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## **Internet Business Method Patents: The Federal Circuit Vacates the Preliminary Injunction in Amazon.com v. Barnesandnoble.com, 19 J. Marshall J. Computer & Info. L. 523 (2001)**

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# INTERNET BUSINESS METHOD PATENTS - THE FEDERAL CIRCUIT VACATES THE PRELIMINARY INJUNCTION IN *AMAZON.COM V. BARNESANDNOBLE.COM*

by SUE ANN MOTA†

## INTRODUCTION

Since the 1998 decision by the Court of Appeals for the Federal Circuit in *State Street Bank & Trust Co. v. Signature Financial Group, Inc.*,<sup>1</sup> which reversed summary judgment that patent claims for business method for financial services software was not statutory subject matter, the Patent and Trademark Office (“PTO”) has handled thousands of Internet business method patent applications.<sup>2</sup> In 1999, a patent was granted by the PTO to a group of inventors for a method and system to place a *purchase order* via a communication network.<sup>3</sup> Twenty-two days later, Amazon.com, the assignee of the patent, filed suit against Barnesandnoble.com for patent infringement. The district court preliminarily enjoined Barnesandnoble.com in 1999,<sup>4</sup> but on February 14, 2001, the Court of Appeals for the Federal Circuit vacated the preliminary in-

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1. 149 F.3d 1368 (Fed. Cir. 1998), *cert. denied*, 525 U.S. 1093 (1999); *see infra* nn. 16-22 and accompanying text.

2. William C. Smith, *Patent This!* ABA Network ¶ 25 <<http://www.abanet.org/journal/mar01/fstate.html>> (Mar. 2001). Business method patents jumped from 39 in 1997 to 301 in 1999. The PTO says it received 2,600 patent applications for computer related business methods in 1999. *Id.* at ¶ 25. *See generally* Rodney Ho, *Patents Hit Record in '98 as Tech Firms Rushed to Protect Intellectual Property* Wall St. J. A2, col. 2 (Jan. 15, 1999) (available at 1999 WL-WSJ 5436946); *see generally* Jeffrey Kuester, *As Software Patents Take Over, Expertise is Key*, 20 Nat'l. L. J. 34, B13, col. 1 (Apr. 20, 1998) (available in WL, at 4/20/98 Natl. L.J. B13).

3. U.S. Pat. No. 5,960,411 (issued Sept. 28, 1999); *see infra* nn. 28-29 and accompanying text.

4. *Amazon.com, Inc. v. Barnesandnoble.com, Inc.*, 73 F. Supp. 2d 1228, 1249 (W.D. Wash. 1999); *see infra* nn. 30-45 and accompanying text.

junction and remanded the case for further proceedings.<sup>5</sup>

This article first reviews the *State Street Bank* case, then discusses business method patents and analyzes the *Amazon.com* case thus far, and concludes with recommendations concerning this important and developing area of law. This article also will examine the *Business Method Patent Improvement Act of 2000*<sup>6</sup> which is currently being evaluated by Congress.

### BUSINESS METHOD PATENTS AND *STATE STREET BANK*

The *Patent Act* provides that four categories of subject matter are entitled to patent protection:<sup>7</sup> processes, machines, manufactures, and compositions of matter, if the other requirements of patentability—novelty, usefulness, and non-obviousness—are also present.<sup>8</sup> In 1982, the U.S. Supreme Court, in *Diamond v. Diehr*,<sup>9</sup> held that a process using a well-

5. *Amazon.com, Inc. v. Barnesandnoble.com, Inc.* 239 F.3d 1343, 1347 (Fed. Cir. 2001); see *infra* nn. 46 - 55 and accompanying text.

6. H.R. 1332, 107th Cong. §§ 321-324 (2001) (available in WL, at 2001 H.R. 1332).

7. 35 U.S.C. §101 (2000). The Act 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.

*Id.*

8. 35 U.S.C §102 (2000). The Act states, in pertinent part, that:

A person shall be entitled to a patent unless—

- (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for patent, or
- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States, or
- (c) he has abandoned the invention, or

(g) . . . (2) before such person's invention thereof, the invention was made in this country by another who had not abandoned, suppressed, or concealed it. In determining priority of invention under this subsection, there shall be considered not only the respective dates of conception and reduction to practice of the invention, but also the reasonable diligence of one who was first to conceive and last to reduce to practice, from a time prior to conception by the other.

*Id.*

35 U.S.C § 103(a) (2000). The Act provides in 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.

*Id.*

9. 450 U.S. 175 (1981). Initially, the Supreme Court reviewed two computer-related patent cases, and in both, determined that the inventions did not involve patentable subject matter. *Id.* at 185. The first, *Gottschalk v. Benson*, involved the issue of whether a computerized method for converting numerals expressed as binary code decimals into pure

known mathematical formula for curing synthetic rubber that employed a computer was patentable.<sup>10</sup>

In 1994, the Federal Circuit in the case *In re Alappat* held that Alappat's claim involving computer software becomes statutory subject matter when computer software becomes physical apparatus when run on a general-purpose computer.<sup>11</sup> If there is some useful, concrete, and tangi-

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numerals was a patentable process. 409 U.S. 63 (1972). The Court held that the method was not patentable. *Id.* at 71-72. If it was patentable subject matter, according to the Court, "[the] practical effect would be a patent on the algorithm itself." *Id.* at 72. The Court defined an algorithm as "[a] procedure for solving a given type of mathematical problem." *Id.* at 65. See also *Parker v. Flook*, 437 U.S. 584 (1978). This case involved a process of using a computer program to continuously monitor a set of variables, compare changes in the variables, and signal abnormalities in the catalytic conversion of hydrocarbons. *Id.* at 585-86. The respondent, Flook, stressed the chemical changes instead of focusing on the operation of the computer program, but the Court held the claim unpatentable, as an application well-known in the art could not turn a rule of nature into patentable subject matter. *Id.* at 589. The Court held that Congress could address the difficult questions of policy concerning the kinds of programs that may be appropriate for patent protection. *Id.* at 595. This led to the general view that patents were not the appropriate vehicle to protect this form of technological innovation. *Id.* This meant that computer programmers typically relied on other forms of intellectual property protection, notably trade secrets and copyright, to protect their innovations.

In 1981, the Supreme Court in *Diamond v. Diehr* clarified the sweeping generalizations made in *Flook* and *Benson* about the non-patentability of computer processes and held that these generalizations were inappropriate and that computer-related inventions could be subject to patent protection. 450 U.S. at 187. *Diehr* coupled a standard device for measuring temperatures in a mold with a computer programmed with a well-known equation to continuously calculate the curing time and signal when the process was completed. *Id.* at 177. The Court stated that the equation was not patentable in isolation, but when so incorporated, the process is not barred by the statutory threshold of § 101. *Id.* at 185-87. See generally H.R. 1332, 107th Cong. at §§ 231-234. *Diamond v. Diehr* is a landmark patent decision representing a pivotal point for the protection within the U.S. of processes involving computer-related inventions. See generally Strubos, *Stalking the Elusive Patentable Software: Are There Still Diehr or Was It Just a Flook?* 6 Harv. J. L. & Tech. 363 (1993).

10. 450 U.S. at 187.

11. 33 F.3d 1526, 1545 (Fed. Cir. 1994). See generally Sue Ann Mota, *Current Legal Issues Involving Computer-Related Patents*, 22 W. St. U.L. Rev. 295 (1995). After *Alappat*, the PTO issued internal guidelines, effective in 1996, for the examination of computer-related inventions. *Examination Guidelines for Computer-Related Inventions*, 61 Fed. Reg. 7478 (Feb. 28, 1996). The proposed guidelines were published in the Federal Register and the PTO received forty-six comments. *Id.* at 7479. The guidelines were based on the PTO's current understanding of the law and "do not constitute substantive rulemaking and hence do not have the force and effect of law." *Id.* Under the guidelines, the first step in the examination process for computer-related inventions is to determine "what, precisely, the applicant has invented and is seeking to patent, and how the claims relate to and define the invention." *Id.* After these guidelines, office personnel "will review the complete specification, including the description of the invention, any specific embodiments that have been disclosed, the claims and any specific utilities that have been asserted for the invention." *Id.* "Consequently, office personnel will no longer begin examination by determining

ble result from a practical application, the subject matter may be

if a claim recites a 'mathematical algorithm.'" *Id.* "Office personnel are expected to conduct a thorough search of the prior art. General[ly], a thorough search involves reviewing both U.S. and foreign patents and nonpatent literature." *Id.* at 7480-81. After this search, office personnel then determine whether the claimed invention complies with 35 U.S.C. §101. *Id.* at 7481. *See generally* H.R. 1332, 107th Cong. at §§ 321-324. The claimed invention should be classified as to its proper statutory subject matter. 61 Fed. Reg. at 7482-83. Statutory subject matter includes statutory product (machine, manufacture, or composition of matter) claims and statutory process claims. *Id.* at 7483-84. "To be statutory, a claimed computer-related process must either: (1) result in a physical transformation outside the computer for which a practical application in the technological arts is either disclosed in the specification or would have been known to a skilled artisan . . . or (2) be limited by the language in the claim to be practical application within the technological arts." *Id.* at 7483. The third step is to evaluate the application for compliance with 35 U.S.C. § 112. *Id.* at 7486. The guidelines require that

[o]ffice personnel should begin their evaluation of an application's compliance with § 112 by considering the requirements of § 112, second paragraph. The second paragraph contains two separate and distinct requirements: (1) That the claim(s) set forth the subject matter applicants regard as the invention, and (2) that the claim(s) particularly point out and distinctly claim the invention. An application will be deficient under § 112, second paragraph when (1) evidence including admissions, other than in the application as filed, shows applicant has stated that he or she regards the invention to be different from what is claimed, or when (2) the scope of the claims is unclear.

After evaluation of the application for compliance with § 112, second paragraph, office personnel should then evaluate the application for compliance with the requirements of § 112, first paragraph. The first paragraph contains three separate and distinct requirements: (1) adequate written description, (2) enablement, and (3) best mode. An application will be deficient under § 112, first paragraph when the written description is not adequate to identify what the applicant has invented, or when the disclosure does not enable one skilled in the art to make and use the invention as claimed without undue experimentation. Deficiencies related to disclosure of the best mode for carrying out the claimed invention are not usually encountered during examination of an application because evidence to support such a deficiency is seldom in the record.

*Id.* at 7486. The next step involves determining whether the claimed invention complies with 35 U.S.C. §§ 102 and 103. *Id.* at 7487. *See generally* 35 U.S.C. §101. First, the claimed subject matter is compared with the prior art. 61 Fed. Reg. at 7487. If there are no differences, the claimed invention is not novel. *Id.* Any distinction should be "assessed and resolved in light of the knowledge possessed by a person of ordinary skill in the art," and a determination of "whether the invention would have been obvious at the time of the invention was made." *Id.*

Factors and considerations dictated by law governing section 103 apply without modification to computer-related inventions. If the difference between the prior art and the claimed invention is limited to descriptive material stored on or employed by a machine, it must be determined whether this descriptive material is functional descriptive material or non-functional descriptive material.

*Id.* According to the guidelines,

a rejection of the claim as a whole under section 103 is inappropriate unless the functional descriptive material would have been suggested by the prior art. Non-functional descriptive material cannot render non-obvious an invention that would have otherwise been obvious.

*Id.* The last step is for PTO personnel to communicate the findings and conclusions and their reasoning. *Id.*

patentable.<sup>12</sup>

In 1996, a district court granted State Street Bank partial summary judgment that Signature Financial Group's patent, issued in 1993, entitled "*Data Processing System for Hub and Spoke Financial Services Configuration*" was invalid,<sup>13</sup> as the patent matter was not drawn to statutory subject matter under 35 U.S.C. § 101.<sup>14</sup> Since the invention did nothing more than presents and solve a mathematical algorithm, the patent was invalid, according to the district court.<sup>15</sup> If the invention were patentable, any financial institution wanting to implement a system modeled on Signature Financial's would have to seek Signature's permission, as the claim is sufficiently broad to foreclose virtually any computer-implemented accounting method necessary to manage this financial structure.<sup>16</sup>

On appeal, the Court of Appeals for the Federal Circuit reversed and remanded,<sup>17</sup> concluding that the patent claims for a data processing system used for implementing an investment structure for mutual funds was statutory subject matter.<sup>18</sup> The Federal Circuit stated that the question of whether a claim encompasses statutory subject matter should not focus on which of the four categories of subject matter, machine, manufacture, or composition of matter, a claim is directed to,<sup>19</sup>

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12. *Alappat*, 35 F.3d at 1544.

13. *State St. Bank & Trust Co. v. Signature Finl. Group, Inc.*, 927 F. Supp. 502 (D. Mass. 1996).

14. See generally H.R. 1332, 107th Cong. at §§ 321-324.

15. *State St. Bank*, 927 F. Supp. at 515.

16. *Id.* at 516.

17. See generally *State St. Bank*, 149 F.3d 1368 (Fed. Cir. 1998), cert. denied, 525 U.S. 1093 (1999); see generally Chad King, *Abort, Retry, Fail: Protection for Software-related Inventions in the Wake of State Street Bank & Trust Co. v. Signature Financial Group, Inc.*, 85 Cornell L. Rev. 1118 (2000); see generally Ann Marie Rizzo, Note, *The Aftermath of State Street Bank & Trust v. Signature Financial Group: Effects of United States Electronic Commerce Business Method Patentability on International Legal and Economicsystems*, 50 Depaul L. Rev. 313 (2000); see generally William Krause, Comment, *Sweeping the E-Commerce Patent Minefield: The Need for a Workable Business Method Exception*, 24 Seattle Univ. L. Rev. 79 (2000); see generally Leo J. Raskind, *The State Street Bank Decision: The Bad Business of Unlimited Patent Protection for Methods of Doing Business*, 10 Fordham I. P. Media & Ent. L. J. 61 (1999); see generally Sari Gabay, *The Patentability of Electronic Commerce Business Systems in the Aftermath of State Street Bank & Trust Co., v. Signature Financial Group, Inc.*, 8 J. L. & Pol. 179 (1999).

18. This system allows an administrator to monitor and record the financial information flow and "make all calculations necessary for maintaining a partner fund financial services configuration." Jeffery L. Brandt, *Patenting the New Business Model: Building Fences in Cyberspace, The World After State Street - In Theory and in Practice*, 636 Patents Prac. Law Inst. 55, 60 (2001). "[A] partner fund financial services configuration," essentially allows "several mutual funds or 'Spokes' to pool [their] investment funds into a single portfolio, or 'Hub.'" *Id.*

19. See generally H.R. 1332, 107th Cong. at §§ 321-324; see generally 35 U.S.C. § 101.

but rather on the essential characteristics of the subject matter.<sup>20</sup> The appeals court held that the transformation of data by a machine through a series of mathematical calculations constitutes a practical application of a mathematical algorithm, formula, or calculation, because it produces a useful, concrete and tangible result.<sup>21</sup> The appeals court also rejected the judicially-created business method exception to statutory subject matter,<sup>22</sup> employed by the district court in *State Street Bank*. The court stated that neither it, nor its predecessor, the Court of Customs and Patent Appeals, ever involved this exception, which is no longer applicable, to deem an invention unpatentable.<sup>23</sup> Thus, the case was reversed and remanded.

### AMAZON.COM V. BARNESANDNOBLE.COM

In 1997, Jeffrey Bezos, Chairman and CEO of Amazon.com, and other inventors filed with the PTO a patent application for a method and system for placing an order to purchase an item via the Internet.<sup>24</sup> On September 28, 1999, U.S. Patent No. 5, 960, 411, the "411 patent," was issued, which describes a method and system in which a customer can complete a purchase order in e-commerce using only a single action.<sup>25</sup>

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20. *State St. Bank*, 149 F.3d at 1376.

21. *Id.* The appeals court also stated that the district court erred in applying the Freeman-Walter-Abile test, designed by the Court of Customs and Patent Appeals and adopted by the Federal Circuit, as it has been the source of much confusion. See generally *Barnesandnoble.com*, 239 F.3d 1343.

22. *State St. Bank*, 149 F.3d at 1375.

23. *Id.* The appeals court recognized that the case frequently cited to establish the business method exception, *Hotel Security Checking Co.*, did not rely on the exception to invalidate the patent. *Hotel Sec. Checking Co., v. Lorraine Co.*, 160 F. 467 (2d Cir. 1908). In 1996, PTO Examination Guidelines for Computer Related Inventions stated: "Office personnel have had difficulty in properly treating claims directed to methods of doing business." 61 Fed. Reg. at 7480. "Claims should not be categorized as methods of doing business." *Id.* "Instead such claims should be treated like any other process claims." *Id.*; see generally *Diamond*, 450 U.S. 175.

24. See generally *infra* n. 31 and accompanying text.

25. U.S. Patent No. 5,960,411. The Abstract further states:

The order is placed by a purchaser at a client system and received by a server system. The server system receives purchaser information including identification of the purchaser, payment information, and shipment information from the client system. The server system then assigns a client identifier to the client system and associates the assigned client identifier with the received purchaser information. The server system sends to the client system the assigned client identifier and an HTML document identifying the item and including an order button. The client system receives and stores the assigned client identifier and receives and displays the HTML document. In response to the selection of the order button, the client system sends to the server system a request to purchase the identified item. The server system receives the request and combines the purchaser information associated with the client identifier of the client system to generate an order to purchase the item in accordance with the billing and shipment information whereby the purchaser effects the ordering of the product by selection of the order button.

This simplifies the shopping cart model in e-commerce, in which a customer could be required to perform several actions before placing an order.<sup>26</sup> The '411 patent has 26 claims, including four independent claims.<sup>27</sup>

On October 21, 1999, Amazon.com filed suit against Barnesandnoble.com, claiming that Barnesandnoble.com's Express Lane ordering feature infringed nineteen claims of Amazon.com's '411 patent. Amazon.com requested a preliminary injunction, which was granted on December 1, 1999.<sup>28</sup>

To obtain a preliminary injunction, a party must establish the following: a reasonable likelihood of success on the merits; irreparable harm; a balance of hardship tipping in its favor; and the impact on the public interest.<sup>29</sup> Concerning the likelihood of success on the merits, there is a statutory presumption of validity that applies to all patents.<sup>30</sup> This presumption may be overcome if the defendant raises a substantial question concerning the validity of the patent. The party seeking the injunction then must show that the defense lacks substantial merit.<sup>31</sup> In *Amazon.com*, Barnesandnoble.com raised a number of defenses, including anticipation, obviousness, and unenforceability of the '411 patent.<sup>32</sup> The defense of anticipation applies when all of the same elements are found in exactly the same situation and united in the same way in a single prior art reference.<sup>33</sup> Defendant Barnesandnoble.com argued that several prior art references anticipated Amazon.com's claims of the '411 patent, but the district court found key differences between each of the prior art references and the method and system described by Amazon.com in the claims of the '411 patent.<sup>34</sup>

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*Id.*

26. *Id.*

27. *Id.*

28. *Barnesandnoble.com*, 73 F. Supp. 2d at 1231. The preliminary injunction was effective December 4, 1999. *Id.* at 1229. Barnesandnoble.com could continue to offer the Express Lane feature if it were modified so that it would not infringe the '411 patent. *Id.* at 1232.

29. 35 U.S.C. § 283 (2000); *Hybritech, Inc. v. Abbott Labs*, 849 F. 2d 1446, 1451 (Fed. Cir. 1998).

30. 35 U.S.C. § 282.

31. *Amazon.com*, 73 F. Supp. 2d at 1239.

32. *Id.* at 1231.

33. *Id.* at 1239.

34. *Id.* at 1242. Defendant Barnesandnoble.com argued that an online ordering system developed in 1996, Web Basket, which allows users to put items in a virtual shopping basket and check out, anticipated Amazon.com's system. *Id.* The district court disagreed, as Web Basket's multiple steps were inconsistent with the '411 patent's single-step requirements. *Id.* at 1233. Barnesandnoble.com also argued that a four-line reference from a book, "Creating the Virtual Store," copyrighted in 1996, also anticipated the '411 patent, but the district court stated that this reference did not anticipate any of the '411 claims for



Concerning Barnesandnoble.com's defense of obviousness,<sup>35</sup> the district court stated that Amazon.com provided direct evidence of non-obviousness,<sup>36</sup> and found that Barnesandnoble.com was unlikely to succeed by showing that the claims of the '411 patent were obvious.<sup>37</sup> The court found that Barnesandnoble.com's arguments about unenforceability lacked substantial merit.<sup>38</sup> Thus, the district court found that Amazon.com established the first requirement for the grant of a preliminary injunction on a reasonable likelihood of success on the merits at trial.<sup>39</sup>

The district court also found that Amazon.com made a strong showing that the '411 patent was valid and that the Express Lane feature used by Barnesandnoble.com infringed, so there was a presumption of irreparable harm.<sup>40</sup> Balancing the hardships also weighed in Amazon.com's favor according to the district court, and was related to Amazon.com's showing of likelihood of success on the merits as well as distinguishing it from the competitor.<sup>41</sup> Granting the preliminary injunction served the public interest, according to the court, as the public

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the same reason as Web Basket, and did not teach the invention to one of ordinary skill in the art. *Id.* at 1240. Another reference, a Web site entitled "Oliver's Market The Ordering System" also was not a single-step ordering system and so did not anticipate Amazon.com's shopping cart model. *Id.* Barnesandnoble.com raised U.S. Patent No. 5, 708, 780 for an "Internet Server Access Control and Monitoring System," filed in 1995, but the district court stated that this system controlled access to Web pages and was not an ordering system. *Id.* Finally, a CompuServe service called Trend Service, whereby subscribers could obtain stock charts for an additional cost, did not anticipate the '411 claims, according to the district court, as there was no evidence that the Trend Service included a shopping cart component. *Id.* at 1235.

35. *Id.* at 1241. The issue of obviousness is based on several factual inquires, including the following: the scope and content of the prior art; the differences between the prior art and the claims; the level of ordinary skill in the pertinent art; and applicable secondary considerations. *Id.*

36. *Id.* at 1236. Jeffrey Bezos, Amazon.com's CEO, founder, and co-inventor, testified that because "many customers were tentative and somewhat fearful of online purchasing, conventional wisdom was that they had to be slowly and incrementally led to the point of purchase. In addition, consumers were not acclimated to rely without confirmation on stored personal information for correct shipping and billing." *Id.*

37. *Amazon.com*, 73 F. Supp. 2d at 1242.

38. *Id.* Barnesandnoble.com argued that the '411 patent was invalid due to inequitable conduct by a co-inventor by failing to cite an Internet Task Force draft. *Id.* at 1235. The court stated that it assumed Barnesandnoble.com abandoned this defense because they did not continue to argue it. *Id.*

39. *Id.* at 1246.

40. *Id.* The holiday shopping season in 1999 was starting, and the harm the plaintiff would suffer could not be measured easily. *Id.* at 1238. The court also found that the defenses of validity, noninfringement, and enforceability lacked merit. *Id.* at 1246. Since the action was filed twenty-two days after the patent was issued, there was no undue delay. *Id.*

41. *Id.* at 1248.

has a strong interest in enforcing intellectual property rights.<sup>42</sup> Thus, the preliminary injunction was granted.<sup>43</sup>

On February 14, 2001, however, the Court of Appeals for the Federal Circuit vacated the preliminary injunction and remanded the case,<sup>44</sup> ruling that all the necessary prerequisites for granting a preliminary injunction were presently lacking.<sup>45</sup> Concerning the reasonable likelihood of success on the merits, Amazon.com must show that it will likely show at trial that Barnesandnoble.com infringes, and that Amazon.com's infringement claim will likely withstand Barnesandnoble.com's challenges on the patent's validity and enforceability.<sup>46</sup> While the Federal Circuit stated that Amazon.com carried its burden on likelihood of success on infringement,<sup>47</sup> Barnesandnoble.com raised several questions concerning the validity of the '411 patent.<sup>48</sup>

According to the appellate court, the district court "committed clear error by misreading the factual content of the prior art references cited by and by failing to recognize that [Barnesandnoble.com] had raised a substantial question of invalidity of the asserted claims in view of these prior art references."<sup>49</sup> Examining the prior art under the correct legal standards, the appellate court concluded that Barnesandnoble.com mounted a serious challenge to the validity of Amazon.com's patent, at this stage.<sup>50</sup> For example, the district court erred in failing to recognize that CompuServe's Trend Service, which allowed CompuServe's subscribers to purchase stock charts, appeared to use a single-action order-

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42. *Amazon.com*, 73 F. Supp. 2d. at 1249.

43. *Id.*

44. *Barnesandnoble.com*, 239 F.3d at 1343.

45. *Id.* at 1366; see *supra* n. 31 and accompanying text.

46. *Barnesandnoble.com*, 239 F.3d at 1350.

47. *Id.* at 1366. Concerning infringement, the first step is to determine the meaning and scope; then the claim is compared with the accused device to determine whether all the claim limitations are present, either literally or by substantive equivalents. *Id.* at 1351. A claim must be construed before determining infringement and before determining validity. *Markman v. Westview Instruments, Inc.* 52 F.3d 967, 996 n. 7 (Fed. Cir. 1995) (Mayer, J., concurring), *aff'd*, 517 U.S. 370 (1996); see Sue Ann Mota, "Markman v. Westview Instruments, Inc. - The Supreme Court Unanimously Holds That Patent Construction is Within the Exclusive Province of the Court Under the Seventh Amendment," 3 Rich J.L. & Tech. 3 (1997) (available at <<http://www.richmond.edu/~jolt/v3il/mota.html>>). The Federal Circuit agreed with Amazon.com when construing the '411 patent's four independent claims. *Barnesandnoble.com*, 239 F.3d at 1353. The Federal Circuit found that Amazon.com carried its burden of likely literal infringement on at least four independent claims, so the court did not need to consider likely infringement under the doctrine of equivalents. *Id.* at 1358.

48. *Id.*

49. *Id.*

50. *Id.* at 1360. Barnesandnoble.com avoided a preliminary injunction by casting doubt on the validity of the '411 patent, but that issue would be resolved at trial. *Id.*

ing technology, which raised a substantial question of invalidity.<sup>51</sup> Another prior art reference, a book, copyrighted in 1996 and entitled *Creating the Virtual Store*, also raised a substantial question of validity of the claims of the '411 patent.<sup>52</sup> These references, and others,<sup>53</sup> raised a substantial question of validity of the '411 patent, thus causing the Federal Circuit to vacate the preliminary injunction.<sup>54</sup> These issues will be decided at trial, on remand to the district court.

## CONCLUSION

Internet business method patents remain an important issue. While it is important to reward inventors and therefore encourage innovation,<sup>55</sup> it is also important not to hinder progress by granting patents that are not sufficiently dissimilar from the prior art. While *State Street Bank*<sup>56</sup> opened the door to Internet business method patents, the door has been closing somewhat.

In March 2000, the PTO expanded the current search activities to require a second review for business method patents.<sup>57</sup> In the quarter ending March 31, 2000, when the second review was initiated, the PTO granted 56 percent of business method patent applications; in the quarter ending December 31, 2000, the PTO granted just 36 percent of busi-

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51. *Id.* at 1362; *see generally supra* n. 34 (concerning the CompuServe Trend System). "Whether the Trend system either anticipates and/or renders obvious the claimed invention in the view of the knowledge of one of ordinary skill in the relevant art is a matter for trial." *Barnesandnoble.com*, 239 F.3d at 1362. The district court also examined other prior art, including Web Basket, and a shopping cart ordering system. *Id.*; *see supra* n. 34 and accompanying text. The district court concluded that Web Basket involves multiple-step ordering, but so does Barnesandnoble.com's Express Lane. *Barnesandnoble.com*, 239 F.3d at 1363. Thus, according to the appellate court, the district court's failure to recognize this inconsistency was erroneous. *Id.*

52. *Id.* at 1365.

53. The appellate court also examined a prior art reference, Oliver's Market, a multiple-step shopping cart model. *Id.* at 1363; *see generally* 35 U.S.C. § 282. According to the appellate court, the district court failed to recognize that a reasonable jury could find that the shopping cart model could be modified to implement single-click ordering as claimed in the '411 patent. *Barnesandnoble.com*, 239 F.3d at 1365. The district court also failed to recognize that a reasonable jury could also find that items of another patent on "Internet server access control and monitoring systems" could constitute a single-action ordering component within the meaning of the claims of the '411 patent. *Id.* at 1365.

54. *Id.* at 1366.

55. U.S. Const. art 1, § 8, cl. 8 (authorizing Congress 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).

56. *See generally State St. Bank*, 149 F.3d 1368.

57. USPTO, *Business Method Patent Initiative: An Action Plan* § 3 <<http://www.uspto.gov/web/offices/com/sol/actionplan.html>> (accessed Oct. 10, 2001).

ness method patent applications.<sup>58</sup>

In October 2000, a bill, the *Business Method Patent Improvement Act of 2000*,<sup>59</sup> was introduced by Representatives Rick Boucher and Howard Berman. This bill defines "business method" and "business method inventions,"<sup>60</sup> and deems the invention obvious if any of the prior art references discloses a business method which differs from that which is claimed only in that the claim requires a computer technology to implement the practice of the business method invention.<sup>61</sup> This bill, which is aimed at limiting business method patents, had not emerged from a House Subcommittee, at the time of this article.

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58. William M. Bulkeley, *Fewer Patents on Methods Get Clearance*, Wall St. J. at A3 (Mar. 21, 2001). Last year, the PTO granted 72 percent of the patent applications it studied. *Id.*

59. 2000 H.R. 5364, 106th Cong., 2d Sess. (2000) (available at 2000 H.R. 5364). The bill was introduced on October 3, 2000, and referred to the House Committee on the Judiciary. *Id.* On October 11, 2000, the bill was referred to the subcommittee on Courts and Intellectual Property. *Id.* There has been no further action as of the date of this publication.

60. *Id.* § 2. The report states:

Section 100 of title 35, United States Code, is amended by adding at the end the following:

(f) The term 'business method' means -

(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;

(3) any computer-assisted implementation of a method described in paragraph (1) or a technique described in paragraph (2).

(g) The term 'business method invention' means -

(1) any invention which is a business method (including any software or other apparatus); and

(2) any invention which is comprised of any claim that is a business method.

*Id.*

61. *Id.* § 4. This section states:

Section 103 of title 35, United States Code, is amended by adding at the end the following:

(d)(1) If -

(A) subject matter within the scope of a claim address to a business method invention would be obtained by combining or modifying one or more prior art references, and

(B) any of those prior art references 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, the invention shall be presumed obvious to a person or ordinary skill in the art at the time of the invention.

(2) (A) An applicant or patentee may rebut the presumption under paragraph (1) upon a showing by a preponderance of the evidence that the invention is not obvious to persons or ordinary skill in all relevant arts.

(B) Those areas of art which are relevant for purposes of subparagraph (A) include the field of the business method and the field of the computer implementation.

*Id.*

The third in the series of administrative, legislative, and judicial attempts at limiting business method patents was the February 2001 Federal Circuit decision in *Barnesandnoble.com*<sup>62</sup> lifting the preliminary injunction. While a trial on the merits is pending, the Federal Circuit did recognize that Barnesandnoble.com mounted a serious challenge to the validity of Amazon.com's patent, at least at this stage.<sup>63</sup> This trilogy of attempted actions at different levels illustrates efforts to maintain the delicate balance between awarding innovation while ensuring that the innovation is sufficiently different from prior art.<sup>64</sup>

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62. See generally *Barnesandnoble.com*, 239 F.3d 1343.

63. See *supra* nn. 51-54 and accompanying text.

64. See *supra* n. 56 and accompanying text.