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INTERNET BUSINESS MODEL PATENTS: AN OBVIOUS INCENTIVE TO REFORM THE UNITED STATES PATENT AND TRADEMARK OFFICE

I. INTRODUCTION

In the Nineteenth century, real property was a valued commodity over which heated battles were fought.¹ Today, it is the intellectual property frontier that inspires a race to stake claims reminiscent of the Oklahoma land rush or the opening of a virgin territory in the Old West.² This rush to patent a technology-oriented frontier is particularly focused on new methods of doing business on the Internet, otherwise known as “business models.”³

Although the practice of patenting business models has become an increasingly widespread phenomenon, it is not without controversy.⁴ In particular, movie studios and venture capital firms condemn the practice of monopolizing by way of patent ideas that appear no more than self-evident ways of doing business.⁵ Naturally, the United States Patent and Trademark Office (“PTO”), which is responsible for review and either approval or denial of all patent applications, disagrees with this condemnation.⁶ According to the PTO, a unique Internet business model is essentially “a new piece of electronic hardware.”⁷ An entity wishing to patent a business model must meet the same stringent standards as those who wish to patent other inventions.⁸ The patent requirements are: novelty,⁹ utility¹⁰ and “unobviousness.”¹¹

1. See Marc Brown, *Internet Patent Scramble Is Land Rush of the '90s*, BUS. J., Nov. 19, 1999, at 75.

2. *Id.*; Jenna Greene, *Staking A Claim : How State Street Has Spurred A Rush On the PTO*, LEGAL TIMES, Apr. 10, 2000, at 14.

3. Brown, *supra* note 1. For the purposes of this Comment, “business model” is used interchangeably with “business method.”

4. *Id.*

5. *Id.*

6. *Id.*

7. *Id.*

8. *Id.*

9. 1 DONALD S. CHISUM, CHISUM ON PATENTS § 3.01, at 3-3 (2000) [hereinafter CHISUM]. The novelty requirement ensures only new inventions are patentable. *Id.* at 3-4.

In theory, the PTO seems correct. The proliferation of Internet business model patents is forcing the patent system into uncharted terrain.¹² As recently as 1998, the Federal Circuit in *State Street Bank & Trust Co. v. Signature Financial Group, Inc.*,¹³ officially recognized business model patents merit patent protection pursuant to the Constitution.¹⁴ A massive influx of business model patent applications, given additional force by the recent *State Street* decision, has created a procedural crisis at the PTO.¹⁵ This crisis led to a more lax review of Internet business model patent applications.¹⁶ Consequently, the PTO has granted many business model patents, leading to a massive wave of litigation involving some of the most prominent e-commerce pioneers including Microsoft, Amazon, Barnes & Noble, Yahoo, Doubleclick and Priceline, amongst others.¹⁷

This Comment examines the practice of granting Internet business model patents in the face of increasing criticism and the costly litigation that results. Part II provides an evolutionary background of patent law, focusing on the Constitutional grant of power, as exercised by Congress, and interpreted by the federal courts and PTO procedures. Moreover, Part II explains that after *State Street*, the courts and the PTO may freely grant patents for business models, although federal case law and PTO procedures traditionally precluded granting such patents.¹⁸ Part III addresses *State Street's* effect on the development of the Internet, patent infringement litigation and PTO procedures. Part IV analyzes how legislative reform offers alternatives for resolving these issues. Finally, Part V concludes patenting of Internet business models should be accepted as both necessary and inevitable. This Comment ultimately suggests the best way to accommodate this inevitable evolution in patent law is to focus the debate on developing appropriate legislation and new PTO examination.

10. *Id.* § 4.01, at 4-2. Utility requires the invention have some positive benefit to society.

11. *Id.* § 5.01, at 5-10. Nonobviousness "means that an invention must not have been obvious to one with ordinary skill in the art to which the subject matter of the invention pertains at the time of the invention and in the light of the teachings of the prior art." *Id.* at 5-10 to -11.

12. Seth Shulman, Software Patents Tangle the Web: Industry Trend or Event, *TECH. REV.*, Mar. 1, 2000, at 68.

13. 149 F.3d 1368 (Fed. Cir. 1998).

14. *Id.* at 1375.

15. Seth H. Ostrow, *Is All This Skepticism Warranted: In the Face of Criticism, When Companies May Re-examine Their Patent Strategies*, N.Y. L.J., Mar. 27, 2000, at S7.

16. *Id.*

17. W. Scott Petty, *Internet Patent Lawsuits Multiply as E-Commerce Revenues Soar*, *INTELL. PROP. TODAY*, Feb. 2000, at 46 [hereinafter Petty, *Revenues Soar*]; see also W. Scott Petty, *Using Internet Patents to Wage War with On-Line Competitors*, *INTELL. PROP. TODAY*, Dec. 1999, at 26 [hereinafter Petty, *Wage War*].

18. Bradley C. Wright, *Patent Law: Business Methods*, NAT'L L.J., Dec. 1999, at B9.

II. THE EVOLUTION OF BUSINESS METHOD PATENT LAW

Patents are grants of limited and temporary monopolies given to inventors as incentives to encourage the creation of useful technologies for the public good.¹⁹ This concept dates back to the framers of the Constitution, who recognized the profound importance of protecting an inventor's rights to an invention,²⁰ thereby granting Congress the power "[t]o 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."²¹ Although patents were originally designed to promote progress in the "useful arts,"²² the present day interpretation of the term "useful arts" has expanded to include "technological arts."²³

A. *The Patent Act*

Congress first utilized its constitutional power to grant patents in 1790 when it passed the United States Patent Act²⁴ to protect inventors' rights in "any useful art, manufacture, engine, machine, or device, or any improvement therein . . ." ²⁵ Although the courts consistently interpreted Congress' use of the word "art" to mean "process,"²⁶ the statutory classes were revised to reflect this interpretation in 1952.²⁷ The Patent Act of 1952, which currently remains in effect,²⁸ changed the statutory language from "art" to "process," but circularly defined "process" as a "process, art or method,"²⁹ including "a new use of a known process, machine, manufacture, composition of matter, or material."³⁰ Thus, under the current Patent Act, inventions may only be patented if they fall within one of the

19. Arun Chandra, *King Instruments Corp. v. Perego: Should Lost Profits Be Awarded on Unpatented Products Where Patentee Sits on Its Patents?*, 16 CARDOZO ARTS & ENT. L.J. 635, 635 (1998) (citing *Kendall v. Winsor*, 62 U.S. (21 How.) 322, 327-28 (1858)).

20. *Id.*

21. U.S. CONST. art. I, § 8, cl. 8.

22. *Id.*

23. John R. Thomas, *The Patenting of the Liberal Professions*, 40 B.C. L. REV. 1139, 1140 (1999).

24. U.S. Patent Act of Apr. 10, 1790, ch. 7, § 1, 1 Stat. 109.

25. *Id.*

26. *Cochrane v. Deener*, 94 U.S. 780, 788 (1876). A process is defined as "a mode of treatment of certain materials to produce a given result. It is an act, or a series of acts, performed upon the subject-matter to be transformed and reduced to a different state or thing." *Id.*

27. 35 U.S.C. § 100-101 (1995).

28. 35 U.S.C. §§ 1-376 (1995).

29. § 101.

30. *Id.*

express categories identified in the Patent Act.³¹ Courts have encountered difficulty interpreting the circular definition of the term since its inception.³² Even the United States Supreme Court's interpretations are ambiguous, varying from defining "process" as "a method of doing a thing,"³³ to "a mode of treatment of certain materials to produce a given result"³⁴ to "some practicable method or means of producing a beneficial result or effect"³⁵

B. Statutory Patent Classes as Initially Interpreted by the Judiciary

In theory, any method of accomplishing a task or creating a product can be articulated as a series of steps and expressed in the requisite form of a patent claim, thereby satisfying the definition of "process."³⁶ This is illustrated by the Supreme Court's initial broad interpretation of the current patent statute as including "anything under the sun that is made by man."³⁷ Over time, however, the realization that the patent system was overly expansive in its reach led the judiciary to hone and limit this concept by creating certain bars to patentability.³⁸ These included, but were not limited to, the laws of nature, physical phenomena and abstract ideas.³⁹ A scientific truth, or the mathematical expression thereof, is not patentable.⁴⁰ Patents evolved to encompass only devices or physical items.⁴¹

1. The Genesis of the Business Methods Exception to Patentability

With this historical perspective in mind, courts addressed the patentability of business models.⁴² Initially, the bar against patenting

31. 1 CHISUM, *supra* note 9, § 1.01, at 5 n.1.

32. Thomas, *supra* note 23, at 1143-44.

33. *Expanded Metal Co. v. Bradford*, 214 U.S. 366, 383 (1909).

34. *Cochrane*, 94 U.S. at 788.

35. *Corning v. Burden*, 56 U.S. (15 How.) 252, 268 (1853).

36. Thomas, *supra* note 23, at 1144.

37. *Diamond v. Diehr*, 450 U.S. 175, 182 (1981) (quoting S. REP. NO. 82-1979, at 5 (1952); H.R. REP. NO. 82-1923, at 6 (1952)).

38. *Claus D. Melarti, State Street Bank & Trust Co. v. Signature Financial Group, Inc.: Ought the Mathematical Algorithm and Business Method Exceptions Return to Business as Usual?*, 6 J. INTEL. PROP. L., at 359, 361 (1999).

39. *Diamond v. Chakrabarty*, 447 U.S. 303, 309 (1980).

40. *Gottschalk v. Benson*, 409 U.S. 63, 67 (1972) (quoting *Mackay Radio & Tel. Co. v. Radio Corp.*, 306 U.S. 86, 94 (1939)).

41. *See Rubber-Tip Pencil Co. v. Howard*, 87 U.S. (20 Wall.) 498, 507 (1874) (arguing an idea in it of itself is not patentable unless made practically useful).

42. *See Melarti, supra* note 38 (explaining how courts approached statutory patentable subject matter).

business methods was a natural extension of the proscription on patenting abstract principles.⁴³ As early as 1869, the Patent Commissioner sensed "that [i]t [was] contrary[, moreover,] to the spirit of the law . . . to grant patents for methods of book-keeping . . ."⁴⁴ Nineteenth century courts also held methods of transacting common business or mere contracts unpatentable.⁴⁵ It was not until 1908 when the United States Court of Appeals for the Second Circuit decided *Hotel Security Checking Co. v. Lorraine Co.*⁴⁶ that the proscription on business method patents became solidly established.⁴⁷ Although several cases involving business methods predated *Hotel Security* it is generally regarded as the genesis of the business method exception.⁴⁸

In *Hotel Security*, the patent at issue was a cash-registering and account-checking system designed to prevent fraud by waiters.⁴⁹ The system utilized certain forms in order to track sales, thus ensuring waiters submitted the correct amount of funds at the close of business.⁵⁰ The Second Circuit invalidated the patent based on the finding that the patented technology "would occur to anyone conversant with the business."⁵¹ This holding reinforced the view that "[n]o mere abstraction, no idea, however brilliant, can be the subject of a patent irrespective of the means designed to give it effect."⁵²

Court decisions following *Hotel Security* reinforced that only a system with an inventive physical means, independent of the business method itself, could properly be the subject of a patent.⁵³ However, because these decisions could be grounded in standards of usefulness,

43. See Thomas, *supra* note 23, at 1145.

44. *Ex Parte Abraham*, 1869 Dec. Comm'r Pat. 59, 59.

45. *In re Moeser*, 27 App. D.C. 307, 310 (1906); *United States Credit Sys. Co. v. Am. Credit Indem. Co.*, 53 F. 818, 819 (S.D.N.Y. 1893).

46. 160 F. 467 (2d Cir. 1908).

47. Thomas, *supra* note 23, at 1146.

48. Rinaldo Del Gallo, III, *Are "Methods of Doing Business" Finally Out of Business as a Statutory Rejection?*, 38 IDEA: J.L. & TECH. 403, 405-06 (1998) (citing *United States Credit Sys. Co.*, 53 F. 818; *Ex Parte Abraham*, 1869 Dec. Comm'r Pat. 59).

49. *Hotel Sec. Checking Co. v. Lorraine Co.*, 160 F. 467, 467 (2d Cir. 1908).

50. *Id.* at 470.

51. *Id.* at 471.

52. Melarti, *supra* note 38, at 363 (quoting *Fowler v. City of N.Y.*, 121 F. 747, 748 (2d Cir. 1903)).

53. *Ex Parte Murray*, 9 U.S.P.Q.2d (BNA) 1819, 1821 (1988) (finding an accounting method is not proper subject matter for patent protection because it constitutes a method of doing business); see also *Loew's Drive-In Theatres, Inc. v. Park-In Theatres, Inc.*, 174 F.2d 547, 552 (1st Cir. 1949) (holding a drive-in theater concept as unpatentable in abstract, separate from means of implementation); *In re Sterling*, 70 F.2d 910, 912 (C.C.P.A. 1934) (holding printing on check forms alone, without a physical structure, fails to satisfy patentable novelty).

novelty and nonobviousness as well, questions remained as to whether business methods, independent of the physical means for implementation, were per se unpatentable.⁵⁴ In fact, neither the Federal Circuit nor its predecessor court, the Court of Customs and Patent Appeals, ever exclusively relied on this theory to deem an invention unpatentable.⁵⁵ However, in Judge Newman's now infamous 1994 dissent in *In re Schrader*,⁵⁶ the Federal Circuit officially began to recognize the patentability of business methods.⁵⁷

2. Federal Circuit Dissent Chips Away at the Business Methods Exception to Patentability

In re Schrader involved a business method for competitive bidding on related or connected items, such as contiguous tracts of land.⁵⁸ Judge Newman's dissent in *In re Schrader* noted prior courts relied in large part on dicta, rather than precedent, in categorizing business methods as per se unpatentable.⁵⁹ Judge Newman further observed some prior decisions did resolve, or could have resolved, the issue in each case by relying on the statutory requirements of patentability, such as novelty and nonobviousness, to declare a system of doing business ineligible for patent protection.⁶⁰

Judge Newman's analysis noted the *Hotel Security* court discussed the obviousness of the record-keeping system in considerably greater detail than the issue of whether the subject matter was statutory.⁶¹ Judge Newman concluded that lack of sufficient analysis on the issue of statutory subject matter supported the assertion that "the jurisprudence does not require the creation of a distinct business class of unpatentable subject

54. Del Gallo, *supra* note 48, at 411–14 (discussing decisions that were incorrectly characterized as based upon the business method exception when they actually rejected patentability based upon other statutory issues such as novelty and nonobviousness).

55. Melarti, *supra* note 38, at 387.

56. 22 F.3d 290 (Fed. Cir. 1994).

57. *Id.* at 298.

58. *Id.* at 291. The method is described as entering bids on one, some, or all of the items into a "record." *Id.*

Then, the combination of winning bids is determined by assembling a 'completion' from all the entered bids . . . [A] completion is the particular combination of bids which 'would complete a sale of all of the items being offered at the highest offered total price.' The items were then sold in accordance with the 'completion.'

Id.

59. *Id.* at 296–99.

60. *Id.*

61. *Id.* at 298.

matter.”⁶² Judge Newman noted the patent was deemed invalid for lack of novelty and obviousness rather than for failing to constitute patentable subject matter.⁶³

At the time of *In re Schrader*, no court disqualified a novel and nonobvious patent solely because it represented a business method exception.⁶⁴ However, Judge Newman observed, most decisions involving business methods held ideas without physical actualization cannot be protected by patent monopoly.⁶⁵ Although the majority in *In re Schrader* denied the patent application,⁶⁶ Judge Newman’s dissenting opinion clearly foreshadowed the end of the business methods exception to statutory patentability.⁶⁷

3. *State Street* Majority Sets the Record Straight and Finally Dissolves the Business Methods Exception to Patentability

Only four years elapsed before the majority embraced a view of statutory subject matter as including “the transformation of information.”⁶⁸ During that time, in 1996, PTO procedure reflected this change in judicial policy by deleting the paragraph of section 706.03(a) of the Manual of Patent Examining Procedures stating, “[t]hough seemingly within the category of process or method, a method of doing business can be rejected as not being within the statutory classes.”⁶⁹ That same year, the United States PTO’s Examination Guidelines for Computer Related Inventions added the statement, “[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 claims”⁷⁰

Ultimately in 1998, the Federal Circuit’s decision in *State Street* resolved the issue of the patentability of business methods in favor of their inclusion in statutorily patentable subject matter.⁷¹ The Federal Circuit

62. *In re Schrader*, 22 F.3d at 298 (Fed. Cir. 1994).

63. *Id.*

64. *Id.*

65. *Id.*

66. *Id.* at 291.

67. *See id.* at 296–99.

68. Thomas, *supra* note 23, at 1155.

69. Melarti, *supra* note 38, at 374–75 (quoting U.S. Department of Commerce, Patent and Trademark Office, Manual of Patent Examining Procedures § 706.03(a) (1993)).

70. Examination Guidelines for Computer-Related Inventions, 61 Fed. Reg. 7478, 7479 (Feb. 28, 1996).

71. *State St. Bank & Trust Co. v. Signature Fin. Group, Inc.*, 149 F.3d 1368, 1377 (Fed Cir. 1998), *cert. denied*, 525 U.S. 1093 (1999).

overturned the lower court's decision concerning the patentability of a computerized accounting system used to manage mutual fund investment structures.⁷² The court took the opportunity to lay the "judicially-created . . . ill-conceived exception" to rest.⁷³

From the outset, the Federal Circuit held the business methods exception was a misguided distortion of the law, possibly "arising out of the requirement for invention."⁷⁴ According to the court, the exception was rendered obsolete by the insertion of § 103 in the Patent Act of 1952,⁷⁵ which formally codified the requirement that a business method be non-obvious to be considered patentable subject matter.⁷⁶ Pursuant to § 103, business methods should have been patentable and simply subject to the same legal requirements for patentability applicable to any other process or method.⁷⁷ Business methods lacking novelty, utility or non-obviousness would not receive a patent.⁷⁸ Citing Judge Newman's dissent in *In re Schrader*, the court also noted neither the Federal Circuit Court nor the Court of Customs and Patent Appeals invoked the business methods exception to declare an invention unpatentable.⁷⁹ Furthermore, the court held the application of this particular exception could have relied on a less contentious principle of Title 35.⁸⁰ Given the United States Supreme Court's refusal to grant certiorari,⁸¹ the Federal Circuit Court of Appeals' holding in *State Street* is likely to remain the law despite the heated debate over its prudence.⁸²

72. *Id.* at 1370.

73. *Id.* at 1375.

74. *Id.*

75. 35 U.S.C. § 103 (Supp. IV 1999) (codifying the requirement that an invention be non-obvious to be considered patentable subject matter).

76. *See State St.*, 149 F.3d at 1375.

77. *Id.*

78. *Id.*

79. *See id.* at 1375 n.10.

80. *Id.*

81. 525 U.S. 1093 (1999).

82. Rinaldo Del Gallo, *Business Software Finds Protection In State Street Bank Case*, BANK & LENDER LIABILITY LITIG. REP., Nov. 3, 1999, at 13. However, this is only the law in the Federal Circuit, which is considered the preeminent court authority in this field. Other circuit courts, such as the Ninth Circuit or the Second Circuit, could rule differently; however, this is unlikely. Telephone Interview with Gregory A. Piccionelli, Esq., Partner, Brull, Piccionelli, Braun, & Vradenburg (June 22, 2000).

III. THE GRIDLOCK OF PATENT INFRINGEMENT, PRIORITY DISPUTES AND ADMINISTRATIVE CRISIS WILL SLOW THE INFORMATION SUPERHIGHWAY TO A CRAWL

As a result of *State Street*, an increasing number of businesses have begun patenting methods of conducting business over the Internet.⁸³ Perhaps the *State Street* court was prophetic when it stated, “[a]ny historical distinctions between a method of ‘doing’ business and the means of carrying it out blur in the complexity of modern business systems.”⁸⁴ To date, the Internet business method patents granted have led to an onslaught of litigation over their validity.⁸⁵

A. Patent Infringement Litigation: The “Weapon of Choice To Do Battle With an On-Line Competitor”⁸⁶

As a result of the *State Street* decision, “Priceline.com and Amazon.com, among others, have armed themselves with patents for software and business model innovations arising from commercialization of the Internet.”⁸⁷ Successfully securing and enforcing these patents can make an Internet company’s stock price soar and its competitors’ sink, while at the same time driving significant venture capital to start-ups.⁸⁸ “Some observers are publicly skeptical about the validity of certain [Internet business model] patents, including Priceline.com’s ‘reverse auction’ patent,”⁸⁹ which prohibits other companies from engaging in particular types of transactions on the Internet.⁹⁰ It is also accurate to claim many of “the recently awarded [business method] patents are for common practices or metaphors with Internet tacked on as a phrase suggesting innovation.”⁹¹ Nevertheless, owners of Internet business method patents are now “exploiting their patent protection by initiating infringement

83. Gary M. Hoffman & Gabriela I. Coman, *Business Method Patents*, NAT’L L.J., Feb. 14, 2000, at B8.

84. *State St.*, 149 F.3d at 1376 n.13 (citing *Paine, Webber, Jackson & Curtis v. Merrill Lynch*, 564 F. Supp. 1358, 1358 (D. Del. 1983), which held a computerized system of cash management is statutory subject matter).

85. Hoffman & Coman, *supra* note 83.

86. Petty, *Wage War*, *supra* note 17.

87. *Id.*

88. See May Wong, *Information Age Throws Legitimacy of Patents into Question*, CHATTANOOGA TIMES, July 15, 2000, at C5.

89. Petty, *Wage War*, *supra* note 17.

91. See *id.*

91. J. William Gurley, *Cow Decoys Are One Thing: The Trouble with Internet Patents*, FORTUNE, July 19, 1999, at 118, 118.

actions against on-line competitors and seeking royalties from sources of licensing revenue.⁹² With billions of dollars in Internet sales at stake, the companies' actual motives for fiercely defending their business method patents are often questionable.⁹³ The timing of some litigation⁹⁴ indicates that the patent system, designed to protect innovation, is being converted into a weapon for crushing competitors.⁹⁵ Although Internet business model patent infringement suits have rapidly proliferated since the *State Street* decision, two of the most pivotal and notorious are Amazon.com's suit against Barnesandnoble.com, and Priceline.com's suit against the Microsoft Corporation.

1. *Amazon.com v. Barnesandnoble.com*: The Battle Over "1-Click" Shopping

In October 1999, Amazon.com obtained U.S. patent number 5,960,411 for the one-click shopping process that patented the "[m]ethod and system for placing a purchase order via a communications network."⁹⁶ Almost instantly, they filed suit against Barnesandnoble.com for infringement.⁹⁷ Amazon.com uses "1-Click" technology to allow consumers to shop at its Web site without having to re-enter shipping and billing data for each independent purchase made at the site.⁹⁸ Thus, based on this use, Amazon.com requested the district court in Washington order an injunction against Barnesandnoble.com, and award it monetary damages.⁹⁹ Amazon.com asserted Barnesandnoble.com "'meticulously copied' the '1-click' technology . . . irreparably harming [them], particularly during the holiday shopping season . . . when millions of new users [were] expected to be shopping in the on-line stores for the first time, [thus] establishing brand loyalty based upon [their] experiences"¹⁰⁰

92. Petty, *Wage War*, *supra* note 17.

93. See Seth Shulman, *Software Patents Tangle the Web: Industry Trend or Event*, TECH. REV., Mar. 1, 2000, at 68.

94. See James Gleick, *Patently Absurd*, N.Y. TIMES MAG., Mar. 12, 2000, at 44 (discussing how Amazon.com filed its infringement suit against Barnesandnoble.com at the height of the holiday shopping season, thereby forcing its chief competitor to deliberately complicate its ordering process).

95. Shulman, *supra* note 93.

96. Gleick, *supra* note 94.

97. *Id.*

98. Petty, *Wage War*, *supra* note 17.

99. *Id.*

100. *Id.*

Although Barnesandnoble.com believed the suit was without merit,¹⁰¹ the court granted Amazon.com a preliminary injunction.¹⁰²

While the Federal Circuit issued a temporary stay two days after issuing the injunction, the appeals court lifted the stay the following week.¹⁰³ This forced Barnesandnoble.com to design around Amazon.com's patent by creating a "double-click" on-line ordering system during the holiday season, hindering its ability to ensnare the loyalty of first-time Internet consumers,¹⁰⁴ and forcing it to unnecessarily complicate its ordering process.¹⁰⁵

2. David and Goliath: Priceline.com Takes On Microsoft

A lawsuit larger than Amazon.com's case was brought by Priceline.com, known for its "name your price" airline and hotel reservation service as well as for its quirky advertisements. It sued Expedia, a Microsoft subsidiary, for infringing on its name-your-price auction patent.¹⁰⁶ "Priceline.com's patent (U.S. patent number 5,794,207, 'Method and Apparatus for a Cryptographically Assisted Commercial Network System Designed to Facilitate Buyer-Driven Purchase Offers)' relates to a computer-facilitated 'reverse auction,' in which customers make binding offers on prices they are willing to pay for commodities such as an airline ticket."¹⁰⁷

Faced with an on-line competitive challenge from Microsoft's Expedia Hotel Price Matcher service, Priceline.com filed suit in a Connecticut district court.¹⁰⁸ Priceline.com asked the court to award both actual and punitive damages as well as a permanent injunction based on patent infringement and state unfair practice claims.¹⁰⁹

In contrast to the Amazon.com case, the Priceline.com suit may progress more slowly because Priceline.com has not requested a preliminary injunction.¹¹⁰ Rather it seeks unspecified actual and punitive damages.¹¹¹ In the interim, Priceline.com, via its parent company, Walker

101. *Id.*

102. Hoffman & Coman, *supra* note 83.

103. Petty, *Revenues Soar*, *supra* note 17.

104. *See id.*

105. *See id.*

106. Petty, *Wage War*, *supra* note 17.

107. Hoffman & Coman, *supra* note 83.

108. Petty, *Wage War*, *supra* note 17.

109. *Id.*

110. Hoffman & Coman, *supra* note 83.

111. *Id.*

Digital, has and will continue to aggressively license its business methods.¹¹² Recent grants of licenses for Priceline.com's business model patents have included those granted to Alliance Mortgage Company, Budget Rent-A-Car and WebHouse Club.¹¹³

Allegations in Priceline.com's complaint assert that it turned over confidential and technical data to Microsoft during an eight-month period when the companies were negotiating a strategic partnership.¹¹⁴ According to Priceline.com's founder, Jay Walker, when the deal fell through, Microsoft Chairman Bill Gates said that "many companies were suing Microsoft for patent infringement and that Microsoft had no intention of allowing patent rights to stand in its way," and that "Priceline could, in effect, get in line."¹¹⁵ Microsoft denies receiving any confidential information and has publicly reiterated its strong belief in information protection.¹¹⁶

Microsoft's Expedia filed for dismissal, naming Marketel International and Aden Enterprises as two other companies also claiming ownership to the same patent.¹¹⁷ Marketel operated a pre-Internet travel service, BookIt!, which allowed consumers to submit bids for airline tickets with a credit card.¹¹⁸ The company would then attempt to use the bids on airlines willing to accept discounted fares for seats that would otherwise remain unsold.¹¹⁹ Marketel's marketing materials lauded the merits of a revolutionary system that would allow customers to name their own price for consumer products and services.¹²⁰

Although the concept sounds remarkably similar to the services offered by Priceline.com, the Internet did not exist at the time, so Marketel operated via phone and fax.¹²¹ Also, at that time, the PTO did not grant patent protection for business models, the airlines were not terribly

112. *Id.*

113. Petty, *Wage War*, *supra* note 17.

114. Del Jones, *Businesses Battle over Intellectual Property: Courts Choked with Lawsuits to Protect Ideas – And Profits*, USA TODAY, Aug. 2, 2000, at 1B.

115. *Id.*

116. *Id.*

117. Geneva Sapp, *E-Businesses Vie for Technology Ownership*, INFOWORLD, Mar. 6, 2000, at 30.

118. Peter Elkind, *The Hype is Big, Really Big, at Priceline*, FORTUNE, Sept. 6, 1999, at 193, 202.

119. *Id.*

120. *Id.*

121. *Id.*

cooperative, and Marketel had no grounds to raise any significant operating capital.¹²² Just seven months later, Marketel collapsed.¹²³

3. Internet Business Method Patent Litigation: The Big Picture

Patent infringement litigation is a time-consuming and costly process for any company. Courts will only invalidate a patent if the invention is deemed obvious compared to what was previously known.¹²⁴

In addition, the standard of proof to invalidate a patent requires clear and convincing evidence of obviousness, as opposed to the lower standard of preponderance of evidence.¹²⁵ It is more difficult for challengers to argue an idea is obvious, and thus unpatentable, once an Internet business model starts producing revenue.¹²⁶ This gives a patent owner a strong defense of a valid patent.¹²⁷ Further, the average cost of litigating a patent infringement case of this nature may cost each side in upwards of one million dollars or even double when battling with a large corporation.¹²⁸

While corporate giants like Amazon.com and the Microsoft Corporation can afford to sustain these high profile legal battles, smaller on-line competitors are forced to capitulate.¹²⁹ However, aggressive and successful enforcement of Internet business method patents, even by larger corporations, can have adverse consequences as demonstrated by a consumer boycott launched against Amazon.com after it received the preliminary injunction against Barnesandnoble.com.¹³⁰

Proponents of free dissemination of information on the Internet launched a boycott of Amazon.com that eventually led its founder and president, Jeff Bezos, to post an open letter on the Internet that proposed reducing the terms of business method patents from twenty years to three to five years.¹³¹ Mr. Bezos, however, continues to reject the demand for Amazon.com to relinquish its own patents unilaterally.¹³² This may

122. *Id.*

123. *Id.*

124. Marc E. Brown, *Internet Patent Defenses*, ELECTRONIC BUS., May, 2000, at 26.

125. Brown, *supra* note 1.

126. *Id.*

127. *Id.*

128. Sara Hazlewood, *Pending Cases Will Set Tone for New Patent Field*, BUS. J., Dec. 24, 1999, at 8.

129. Del Jones, *supra* note 114.

130. Owen Lippert, *Amazon's Surrender to the Free Software Fallacy*, NAT'L POST, Mar. 15, 2000, at C07.

131. *Id.*

132. *Id.*

indicate that his status as the poster-child for patent reform is no more than a public relations ploy.¹³³

Regardless, the merit of Mr. Bezos' proposal is largely rendered moot.¹³⁴ Technological innovations move at such a rapid pace that a patent only gives a company a market share advantage for a few years before it becomes outdated.¹³⁵ Additionally, implementing such a limitation would directly contravene the United States' international obligations to maintain grants of patent monopolies for twenty-year terms.¹³⁶ Thus, at present, settling business method patent ownership questions with lawsuits, although seemingly inefficient, is the most effective means of resolving Internet patent infringement disputes.¹³⁷

B. Patent Wars Shaping the Future of the Internet or Vice Versa?

Notwithstanding the recent onslaught of litigation, electronic commerce is rapidly changing the way modern companies conduct business and is transforming the international market landscape for the benefit of consumers.¹³⁸ It is estimated that the volume of e-commerce reached 301 billion dollars in the United States alone last year.¹³⁹ Market analysts project that by the year 2003, e-commerce will produce revenue in excess of 3 trillion dollars.¹⁴⁰ It thus follows that the Internet as an e-commerce mechanism will have powerful implications for how business is conducted in the future.¹⁴¹

The creation and protection of a company's intellectual property is the key to "captur[ing] the legal right-of-way to the new e-commerce world."¹⁴² Before *State Street*, trade secret laws provided e-commerce

133. *See id.*

134. *See id.*

135. Geneva Sapp, *Patent Office Seeks to Quiet Critics with New Oversight Initiative*, INFOWORLD DAILY NEWS, Mar. 30, 2000, available at LEXIS, Newsgroup File, All.

136. Philip E. Ross, *Patently Absurd: Technology and Gamesmanship Have Overwhelmed the U.S. Patent Office*, FORBES, May 29, 2000, at 180, 182.

137. Lippert, *supra* note 130.

138. Gregory J. Maier et al., *Patent Protection Provides Long-term Net Strategy*, NAT'L L.J., Oct. 18, 1999, at B11.

139. *See id.* (quoting Q. Todd Dickinson, "The USPTO—Our Challenges for the New Millennium," Remarks at 11th Annual Fall CLE Weekend Seminar, Intellectual Property Law Section of the Virginia State Bar (Sept. 10, 1999)).

140. *Id.* (quoting Linda Homelstein, *Why They Are Nuts About the Net*, BUS. WK., Nov. 3, 1998, at 51).

141. *Id.*

142. *Id.*

companies with limited protection of their business practices.¹⁴³ However, because business process software codes are susceptible to reverse engineering, trade-secret protections were not always effective.¹⁴⁴ Because e-commerce companies that are savvy to the U.S. and foreign patent systems stand to gain the most, it is clear that many e-commerce companies already see the advantage of protecting their business methods.¹⁴⁵ This is evident from the proliferation of patent application filings since *State Street*.¹⁴⁶ For example, since the decision, it is estimated the PTO experienced a 700% increase in the number of filings on software and business method patents alone.¹⁴⁷

Business model patents run the gamut from patents covering on-line shopping carts,¹⁴⁸ to patents covering the buying and selling of customers' attention.¹⁴⁹ For example, Sun Microsystems has a patent for a shopping cart metaphor, "which corresponds to a file . . . contain[ing] items selected by [the] user through an Internet browser."¹⁵⁰ Through the host server a customer can add and remove items from the shopping cart.¹⁵¹ Cybergold owns a patent that buys and sells the attention of consumers through an on-screen icon that represents the amount of compensation a consumer will receive for viewing a given advertisement.¹⁵² Another interesting patent is Onsale.com's system that allows a group of bidders to interactively place auction bids over a computer network.¹⁵³ "The bids are automatically updated, and at [an] appropriate time, the . . . system closes the auction and notifies the participants of the results."¹⁵⁴

This type of patent may seem to meet the criteria of novelty and nonobviousness. Although in theory, patenting business methods of commonly known ideas initially appears innovative, in fact, it has become mainstream.¹⁵⁵ Two examples are Sun Microsystems' on-line shopping

143. *Id.*

144. Maier, *supra* note 138.

145. *Id.*

146. *Id.*

147. *See id.* (quoting Q. Todd Dickinson, "The USPTO—Our Challenges for the New Millennium," Remarks at 11th Annual Fall CLE Weekend Seminar, Intellectual Property Law Section of the Virginia State Bar (Sept. 10, 1999)).

148. Ted Stevenson, *State Street Paved the Way: Inside the Landmark Case that Governs Business on the Net*, TEX. LAW., Sept. 27, 1999, at 42.

149. *Id.*

150. *Id.*

151. *Id.*

152. *Id.*

153. *Id.*

154. Stevenson, *supra* note 148.

155. *Id.*

cart and Freedom of Information's new patent for tracking end users' computer activity and viewing habits for the purpose of targeted advertisements.¹⁵⁶ This indicates that the PTO's standards for evaluating the patentability of these various applications is inconsistent and imprecise at best. However, with the substantial increase in business method patent applications since the *State Street* decision,¹⁵⁷ the PTO's evaluation criteria has arguably become more lax.¹⁵⁸ This, coupled with Internet patent owners' initiation of infringement actions against on-line competitors, has resulted in a recent flood of litigation.¹⁵⁹

IV. REFORMING THE PTO CAN IMPROVE THE PATENTABILITY OF BUSINESS MODEL PATENTS

With economic giants Priceline.com, Microsoft, Amazon.com and Barnesandnoble.com waging loud and aggressive court battles over the validity of e-commerce patents,¹⁶⁰ it is understandable that skeptics see the patentability of business models as doomed for failure.¹⁶¹ Time would be better spent focusing on reforming the PTO's structure and examination procedures in order to facilitate the success of business model patents for e-commerce.

The poor quality of the PTO's e-commerce business model patents issued thus far, as exemplified by the mass of litigation they have triggered, illustrates a problem with patent granting procedures.¹⁶² Part of the problem with business model patents is that the PTO only recently begun to issue patents in this field.¹⁶³ This was certainly the case in the early years of issuing patents in other fields such as biotechnology and software, when the PTO granted too many overly broad patents.¹⁶⁴ Nevertheless, the

156. *Id.*

157. *See id.*; Bradley C. Wright, *Business Methods*, NAT'L L.J., Nov. 22, 1999, at B9.

158. Jenna Greene, *Staking a Claim: How State Street Has Spurred a Rush on the PTO*, AM. LAW, Apr. 10, 2000, at 14.

159. Petty, *Wage War*, *supra* note 17; Shulman, *supra* note 12.

160. Leslie Kaufman, *Amazon Sues Big Bookseller over System for Shopping*, N.Y. TIMES, Oct. 23, 1999, at C1. Amazon.com sued Barnesandnoble.com alleging it infringed upon Amazon's popular "one click" checkout method, which allows customers to make repeat purchases with one click of the mouse instead of having to fill out credit card and billing information with each shopping trip. *Id.* Priceline.com sued Microsoft alleging Microsoft copied Priceline.com's model of allowing customers to bid for plane tickets and hotel rooms. *Id.*

161. Lawrence M. Sung & Jeff E. Schwartz, *Business Method Defense*, NAT'L L.J., Apr. 10, 2000, at B8.

162. Wright, *supra* note 18.

163. Greene, *supra* note 2.

164. *See* Wright, *supra* note 18.

reality is that while “[t]he present United States patent examination system has served the nation well for over 160 years,”¹⁶⁵ it has never experienced a dramatic reform during that time.¹⁶⁶ Also, business model patents are not the only patents of poor quality.¹⁶⁷

Although many attempts have been made to amend the patent review process, only minor changes have resulted.¹⁶⁸ In the past, patent applications were examined for “novelty, usefulness, and inventiveness.”¹⁶⁹ In addition, patent applications remained secret until the patent was ultimately granted.¹⁷⁰ “[A]s a result, there has been little third-party participation in the examination process prior to a grant.”¹⁷¹

In order to maintain a high level of quality examination at a reasonable cost, the patent examination system must change dramatically.¹⁷² Due to the morass of new business-method patent applications since *State Street*, it takes two years after the application is filed for the PTO to examine a business-method application for the first time.¹⁷³ Because patent rights do not vest until a patent is actually granted,¹⁷⁴ and e-commerce technology evolves quickly, the *State Street* decision and its resulting controversy and litigation have made it painfully obvious the PTO is due for a change.

At the same time as patent application filings are substantially increasing, the PTO must also compete with the private sector for scarce technical and legal talent.¹⁷⁵ The private sector can offer greater financial rewards and benefits than the PTO, which presently offers business method patent examiners salaries ranging from \$35,000 to \$55,000 a year.¹⁷⁶ As a

165. Nancy J. Linck et al., *A New Patent Examination System for the New Millennium*, 35 HOUS. L. REV. 305, 306 (1998).

166. *See id.*

167. *See* Robert P. Merges, *As Many as Six Impossible Patents Before Breakfast: Property Rights for Business Concepts and Patent System Reform*, 14 BERKELEY TECH. L.J. 577, 589 (1999).

168. Linck, *supra* note 165, at 306.

169. *Id.* at 306–07.

170. *Id.* at 307.

171. *Id.* “The rules of practice in patent cases do provide for the ability to file protests against pending patent applications. *See* 37 C.F.R. § 1.291 (1997). However, protests have rarely been filed because third parties are usually unaware of pending patent applications, which are held in confidence by the Patent and Trademark Office. *See* 35 U.S.C. § 122.” *Id.* at 307 n.7.

172. *Id.* at 307.

173. Maier, *supra* note 138.

174. *Id.*

175. *See* Greene, *supra* note 2.

176. *Id.*

result, less than five percent of the PTO examiners have law degrees.¹⁷⁷ The elimination of the PTO's law school tuition reimbursement plan is likely to continue this deficiency.¹⁷⁸ In addition, the PTO would need to significantly increase their current staff in order to accommodate the explosion of patent application filings.¹⁷⁹ However, many of the new hires will have science doctorates and graduate degrees in business, not law degrees.¹⁸⁰ This will further contribute to the current trend whereby a patented business model is commercially successful but susceptible to legal challenge.¹⁸¹

A. *Reforming the Patent System for the 21st Century*

Given that the stakes are so high in this area,¹⁸² it is essential that proposals for PTO reform proceed with caution. Companies have been pushing for changes in United States patent law since the mid-1990s,¹⁸³ but efforts on Capitol Hill to change the nation's patent laws have stalled for years.¹⁸⁴ This crisis at the PTO finally led Congress to enact the American Inventors Protection Act of 1999 ("Act"),¹⁸⁵ which was signed into law by President Clinton on November 29, 1999 as part of the Omnibus Appropriation Act.¹⁸⁶

Bitter disputes between those who represented large corporations and those who championed the interests of the independent inventor led to

177. Linck, *supra* note 165, at 308.

178. *Id.*

179. *Id.*

180. Greg Miller & Davan Maharaj, *Will Cyber Patents Stymie Hollywood Giants?*, L.A. TIMES, Sept. 13, 1999, at C1.

181. See Bill Roberts, *The Truth About Patents*, INTERNET WORLD, Apr. 15, 2000, at <http://www.internetworld.com/print/2000/04/15/features/200000415-patents.html> (last visited Aug. 22, 2000) (referencing Amazon.com founder Jeff Bezos' open letter to the public discussing Amazon.com's competitive advantage and success as deriving from service, price and selection, not from patents; however, Amazon.com is currently embroiled in patent infringement litigation with Barnesandnoble.com).

182. Maier, *supra* note 138. "E-commerce companies can use patent protection to stifle competition and defend a market niche by making it unlawful for others to compete with products, services or methods that employ a claimed invention." *Id.* Although this monopoly would be valid only for twenty years, "twenty years for computer-implemented inventions is approximately the equivalent of ten generations of computer technology." *Id.*

183. See John Carey, *Patent Reform Pending: A New Bill Has Small Investors on the Defensive*, BUS. WK., Nov. 22, 1999, at 74, 74.

184. Shawn Zeller, *A Ruckus Over Patent Reform*, 1999 NAT'L L.J. 2640, 2640.

185. American Inventors Protection Act of 1999, 35 U.S.C.A. §§ 1-3 (West Supp. 2000).

186. Sung & Schwartz, *supra* note 161.

much political compromise.¹⁸⁷ Large corporations perceived the patent reform legislation as important to “U.S. companies’ ability to compete in a fast-paced global market,” while small companies and individual inventors disagreed, concerned that the changes would “squelch the innovation necessary for the U.S to compete in the global market.”¹⁸⁸

1. PTO Organizational Structure Causes Poor Examination Quality

One of the more controversial aspects of the Act was whether to include a provision according the PTO a greater degree of autonomy within the Commerce Department and from Congress.¹⁸⁹ Such a provision was intended to give the PTO greater flexibility and responsibility regarding the management and administration of its operations, budget allocations and expenditures, and personnel decisions.¹⁹⁰ It would modify the operating structure of the PTO by allowing it to maintain control of the user fees it collects rather than permitting Congressional reallocation for other purposes.¹⁹¹ Keeping collected fees would enable PTO examiners greater access to databases, thereby facilitating more thorough searches and reducing the chances of alleged infringement and ensuing litigation.¹⁹²

In the realm of e-commerce business method patents, such information could prevent granting monopolies to an overly broad, nonobvious business method lacking novelty.¹⁹³ Further, the provision would allow the PTO the freedom needed to revise its hiring policies and reallocate its financial resources to support those changes.¹⁹⁴ Unfortunately, the federal budget for 2001 will divert 268 million dollars, or one-third, from the anticipated PTO income of 1.152 billion dollars.¹⁹⁵

187. Michael J. Mehrman, *HR 1907 Update—The Saga Continues*, INTELL. PROP. TODAY, Oct. 1999, at 38.

188. Cyndia Zwahlen, *Big Firms, Independents at Odds on Patent Plan*, L.A. TIMES, Oct. 13, 1999, at C12.

189. See Joseph M. Hosteny, *The Sky Is Falling: Or, Over-Reaction to the Anecdote*, INTELL. PROP. TODAY, May 2000, at 8; Victor G. Savikas & Marsha E. Durko, *Bills to Make PTO Government Corporation Stall*, NAT’L L.J., May, 18, 1998, at C38.

190. 35 U.S.C.A. § 1.

191. See *id.*

192. See Hosteny, *supra* note 189.

193. See Greene, *supra* note 2.

194. See Hosteny, *supra* note 189.

195. *Id.*

a. Skilled Personnel Turnover

As previously noted,¹⁹⁶ the PTO has great difficulty competing with the private sector for skilled patent personnel.¹⁹⁷ This trend, coupled with a five-year federal government hiring freeze,¹⁹⁸ has resulted in a shortage of senior examiners at the PTO.¹⁹⁹ Unless the PTO offers more incentives, senior examiners will continue to leave.²⁰⁰ The current compensation system is comprised of a base salary and a bonus based on the number of patents reviewed by an examiner.²⁰¹ Bonus points are given to an examiner based on "dispositions," which are "final allowances or rejections of patents."²⁰²

In a system in which the only way to earn bonus points with confidence is to allow a patent application,²⁰³ an examiner who carefully scrutinizes the merits of a patent may receive the same or less compensation than a junior examiner who grants a high volume of non-meritorious patents. The PTO should consider creating a significantly higher salary structure for senior examiners.²⁰⁴ Bonuses for patent examiners should be based on seniority, as this is the standard industry practice.²⁰⁵ This, in turn, would justify an increase in base salary for more experienced examiners, rewarding them for identifying a higher volume of applications over junior personnel.²⁰⁶

b. Inadequate Training of Junior Personnel

The high turnover rate in senior patent examiners further contributes to the inadequate training of a "revolving cast of inexperienced examiners."²⁰⁷ Junior examiners complain that the only training they receive is from the official programs on the books.²⁰⁸ This is because

196. See *supra* notes 175–79 and accompanying text.

197. Linck *supra* note 165, at 308.

198. Brenda Sandburg, *Speed over Substance?*, INTELL. PROP. MAG., Mar. 1999, available at LEXIS, News Group File, All (stating the hiring freeze was implemented in 1992 and ended in 1998).

199. Merges, *supra* note 167, at 606.

200. *Id.*

201. *Id.* at 607.

202. *Id.*

203. *Id.*

204. *Id.*, at 606–07.

205. Merges, *supra* note 167, at 607.

206. *Id.*

207. *Id.* at 606.

208. *Id.* at 607.

senior personnel have little incentive to train junior examiners.²⁰⁹ The PTO compensation system heavily directs experienced examiners' time and effort toward their own examining activities because bonus points are only accumulated for final allowances or rejections of patents.²¹⁰ Due to the nature of prosecution procedure, "final" rejections do not always result in the end of the examination and amendments are often permitted.²¹¹ As a result, "the only way to earn bonus points with confidence is to allow a patent [application]."²¹²

c. Alternative Compensation Systems

There are a variety of different ways in which the PTO could remedy the negative effects of its current compensation system. One solution is to "routinely assign senior examiners to a training role, with a salary set at their average annual base salary-plus-bonus level for the past two years."²¹³ An alternative is to institute a bonus based on a low margin of error system examining groups and individual examiners.²¹⁴ This system would assess the percentage of patents issued by the group or individual examiner later invalidated upon reexamination or in litigation.²¹⁵ Those examiners whose work falls within a low level of margin of error will earn bonuses accordingly.

d. The PTO Internal Implementation of Reform

It is possible for the PTO to alleviate the examination pressures created by the onslaught of recent business model patent applications. However, this can only be done if the PTO is allowed to autonomously allocate its funds from these increased filings to much needed personnel training and salaries. Without the administrative reform provision contained solely in the House of Representatives' version of the Act,²¹⁶ it is likely that the PTO examiners will continue to grant e-commerce business model patents that fail the statutory requirements of novelty and nonobviousness.

209. *Id.*

210. *Id.* at 607.

211. *Merges, supra* note 167, at 607.

212. *Id.*

213. *Id.* at 608.

214. *Id.* at 609.

215. *Id.*

216. H.R. 1907, 106th Cong. § 612 (1999).

2. Domestic Publication of Patent Applications Published Abroad

Contrary to practice in most foreign nations including Europe and Japan, patent applications in the United States are not published until the patent is issued.²¹⁷ The PTO keeps the information secret until the patent is granted.²¹⁸ This practice is intended to protect the inventor while the office reviews the application.²¹⁹ The application process generally takes eighteen to twenty months or longer.²²⁰

However, the patent could be disclosed as soon as eighteen months after filing regardless of whether the patent is granted.²²¹ The Act²²² requires worldwide publication after eighteen months if the application is filed either with the PTO or both the PTO and one of the foreign patent offices.²²³

Opponents insist publication would render their inventions vulnerable to theft prior to receiving patent protection.²²⁴ Proponents argue the Act will prevent duplication of existing innovation, thereby allowing them to allocate limited research and development resources more efficiently.²²⁵ Earlier publication would prevent the scurrilous practice of "submarining."²²⁶ This process enables an inventor to file a patent application, and later amend it to make the invention closer to some technology currently existing in the marketplace.²²⁷

The submariner is not an innovator, but has instead "mastered the patent prosecution game to unprecedented levels of abuse."²²⁸ The goal of a submariner is the ability to keep patent applications pending for as long as possible by repeatedly filing related applications.²²⁹ Therefore, "submariners" concentrate on monitoring trade journals, trade shows and

217. Zwahlen, *supra* note 188.

218. *Id.*

222. *Id.*

220. *Id.*

221. *Id.*

222. Publication of Foreign Filed Applications Act, 35 U.S.C.A. § 122 (West Supp. 2000).

223. Zwahlen, *supra* note 188.

224. *Id.*

225. *Id.*

226. Zeller, *supra* note 184.

227. *Id.*

228. L. Peter Farkas, *Submarine Patents: Legal Activists' Weapon for Sinking Property Rights*, LEGAL BACKGROUNDER, Oct. 29, 1999, Vol. 14, No. 40, available at LEXIS, News Group File, All.

229. *Id.*

product announcements as opposed to inventing new products or processes.²³⁰

The submariner begins by filing a large, vague patent with numerous “potential” claims.²³¹ Then the submariner stalls by using the patent examination process itself, the frequent examiner turnover rate, and the new examiners’ ineptitude, to draw out the process until the submariner sues the unsuspecting true inventor for patent infringement.²³²

Although vehemently denied, those in favor of the legislation allege many of the “small independent inventors’ groups” opposing patent reform are actually submariners funded by the Jerome Lemelson Foundation.²³³ Named for the inventor who essentially created the process of submarining, Lemelson made millions of dollars suing companies for patent infringement.²³⁴

Unfortunately, submarining does happen, and it is a violation of Article I, section 8’s constitutional objective of promoting innovation.²³⁵ The Act,²³⁶ which requires the PTO to disclose all United States applications that have filed foreign counterparts,²³⁷ could potentially offer the best remedy for addressing submarining.²³⁸ The publication requirement would give competitors and interested parties advance warning and the opportunity to oppose the issuance of patents, including those that might benefit from remaining secret.²³⁹

3. The “First-to-Invent Defense” to Business Method Patent Infringement Claims

Under the previous law, if one party first developed an invention but kept it a secret, and a second party independently developed the same invention and obtained a patent for it, the second party could sue the first party for patent infringement.²⁴⁰ The Act²⁴¹ gives the first user a defense to

230. *Id.*

231. *Id.*

232. See Farkas, *supra* note 228.

233. Zeller, *supra* note 184, at 2641.

234. *Id.*

235. See Editorials, N.J. L.J., May 31, 1999, at 26.

236. Publication of Foreign Filed Applications Act, 35 U.S.C.A. § 122 (West Supp. 2000).

237. Michael K. Kirk, *U.S. Industry Needs Patent Protection Now*, LEGAL TIMES, Oct. 6, 1997, at 60.

241. Editorials, *supra* note 235.

239. See Farkas, *supra* note 228.

240. See Scott M. Alter, “State Street” Sets Stage for New Patents, Battles, NAT’L L.J., Oct. 25, 1999, at C8.

241. First Inventor Defense Act, 35 U.S.C.A. § 273 (West Supp. 2000).

patent infringement where the patented subject matter relates to a method of doing or conducting business.²⁴² *State Street* influenced the inclusion of the first-inventor defense in the legislation because it was specifically mentioned by the rationale in the defense's inclusion.²⁴³

There are two purposes for the first inventor defense. First, it would allow companies to effectively protect an invention's technical specifications under trade secret laws.²⁴⁴ Second, it would protect companies that developed methods at a time when patents were not legally available to them.²⁴⁵ As most inventions can be reverse-engineered and copied once they are placed on the market or disclosed publicly, vulnerable small entities could benefit from the first inventor defense because it would buttress the limited protection afforded to an invention's technical specifications under trade secret laws.²⁴⁶

Prior to *State Street*, methods of doing business were thought per se unpatentable, and trade secret law was the only way to protect such methods.²⁴⁷ Under current law, many businesses that developed and used such methods without obtaining a patent are precluded from doing so until the invention or method is used in commerce for at least a year.²⁴⁸ In such cases, the first-to-invent defense would circumvent an infringement claim.²⁴⁹

While this portion of the legislation does not preclude the second party from suing the first for patent infringement, the first party's ability to use the first-to-invent defense minimizes the second party's chances of prevailing in litigation, making it less attractive to sue. This reduction in litigation not only promotes the important public policy of conserving scarce judicial resources, but also protects good-faith inventors from unjust liability and spurs new business model innovation.

242. Alter, *supra* note 240.

243. *Id.*

244. Brenda Sandburg, *Patent Reform Redux*, INTELL. PROP. MAG., July 1999, available at LEXIS, News Group File, All.

245. *Id.*

246. See Sandburg, *Patent Reform*, *supra* note 244.

247. See Alter, *supra* note 240.

248. *Id.*

249. Greene, *supra* note 2.

4. Third-Party Re-examination Rights

After a patent is issued, the public is free to ask the PTO to re-examine the patent.²⁵⁰ The re-examination takes into consideration certain types of prior art not considered during prosecution.²⁵¹ Prior art is defined "as any document or product [] publicly available before the patent application is filed and that anticipates technology in the application."²⁵² This is relevant to whether an innovation meets the statutory requirements of novelty and non-obviousness and can make or break a patent's value or validity.²⁵³ Thus, if the request raises a substantial new question regarding patentability, the PTO will grant a re-examination to determine whether the patent claims are still valid.²⁵⁴ By statute, the basis for re-examination is limited to certain types of prior art, particularly patents and printed publications.²⁵⁵

This portion of the Act²⁵⁶ would provide third parties with an increased opportunity to participate in PTO patent re-examination proceedings.²⁵⁷ Rarely will outside parties dispute a patent examiner's finding that an invention is patentable.²⁵⁸ Participation by third parties in the procedure has been restricted.²⁵⁹ Expanding the rights of third parties in the re-examination process will reduce patent litigation, making it easier to address problems before they result in costly litigation.²⁶⁰

The Act²⁶¹ also limits potential challenges to the validity of a patent by prohibiting challengers from making the same arguments in court they raised, or could have raised, in a re-examination before the PTO appeals board.²⁶² This provision will thereby dramatically reduce the recent e-commerce business model patent infringement litigation spawned by the *State Street* decision.²⁶³

250. *Merges, supra* note 167, at 610 n.86 (citing Robert P. Merges, PATENT LAW AND POLICY: CASES AND MATERIALS 1123-25 (1997)).

251. *Id.*

252. *Roberts, supra* note 181.

253. *Id.*

254. *Merges, supra* note 167, at 610.

255. *Id.*

256. Optional Inter Partes Reexamination Procedure Act, 35 U.S.C.A. § 311 (West Supp. 2000).

257. *Zwahlen, supra* note 217.

258. *Id.*

259. *Id.*

260. *Id.*

261. 35 U.S.C.A. § 311.

262. *See Zwahlen, supra* note 188.

263. *See Ostrow, supra* note 15.

B. PTO Takes a Step in the Right Direction

On March, 29, 2000, the PTO announced an "Action Plan" to address the onslaught of recently issued electronic-commerce business method patents.²⁶⁴ The plan, however, is perceived by some as "too little too late."²⁶⁵ The PTO Action Plan consists of two parts: "Industry Outreach" and "Quality."²⁶⁶ Industry Outreach establishes a "customer partnership" and "roundtable forum" between the software, Internet and e-commerce industries to discuss mutual concerns and propose solutions to common problems.²⁶⁷ It includes a commitment to collaboration between the PTO and the industries by expanding the PTO's prior art databases and access to such information.²⁶⁸

The Quality portion of the plan suggests ways for the PTO to enhance technical training for examiners. The plan includes a pledge by the PTO to "revise the Examination Guidelines for Computer-Related Inventions [governing PTO examiners' procedures] in light of *State Street*"²⁶⁹ The plan also promises to include "a more [fully developed] prior art record . . . [and institute] a new second-level review for all allowed [business methods] applications."²⁷⁰

Despite efforts by the PTO to better scrutinize patent applications, many Internet patents have been issued and will continue to be issued before any of these measures are implemented.²⁷¹ As a result, despite the PTO's attempt to remedy the deficiencies in patent review, these broad goals will likely have no short-term effect on the numerous patent infringement disputes between e-commerce rivals currently inundating court dockets.²⁷²

V. CONCLUSION

While the PTO's "Action Plan" may have no immediate effect on ameliorating patent infringement litigation, just prior to publication of this Comment, Congress introduced the Business Method Patent Improvement

264. Robert Scheinfeld & Parker H. Bagley, *What Internet Start-Ups Should Know about "Patents,"* N.Y. L.J., May 24, 2000.

265. *Id.*

266. *Id.*

267. *Id.*

268. *Id.*

269. *Id.*

270. Scheinfeld, *supra* note 264.

271. *Id.*

272. See Sapp, *Patent Office, supra* note 135.

Act of 2000 to examine the granting of patents on Internet business methods.²⁷³ The bill, which creates a presumption that “computer-assisted implementation of an analog-world business method is obvious and thus is not patentable,”²⁷⁴ was designed to spark a dialogue potentially including whether Internet business method patents “encourage innovation” or “foreclos[e] entire markets to competition.”²⁷⁵ The desired dialogue began almost immediately upon introduction of the bill,²⁷⁶ and may lead to consideration of broader changes in the patent system.²⁷⁷

Passing the American Inventors Protection Act of 1999 is only the first step in reforming the Patent and Trademark Office’s current patent examination procedure to accommodate the review of e-commerce business model patent applications. Congress has recognized the implications of the *State Street* decision are still unknown and merit further study.²⁷⁸ It is also conceivable that numerous court cases involving business method patent issues may cause a split in authority within the Federal Circuit, prompting U.S. Supreme Court review.²⁷⁹ In the interim, the *State Street* court’s decision is presumed sound. Future efforts must focus on how the PTO, an institution that grants effective, novel and non-obvious Internet business model patents, can promote innovation, while at the same time limiting litigation.

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276. Liza Porteus, *Intellectual Property: Boucher, Berman Aim To Revamp Patent Process*, NAT’L J. TECH. DAILY, Oct. 3, 2000, available at LEXIS, News Group File, All.

277. *Id.*

278. *Id.*

279. Victoria Slind-Flor, *New Patent Bill Under Fire*, NAT’L L.J., Oct. 23, 2000, at B7.

280. *Id.*

278. Brenda Sandburg, *Senate Mulls Patent Net Name Reform*, RECORDER, Nov. 18, 1999, at 1.

279. Telephone Interview with Gregory A. Piccionelli, Esq., Partner, Brull, Piccionelli, Braun, & Vradenburg (June 22, 2000).

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