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UNITED STATES DISTRICT COURT
WESTERN DISTRICT OF WASHINGTON
AT SEATTLE

AMAZON.COM, INC.,

Plaintiff,

v.

BARNESANDNOBLE.COM, INC., and
BARNESANDNOBLE.COM, LLC,

Defendants.

No. C99-1695P

ORDER ON PLAINTIFF'S
MOTION FOR PRELIMINARY
INJUNCTION

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.

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

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

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

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

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

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

II FINDINGS OF FACT

Background

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

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

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

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

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

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

11 **Prior Art**

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

15 8. In support of their arguments that the single-action ordering element of the '411
16 patent is invalid on obviousness and anticipation grounds, Defendants offered evidence concerning
17 several prior art references. This evidence of prior art falls into two general categories: systems for
18 ordering tangible items online (such as groceries or computer equipment) and electronic document
19 delivery systems. In the former category were Dr. John Lockwood's Web Basket system, the
20 Netscape Merchant System described in the "Creating a Virtual Store" reference, and the "Oliver's
21 Market" web pages. In the latter category were the CompuServe financial information service
22 represented by Mr. Alexander Trevor's testimony regarding the "Trend" feature, and U.S. Patent No.
23 5,708,780 (the '780 patent). It is undisputed that these prior art references were not before the PTO
24 when the '411 patent was examined.

1 **Web Basket**

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

7 10. Web Basket requires users to accumulate items into a virtual shopping basket and to
8 check these items out when they are finished shopping. (Tr. at 175:6-17; 176:7-179:13 (Mulligan);
9 Ex. 12, Mulligan Supp. Decl. at ¶ 29). Web Basket also requires several confirmation steps for even
10 preregistered users to complete their purchases. (Ex. 12, Mulligan Supp. Decl. at ¶¶ 18-22; Ex. A-
11 56, Lockwood Decl. ¶¶ 41-44).

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

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

19 **Netscape Merchant System**

20 13. Defendants also presented as a prior art reference an excerpt from a book entitled
21 "Creating the Virtual Store" that was copyrighted in 1996. (Ex. A-63; Ex. 27). Defendants focused
22 on the following language from this reference: "Merchants also can provide shoppers with an instant
23 buy button for some or all items, enabling them to skip check out review. This provides added appeal
24 for customers who already know the single item they want to purchase during their shopping

1 excursion." (Ex. 27 at 7; Tr. at 309:23-310:18; 312:3-20 (Lockwood)). Defendants argue that the
2 Netscape Merchant System reference anticipates each of the independent claims of the '411 patent
3 and that this reference, either alone or in combination with other prior art references, renders the
4 claims of the '411 patent obvious.

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

12 15. Read in context, the few lines relied on by Defendants appear to describe only the
13 elimination of the checkout review step, leaving at least two other required steps to complete a
14 purchase. (Tr. at 327:10-18 (Lockwood); *see also* Ex. 27 at 7). Thus, apart from the words "instant
15 buy," there is no indication that the Netscape system implements a single-action ordering component
16 as required by claims 6 and 9 of the '411 patent or a single action as required by claims 1 and 11 of
17 the '411 patent. Moreover, Defendants' expert acknowledged that he did not know how the
18 Netscape instant buy feature worked. (Tr. at 312:3-20; 350:7-12 (Lockwood)).

19 Oliver's Market

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

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

4 18. The "single click" referred to in the first sentence is the click required to add an item
5 to the user's shopping cart and does not complete the ordering process. After a single action is taken
6 to select an item, the method described by this reference explicitly requires the user to take further
7 actions to complete a purchase order, including: (1) specifying whether items will be picked up or
8 delivered; (2) specifying the time that pickup or delivery is desired; and (3) indicating that the user is
9 done shopping, which would appear to be the checkout procedure required by a standard shopping
10 cart model. These additional actions are inconsistent with the single-action requirements of
11 independent claims 1, 6, 9, and 11.
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13 '780 patent

14 19. Defendants also presented testimony by Dr. Lockwood in support of their argument
15 that U.S. Patent No. 5,708,780 (the '780 patent) anticipates or renders obvious claims of the '411
16 patent. The '780 Patent lists a filing date of June 7, 1995 and an issue date of January 13, 1998.
17 (Ex. A-67). The title of the '780 patent is "Internet Server Access Control and Monitoring System."
18 The description of the '780 patent is directed towards a service for controlling access to web
19 documents within a particular domain. Defendants argue that the '780 patent anticipates claims 1 and
20 11 of the '411 patent.
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22 20. In the '780 patent's preferred embodiment, a user browses the web conventionally.
23 (Ex. A-67 at Col. 3, ll 21-22). A content server provides web documents to the user and determines
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1 when the user seeks access to "controlled" content, i.e., web pages for which the user needs
2 authorization to browse. (*Id.* at Col. 3, ll 22-25; Fig. 2A).

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

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

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

19 CompuServe Trend System

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

3 25. The CompuServe system was not a world wide web application. (Tr. at 380:21-381:7
4 (Trevor)). Instead, after a user logged in, a persistent connection was established between the user's
5 computer and CompuServe which lasted until the user logged off. (Tr. at 368:24-369:8; 380:25-
6 381:16 (Trevor)). CompuServe, therefore, did not solve the problem of identifying users.

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

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

6
7 **Barnesandnoble.com's Shopping Cart and Express Lane**

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

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

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

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

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

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

12 **Direct Evidence of Nonobviousness**

13 34. Amazon.com has provided direct evidence of nonobviousness. Jeff Bezos,
14 Amazon.com's founder and an inventor on the '411 patent, testified that because "many customers
15 were tentative and somewhat fearful of on-line purchasing, conventional wisdom was that they had to
16 be slowly and incrementally led to the point of purchase. In addition, consumers were not acclimated
17 to rely without confirmation on stored personal information for correct shipping and billing." (Ex.
18 11, Bezos Decl. ¶ 9).

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

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

13
14 Objective Factors

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

21 38. In the on-line industry in general and at Barnesandnoble.com in particular, over half of
22 the shopping carts started by customers are abandoned before checkout. (Tr. at 418: 9-11 (King)).

23 In an attempt to alleviate the problem of abandoned shopping carts, Barnesandnoble.com attempts to
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1 make the checkout process as simple and easy as possible. (Tr. at 473:24-474:5 (Bulkeley); Tr. at
2 419:24-420:8 (King)). The single-action ordering invention of the '411 patent solves the problem by
3 eliminating the checkout process entirely.

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

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

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

2 42. The harm that would be suffered by Amazon.com due to Barnesandnoble.com's
3 infringement during the pendency of this case would be irreparable. The invention described in the
4 '411 patent is of significant commercial value, as evidenced, among other things, by the large number
5 of customers who make use of single-action ordering available on the websites of both Amazon.com
6 and Barnesandnoble.com, and by the large number of other e-commerce retailers whom
7 Barnesandnoble.com claims have adopted single-action ordering. (Ex. 11, Bezos Decl. ¶ 14; Ex. 28;
8 Tr. at 453:11-456:15 (Bulkeley)).
9

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

13 44. Amazon.com has pursued a strategy of innovating to distinguish its shopping
14 experience from the competition, and it has made substantial investments to build customer
15 relationships and broaden its customer base during the current growth phase of electronic commerce.
16 (Tr. at 107:22-109:1 (Bezos); Ex. 10, Johnson Decl. ¶ 7).
17

18 45. Customers become loyal to sites with which they become familiar. Considerations
19 such as ease of use and the availability of time-saving features are significant factors in determining
20 the relative success of on-line enterprises. (Ex. 10, Johnson Decl. ¶ 4; Tr. at 122:4-11; 419:25 &
21 420:1-12). Creating easy-to-use and easy-to-learn consumer interfaces is a key aspect of e-commerce
22 competition. Amazon.com's commercial success depends in part on its efforts to reduce its
23 customers' time and effort in using its site. (Ex. 10, Johnson Decl. ¶ 7; see also Ex. 37, at 41).
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1 46. One of Amazon.com's investments to improve its customers' experience and attract
2 new customers was to develop single-action ordering. (Tr. at 123:4-124:6 (Bezos)). The feature has
3 been popular with Amazon.com customers and the one-step ordering innovation has been praised in
4 the industry. (Tr. at 125:9-126:6 (Bezos); Ex. 11, Bezos Decl. at ¶ 14, Exs. A, B).

5 47. A number of other e-commerce retailers, including Defendants, subsequently adopted
6 systems that are essentially identical to the features of Amazon.com's single-action ordering process.
7
8 With respect to Barnesandnoble.com, the Court finds that its later adoption of a single-action
9 ordering system, Express Lane, eliminated a key point of differentiation between its website and
10 Amazon.com's.

11 48. The harm to Amazon.com would be compounded if Barnesandnoble.com's
12 infringement were permitted to continue during the 1999 holiday shopping season. (Ex. 10, Johnson
13 Decl. ¶ 16; Ex. 11, Bezos Decl. ¶ 20). There is no dispute that holiday seasons have historically been
14 key periods for e-commerce customer acquisition and that they can have a significant effect on the
15 long-term prospects of e-commerce businesses. (See Tr. at 474:9-18 (Bulkeley)). In 1998, for
16 example, Amazon.com increased its customer base nearly 20% in just the last six weeks of the year,
17 adding over a million new customer accounts in this time period. (Ex. 11, Bezos Decl. at ¶ 20). This
18 year appears likely to be an even more significant season for customer acquisition. (Ex. 10 Johnson
19 Decl. at ¶¶ 16-17; Ex. 11, Bezos Decl. at ¶ 20; Tr. at 108:3-16). Industry estimates for the amount
20 that will be spent by consumers online in November and December of this year range from \$6 to 12
21 billion -- 2 to 3 times the amount spent during the same period in 1998. (Ex. 10; Johnson Decl. at
22 ¶ 16; Exs. C, D)

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

4 Preliminary Injunction Standard

5 4. "[T]o obtain a preliminary injunction, pursuant to 35 U.S.C. § 283, a party must
6 establish a right thereto in light of four factors: (1) reasonable likelihood of success on the merits; (2)
7 irreparable harm; (3) the balance of hardships tipping in its favor; and (4) the impact of the injunction
8 on the public interest." *Hybritech, Inc. v. Abbott Labs.*, 849 F.2d 1446, 1451 (Fed Cir. 1988).

9 A. Likelihood of Success on the Merits

10 Validity

11 5. The statutory presumption of validity, 35 U.S.C. § 282, applies to all patents and is
12 meant "to contribute stability to the grant of patent rights." *Magnivision, Inc. v. Borneau Co.*, 115
13 F.3d 956, 958 (Fed. Cir. 1997). This presumption operates at every stage of the litigation, including
14 in a motion for preliminary injunction against an alleged infringer. See *Canon Computer Systems,*
15 *Inc. v. Nu-Kote Int'l, Inc.*, 134 F.3d 1085, 1088 (Fed. Cir. 1998). A defendant may overcome this
16 presumption, however, if he raises a "substantial question" concerning the validity of a patent and if
17 the party seeking the injunction fails to show that this defense lacks "substantial merit." See *New*
18 *England Braiding Co. v. A.W. Chesterton Co.*, 970 F.2d 878, 883 (Fed. Cir. 1992) (noting that
19 "[w]hile it is not the patentee's burden to prove validity, the patentee must show that the alleged
20 infringer's defense lacks substantial merit"). Defendants raise a number of questions regarding the
21 '411 patent's validity, which the Court discusses below.

1 Anticipation

2 6. Anticipation is a question of fact, *see Atlas Powder Co. v. Ireco Inc.*, 190 F.3d 1342,
3 1346 (Fed. Cir. 1999), and is a defense only if “all of the same elements are found in exactly the same
4 situation and united in the same way . . . in a single prior art reference.” *Perkin-Elmer Corp. v.*
5 *Computervision Corp.*, 732 F.2d 888, 894 (Fed. Cir. 1984). Although anticipation is a factual
6 inquiry, the Court reiterates its findings and the applicable law here for ease of reference.
7

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

14 8. In addition, claims 1-5 and 11-26 require that “the item is ordered without using a
15 shopping cart ordering model” [claims 1-5] or “the item is ordered independently of a shopping cart
16 model” [claims 11-26]. Because Web Basket is itself a shopping cart model, it lacks these required
17 elements as well.
18

19 9. The description of the Netscape Instant Buy option presented by Defendants consisted
20 of a total of four lines. Defendants' expert Dr. Lockwood was unable to supply any additional
21 information regarding the feature described by this reference and ultimately admitted that he did not
22 know how the feature worked. (Tr. at 312:3-20; 350:7-12). The Netscape reference therefore does
23 not teach the invention to one of ordinary skill in the art (e.g., Dr. Lockwood) as is required of an
24 anticipatory reference.
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1 10. Moreover, when read in context, the reference appears to describe a shopping cart
2 model with an option to skip one of the required checkout steps. Thus viewed in the best light for
3 Defendants, the Netscape reference fails to anticipate any of the claims of the '411 for the same
4 reasons as Web Basket: it does not include a single-action ordering component. Moreover, it does
5 not appear to be independent of a shopping cart model, as required by claims 1 and 11.

6
7 11. Similarly, the Oliver's Market reference, when read as a whole, plainly discloses a
8 multi-step shopping cart model. It, therefore, also lacks the same elements that are missing from Web
9 Basket and Netscape: a single-action ordering component that is independent of a shopping cart
10 model.

11 12. The '780 patent entitled "Internet Server Access Control and Monitoring System" also
12 fails to anticipate any claim of the '411 patent. As discussed above, the system described in the '780
13 patent controls access to certain web pages. Even assuming that a web page is an "item" to be
14 ordered as that term is used in the claims of the '411 patent, the access control system described in
15 the '780 patent is not an ordering system.

16
17 13. Each claim of the '411 patent requires that the server system generate an order for the
18 item requested by the customer. The requirement is described in slightly different terms in each of the
19 independent claims but the import is the same: "generat[e] an order to purchase the requested item"
20 (claim 1); "locate additional information needed to complete the order and so that the server system
21 can fulfill the generated order" (claim 6); "uses the retrieved information to place an order for the
22 indicated user for the item" (claim 9); "whereby the item is ordered independently of a shopping cart
23 model and the order is fulfilled to complete a purchase of the item" (claim 11).

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

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

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

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

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

7
8 Obviousness

9 19. "Included within the presumption of validity mandated by 35 U.S.C. § 282 is a
10 presumption of nonobviousness which the patent challenger must overcome by proving facts with
11 clear and convincing evidence. The presumption remains intact even upon proof of prior art not cited
12 by the Patent and Trademark Office (PTO), though such art, if more relevant than that cited, may
13 enable the challenger to sustain its burden." *Perkin-Elmer Corp. v. Computervision Corp.*, 732 F.2d
14 888, 894 (Fed. Cir. 1984) (citations omitted).

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

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

5 22. In any event, whether it would be, at the present time, an "obvious" or "trivial"
6 modification of the Web Basket system to include the "single action" feature of the '411 patent is
7 legally irrelevant. The law is clear that the time period for any obviousness determination is "at the
8 time the invention was made." 35 U.S.C. § 103(a). See also, *In re Dembiczak*, 175 F.3d 994, 998-
9 99 (Fed. Cir. 1999).

10 23. "[O]bjective indicia 'may often be the most probative and cogent evidence of
11 nonobviousness in the record.'" *Gambro Lundia AB v. Baxter Healthcare Corp.*, 110 F.3d 1573,
12 1579 (Fed. Cir. 1997) (quoting *Stratoflex, Inc. v. Aeroquip, Corp.*, 713 F.2d 1530, 1538 (Fed. Cir.
13 1983)); see also, *Arkie Lures Inc. v. Gene Larew Tackle, Inc.*, 119 F.3d 953, 957 (Fed. Cir. 1997)
14 ("Indeed, evidence of secondary considerations may often be the most probative and cogent evidence
15 in the record. It may often establish that an invention appearing to have been obvious in light of the
16 prior art was not.").

17 24. "Such secondary considerations as commercial success, long felt but unsolved needs,
18 [and] failures of others" are relevant as evidence of obviousness. *Graham v. John Deere Co.*, 383
19 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
20 (Considerations of commercial success, licensing activities, and copying may be "highly probative of
21 the issue of nonobviousness.").

1 25. Copying of the invention by Barnesandnoble.com and others is additional evidence of
2 nonobviousness. "It gives the tribute of its praise to the prior art; it gives the [invention] the tribute
3 of its imitation, as others have done." *Diamond Rubber Co. v. Consolidated Rubber Tire Co.*, 220
4 U.S. 428, 441, 31 S. Ct. 444, 55 L. Ed. 527 (1911).

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

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

18 **Enforceability**

19 28. In their initial opposition to Plaintiff's motion for a preliminary injunction, Defendants
20 argued that the '411 patent was unenforceable due to alleged inequitable conduct on the part of the
21 one of the inventors, Shel Kaphan. Specifically, Defendants alleged that Mr. Kaphan's failure to cite
22 to the PTO an Internet Engineering Task Force draft entitled "State Management Mechanism"
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1 ("IETF Draft"), in which he is acknowledged as a contributor by the authors, constituted inequitable
2 conduct. Defendants deposed Mr. Kaphan and submitted brief excerpts from his deposition to the
3 Court. None of those excerpts related to his knowledge of the IETF Draft or any intent to deceive
4 the patent office. The Court assumes that Defendants have abandoned their inequitable conduct
5 claim, at least for the purposes of their opposition to the preliminary injunction motion. Indeed,
6 Defendants presented no arguments based on unenforceability in their closing argument or in their
7 proposed findings of fact and conclusions of law.
8

9 29. In any event, the Court finds that Defendants' arguments regarding unenforceability
10 lack substantial merit. The testimony of Mr. Mulligan, a member of the IETF, that the IETF Draft is
11 less relevant to the '411 patent than cited references including one in a publication entitled "Dr.
12 Dobbs Journal" that itself references the IETF Draft, is unopposed and dispositive. (Tr. at 174: 13-
13 25 (Mulligan)) A "patentee need not cite an otherwise material reference to the PTO if that reference
14 is merely cumulative or is less material than other references already before the examiner." *Baxter*
15 *Int'l, Inc. v. McGaw, Inc.*, 149 F.3d 1321, 1328 (Fed. Cir. 1998).
16

17 Infringement Analysis

18 30. Defendants have also argued that Plaintiff has not demonstrated that the "Express
19 Lane" feature infringes any claims of the '411 patent. "[A]nalysis of patent infringement involves two
20 steps: (1) claim construction to determine what the claims cover, i.e., their scope, followed by (2)
21 determination of whether the properly construed claims encompass the accused structure." *Cole v.*
22 *Kimberly-Clark Corp.* 102 F.3d 524, 528 (Fed. Cir. 1997). The former is a question of law, the latter
23 is a question of fact. *See Voice Techs. Group v. VMS Sys, Inc.*, 164 F.3d 605, 612 (Fed. Cir. 1999).
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1 For ease of reference, the Court includes its entire infringement analysis in the Conclusions of Law
2 section, even though it presents mixed questions of law and fact.

3 Claim Construction

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

8 32. Claims must be read in view of the specification of which they are a part. See
9 *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 979 (Fed. Cir. 1995). Words defined in the
10 specification should be given the same meaning in the claims. *McGill, Inc. v. John Zink Co.*, 736
11 F.2d 666, 674 (Fed. Cir. 1984), *cert. denied*, 469 U.S. 1037, 105 S. Ct. 514, 83 L. Ed. 2d 404
12 (1984), *overruled on other grounds*, *Markman*, 52 F.3d at 967. See also *Standard Oil Co. v.*
13 *American Cyanamid Co.*, 774 F.2d 448, 452 (Fed. Cir. 1985) (the specification is the primary basis
14 for construing claims).

15 33. The term "shopping cart model" is described in the Background of the Invention
16 section of the '411 patent beginning at column 2 line 17: "The selection of various items is generally
17 based on the 'shopping cart' model. When the purchaser selects an item from the electronic catalog,
18 the server computer system metaphorically adds that item to a shopping cart. When the purchaser is
19 done selecting items, then all the items in the shopping cart are 'checked out' (i.e., ordered) when the
20 purchaser provides billing and shipping information." As described at column 2 lines 34 through 43,
21 in some cases the billing and shipping information may be prestored by the merchant and need only be
22 confirmed to complete the checkout process.
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1 34. The definition of shopping cart model in the background section of the '411 patent is
2 consistent with that provided by Amazon.com's e-commerce experts Dr. Johnson and Mr. Mulligan.
3 (See Ex. 10, Johnson Decl. at ¶ 14; Ex. 12, Mulligan Decl. at ¶ 7; Tr. at 167:19-168:9 (Mulligan)).

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

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

19 37. The Court adopts instead a definition which is consistent with the patent specification,
20 preserves the validity of the claims, and allows the claims to be read on the preferred embodiment
21 described in the patent specification. In construing the claims, the Court, therefore, takes the term
22 "shopping cart model" to mean a method for on-line ordering in which a user selects and accumulates
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1 items to be purchased while browsing a merchant's site and then must proceed to one or more
2 checkout or confirmation steps in order to complete the purchase. (Ex. 12, Mulligan Supp. Decl.
3 ¶¶ 5-6).

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

15
16 39. Mr. Mulligan's above definition of "order fulfillment component" as a computer
17 program is consistent with the out of court statements by Barnesandnoble.com's Chief Information
18 Officer, Mr King, regarding Barnesandnoble.com's "fulfillment application" in a recent interview with
19 an industry trade press. (See Ex. 8). During cross-examination Mr. King testified that "fulfillment
20 application" was a commonly used term in the industry to refer to computer programs associated with
21 the fulfillment process. (Tr. at 432:25-433:8). The Court therefore finds that "order fulfillment
22 component" as used in claim 9 refers to order fulfillment application software described by Mr.
23 Mulligan and Mr. King.
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1 40. Similarly, the Court finds that the term "fulfill" as used in claim 6 in the phrase, "so
2 that the server system can fulfill the generated order," refers to processes performed by the order
3 fulfillment component of (or order fulfillment application running on) the server system and does not
4 include the physical steps of handling or packing tangible items.

5 41. The third point of disagreement concerns the terms "single action" and "single-action
6 ordering component" as used in claims 1, 6, 9, and 11.

7 42. The term "single action" is not defined by patent specification. However, the patent
8 specification provides that "once the description of an item is displayed, the purchaser need only take
9 a single action to place the order to purchase that item." (Ex. A-1 at col. 3, ll. 64-66). The
10 specification also provides that "a single action may be preceded by multiple physical movements of
11 the purchaser (e.g., moving a mouse so that a mouse pointer is over a button)." (Ex A-1 at col. 10,
12 ll. 2-4). In addition, the specification indicates "[i]n general, the purchaser need only be aware of the
13 item or items to be ordered by the single action and of the single action needed to place the order."
14 (Ex. A-1 at col. 4, ll. 14-17 (emphasis added)). As a result, the term "single action" as used in the
15 '411 patent appears to refer to one action (such as clicking a mouse button) that a user takes to
16 purchase an item once the following information is displayed to the user: (1) a description of the item;
17 and (2) a description of the single action the user must take to complete a purchase order for that
18 item.
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20 43. The parties dispute what mouse clicks "count" in determining whether the single-
21 action requirement of the '411 patent claims is satisfied. The Court finds that clicks "count" after
22 both information identifying the item and a description of the single action the user must take to
23 complete a purchase order for that item are displayed to the user.
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1 Comparison of the '411 Patent Claims to Defendants' Express Lane Feature

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

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

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

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

19 48. At the hearing on this motion, Defendants argued that Barnesandnoble.com's Express
20 Lane option was not a "single-action ordering component" as required by claims 1, 3, 5, 6, 7, 8, 9,
21 10, because a user of Express Lane must take more than one action from the first time that some
22 information regarding an item is displayed. The Court finds this argument unavailing. Except in
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1 court, Barnesandnoble.com everywhere has described its Express Lane option as "one-click
2 ordering," including on its web site and its communications with shareholders and prospective
3 shareholders filed with the Securities Exchange Commission. (Tr. at 464:3-8; Tr. at 464: 24-467: 22
4 (Bulkeley); Ex. 36 at 6, 44, 47). Moreover, the Court agrees with the testimony of Mr. Mulligan that
5 browsing a site is not ordering and that one does not begin the ordering process until one is past the
6 home page and is presented with an opportunity to order an item. (Tr. at 185:3-8; Tr. at 191:7-15).
7 This occurs for the first time at the product or detail page on the Barnesandnoble.com site. (*Id.* and
8 Ex. 9, Mulligan Decl., Ex., R). From there, as noted on Barnesandnoble.com's own web page,
9 ordering with the Express Lane option requires only a single click. (*Id.*)
10

11 49. Mr. King testified that he was provided with a copy of the '411 patent by
12 Barnesandnoble.com's outside counsel in early October, 1999. (Tr. at 417:9-19). It was the first
13 time that Mr. King had ever received a patent from Barnesandnoble.com's outside counsel. (Tr. at
14 417:20-22). "Where, as here, a potential infringer has actual notice of another's patent rights, he has
15 an affirmative duty to exercise due care to determine whether or not he is infringing." *Underwater*
16 *Devices, Inc. v. Morrison-Knudsen Co.*, 717 F.2d 1380, 1389 (Fed. Cir. 1983).
17

18 Summary

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

21 B. Irreparable Harm

22 51. The Court finds that Plaintiff has made a strong showing that the '411 patent is valid
23 and that Defendants' Express Lane feature infringes the patent. Plaintiff is therefore entitled to a
24 presumption of irreparable harm. *See, e.g., Smith Int'l, Inc. v. Hughes Tool Co.*, 718 F.2d 1573,
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1 1581 (Fed. Cir. 1983) (holding "where validity and continuing infringement have been clearly
2 established . . . immediate irreparable harm is presumed"). While Defendants have raised a number of
3 defenses regarding validity, noninfringement, and enforceability, the Court finds that Plaintiff has
4 established that these defenses lack substantial merit.

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

13 53. Defendants attempt to invoke the category of undue delay, arguing that Amazon.com
14 should have filed their suit immediately upon issuance of the patent. However, Amazon.com filed
15 this action 22 days after its patent was issued. The Court is unaware of any authority indicating that
16 filing a motion for a preliminary injunction less than a month after a patent is issued constitutes an
17 undue delay. Instead, cases citing undue delay as a factor to be considered on a motion for
18 preliminary injunction address delays of months or years, not days. *See Mentor Graphics Corp. v.*
19 *Quickturn Design Systems, Inc.*, 999 F.Supp. 1388 (D. Or. 1997) (delay of more than one year
20 between the filing of patent infringement action and the filing of a motion for a preliminary injunction
21 did not bar the patentee from obtaining a preliminary injunction), *aff'd* 150 F.3d 1374 (Fed. Cir.
22 1998); *Rubbermaid Commercial Prods., Inc. v. Contico Int'l, Inc.*, 836 F.Supp. 1247 (W.D. Va.
23 1993) (eight months no bar); *Motorola, Inc. v. Alexander Mfg. Co.*, 786 F.Supp. 808 (N.D. Iowa
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1 1991) (three months no bar); *SMI Indus. Canada Ltd. v. Caelter Indus., Inc.*, 586 F.Supp. 808
2 (N.D.N.Y. 1984) (six months no bar).

3 54. Defendants also suggest that Amazon.com engaged in undue delay by not paying its
4 Issue Fee for the '411 patent until six weeks after receiving the Notice of Allowability for the patent.
5 Defendants cite no authority which indicates that this type of delay is either undue or even relevant.
6 Moreover, as former PTO Commissioner Harry Manbeck testified, taking six weeks between the
7 Notice of Allowability and payment of the Issue Fee is not unusual, and is probably shorter than
8 average period. (Ex. 13, Manbeck Dec. ¶ 17).
9

10 55. Beyond the presumption of irreparable harm, there is additional evidence of irreparable
11 harm in the record. Irreparable harm can also be shown by demonstrating that damages are an
12 inadequate remedy. The Federal Circuit uses a variety of factors to determine whether irreparable
13 harm exists. See Mills, "The Developing Standard for Irreparable Harm in Preliminary Injunctions to
14 Prevent Patent Infringement," 81 J. Pat. & Trademark Off. Soc'y 51, 65-66 (Jan. 1999) (listing
15 factors); see also *Jacobson v. Cox Paving Co.*, 19 U.S.P.Q.2d 1641, 1653 (D. Ariz. 1991) (listing
16 factors and noting that courts have issued injunctions after finding only a few), *aff'd*, 949 F.2d 404
17 (Fed. Cir. 1991).
18

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

5 57. Amazon.com has presented the testimony of its founder and chairman, Jeff Bezos, and
6 of an e-commerce expert, Dr. Eric Johnson, explaining the significance of single-action ordering and
7 of reducing “friction” in customer experiences of shopping on-line. They provided both opinion and
8 empirical evidence that reducing the number of steps a customer must take to make a purchase
9 increases the likelihood that the customer will complete that purchase. (See Ex. 10, Johnson Decl.
10 ¶ 10; Ex. 11, Bezos Decl. ¶ 8) A single-action ordering method is valuable because it reduces the
11 steps that an on-line customer must take when making a purchase. The evidence adduced from
12 Barnesandnoble.com regarding the problem of abandoned shopping carts (an “industry standard”
13 65% of them are never checked out) and the popularity of its single-action Express Lane feature
14 corroborate the commercial value of the ‘411 patent. (See Ex. 28; Tr. at 418:1-11; 420:9-421:18
15 (King); 473:14-474:5 (Bulkeley)).
16

17 58. Amazon.com’s witnesses also described how and why the upcoming holiday season
18 will be critical to the online retailing industry. (Ex. 10, Johnson Decl. ¶¶ 16-17; Ex. 11, Bezos Decl.
19 ¶ 20). They presented evidence that invaluable customer loyalty and goodwill will be irreparably lost
20 to Defendants if they are allowed to continue to infringe, particularly in the next two critical months
21 for e-commerce retailing. As the Federal Circuit has explained, “Competitors change the
22 marketplace. Years after infringement has begun, it may be impossible to restore a patentee’s . . .
23 exclusive position by an award of damages and a permanent injunction.” *Polymer Tech.*, 103 F.3d at
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1 975-76. Again, the testimony from Barnesandnoble.com corroborates Amazon.com's claim that the
2 1999 holiday season will be extremely important commercially to on-line retailers. (See Tr. at 474:9-
3 18 (Bulkeley)).

4 59. Defendants argue that Amazon.com is not entitled to an injunction because its injuries
5 can be compensated in money damages. The cases they cite all hinge on a finding, not applicable
6 here, that the patentee was not entitled to a presumption of irreparable harm because it had not made
7 a clear showing of validity and infringement. See *Nutrition 21 v. Thorne Research, Inc.*, 930 F.2d
8 867, 871 (Fed. Cir. 1991); *Eli Lilly & Co. v. American Cyanamid Co.*, 896 F.Supp 851, 860 (S.D.
9 Ind. 1995). Where the presumption of irreparable harm applies, that plaintiff's injuries are fully
10 compensable cannot alone justify a finding that defendants rebutted the presumption of irreparable
11 harm. *Polymer Techs.*, 103 F.3d at 975-76.

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

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

22 62. Amazon.com's patent entitles it to the exclusive right to offer its single-action
23 ordering invention, and to reap the value that feature adds to its site. Defendants' use of the Express
24 Lane feature, as currently configured, would deny Amazon.com of the benefit of its patent.

1 Barnesandnoble.com has failed to demonstrate that the value of the use of the patent can be
2 calculated in dollars.

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

6
7 C. Balance Of Hardships

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

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

20
21 66. The harm to Amazon.com is more extensive. Without this injunction, Amazon.com
22 will lose the primary value of the 1-Click® option: its role in distinguishing the Amazon.com site
23 from the site of a key competitor. (*See Ex. 10, Johnson Dec.* ¶¶ 8-12).

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

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

19 69. Mr. King testified that it would be possible to remove the Express Lane feature from
20 the Barnesandnoble.com site and that he has already met with his developers to discuss it. (Tr. at
21 435:14-19).

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

4 D. Public Interest

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

12
13 72. Granting Amazon.com's preliminary injunction will serve the public interest. The
14 public has a strong interest in the enforcement of intellectual property rights. The purpose of the
15 patent system is to reward inventors and provide incentives for further innovation by preventing
16 others from exploiting their work. See *E.I. du Pont de Nemours & Co. v. Polaroid Graphics*
17 *Imaging, Inc.*, 706 F. Supp. 1135, 1146 (D.Del. 1989), *aff'd* 887 F.2d 1095 (Fed. Cir. 1989).
18 Encouraging Amazon.com to continue to innovate – and forcing competitors to come up with their
19 own new ideas – unquestionably best serves the public interest.

20
21 73. Defendants' argument that the injunction would not serve the public interest
22 presupposes that the '411 patent is invalid and not infringed. Amazon.com has established that
23 Defendants' defenses lack substantial merit. The Amazon.com inventors are therefore entitled "to
24 reap the benefits of their labor" and "prevent others from practicing what they have invented." *E.I.*
25

1 *du Pont de Nemours & Co.*, 706 F. Supp. at 1146. This is particularly true in a rapidly developing
2 industry where the window of opportunity to reap the benefits is likely to be short-lived, given the
3 fertile climate for e-commerce inventions.

4 **E. Other Arguments**

5 74. Defendants have also offered a variety of other arguments against issuance of the
6 preliminary injunction. They have suggested, for instance, that: (1) Amazon.com should have warned
7 potential infringers that a patent application was pending for the '411 patent prior to its issuance; (2)
8 Amazon.com somehow inequitably timed the issue date of the patent to fall near the 1999 holiday
9 season; and (3) Defendants' due process rights would be abrogated if they only had a few weeks to
10 prepare for a hearing on Amazon.com's motion for a preliminary injunction. Defendants have cited
11 no relevant case law to the Court in support of these arguments, and the Court finds these arguments
12 unpersuasive.
13

14 **IV. CONCLUSION**

15 Therefore, the Court hereby **ORDERS** that Defendants Barnesandnoble.com LLC and
16 Barnesandnoble.com Inc., their officers, agents, servants, employees and attorneys and those in active
17 concert or participation with them or Defendants **ARE HEREBY RESTRAINED AND ENJOINED**
18 from continuing to infringe United States Patent No. 5,960,411, including by continuing to make or
19 use within the United States Defendants' Express Lane feature as currently configured or any other
20 single-action ordering system that employs the methods or systems of the '411 patent, or by inducing
21 others to make or use within the United States Defendants' Express Lane feature as currently
22 configured or any other single-action ordering system that employs the methods or systems of the
23 '411 patent. Defendants may continue to offer an Express Lane feature if the feature is modified to
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1 avoid infringement of the '411 patent in a manner that is consistent with the findings of fact and
2 conclusions of law set forth above.

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

6 The clerk is directed to provide copies of this order to all counsel of record.

7 Dated: December 1, 1999.

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11 Marsha J. Pechman
U.S. District Judge

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