United States District Court,
W.D. Washington.

AMAZON.COM, INC,
Plaintiff.
v.
BARNESANDNOBLE.COM, INC., and Barnesandnoble.Com, LLC,
Defendants.

No. C99-1695P

Dec. 1, 1999.

Online retailer brought action against competitor, alleging infringement of patent claiming a "one-click" method and system for placing a purchase order over the Internet. On retailer's motion for preliminary injunction, the District Court, Pechman, J., held that: (1) patent was not anticipated by prior art; (2) competitor was unlikely to rebut presumption of nonobviousness; (3) retailer showed likelihood of success on merits of its infringement claim; (4) retailer was entitled to presumption of irreparable harm and actually suffered irreparable injury; (5) balance of hardships weighed in favor of retailer; and (6) public interest would be served by injunction.

Granted.

5,960,411. Construed

David J. Burman, Jerry A. Riedinger, Brian G. Bodine, Perkins Coie, Seattle, WA, Lynn H. Pasahow, J. David Hadden, McCutchen Doyle Brown & Enersen, Palo Alto, CA, Christopher B. Hockett, McCutchen Doyle Brown & Enersen, San Francisco, CA, for plaintiff.

Warren Joseph Rheaume, Koren Koubourlis, Foster Pepper & Shefelman, Seattle, WA, Steven I. Wallach, Jonathan A. Marshall, Ronald M. Daignault, Steven D. Chin, Thomas A. Canova, Bruce J. Barker, Garland T. Stephens, Kelly D. Talcott, John J. Lauter, Jr., William G. Pecau, Andrews Sanders, Pennie & Edmonds, New York City, for defendants.

ORDER ON PLAINTIFF'S MOTION FOR PRELIMINARY INJUNCTION

PECHMAN**, District Judge.**

I. INTRODUCTION

On October 21, 1999, Plaintiff Amazon.com filed a complaint in this Court alleging patent infringement by Defendants Barnesandnoble.com Inc. and Barnesandnoble.com LLC (hereinafter referred to collectively as "Barnesandnoble.com"). The patent in question is United States Patent No. 5,960,411 (the '411 patent), which was issued on September 28, 1999. The '411 patent describes a Method and System for Placing a Purchase Order Via a Communications Network and includes 26 claims.

The '411 patent, in essence, describes a method and system in which a consumer can complete a purchase

order for an item via the Internet using only a single action (such as a single click of a computer mouse button) once information identifying the item is displayed to the consumer. This method and system is only applicable in situations where a retailer already has in its files various information about the purchaser (such as the purchaser's address and credit card number) and where the purchaser's client system (e.g., a personal computer) has been provided with an identifier that enables the retailer's server system to identify the purchaser.

Amazon.com alleges that Defendants' "Express Lane" ordering feature infringes various claims of the '411 patent. Concurrently with its complaint, Amazon.com filed a motion for a preliminary injunction to enjoin Barnesandnoble.com from infringing the '411 patent. Amazon.com properly noted a hearing on the motion for a preliminary injunction in accordance with the local rules of this Court for November 12, 1999. After the Court denied Defendants' motion to reschedule the hearing to January of 2000, the parties fully briefed their arguments and conducted expedited discovery, including a number of depositions. An evidentiary hearing on Plaintiff's motion began on November 16, 1999, and was conducted over five days.

Amazon.com presented live testimony at the hearing from the following witnesses: Mr. Henry Manbeck, an attorney and former Commissioner of Patents and Trademarks; Mr. Jeffrey Bezos, the chairman and chief executive officer of Amazon.com; and Mr. Geoffrey Mulligan, who was presented as an expert on electronic commerce ("e-commerce"). Barnesandnoble.com presented live testimony at the hearing from the following witnesses: Dr. John Lockwood, an assistant professor of computer science at Washington University in St. Louis and the developer of a program called Web Basket; Mr. Alexander Trevor, a technology consultant and a former employee of CompuServe, Inc.; Mr. Gary King, the chief information officer for Barnesandnoble.com; and Mr. Jonathan Bulkeley, the chief executive officer of Barnesandnoble.com. In addition, the parties jointly submitted deposition designations from the following individuals: Mr. Shel Kaphan, who is listed as an inventor of the '411 patent; Dr. Eric Johnson, a professor at the Columbia School of Business who was presented as an expert on e-commerce issues; Mr. Martin Adelman, a professor at the George Washington University School of Law; and Mr. Donald Carli, the founder and principal of Nima Hunter, Inc., which provides services related to e-commerce.

Defendants raised a number of defenses in their pleadings and during the hearing. In support of their position that Amazon.com is not likely to succeed at a trial on the merits, Defendants placed particular emphasis on arguments that the '411 patent is invalid on obviousness and anticipation grounds and that the Express Lane feature does not infringe any claims in the '411 patent. To a lesser extent, Defendants also suggested that the '411 patent is unenforceable. In addition, Defendants argued that Amazon.com could not demonstrate irreparable harm, that the balance of hardships did not tip in Amazon.com's favor, and that the public interest would not be served by issuance of a preliminary injunction.

On November 22, 1999, following the testimony of all witnesses and the submission of evidence, the parties presented proposed findings of fact and conclusions of law to the Court. The Court heard closing arguments on November 23, 1999. Based on the papers, pleadings, testimony, evidence, and arguments presented by the parties, the Court finds that Plaintiff has demonstrated: (1) a reasonable likelihood of success on the merits at trial; (2) it will suffer irreparable harm if the preliminary injunction is not granted; (3) the balance of hardships tips in its favor; and (4) the preliminary injunction sought is in the public interest. Although Defendants have raised a number of defenses concerning the validity of the patent and infringement of the patent, Plaintiff has shown that the defenses asserted by Defendant lack substantial merit. Therefore, the Court hereby GRANTS Plaintiff's motion for a preliminary injunction.

The Preliminary Injunction is effective at 12:01 a.m. P.S.T. on Saturday, December 4, 1999, and upon Amazon.com's filing an undertaking in the sum of $10,000,000, and shall remain in effect during the pendency of this action. Defendants may, however, continue to offer an Express Lane feature if the feature is modified in a manner that is consistent with this Order to avoid infringement of the '411 patent.

Pursuant to Fed.R.Civ.P. 52(a), the Court's findings of facts and conclusions of law are set forth below.

II. FINDINGS OF FACT

Background

1. Plaintiff Amazon.com, Inc. ("Amazon.com") is a Delaware corporation with its principal place of business at Seattle, Washington. Through its website, www.amazon.com, the company enables customers to find and purchase books, music, videos, consumer electronics, games, toys, gifts, electronic greeting cards, and other items over the World Wide Web. (Ex. 11, Bezos Decl. para. 3). Amazon.com is the leading online retailer of books. (Ex. A-18 at 19, para. 2).

2. Defendant Barnesandnoble.com LLC is a Delaware limited liability company with its principal place of business at New York, New York. Barnesandnoble.com LLC operates a website through which it distributes books, software, music, and other items. (Ex. 36 at 6).

3. Defendant Barnesandnoble.com Inc. is a Delaware corporation with its principal place of business at New York, New York. Barnesandnoble.com Inc. is a holding company whose sole asset is a 20% share in Barnesandnoble.com LLC, and whose business is acting as sole manager of Barnesandnoble.com LLC. Barnesandnoble.com Inc. controls all major business decisions of Barnesandnoble.com LLC. Collectively, these two defendants are referred to herein as "Barnesandnoble.com." (Ex. 36).

4. Sometime before May 1997, Amazon.com CEO Jeffrey Bezos conceived of an idea to enable Amazon.com customers to purchase items with a single-click of a computer mouse button. (Tr. at 123:4-22, 124:1-12 (Bezos)). This idea was commercially implemented by Amazon.com in September of 1997. (Tr. at 125:9-13 (Bezos)).

5. On September 28, 1999, United States Patent No. 5,960,411 (the " '411 patent"), entitled "Method and System for Placing a Purchase Order Via a Communications Network," was issued. (Complaint, Ex. A). The filing date for the '411 patent is September 21, 1997. (Id.). The patent was assigned to and is owned by Amazon.com.

6. The evidence indicates that before granting the patent, the examiner assigned to the patent searched the data base of patents available at the Patent and Trademark Office (PTO), and obtained a search of private databases through the PTO's Science and Technology Information Center ("STIC"). Additionally, the examiner commissioned a third-party search firm to perform a search for potential non-patent prior art. (Tr. at 62:20-25 (Manbeck); Ex. 13, Manbeck Decl. at para.para. 8, 9). The examiner also conferred with more senior examiners and counsel to insure that the patent involved patentable subject matter. (Tr. at 60:16-63:14; 65:2-10; 72:20-73:9 (Manbeck); Ex. 13, Manbeck Decl. at para. 10). The evidence from the patent's file history and the testimony of former Commissioner Manbeck indicates that the patent was thoroughly examined by the PTO before issuance. (Tr. at 73:10-13 (Manbeck); Ex. 13, Manbeck Decl. at para. 11).

Prior Art

7. Plaintiff's expert Geoffrey Mulligan testified that except for single-action ordering and the implementation of single-action ordering without a shopping cart model, everything in the independent claims of the '411 patent (claims 1, 6, 9, and 11) is in prior art. (Tr. at 180:14-181:3).

8. In support of their arguments that the single-action ordering element of the '411 patent is invalid on obviousness and anticipation grounds, Defendants offered evidence concerning several prior art references. This evidence of prior art falls into two general categories: systems for ordering tangible items online (such as groceries or computer equipment) and electronic document delivery systems. In the former category were Dr. John Lockwood's Web Basket system, the Netscape Merchant System described in the "Creating a

Virtual Store" reference, and the "Oliver's Market" web pages. In the latter category were the CompuServe financial information service represented by Mr. Alexander Trevor's testimony regarding the "Trend" feature, and U.S. Patent No. 5,708,780 (the '780 patent). It is undisputed that these prior art references were not before the PTO when the '411 patent was examined.

Web Basket

9. Defendants presented evidence regarding an on-line ordering system called "Web Basket" that was developed in and around August 1996 by Defendants' expert Dr. John Lockwood. (Tr. at 214:23-216:2; 218:13-229:18 (Lockwood); Ex. A-56, Lockwood Decl. para. 9). Defendants argue that Web Basket anticipates at least claims 6-8 of the '411 patent and that this reference, either alone or in combination with other prior art references, renders the claims of the '411 patent obvious.

10. Web Basket requires users to accumulate items into a virtual shopping basket and to check these items out when they are finished shopping. (Tr. at 175:6-17; 176:7-179:13 (Mulligan); Ex. 12, Mulligan Supp. Decl. at para. 29). Web Basket also requires several confirmation steps for even preregistered users to complete their purchases. (Ex. 12, Mulligan Supp. Decl. at para.para. 18-22; Ex. A-56, Lockwood Decl. para.para. 41-44).

11. The Court finds that Web Basket requires a multiple-step ordering process from the time that an item to be purchased is displayed. (*See* Tr. at 275:7-276:5). These multiple steps are inconsistent with the single-action requirements of the '411 patent.

12. On cross-examination, Dr. Lockwood admitted that it "could have" been simpler for a person purchasing from Web Basket to purchase items using only one click of a computer mouse, but he admitted that he never considered making single-action ordering an available option to users. (Tr. at 277:19-23 (Lockwood)).

Netscape Merchant System

13. Defendants also presented as a prior art reference an excerpt from a book entitled "Creating the Virtual Store" that was copyrighted in 1996. (Ex. A-63; Ex. 27). Defendants focused on the following language from this reference: "Merchants also can provide shoppers with an instant buy button for some or all items, enabling them to skip check out review. This provides added appeal for customers who already know the single item they want to purchase during their shopping excursion." (Ex. 27 at 7; Tr. at 309:23-310:18; 312:3-20 (Lockwood)). Defendants argue that the Netscape Merchant System reference anticipates each of the independent claims of the '411 patent and that this reference, either alone or in combination with other prior art references, renders the claims of the '411 patent obvious.

14. The balance of the Netscape article describes a multi-step shopping cart ordering model that requires both checkout and checkout review steps. (Ex. 27). A first step is required to put an item in the user's cart. Information identifying the item is then stored on the user's computer. A second "check-out" step is required to send that information to the merchant's computer. A third step of checkout review must occur after the transfer of the list of purchased items to the merchant's computer during the check-out step. The standard Netscape shopping cart therefore would appear to require a minimum of three steps by the user. (Tr. at 324:12-327:18 (Lockwood)).

15. Read in context, the few lines relied on by Defendants appear to describe only the elimination of the checkout review step, leaving at least two other required steps to complete a purchase. (Tr. at 327:10-18 (Lockwood); *see also* Ex. 27 at 7). Thus, apart from the words "instant buy," there is no indication that the Netscape system implements a single-action ordering component as required by claims 6 and 9 of the '411 patent or a single action as required by claims 1 and 11 of the '411 patent. Moreover, Defendants' expert acknowledged that he did not know how the Netscape instant buy feature worked. (Tr. at 312:3-20; 350:7-

12 (Lockwood)).

Oliver's Market

16. Defendants presented pages from a website entitled "Oliver's Market The Ordering System." (Ex. A-106). This web site may be accessed at www.sonic.net/raptor/current/how2ordr.html. Defendants contend that the Oliver's Market system anticipates all of the independent claims of the '411 patent and that this reference, either alone or in combination with other prior art references, renders the claims of the '411 patent obvious.

17. Though the Oliver's Market reference begins with the sentence: "A single click on its picture is all it takes to order an item," the ordering system described by the reference is a multi-step shopping cart model. (Ex. A-106).

18. The "single click" referred to in the first sentence is the click required to add an item to the user's shopping cart and does not complete the ordering process. After a single action is taken to select an item, the method described by this reference explicitly requires the user to take further actions to complete a purchase order, including: (1) specifying whether items will be picked up or delivered; (2) specifying the time that pickup or delivery is desired; and (3) indicating that the user is done shopping, which would appear to be the checkout procedure required by a standard shopping cart model. These additional actions are inconsistent with the single-action requirements of independent claims 1, 6, 9, and 11.

'780 patent

19. Defendants also presented testimony by Dr. Lockwood in support of their argument that U.S. Patent No. 5,708,780 (the '780 patent) anticipates or renders obvious claims of the '411 patent. The '780 Patent lists a filing date of June 7, 1995 and an issue date of January 13, 1998. (Ex. A-67). The title of the '780 patent is "Internet Server Access Control and Monitoring System." The description of the '780 patent is directed towards a service for controlling access to web documents within a particular domain. Defendants argue that the '780 patent anticipates claims 1 and 11 of the '411 patent.

20. In the '780 patent's preferred embodiment, a user browses the web conventionally. (Ex. A-67 at Col. 3, ll 21-22). A content server provides web documents to the user and determines when the user seeks access to "controlled" content, i.e., web pages for which the user needs authorizationto browse. (Id. at Col. 3, ll 22-25; Fig. 2A).

21. The '780 patent does not explicitly show generating an order for an item. The record regarding whether and how the system of the '780 patent generates an order for an item consists entirely of Dr. Lockwood's testimony. Dr. Lockwood's testimony on this point is confusing and the witness appeared not to understand how the system described would function. Dr. Lockwood testified that generating an order takes place when the server system opens a file on its disk drive to read a controlled page. (Tr. at 305:1-19). Dr. Lockwood also testified that the user places an order by selecting a link to a controlled page. (Tr. at 302:5-303:5).

22. The testimony of Dr. Lockwood regarding this patent, as well as the '780 patent itself, describe a system in which controlled pages are simply returned to the user's browser when an authorized request is received by the content server. (*See* Ex. A-67, fig. 3; Tr. at 309:2-16).

23. It appears that if billing is to take place at all in the '780 Patent system it would take place based on the logged transactions. (Tr. 306:9-15). In this regard, the '780 Patent system shows no more than a method for tracking what documents the users of an on-line information service like LEXIS or WESTLAW would request and then billing them based on these requests.

CompuServe Trend System

24. Defendants presented evidence that CompuServe offered a service called "Trend" beginning in the mid-1990s whereby CompuServe subscribers could obtain stock charts for an additional surcharge. Defendants presented screen shots from the current system and the testimony of a former CompuServe employee that the current screen shots were substantially the same as those provided to CompuServe subscribers in the mid 1990s. (Tr. at 369:12-20 (Trevor)). Defendants argue that the Trend System anticipates claim 11 of the '411 patent and renders obvious various claims of the patent.

25. The CompuServe system was not a world wide web application. (Tr. at 380:21-381:7 (Trevor)). Instead, after a user logged in, a persistent connection was established between the user's computer and CompuServe which lasted until the user logged off. (Tr. at 368:24-369:8; 380:25-381:16 (Trevor)). CompuServe, therefore, did not solve the problem of identifying users.

26. To order a chart from CompuServe, the user must first log in to the CompuServe service with his or her user ID and password, then select the Trend application dialogue box. Once that box appears, the user at a minimum must first (1) type in a stock ticker tape symbol and then (2) click on the chart button which becomes active once the user has typed the first letter of the ticker tape symbol. (Tr. at 377:25-378:18; 388:4-14 (Trevor)). The Court finds that this method involves two actions, not one. In addition, CompuServe does not begin processing any surcharge to the user's account until the user's computer performs an additional step of sending back a confirmation to CompuServe that the requested chart image was in fact accessed. (Tr. at 384:5-14 (Trevor)).

Summary of Prior Art

27. There are key differences between each of the prior art references cited by Defendants and the method and system described in the claims of the '411 patent. The Court finds that none of the prior art references offered by Defendants anticipate the claims of the '411 patent. On the question of obviousness, the Court finds that the differences between the prior art references submitted by Defendants and the '411 patent claims are significant. Moreover, there is insufficient evidence in the record regarding a teaching, suggestion, or motivation in the prior art that would lead one of ordinary skill in the art of e-commerce to combine the references. The Court finds particularly telling Dr. Lockwood's admission that it never occurred to him to modify his Web Basket program to enable single-action ordering, despite his testimony that such a modification would be easy to implement. This admission serves to negate Dr. Lockwood's conclusory statements that prior art references teach to one of ordinary skill in the art the invention of the '411 patent. (Tr. at 319:5-320:22 (Lockwood)).

Barnesandnoble.com's Shopping Cart and Express Lane

28. Barnesandnoble.com offers customers two purchasing options. One is called Shopping Cart and the other is called Express Lane. (Ex. 9, Mulligan Decl. at para.para. 7, 8.i, Ex. H). The two methods are separate and cannot be combined. (Tr. at 429:6-10 (King); Ex. 9, Mulligan Decl. at Ex. I (noting "Express Lane and the Shopping Cart are two different ways to place your order. You can't combine them")). The Barnesandnoble.com Shopping Cart option includes the steps of a standard shopping cart model, including adding items to a virtual shopping cart and "checking out" to complete the purchase. (Ex. 9, Mulligan Decl. at para. 14j).

29. Barnesandnoble.com's Express Lane allows customers who have registered for the feature to purchase items by simply clicking on the Express Lane button shown on the detail or product page that describes and identifies the book or other item to be purchased. (Ex. 9, Mulligan Decl. at Ex. R). The text beneath the Express Lane button invites the user to "Buy it now with just 1 click!" (Id.).

30. Throughout its web site, Barnesandnoble.com consistently describes Express Lane as a one-click

ordering method. (Tr. at 463:15-464:10 (Bulkeley)). In its May 1999 prospectus, Barnesandnoble.com consistently described Express Lane as making one-click ordering possible. (*See, e.g.,* Ex. 36 at 6, 44, 47). In its November 1999 10-Q Report to shareholders, Barnesandnoble.com describes Express Lane as a one-click ordering system. (Ex. 39 at 13). It does not appear that Barnesandnoble.com has ever described the Express Lane ordering process as requiring more than one action, other than in the course of this litigation. (Tr. 471:1-4 (Bulkeley)).

31. Barnesandnoble.com began using the Express Lane feature in May of 1998, describing the feature in a press release as "Express Lane (SM) One Click Ordering" and noting that "[n]ow, visitors can click one button to order books, software and magazines." (Ex. 37).

32. Clicking on the shopping cart icon on the top of every Barnesandnoble.com page will not show the items that the user has purchased using the Express Lane. (Tr. at 430:14-17 (King)).

33. The strong similarities between the Amazon.com 1-click feature and the Express Lane feature subsequently adopted by Barnesandnoble.com suggest that Barnesandnoble.com copied Amazon.com's feature. (Ex. 10, Johnson Decl., para. 13).

Direct Evidence of Nonobviousness

34. Amazon.com has provided direct evidence of nonobviousness. Jeff Bezos, Amazon.com's founder and an inventor on the '411 patent, testified that because "many customers were tentative and somewhat fearful of on-line 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." (Ex. 11, Bezos Decl. para. 9).

35. Professor Eric Johnson of Columbia Business School testified in his declaration that "Amazon.com's 1-Click (R) purchasing was a major innovation in on-line retailing that allows for purchasing without disrupting the consumer's shopping experience; and by eliminating additional confirmation requirements, recasts the default in a way that both maximizes the likelihood that consumers will complete their purchases and minimizes consumer anxiety over real or perceived issues of internet security." (Ex. 10, Johnson Decl. para. 12).

36. Moreover, despite their experience with prior art shopping cart models of on-line purchasing, both sides' technical expertsacknowledged that they had never conceived of the invention. Mr. Mulligan testified that ordering with one click was "a huge leap from what was done in the past." (Tr. at 190:25). Mr. Mulligan testified further that: "I've been working in electronic commerce for years now. And I've never thought of the idea of being able to turn a shopping cart or take the idea of clicking on an item and suddenly having the item ship- having the complete process done." (Tr. at 199:3-7). Mr. Mulligan also testified that he believed it was "a huge leap of faith for the website and the consumer to implement something like this." (Tr. at 199:12-14). Additionally, as noted above, Dr. Lockwood testified that he never thought of modifying Web Basket to provide single-action ordering. (Tr. at 277:19-23).

Objective Factors

37. Plaintiff's single-action ordering method addressed an unsolved need that had been long-felt (at least in the relatively short period of time that e-commerce has existed), namely streamlining the on-line ordering process to reduce the high percentage of orders that are begun but never completed, *i.e.,* abandoned shopping carts. The problem of on-line consumers starting but abandoning shopping carts was acknowledged by both parties and their experts. (Ex. 10, Johnson Decl para. 8; Ex. 11, Bezos Decl. para. 8; Tr. at 473:14-474:5; (Bulkeley); Tr. at 418:1-420:12 (King)).

38. In the on-line industry in general and at Barnesandnoble.com in particular, over half of the shopping carts started by customers are abandoned before checkout. (Tr. at 418: 9-11 (King)). In an attempt to alleviate the problem of abandoned shopping carts, Barnesandnoble.com attempts to make the checkout process as simple and easy as possible. (Tr. at 473:24-474:5 (Bulkeley); Tr. at 419:24-420:8 (King)). The single-action ordering invention of the '411 patent solves the problem by eliminating the checkout process entirely.

39. Barnesandnoble.com presented evidence that a number of other e-commerce retailers have offered single-action ordering to customers. (Tr. at 453:11-456:15 (Bulkeley)).

40. Amazon.com's single-action ordering is used by millions of customers, indicating the commercial success of the feature. (Ex. 11, Bezos Decl. para. 14). Barnesandnoble.com's Express Lane also accounts for a significant portion of its sales. (Ex. 28). Further evidence of commercial success of single-action ordering is suggested by the fact that Barnesandnoble.com promoted its Express Lane feature in a press release after it was announced (Ex. 37) and in its prospectus (Ex. 36 at 6, 44, and 47). Indeed, Barnesandnoble.com described Express Lane as one of its "major enhancements" to its on-line business. (Id. at 6).

41. Industry analysts and the popular press also found Amazon.com's single-action ordering process to be innovative. Patricia Seybold, an e-commerce observer and consultant, described Amazon.com's 1-Click (R) purchasing as "legendary." (Ex. 11, Bezos Decl. para. 14; Ex. A). Joseph Gallivan in *The New York Post* described Amazon.com's 1-Click (R)purchasing as a "seductive innovation." (Ex. 11, Bezos Decl. para. 14; Ex. B). *InfoWorld* indicated: "Net retailers are starting to realize that potential customers often don't make it as far as the virtual checkout line-they fill their on-line shopping carts with products, then simply abandon them.... Faced with these problems, it's no surprise that retailers have been eyeing Amazon.com's 1-click purchases with envy for some time now." (Ex. 11, Bezos Decl. para. 14).

Irreparable Harm

42. The harm that would be suffered by Amazon.com due to Barnesandnoble.com's infringement during the pendency of this case would be irreparable. The invention described in the '411 patent is of significant commercial value, as evidenced, among other things, by the large number of customers who make use of single-action ordering available on the websites of both Amazon.com and Barnesandnoble.com,and by the large number of other e-commerce retailers whom Barnesandnoble.com claims have adopted single-action ordering. (Ex. 11, Bezos Decl. para. 14; Ex. 28; Tr. at 453:11-456:15 (Bulkeley)).

43. The harm Amazon.com would suffer if denied the benefit of using its invention to distinguish itself from its competitor Barnesandnoble.com could not easily be measured in dollars. (Tr. at 474:19-475:19 (Bulkeley)).

44. Amazon.com has pursued a strategy of innovating to distinguish its shopping experience from the competition, and it has made substantial investments to build customer relationships and broaden its customer base during the current growth phase of electronic commerce. (Tr. at 107:22-109:1 (Bezos); Ex. 10, Johnson Decl. para. 7).

45. Customers become loyal to sites with which they become familiar. Considerations such as ease of use and the availability of time-saving features are significant factors in determining the relative success of on-line enterprises. (Ex. 10, Johnson Decl. para. 4; Tr. at 122:4-11; 419:25 & 420:1-12). Creating easy-to-use and easy-to-learn consumer interfaces is a key aspect of e-commerce competition. Amazon.com's commercial success depends in part on its efforts to reduce its customers' time and effort in using its site. (Ex. 10, Johnson Decl. para. 7; *see also* Ex. 37, at 41).

46. One of Amazon.com's investments to improve its customers' experience and attract new customers was

to develop single-action ordering. (Tr. at 123:4-124:6 (Bezos)). The feature has been popular with Amazon.com customers and the one-step ordering innovation has been praised in the industry. (Tr. at 125:9-126:6 (Bezos); Ex. 11, Bezos Decl. at para. 14, Exs. A, B).

47. A number of other e-commerce retailers, including Defendants, subsequently adopted systems that are essentially identical to the features of Amazon.com's single-action ordering process. With respect to Barnesandnoble.com, the Court finds that its later adoption of a single-action ordering system, Express Lane, eliminated a key point of differentiation between its website and Amazon.com's.

48. The harm to Amazon.com would be compounded if Barnesandnoble.com's infringement were permitted to continue during the 1999 holiday shopping season. (Ex. 10, Johnson Decl. para. 16; Ex. 11, Bezos Decl. para. 20). There is no dispute that holiday seasons have historically been key periods for e-commerce customer acquisition and that they can have a significant effect on the long-term prospects of e-commerce businesses. (*See* Tr. at 474:9-18 (Bulkeley)). In 1998, for example, Amazon.com increased its customer base nearly 20% in just the last six weeks of the year, adding over a million new customer accounts in this time period. (Ex. 11, Bezos Decl. at para. 20). This year appears likely to be an even more significant season for customer acquisition. (Ex. 10 Johnson Decl. at para.para. 16-17; Ex. 11, Bezos Decl. at para. 20; Tr: at 108:3-16). Industry estimates for the amount that will be spent by consumers online in November and December of this year range from $6 to 12 billion-2 to 3 times the amount spent during the same period in 1998. (Ex. 10; Johnson Decl. at para. 16, Exs. C, D)

49. As many as 10 million new users are expected to make their first on-line purchases during the 1999 holiday season. (Ex. 10; Johnson Decl. para. 16). Millions of these new customers are likely to be shopping at Amazon.com and Barnesandnoble.com for the first time. Long-term success in e-commerce depends on establishing positive relationships with these new on-line buyers now, to preserve the ability to compete effectively for future sales, which by some estimates will reach $78 billion by the year 2003. (Ex. 10, Johnson Decl., Ex. C; Tr: at 474:9-18).

50. If Barnesandnoble.com were able to continue to offer Express Lane as currently configured during the 1999 holiday season and for the pendency of this action, Amazon.com would not be able to distinguish itself from a key competitor by offeringsingle-action ordering and would likely lose market share and customers to Barnesandnoble.com. The Court finds that this loss would not be easily compensable in damages. Exclusive rights to the patented invention are important to Amazon.com's ability to differentiate the customer experience available at its site from that of competitor sites such as Barnesandnoble.com.

III. CONCLUSIONS OF LAW

1. This Court has subject matter jurisdiction over Amazon.com's claim for patent infringement pursuant to 28 U.S.C. s.s. 1331 and 1338(a). Defendants are subject to personal jurisdiction in this District because they have purposefully availed themselves of the privileges of conducting business in the State of Washington.

2. Venue is proper in this District pursuant to 28 U.S.C. s.s. 1391(b) and 1400(b) because Defendants reside here (28 U.S.C. s. 1391(c)).

3. On September 28, 1999, United States Patent No. 5,960,411 (the " '411 patent"), entitled "Method and System for Placing a Purchase Order Via a Communications Network," was duly and legally issued. The patent was assigned to and is owned by Amazon.com.

Preliminary Injunction Standard

[1] 4. "[T]o obtain a preliminary injunction, pursuant to 35 U.S.C. s. 283, a party must establish a right thereto in light of four factors: (1) reasonable likelihood of success on the merits; (2) irreparable harm; (3)

the balance of hardships tipping in its favor; and (4) the impact of the injunction on the public interest." Hybritech, Inc. v. Abbott Labs., 849 F.2d 1446, 1451 (Fed.Cir.1988).

A. *Likelihood of Success on the Merits*

Validity

[2] [3] 5. The statutory presumption of validity, 35 U.S.C. s. 282, applies to all patents and is meant "to contribute stability to the grant of patent rights." Magnivision, Inc. v. Bonneau Co., 115 F.3d 956, 958 (Fed.Cir.1997). This presumption operates at every stage of the litigation, including in a motion for preliminary injunction against an alleged infringer. *See* Canon Computer Systems, Inc. v. Nu-Kote Int'l, Inc., 134 F.3d 1085, 1088 (Fed.Cir.1998). A defendant may overcome this presumption, however, if he raises a "substantial question" concerning the validity of a patent and if the party seeking the injunction fails to show that this defense lacks "substantial merit." *See* New England Braiding Co. v. A.W. Chesterton Co., 970 F.2d 878, 883 (Fed.Cir.1992) (noting that "[w]hile it is not the patentee's burden to prove validity, the patentee must show that the alleged infringer's defense lacks substantial merit"). Defendants raise a number of questions regarding the '411 patent's validity, which the Court discusses below.

Anticipation

[4] [5] 6. Anticipation is a question of fact, *see* Atlas Powder Co. v. Ireco Inc., 190 F.3d 1342, 1346 (Fed.Cir.1999), and is a defense only if "all of the same elements are found in exactly the same situation and united in the same way ... in a single prior art reference." Perkin-Elmer Corp. v. Computervision Corp., 732 F.2d 888, 894 (Fed.Cir.1984). Although anticipation is a factual inquiry, the Court reiterates its findings and the applicable law here for ease of reference.

7. The Court finds that Web Basket does not anticipate any claim of the '411 patent. Each claim of the '411 patent requires either "a single-action ordering component" [claims 1-10] or "a single action that is to be performed to order the identified item" [claims 11-26]. The Web Basket ordering process requires that the user perform at least five actions to complete the order. Web Basket, therefore, does not include "a single-action ordering component" or "a single action that is to be performed to order the identified item."

8. In addition, claims 1-5 and 11-26 require that "the item is ordered without using a shopping cart ordering model" [claims 1-5] or "the item is ordered independentlyof a shopping cart model" [claims 11-26]. Because Web Basket is itself a shopping cart model, it lacks these required elements as well.

9. The description of the Netscape Instant Buy option presented by Defendants consisted of a total of four lines. Defendants' expert Dr. Lockwood was unable to supply any additional information regarding the feature described by this reference and ultimately admitted that he did not know how the feature worked. (Tr. at 312:3-20; 350:7-12). The Netscape reference therefore does not teach the invention to one of ordinary skill in the art (e.g., Dr. Lockwood) as is required of an anticipatory reference.

10. Moreover, when read in context, the reference appears to describe a shopping cart model with an option to skip one of the required checkout steps. Thus viewed in the best light for Defendants, the Netscape reference fails to anticipate any of the claims of the '411 for the same reasons as Web Basket: it does not include a single-action ordering component. Moreover, it does not appear to be independent of a shopping cart model, as required by claims 1 and 11.

11. Similarly, the Oliver's Market reference, when read as a whole, plainly discloses a multi-step shopping cart model. It, therefore, also lacks the same elements that are missing from Web Basket and Netscape: a single-action ordering component that is independent of a shopping cart model.

[6] 12. The '780 patent entitled "Internet Server Access Control and Monitoring System" also fails to

anticipate any claim of the '411 patent. As discussed above, the system described in the '780 patent controls access to certain web pages. Even assuming that a web page is an "item" to be ordered as that term is used in the claims of the '411 patent, the access control system described in the '780 patent is not an ordering system.

13. Each claim of the '411 patent requires that the server system generate an order for the item requested by the customer. The requirement is described in slightly different terms in each of the independent claims but the import is the same: "generat[e] an order to purchase the requested item" (claim 1); "locate additional information needed to complete the order and so that the server system can fulfill the generated order" (claim 6); "uses the retrieved information to place an order for the indicated user for the item"(claim 9); "whereby the item is ordered independently of a shopping cart model and the order is fulfilled to complete a purchase of the item" (claim 11).

14. The system described by the '780 patent merely delivers the requested web page to authorized users as would any other web server. The fact that the user may later be billed based on a log of pages that he or she has visited does not turn the standard delivery of web pages requested by a client into an order generation and fulfillment system as required by the claims of the '411 patent.

15. In addition, claims 6-10 of the '411 patent require a shopping cart ordering component in addition to the single action ordering component. The '780 patent does not disclose a shopping cart ordering component. That it appears impossible to "order" web pages using a shopping cart model suggests that web pages are not items to be ordered within the meaning of the claims '411 patent. In any case, the access control system of the '780 patent lacks the other claim elements, i.e., order generate step/component and the shopping cart ordering component required by the claims of the '411 and, therefore, does not anticipate them.

[7] 16. Finally, the CompuServe Trend service does not anticipate any claim of the '411 patent. Each claim of the '411 patent (except 9 and 10) requires (with slightly different language) displaying information identifying the item to be ordered and a single action to be taken to order the item: "displaying information identifying the item; and in response to only a single action being performed, sendinga request to order the item" (claim 1); "a display component for displaying information identifying the item; a single-action ordering component that in response to performance of only a single action, sends a request to a server system to order the identified item" (claim 6); "displaying information identifying the item and displaying an indication of a single action that is to be performed to order the identified item" (claim 11).

17. In the CompuServe Trend system, to receive a chart the user has to type in the ticker symbol identifying the stock for which they want to order a chart. The system does not, therefore, identify an item that a user could order with a single action. Thus, CompuServe does not anticipate claims 1-8 or 11-26.

18. As described above with respect to the '780 patent, claims 6-10 of the '411 patent require a shopping cart ordering component in addition to the single-action ordering component. There is no evidence that the CompuServe Trend serve included a shopping cart component. It therefore does not, as Defendants acknowledge, anticipate claims 6-10.

Obviousness

[8] 19. "Included within the presumption of validity mandated by 35 U.S.C. s. 282 is a presumption of nonobviousness which the patent challenger must overcome by proving facts with clear and convincing evidence. The presumption remains intact even upon proof of prior art not cited by the Patent and Trademark Office (PTO), though such art, if more relevant than that cited, may enable the challenger to sustain its burden." Perkin-Elmer Corp. v. Computervision Corp., 732 F.2d 888, 894 (Fed.Cir.1984) (citations omitted).

[9] 20. The issue of obviousness is a mixed question of fact and law. The ultimate question is one of law, but it is based on several factual inquiries, including: (1) the scope and content of the prior art; (2) the differences between the prior art and the claims; (3) the level of ordinary skill in the pertinent art; and (4) applicable secondary considerations. *See* Weatherchem Corp. v. J.L. Clark, Inc., 163 F.3d 1326, 1332 (Fed.Cir.1998).

[10] 21. Defendants' evidence relating to invalidity of claims of the '411 patent on the ground of obviousness consists largely of Dr. Lockwood's statements that he could modify his Web Basket system to actually be a single-action ordering system, and that doing so would be an "obvious" or "trivial" modification of the Web Basket system. (Tr. at 229; Ex. A-56, Lockwood Decl. para. 51) Dr. Lockwood, however, testified (as did Mr. Mulligan), that it had never occurred to him to do this. (Tr. at 277:19-23 (Lockwood); Tr. at 199:2-15 (Mulligan)). Mr. Mulligan further produced credible testimony why one skilled in the art would not, at the time the invention was made, have considered this modification. (Tr. at 190:21-191:2; 199:2-15).

22. In any event, whether it would be, at the present time, an "obvious" or "trivial" modification of the Web Basket system to include the "single action" feature of the '411 patent is legally irrelevant. The law is clear that the time period for any obviousness determination is "at the time the invention was made." 35 U.S.C. s. 103(a). *See also,* In re Dembiczak, 175 F.3d 994, 998-99 (Fed.Cir.1999).

23. "[O]bjective indicia 'may often be the most probative and cogent evidence of nonobviousness in the record.' " Gambro Lundia AB v. Baxter Healthcare Corp., 110 F.3d 1573, 1579 (Fed.Cir.1997) (quoting Stratoflex, Inc. v. Aeroquip, Corp., 713 F.2d 1530, 1538 (Fed.Cir.1983)); *see also,* Arkie Lures Inc. v. Gene Larew Tackle, Inc., 119 F.3d 953, 957 (Fed.Cir.1997) ("Indeed, evidence of secondary considerations may often be the most probative and cogent evidence in the record. It may often establish that an invention appearing to have been obvious in light of the prior art was not.")

24. "Such secondary considerations as commercial success, long felt but unsolved needs, [and] failures of others" are relevantas evidence of obviousness. Graham v. John Deere Co., 383 U.S. 1, 17-18, 86 S.Ct. 684, 15 L.Ed.2d 545 (1966). *See also,* Arkie Lures Inc., 119 F.3d at 957 (Considerations of commercial success, licensing activities, and copying may be "highly probative of the issue of nonobviousness").

25. Copying of the invention by Barnesandnoble.com and others is additional evidence of nonobviousness. "It gives the tribute of its imitation, as others have done." Diamond Rubber Co. v. Consolidated Rubber Tire Co., 220 U.S. 428, 441, 31 S.Ct. 444, 55 L.Ed. 527 (1911).

26. The adoption of single-action ordering by other e-commerce retailers following Amazon.com's introduction of the feature, coupled with the need to solve the problem of abandoned shopping carts by e-commerce customers, is additional evidence of nonobviousness. *See* In re Hayes Microcomputer Products, Inc. Patent Litigation, 982 F.2d 1527, 1540 (Fed.Cir.1992) ("[T]he commercial success of the invention, the failure of others to solve the problem addressed by the patented invention, and the fact that the [invention] has become the industry standard is compelling objective evidence of the nonobviousness of the claimed invention").

27. In light of its consideration of the factors and evidence related to the question of obviousness, the Court finds Barnesandnoble.com is unlikely to succeed in showing by clear and convincing evidence that the claims of the '411 patent were obvious. Barnesandnoble.com's reliance on the simplicity of the invention is unavailing. "Defining the problem in terms of its solution reveals improper hindsight in the selection of the prior art relevant to obviousness." Monarch Knitting Machinery Corp. v. Sulzer Morat Gmbh, 139 F.3d 877, 881 (Fed.Cir.1998).

Enforceability

[11] 28. In their initial opposition to Plaintiff's motion for a preliminary injunction, Defendants argued that the '411 patent was unenforceable due to alleged inequitable conduct on the part of the one of the inventors, Shel Kaphan. Specifically, Defendants alleged that Mr. Kaphan's failure to cite to the PTO an Internet Engineering Task Force draft entitled "State Management Mechanism" ("IETF Draft"), in which he is acknowledged as a contributor by the authors, constituted inequitable conduct. Defendants deposed Mr. Kaphan and submitted brief excerpts from his deposition to the Court. None of those excerpts related to his knowledge of the IETF Draft or any intent to deceive the patent office. The Court assumes that Defendants have abandoned their inequitable conduct claim, at least for the purposes of their opposition to the preliminary injunction motion. Indeed, Defendants presented no arguments based on unenforceability in their closing argument or in their proposed findings of fact and conclusions of law.

[12] 29. In any event, the Court finds that Defendants' arguments regarding unenforceability lack substantial merit. The testimony of Mr. Mulligan, a member of the IETF, that the IETF Draft is less relevant to the '411 patent than cited references including one in a publication entitled "Dr. Dobbs Journal" that itself references the IETF Draft, is unopposed and dispositive. (Tr. at 174:13-25 (Mulligan)) A "patentee need not cite an otherwise material reference to the PTO if that reference is merely cumulative or is less material than other references already before the examiner." Baxter Int'l, Inc. v. McGaw, Inc., 149 F.3d 1321, 1328 (Fed.Cir.1998).

Infringement Analysis

30. Defendants have also argued that Plaintiff has not demonstrated that the "Express Lane" feature infringes any claims of the '411 patent. "[A]nalysis of patent infringement involves two steps: (1) claim construction to determine what the claims cover, i.e., their scope, followed by (2) determination of whether the properly construed claims encompass the accused structure." Cole v. Kimberly-Clark Corp. 102 F.3d 524, 528 (Fed.Cir.1996). The formeris a question of law; the latter is a question of fact. *See* Voice Technologies Group v. VMC Systems, Inc., 164 F.3d 605, 612 (Fed.Cir.1999). For ease of reference, the Court includes its entire infringement analysis in the Conclusions of Law section, even though it presents mixed questions of law and fact.

Claim Construction

31. The parties do not dispute the meaning of most of the terms in the patent claims including: "client system"; "server system"; and "method for ordering." (*See* Tr. at 434:1-435:13 (King)). The parties disagree, however, as to the meaning of the terms "shopping cart model," "fulfillment," "single action," and "single-action ordering component."

[13] 32. Claims must be read in view of the specification of which they are a part. *See* Markman v. Westview Instruments, Inc., 52 F.3d 967, 979 (Fed.Cir.1995). Words defined in the specification should be given the same meaning in the claims. McGill, Inc. v. John Zink Co., 736 F.2d 666, 674 (Fed.Cir.1984), *cert. denied,* 469 U.S. 1037, 105 S.Ct. 514, 83 L.Ed.2d 404 (1984), *overruled on other grounds,* Markman, 52 F.3d at 967. *See also* Standard Oil Co. v. American Cyanamid Co., 774 F.2d 448, 452 (Fed.Cir.1985) (the specification is the primary basis for construing claims).

[14] 33. The term "shopping cart model" is described in the Background of the Invention section of the '411 patent beginning at column 2 line 17: "The selection of various items is generally based on the 'shopping cart' model. When the purchaser selects an item from the electronic catalog, the server computer system metaphorically adds that item to a shopping cart. When the purchaser is done selecting items, then all the items in the shopping cart are 'checked out' (i.e., ordered) when the purchaser provides billing and shipping information." As described at column 2 lines 34 through 43, in some cases the billing and shipping information may be prestored by the merchant and need only be confirmed to complete the checkout process.

34. The definition of shopping cart model in the background section of the '411 patent is consistent with that provided by Amazon.com's e-commerce experts Dr. Johnson and Mr. Mulligan. (*See* Ex. 10, Johnson Decl. at para. 14; Ex. 12, Mulligan Decl. at para. 7; Tr. at 167:19-168:9 (Mulligan)).

35. Dr. Lockwood defined a shopping cart model more broadly in a manner that could potentially include any method for buying on-line. (Tr. at 279:5-282:4). In general, the Court found Dr. Lockwood's description of the term "shopping cart model" to be confusing and inconsistent. Barnesandnoble.com's Chief Information Officer, Mr. King, gave a similarly broad definition of shopping cart model. (Tr. at 428:1-21). According to its own expert Dr. Lockwood, under Defendants' definition of shopping cart model, claims 1 and 11 would appear to be internally inconsistent. (*See* Tr. at 284:22-285:22). Similarly, Mr. King testified that with Barnesandnoble.com's definition of shopping cart model, claims 1 and 11 would not cover the single-action purchasing method described in the '411 patent. (Tr. at 428:1-21).

[15] [16] 36. A claim interpretation that excludes the preferred embodiment is "rarely, if ever, correct." Vitronics Corp. v. Conceptronic, Inc., 90 F.3d 1576, 1583 (Fed.Cir.1996). "When claims are amenable to more than one construction, they should when reasonably possible be interpreted so as to preserve their validity." Modine Mfg. Co. v. U.S. Int'l Trade Comm'n, 75 F.3d 1545, 1557 (Fed.Cir.1996). The Court, therefore, rejects the definition of "shopping cart model" propounded by Defendants.

37. The Court adopts instead a definition which is consistent with the patent specification, preserves the validity of the claims, and allows the claims to be read on the preferred embodiment described in the patent specification. In construing the claims, the Court, therefore, takes the term "shopping cart model" to mean a method for on-line ordering in which a user selects and accumulates items to be purchased while browsing a merchant's site and then must proceed to one or more checkout or confirmation steps in order to complete the purchase. (Ex. 12, Mulligan Supp. Decl. para.para. 5-6).

[17] 38. The second point of disagreement is the meaning of the terms "fulfill" and "order fulfillment component" in claims 6 and 9, and in particular whether "fulfill" or "fulfillment" refer to computer or physical process. Though the patent specification does not explicitly define the phrase, order "filling" and "fulfillment" is discussed at length at column 8 and figure 7 in the context of Amazon.com's order consolidation algorithm. That discussion and the entire specification describe only computer processes and an order is defined to be filled "when all its items are currently in inventory (i.e. available) and can be shipped." In addition, Amazon.com's expert Mr. Mulligan testified that an "order fulfillment component" of a "server system" as required by claim 9 is "the software that takes the information provided by the database of the user information and the inventory database and combines those into a shipment order ... and then notifies that the order is ready for shipment." (Tr. at 165:7-12).

39. Mr. Mulligan's above definition of "order fulfillment component" as a computer program is consistent with the out of court statements by Barnesandnoble.com's Chief Information Officer, Mr. King, regarding Barnesandnoble.com's "fulfillment application" in a recent interview with an industry trade press. (*See* Ex. 8). During cross-examination Mr. King testified that "fulfillment application" was a commonly used term in the industry to refer to computer programs associated with the fulfillment process. (Tr. at 432:25-433:8). The Court therefore finds that "order fulfillment component" as used in claim 9 refers to order fulfillment application software described by Mr. Mulligan and Mr. King.

40. Similarly, the Court finds that the term "fulfill" as used in claim 6 in the phrase, "so that the server system can fulfill the generated order," refers to processes performed by the order fulfillment component of (or order fulfillment application running on) the server system and does not include the physical steps of handling or packing tangible items.

[18] 41. The third point of disagreement concerns the terms "single action" and "single-action ordering

component" as used in claims 1, 6, 9, and 11.

42. The term "single action" is not defined by patent specification. However, the patent specification provides that "once the description of an item is displayed, the purchaser need only take a single action to place the order to purchase that item." (Ex. A-1 at col. 3, ll. 64-66). The specification also provides that "a single action may be preceded by multiple physical movements of the purchaser (*e.g.,* moving a mouse so that a mouse pointer is over a button)." (Ex. A-1 at col. 10, ll. 2-4). In addition, the specification indicates "[i]n general, the purchaser need only be aware of the item or items to be ordered by the single action *and* of the single action needed to place the order." (Ex. A-1 at col. 4, ll. 14-17 (emphasis added)). As a result, the term "single action" as used in the '411 patent appears to refer to one action (such as clicking a mouse button) that a user takes to purchase an item once the following information is displayed to the user: (1) a description of the item; and (2) a description of the single action the user must take to complete a purchase order for that item.

43. The parties dispute what mouse clicks "count" in determining whether the single-action requirement of the '411 patent claims is satisfied. The Court finds that clicks "count" after both information identifying the item and a description of the single action the user must take to complete a purchase order for that item are displayed to the user.

Comparison of the '411 Patent ***Claims to Defendants' Express Lane Feature***

[19] 44. In its opening papers, Amazon.com provided a declaration from its expert Mr. Mulligan explaining in detail where every element of claims 1, 2, 3, 5, 6, 7, 8, 9, 10, 11, 12, 14, 15, 16, 17, 21, 22, 23, 24 is presented in Barnesandnoble.com's Express Lane ordering system. (Ex. 9, Mulligan Decl.). Mr. Mulligan described his analysis with respect to independent claims 9 and 11 in his testimony before the Court. (Tr. at 161:2-169:4).

45. In their pre-hearing briefing, Defendants only disputed Mr. Mulligan's analysis with respect to the meaning of fulfillment in claims 6 and 9 and the meaning of "shopping cart model" in claims 1 and 11. (Ex. A-16, King Decl. para.para. 8-12). Mr. King acknowledged that Barnesandnoble.com's Express Lane included every element of claims 11 except the last, which requires that the item is ordered independently of a shopping cart model. (Tr. at 434:1-435:13).

46. Because the Court adopts the patent specification's description of the term "shopping cart model," which is consistent with Mr. Mulligan's testimony, the Court finds that Barnesandnoble.com infringes claims, 1, 2, 3, 5, 11, 12, 14, 15, 16, 17, 21, 22, 23, 24.

47. The Court has also found that the terms "fulfill" and "order fulfillment component" in claims 6 and 9 do not include the retailer's acts of physically locating, packaging, and shipping a tangible item after a purchase order is completed. The Court, therefore finds that Barnesandnoble.com also infringes claims 6-10 of the '411 patent.

48. At the hearing on this motion, Defendants argued that Barnesandnoble.com's Express Lane option was not a "single-action ordering component" as required by claims 1, 3, 5, 6, 7, 8, 9, 10, because a user of Express Lane must take more than one action from the first time that some information regarding an item is displayed. The Court finds this argument unavailing. Except in court, Barnesandnoble.com everywhere has described its Express Lane as "one-click ordering," including on its web site and its communications with shareholders and prospective shareholders filed with the Securities Exchange Commission. (Tr. at 464:3-8; Tr. at 464:24-467:22 (Bulkeley) Ex. 36 at 6, 44, 47). Moreover, the Court agrees with the testimony of Mr. Mulligan that browsing a site is not ordering and that one does not begin the ordering process until one is past the home page and is presented with an opportunity to order an item. (Tr. at 185:3-8; Tr. at 191:7-15). This occurs for the first time at the product or detail page on the Barnesandnoble.com site. (Id. and Ex. 9,

Mulligan Decl., Ex., R). From there, as noted on Barnesandnoble.com's own web page, ordering with the Express Lane option requires only a single click. (Id.)

[20] 49. Mr. King testified that he was provided with a copy of the '411 patent by Barnesandnoble.com's outside counsel in early October, 1999. (Tr. at 417:9-19). It was the first time that Mr. King had ever received a patent from Barnesandnoble.com's outside counsel. (Tr. at 417:20-22). "Where, as here, a potential infringer has actual notice of another's patent rights, he has an affirmative duty to exercise due care to determine whether or not he is infringing." Underwater Devices, Inc. v. Morrison-Knudsen Co., 717 F.2d 1380, 1389 (Fed.Cir.1983).

Summary

50. Based on the foregoing, the Court finds that Plaintiff has demonstrated a reasonable likelihood of success on the merits at trial.

B. *Irreparable Harm*

[21] 51. The Court finds that Plaintiff has made a strong showing that the '411 patent is valid and that Defendants' Express Lane feature infringes the patent. Plaintiff is therefore entitled to a presumption of irreparable harm. *See, e.g.,* Smith Int'l, Inc. v. Hughes Tool Co., 718 F.2d 1573, 1581 (Fed.Cir.1983) (holding "where validity and continuing infringement have been clearly established ... immediate irreparable harm is presumed"). While Defendants have raised a number of defenses regarding validity, noninfringement, and enforceability, the Court finds that Plaintiff has established that these defenses lack substantial merit.

52. In light of Plaintiff's strong showing of validity and infringement, Defendants can rebut the presumption of irreparable harm only in limited circumstances not applicable here, such as that (1) the allegedly infringing activities have ended or will soon end; (2) the movant has engaged in a pattern of granting licenses; or (3) the movant unduly delayed in bringing suit. *See* Polymer Technologies, Inc. v. Bridwell, 103 F.3d 970, 974 (Fed.Cir.1996). Absent these facts or Defendants' "proffer of similar evidence," the Federal Circuit has indicated that "infringement of a valid patent inherently causes irreparable harm." Id. at 975.

53. Defendants attempt to invoke the category of undue delay, arguing that Amazon.com should have filed their suit immediately upon issuance of the patent. However, Amazon.com filed this action 22 days after its patent was issued. The Court is unaware of any authority indicating that filing a motion for a preliminary injunction less than a month after a patent is issued constitutes an undue delay. Instead, cases citing undue delay as a factor to be considered on a motion for preliminary injunction address delays of months or years, not days. *See* Mentor Graphics Corp. v. Quickturn Design Systems, Inc., 999 F.Supp. 1388 (D.Or.1997) (delay of more than one year between the filing of patent infringement action and the filing of a motion for a preliminary injunction did not bar the patentee from obtaining a preliminary injunction), *aff'd* 150 F.3d 1374 (Fed.Cir.1998); Rubbermaid Commercial Prods., Inc. v. Contico Int'l., Inc., 836 F.Supp. 1247 (W.D.Va.1993) (eight months no bar); Motorola, Inc. v. Alexander Mfg. Co., 786 F.Supp. 808 (N.D.Iowa 1991) (three months no bar); SMI Industries Canada Ltd. v. Caelter Industries, Inc., 586 F.Supp. 808 (N.D.N.Y.1984) (six months no bar).

54. Defendants also suggest that Amazon.com engaged in undue delay by not paying its Issue Fee for the '411 patent until six weeks after receiving the Notice of Allowability for the patent. Defendants cite no authority which indicates that this type of delay is either undue or even relevant. Moreover, as former PTO Commissioner Harry Manbeck testified, taking six weeks between the Notice of Allowability and payment of the Issue Fee is not unusual, and is probably shorter than average period. (Ex. 13, Manbeck Dec. para. 17).

[22] 55. Beyond the presumption of irreparable harm, there is additional evidence of irreparable harm in the record. Irreparable harm can also be shown by demonstrating that damages are an inadequate remedy. The Federal Circuit uses a variety of factors to determine whether irreparable harm exists. *See* Mills, "The Developing Standard for Irreparable Harm in Preliminary Injunctions to Prevent Patent Infringement," 81 J. Pat. & Trademark Off. Soc'y 51, 65-66 (Jan.1999) (listing factors); *see also Jacobson v. Cox Paving Co.,* 19 U.S.P.Q.2d 1641, 1653 (D.Ariz.1991) (listing factors and noting that courts have issued injunctions after finding only a few), *aff'd,* 949 F.2d 404 (Fed.Cir.1991).

[23] 56. All of the following factors here weigh in favor of a finding of irreparable harm: the parties are direct competitors trying to influence the same group of customers; Amazon.com spent significant time and effort on market development; Defendants' continuing infringement is likely to undermine Amazon.com's market position; and Defendants' unchecked infringement will encourage others to infringe. *See* Mills, *supra; see also Atlas Powder Co.,* 773 F.2d at 1233 ("If monetary relief were the sole relief afforded by the patent statute then ... infringers could become compulsory licensees for as long as the litigation lasts"). These sorts of indirect effects are the reason the statute includes injunctive remedies. *See* Hybritech, 849 F.2d at 1457 ("The patent statute provides injunctive relief to preserve the legal interests of the parties against future infringement which may have market effects never fully compensable in money").

57. Amazon.com has presented the testimony of its founder and chairman, Jeff Bezos, and of an e-commerce expert, Dr. Eric Johnson, explaining the significant of single-action ordering and of reducing "friction" in customer experiences of shopping on-line. They provided both opinion and empirical evidence that reducing the number of steps a customer must take to make a purchase increases the likelihood that the customer will complete that purchase. (*See* Ex. 10, Johnson Decl. para. 10; Ex. 11, Bezos Decl. para. 8) A single-action ordering method is valuable because it reduces the steps that an on-line customer must take when making a purchase. The evidence adduced from Barnesandnoble.com regarding the problem of abandoned shopping carts (an "industry standard" 65% of them are never checked out) and the popularity of its single-action Express Lane feature corroborate the commercial value of the '411 patent. (*See* Ex. 28; Tr. at 418:1-11; 420:9-421:18 (King); 473:14-474:5 (Bulkeley)).

58. Amazon.com's witnesses also described how and why the upcoming holiday season will be critical to the online retailing industry. (Ex. 10, Johnson Decl. para.para. 16-17; Ex. 11, Bezos Decl. para. 20). They presented evidence that invaluable customer loyalty and goodwill will be irreparably lost to Defendants if they are allowed to continue to infringe, particularly in the next two critical months for e-commerce retailing. As the Federal Circuit has explained, "Competitors change the marketplace. Years after infringement has begun, it may be impossible to restore a patentee's ... exclusive position by an award of damages and a permanent injunction." Polymer Technologies, 103 F.3d at 975-76. Again, the testimony from Barnesandnoble.com corroborates Amazon.com's claim that the 1999 holiday season will be extremely important commercially to on-line retailers. (*See* Tr. at 474:9-18 (Bulkeley)).

[24] 59. Defendants argue that Amazon.com is not entitled to an injunction because its injuries can be compensated in money damages. The cases they cite all hinge on a finding, not applicable here, that the patentee was not entitled to a presumption of irreparable harm because it had not made a clear showing of validity and infringement. *See* Nutrition 21 v. Thorne Research, Inc., 930 F.2d 867, 871 (Fed.Cir.1991); Eli Lilly & Co. v. American Cyanamid Co., 896 F.Supp. 851, 860 (S.D.Ind.1995). Where the presumption of irreparable harm applies, that plaintiff's injuries are fully compensable cannot alone justify a finding that defendants rebutted the presumption of irreparable harm. Polymer Technologies, 103 F.3d at 975-76.

60. Here, Amazon.com has presented ample evidence that the harm it asks the Court to prevent-losing the opportunity to distinguish itself and build customer loyalty at a critical time-cannot be reduced to a simple formula. *See* Hybritech, 849 F.2d at 1456-57 ("It is well-settled that ... the nature of the patent grant weighs against holding that monetary damages will always suffice to make the patentee whole"). There is no easy way to determine the value of the relationships and loyalties that millions of customers establish with

Internet retailers over the next several months.

61. Neither side is able to offer any formula that is readily available for determining what damages might be.

62. Amazon.com's patent entitles it to the exclusive right to offer its single-action ordering invention, and to reap the value that feature adds to its site. Defendants' use of the Express Lane feature, as currently configured, would deny Amazon.com of the benefit of its patent. Barnesandnoble.com has failed to demonstrate that the value of the use of the patent can be calculated in dollars.

63. Amazon.com is presumptively and actually suffering irreparable injury because of Defendants' infringement. The Court concludes that only a preliminary injunction will prevent that harm.

C. *Balance Of Hardships*

[25] [26] 64. The balance of hardships between the parties also favors granting Amazon.com's motion for preliminary injunction. The Court must weigh the threatened injury to the patent holder if injunctive relief is not granted against the injury to the accused infringer if the preliminary injunction is granted. *See* Hybritech Inc., 849 F.2d at 1457. Here, the balance of hardships tips in Amazon.com's favor. Any harm suffered by Barnesandnoble.com would result directly from its misappropriation of Amazon.com's patented purchasing method. The balance of hardships does not favor a defendant where the defendant "took a calculated risk that it might infringe [plaintiff's] patents." Smith Int'l, Inc. v. Hughes Tool Co., 718 F.2d 1573, 1581 (Fed.Cir.1983).

65. Moreover, the evidence indicates that Barnesandnoble.com can modify its "Express Lane" feature with relative ease to avoid infringement of the '411 patent. For instance, infringement can be avoided by simply requiring users to take an additional action to confirm orders placed by using Express Lane. (Tr. at 530:8-13).

66. The harm to Amazon.com is more extensive. Without this injunction, Amazon.com will lose the primary value of the 1-Click(R) option: its role in distinguishing the Amazon.com site from the site of a key competitor. (*See* Ex. 10, Johnson Dec. para.para. 8-12).

67. Aside from the need to take steps to modify its Express Lane feature, Defendants' only testimony or evidence of any harm it will suffer if it is enjoined from infringing the '411 patent is that calls to its customer service phone lines will increase because of the change to its users' experience. (Tr. at 458:15-19). Barnesandnoble's concerns about customer service calls or possible temporary interruptions in its website operation would not tip the balance in favor of an infringing defendant. *See* PPG Indus., Inc. v. Guardian Indus. Corp., 75 F.3d 1558, 1567 (Fed.Cir.1996) (it was less burdensome on infringer to suffer "a temporary interruption" in the infringer's production and sale of its product where patentee would suffer significant harm from denial of preliminary injunction).

68. As Dr. Johnson points out, on-line retailers have great freedom with which they can create their own unique consumer experiences. (Ex. 10, Johnson Decl. para. 15). As noted above, Barnesandnoble.com could modify Express Lane to employ any non-infringing ordering system, including any that requires two or more actions. Moreover, in addition to "Express Lane," Barnesandnoble.com offers a multi-step "shopping cart" ordering system, so it does not need single-action ordering to keep its site running. Many other on-line retailers operate their businesses using multi-step ordering, and Barnesandnoble.com can as well. (*See* Ex. 11, Bezos Decl. at para. 21).

69. Mr. King testified that it would be possible to remove the Express Lane feature from the Barnesandnoble.com site and that he has already met with his developers to discuss it. (Tr. at 435:14-19).

70. Finally, the question of whether the balance of hardships tips in Amazon.com's favor is necessarily related to its showing of a likelihood of success on the merits. "Because the court must balance the hardships, at least in part in light of its estimate of what is likely to happen at trial, it must consider the movant's showing of likelihood of success." Illinois Tool Works, Inc. v. Grip-Pak, Inc., 906 F.2d 679, 683 (Fed.Cir.1990). Amazon.com's strong showing of likelihood of success further tips the balance of hardships in its favor.

D. *Public Interest*

[27] 71. The public is served by innovation on the Internet and in electronic commerce, particularly now while it is still developing rapidly. Competition to provide unique, effective and enjoyable consumer experiences will lead to innovation and diversity in on-line commerce. (Ex. 11, Bezos Decl. para. 22). On the other hand, innovation will be discouraged if competitors are permitted a free ride on each other's patented inventions. Protection of intellectual property rights in innovations will foster greater competition and innovation. (Ex. 11, Bezos Decl. para. 22; Ex. 10, Johnson Decl. para. 15).

72. Granting Amazon.com's preliminary injunction will serve the public interest. The public has a strong interest in the enforcement of intellectual property rights. The purpose of the patent system is to reward inventors and provide incentives for further innovation by preventing others from exploiting their work. *See* E.I. du Pont de Nemours & Co. v. Polaroid Graphics Imaging, Inc., 706 F.Supp. 1135, 1146 (D.Del.1989), *aff'd* 887 F.2d 1095 (Fed.Cir.1989). Encouraging Amazon.com to continue to innovate-and forcing competitors to come up with their own new ideas-unquestionably best serves the public interest.

73. Defendants' argument that the injunction would not serve the public interest presupposes that the '411 patent is invalid and not infringed. Amazon.com has established that Defendants' defenses lack substantial merit. The Amazon.com inventors are therefore entitled "to reap the benefits of their labor" and "prevent others from practicing what they have invented." E.I. du Pont de Nemours & Co., 706 F.Supp. at 1146. This is particularly true in a rapidly developing industry where the window of opportunity to reap the benefits is likely to be short-lived, given the fertile climate for e-commerce inventions.

E. *Other Arguments*

74. Defendants have also offered a variety of other arguments against issuance of the preliminary injunction. They have suggested, for instance, that: (1) Amazon.com should have warned potential infringers that a patent application was pending for the '411 patent prior to its issuance; (2) Amazon.com somehow inequitably timed the issue date of the patent to fall near the 1999 holiday season; and (3) Defendants' due process rights would be abrogated if they only had a few weeks to prepare for a hearing on Amazon.com's motion for a preliminary injunction. Defendants have cited no relevant case law to the Court in support of these arguments, and the Court finds these arguments unpersuasive.

IV. CONCLUSION

Therefore, the Court hereby ORDERS that Defendants Barnesandnoble.com LLC and Barnesandnoble.com Inc., their offers, agents, servants, employees and attorneys and those in active concert or participation with them or Defendants ARE HEREBY RESTRAINED AND ENJOINED from continuing to infringe United States Patent No. 5,960,411, including by continuing to make or use within the United States Defendants' Express Lane feature as currently configured or any other single-action ordering system that employs the methods or systems of the '411 patent, or by inducing others to make or use within the United States Defendants' Express Lane feature as currently configured or any other single-action ordering system that employs the methods of systems of the '411 patent. Defendants may continue to offer an Express Lane feature if the feature is modified to avoid infringement of the '411 patent in a manner that is consistent with the findings of fact and conclusions of law set forth above.

The above Preliminary Injunction is effective at 12:01 a.m. P.S.T. on Saturday, December 4, 1999, and upon Amazon.com's filing an undertaking in the sum of $10,000,000 and shall remain in effect during the pendency of this action.

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