability of business methods, particularly those associated with the Internet, should not be decided based on anecdotal evidence. Society has not yet determined whether the benefits of Internet business method patents outweigh the costs. Critics recognize the need for an economic analysis, but have, nevertheless, advocated changes to the patent system in the absence of such an analysis. The authors view the proposed changes as likely to do more harm than good. As with any economic decision, it is easy to criticize the status quo by presenting only the costs. What is needed is a more objective evaluation that considers the substantial costs (and benefits) associated with limiting business method patents.

163. Lessig, *supra* note 74.

164. *See generally* Stern, *supra* note 96.

