**United States Court of Appeals for the Federal Circuit**

**AMAZON.COM, INC., Plaintiff-Appellee,**

**v.**

**BARNESANDNOBLE.COM, INC. and BARNESANDNOBLE.COM, LLC, Defendants-Appellants.**

00-1109

**239 F.3d 1343**

Lynn H. Pasahow, McCutchen, Doyle, Brown & Enersen, LLP, of Palo Alto, California, argued for plaintiff-appellee. With her on the brief were J. David Hadden, of Palo Alto; and Beth H. Parker, Christopher B. Hockett, and Thomas S. Hixson, of San Francisco, from McCutchen, Doyle, Brown & Enersen, LLP. Of counsel was John R. Reese, McCutchen, Doyle, Brown & Enersen, LLP, of San Francisco, California. Of counsel on the brief were David J. Burman, Brian G. Bodine, and Jerry A. Riedinger, Perkins Coie, LLP, of Seattle, Washington.

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Appealed from: United States District Court for the Western District of Washington

Judge Marsha J. Pechman

DECIDED: February 14, 2001

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Before CLEVENGER, GAJARSA and LINN, Circuit Judges.

CLEVENGER, Circuit Judge.

This is a patent infringement suit brought by Amazon.com, Inc. ("Amazon") against barnesandnoble.com, inc., and barnesandnoble.com llc (together, "BN"). Amazon moved for a preliminary injunction to prohibit BN's use of a feature of its website called "Express Lane." BN resisted the preliminary injunction on several grounds, including that its Express Lane feature did not infringe the claims of Amazon's patent, and that substantial questions exist as to the validity of Amazon's patent. The United States District Court for the Western District of Washington rejected BN's contentions. Instead, the district court held that Amazon had presented a case showing a likelihood of infringement by BN, and that BN's challenges to the validity of the patent in suit lacked sufficient merit to avoid awarding extraordinary preliminary injunctive relief to Amazon. The district court granted Amazon's motion, and now BN brings its timely appeal from the order entering the preliminary injunction. We have jurisdiction to review the district court's order under 28 U.S.C. § 1292(c)(1) (1994).

After careful review of the district court's opinion, the record, and the arguments advanced by the parties, we conclude that BN has mounted a substantial challenge to the validity of the patent in suit. Because Amazon is not entitled to preliminary injunctive relief under these circumstances, we vacate the order of the district court that set the preliminary injunction in place and remand the case for further proceedings.

I

This case involves United States Patent No. 5,960,411 ("the '411 patent"), which issued on September 28, 1999, and is assigned to Amazon. On October 21, 1999, Amazon brought suit against BN alleging infringement of the patent and seeking a preliminary injunction.

Amazon's patent is directed to a method and system for "single action" ordering of items in a client/server environment such as the Internet. In the context of the '411 patent, a client/server environment describes the relationship between two computer systems in which a program executing on a client computer system makes a service request from another program executing on a server computer system, which fulfills the request. See col. 1, ll. 10-31; col. 3, ll. 31-33; col. 5, l. 56 to col. 6, l. 21; Fig. 2. Typically, the client computer system and the server computer system are located remotely from each other and communicate via a data communication network.

The '411 patent describes a method and system in which a consumer can complete a purchase order for an item via an electronic network using only a "single action," such as the click of a computer mouse button on the client computer system. Amazon developed the patent to cope with what it considered to be frustrations presented by what is known as the "shopping cart model" purchase system for electronic commerce purchasing events. In previous incarnations of the shopping cart model, a purchaser using a client computer

system (such as a personal computer executing a web browser program) could select an item from an electronic catalog, typically by clicking on an "Add to Shopping Cart" icon, thereby placing the item in the "virtual" shopping cart. Other items from the catalog could be added to the shopping cart in the same manner. When the shopper completed the selecting process, the electronic commercial event would move to the check-out counter, so to speak. Then, information regarding the purchaser's identity, billing and shipping addresses, and credit payment method would be inserted into the transactional information base by the soon-to-be purchaser. Finally, the purchaser would "click" on a button displayed on the screen or somehow issue a command to execute the completed order, and the server computer system would verify and store the information concerning the transaction.

As is evident from the foregoing, an electronic commerce purchaser using the shopping cart model is required to perform several actions before achieving the ultimate goal of the placed order. The '411 patent sought to reduce the number of actions required from a consumer to effect a placed order. In the words of the written description of the '411 patent:

> The present invention provides a method and system for single-action ordering of items in a client/server environment. The single-action ordering system of the present invention reduces the number of purchaser interactions needed to place an order and reduces the amount of sensitive information that is transmitted between a client system and a server system.

Col. 3, ll. 31-37. How, one may ask, is the number of purchaser interactions reduced? The answer is that the number of purchaser interactions is reduced because the purchaser has previously visited the seller's web site and has previously entered into the database of the seller all of the required billing and shipping information that is needed to effect a sales transaction. Thereafter, when the purchaser visits the seller's web site and wishes to purchase a product from that site, the patent specifies that only a single action is necessary to place the order for the item. In the words of the written description, "once the description of an item is displayed, the purchaser need only take a single action to place the order to purchase that item." Col. 3, ll. 64-66.

II

The '411 patent has 26 claims, 4 of which are independent. Independent claims 1 and 11 are method claims directed to placing an order for an item, while independent claim 6 is an apparatus claim directed to a client system for ordering an item, and independent claim 9 is an apparatus claim directed to a server system for generating an order. Amazon asserted claims 1-3, 5-12, 14-17, and 21-24 against BN. Although there are significant differences among the various independent and dependent claims in issue, for purposes of this appeal we may

initially direct our primary focus on the "single action" limitation that is included in each claim. This focus is appropriate because BN's appeal attacks the injunction on the grounds that either its accused method does not infringe the "single action" limitation present in all of the claims, that the "single action" feature of the patent is invalid, or both.

We set forth below the text of the claims pertinent to our deliberations (i.e., claims 1, 2, 6, 9, and 11), with emphasis added to highlight the disputed claim terms:

1. A method of placing an order for an item comprising:

under control of a client system,

displaying information identifying the item; and

in response to only a single action being performed, sending a request to order the item along with an identifier of a purchaser of the item to a server system;

under control of a single-action ordering component of the server system,

receiving the request;

retrieving additional information previously stored for the purchaser identified by the identifier in the received request; and

generating an order to purchase the requested item for the purchaser identified by the identifier in the received request using the retrieved additional information; and

fulfilling the generated order to complete purchase of the item

whereby the item is ordered without using a shopping cart ordering model.

2. The method of claim 1 wherein the displaying of information includes displaying information indicating the single action.

. . . .

6. A client system for ordering an item comprising:

an identifier that identifies a customer;

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, the request including the identifier so that the server system can locate additional information needed to complete the order and so that the server system can fulfill the generated order to complete purchase of the item; and

a shopping cart ordering component that in response to performance of an add-to-shopping-cart action, sends a request to the server system to add the item to a shopping cart.

. . . .

9. A server system for generating an order comprising:

a shopping cart ordering component; and

a single-action ordering component including:

a data storage medium storing information for a plurality of users;

a receiving component for receiving requests to order an item, a request including an indication of one of the plurality of users, the request being sent in response to only a single action being performed; and

an order placement component that retrieves from the data storage medium information for the indicated user and that uses the retrieved information to place an order for the indicated user for the item; and an order fulfillment component that completes a purchase of the item in accordance with the order placed by the single-action ordering component.

. . . .

11. A method for ordering an item using a client system, the method comprising:

displaying information identifying the item and displaying an indication of a single action that is to be performed to order the identified item; and

in response to only the indicated single action being performed, sending to a server system a request to order the identified item

whereby the item is ordered independently of <u>a shopping cart model</u> and the order is <u>fulfilled</u> to complete a purchase of the item.

The district court interpreted the key "single action" claim limitation, which appears in each of the pertinent claims, to mean:

> The term "single action" is not defined by the patent specification. . . . 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.

With this interpretation of the key claim limitation in hand, the district court turned to BN's accused ordering system. BN's short-cut ordering system, called "Express Lane," like the system contemplated by the patent, contains previously entered billing and shipping information for the customer. In one implementation, after a person is presented with BN's initial web page (referred to as the "menu page"), the person can on an icon on the menu page to get to what is called the "product page." BN's product page displays an image and a description of the selected product, and also presents the person with a description of a single action that can be taken to complete a purchase order for the item. If the single action described is taken, for example by a mouse click, the person will have effected a purchase order using BN's Express Lane feature.

BN's Express Lane thus presents a product page that contains the description of the item to be purchased and a "description" of the single action to be taken to effect placement of the order. Because only a single action need be taken to complete the purchase order once the product page is displayed, the district court concluded that Amazon had made a showing of likelihood of success on its allegation of patent infringement.

In response to BN's contention that substantial questions exist as to the validity of the '411 patent, the district court reviewed the prior art references upon which BN's validity challenge rested. The district court concluded that none of the prior art references anticipated the claims of the '411 patent under 35 U.S.C. § 102 (1994) or rendered the claimed invention obvious under 35 U.S.C. § 103 (1994).

<div align="center">III</div>

The grant or denial of a preliminary injunction under 35 U.S.C. § 283 (1994) is within the sound discretion of the district court. <u>Novo Nordisk of N. Am., Inc. v. Genentech, Inc.</u>, 77 F.3d 1364, 1367, 37 USPQ2d 1773, 1775 (Fed. Cir. 1996). "An abuse of discretion may be established by showing that the court made a

clear error of judgment in weighing relevant factors or exercised its discretion based upon an error of law or clearly erroneous factual findings." Id.

As the moving party, Amazon is entitled to a preliminary injunction if it can succeed in showing: (1) a reasonable likelihood of success on the merits; (2) irreparable harm if an injunction is not granted; (3) a balance of hardships tipping in its favor; and (4) the injunction's favorable impact on the public interest. Reebok Int'l Ltd. v. J. Baker, Inc., 32 F.3d 1552, 1555, 31 USPQ2d 1781, 1783 (Fed. Cir. 1994). "These factors, taken individually, are not dispositive; rather, the district court must weigh and measure each factor against the other factors and against the form and magnitude of the relief requested." Hybritech, Inc. v. Abbott Labs., 849 F.2d 1446, 1451, 7 USPQ2d 1191, 1195 (Fed. Cir. 1988).

Irreparable harm is presumed when a clear showing of patent validity and infringement has been made. Bell & Howell Document Mgmt. Prods. Co. v. Altek Sys., Inc. 132 F.3d 701, 708, 45 USPQ2d 1033, 1039-40 (Fed. Cir. 1997) (citing H.H. Robertson v. United Steel Deck, Inc., 820 F.2d 384, 390, 2 USPQ2d 1926, 1929-30 (Fed. Cir. 1987)). "This presumption derives in part from the finite term of the patent grant, for patent expiration is not suspended during litigation, and the passage of time can work irremediable harm." Id.

Our case law and logic both require that a movant cannot be granted a preliminary injunction unless it establishes both of the first two factors, i.e., likelihood of success on the merits and irreparable harm. Vehicular Techs. Corp. v. Titan Wheel Int'l, Inc., 141 F.3d 1084, 1088, 46 USPQ2d 1257, 1259-60 (Fed. Cir. 1998) (citing Reebok Int'l, 32 F.3d at 1555, 31 USPQ2d at 1873).

In order to demonstrate a likelihood of success on the merits, Amazon must show that, in light of the presumptions and burdens that will inhere at trial on the merits, (1) Amazon will likely prove that BN infringes the '411 patent, and (2) Amazon's infringement claim will likely withstand BN's challenges to the validity and enforceability of the '411 patent. Genentech, Inc. v. Novo Nordisk, A/S, 108 F.3d 1361, 1364, 42 USPQ2d 1001, 1003 (Fed. Cir. 1997). If BN raises a substantial question concerning either infringement or validity, i.e., asserts an infringement or invalidity defense that the patentee cannot prove "lacks substantial merit," the preliminary injunction should not issue. Id.

Of course, whether performed at the preliminary injunction stage or at some later stage in the course of a particular case, infringement and validity analyses must be performed on a claim-by-claim basis. See, e.g., Bayer AG v. Elan Pharm. Research Corp., 212 F.3d 1241, 1247, 54 USPQ2d 1711, 1715 (Fed. Cir. 2000) ("Literal infringement requires the patentee to prove that the accused device contains each limitation of the asserted claim(s)." (citations omitted)); Ortho Pharm. Corp. v. Smith, 959 F.2d 936, 942, 22 USPQ2d 1119, 1124 (Fed. Cir. 1992) (concluding that all grounds of invalidity must be evaluated against individual claims, as required by the plain language of 35 U.S.C. § 282 (1994)).

Therefore, in cases involving multiple patent claims, to demonstrate a likelihood of success on the merits, the patentee must demonstrate that it will likely prove infringement of one or more claims of the patents-in-suit, and that at least one of those same allegedly infringed claims will also likely withstand the validity challenges presented by the accused infringer.

Both infringement and validity are at issue in this appeal. It is well settled that an infringement analysis involves two steps: the claim scope is first determined, and then the properly construed claim is compared with the accused device to determine whether all of the claim limitations are present either literally or by a substantial equivalent. See, e.g., Young Dental Mfg. Co. v. Q3 Special Prods., Inc., 112 F.3d 1137, 1141, 42 USPQ2d 1589, 1592 (Fed. Cir. 1997). Conceptually, the first step of an invalidity analysis based on anticipation and/or obviousness in view of prior art references is no different from that of an infringement analysis. "It is elementary in patent law that, in determining whether a patent is valid and, if valid, infringed, the first step is to determine the meaning and scope of each claim in suit." Lemelson v. Gen. Mills, Inc., 968 F.2d 1202, 1206, 23 USPQ2d 1284, 1287 (Fed. Cir. 1992). "A claim must be construed before determining its validity just as it is first construed before deciding infringement." Markman v. Westview Instruments, Inc., 52 F.3d 967, 996 n.7, 34 USPQ2d 1321, 1344 n.7 (Fed. Cir. 1995) (Mayer, J., concurring), aff'd, 517 U.S. 370 (1996).

Only when a claim is properly understood can a determination be made whether the claim "reads on" an accused device or method, or whether the prior art anticipates and/or renders obvious the claimed invention. See id. Because the claims of a patent measure the invention at issue, the claims must be interpreted and given the same meaning for purposes of both validity and infringement analyses. See SmithKline Diagnostics, Inc. v. Helena Labs. Corp., 859 F.2d 878, 882, 8 USPQ2d 1468, 1471 (Fed. Cir. 1988). "A patent may not, like a 'nose of wax,' be twisted one way to avoid anticipation and another to find infringement." Sterner Lighting, Inc. v. Allied Elec. Supply, Inc., 431 F.2d 539, 544 (5th Cir. 1970) (citing White v. Dunbar, 119 U.S. 47, 51 (1886)). The court must properly interpret the claims, because an improper claim construction may distort the infringement and validity analyses. See Bausch & Lomb, Inc. v. Barnes-Hind/Hydrocurve, Inc., 796 F.2d 443, 450, 230 USPQ 416, 421 (Fed. Cir. 1986).

IV

BN contends on appeal that the district court committed legal errors that undermine the legitimacy of the preliminary injunction. In particular, BN asserts that the district court construed key claim limitations one way for purposes of its infringement analysis, and another way when considering BN's validity challenges. BN asserts that under a consistent claim interpretation, its Express Lane feature either does not infringe the '411 patent, or that if the patent is interpreted so as to support the charge of infringement, then the claims of the

patent are subject to a severe validity challenge. When the key claim limitations are properly interpreted, BN thus asserts, it will be clear that Amazon is not likely to succeed on the merits of its infringement claim, or that BN has succeeded in calling the validity of the '411 patent into serious question. In addition, BN asserts that the district court misunderstood the teaching of the prior art references, thereby committing clear error in the factual predicates it established for comprehension of the prior art references.

Amazon understandably aligns itself with the district court, asserting that no error of claim interpretation and no clear error in fact-finding has occurred that would undermine the grant of the preliminary injunction. We thus turn to the legal gist of this appeal.

V

It is clear from the district court's opinion that the meaning it ascribed to the "single action" limitation includes a temporal consideration. The "single action" to be taken to complete the purchase order, according to the district court, only occurs after other events have transpired. These preliminary events required pursuant to the district court's claim interpretation are the presentation of a description of the item to be purchased and the presentation of the single action the user must take to complete the purchase order for the item.

Amazon defends this temporal interpretation based on statements made by the applicant during prosecution of the patent. These statements, set forth below, are significant, because they were made at the point in the file history where the claims were amended to include the single action limitation.

In remarks accompanying an amendment dated February 26, 1999, Amazon provided the following comments (not limited to specific claims) to explain proposed amendments to the claims and to "clarify that the claimed single-action ordering technology is different from the shopping cart metaphor":

> Applicants' single action ordering technology facilitates electronic ordering of items by reducing the number of purchaser interactions needed to place an order and reducing the amount of sensitive information that is transmitted between a client computer and a server computer when placing an order. To order an item using single-action ordering technology, the purchaser first locates the item by browsing through a catalog of items, by searching for the item, by selecting a link to the item, or by using any other means for locating the item. Once the item is located, the purchaser need only perform a single action to generate an order for the item and to fulfill that generated order. The single action may be, for example,

the selecting of a button that is displayed on the web page or the speaking of a command. Because information (e.g., billing and shipping) about the purchaser has been saved (e.g., from a previous purchase), that information can be combined with the identification of the located item to generate and fulfill an order when the single action is performed.

On its face, this passage from the file history establishes that once a purchaser has located an item by <u>any</u> means, only a single action is required to generate an order for the item. Amazon, however, would put a special reading on the concept of a purchaser locating an item by any means. In Amazon's view of the file history, a purchaser has not located the item, for the purpose of counting the number of steps thereafter to generate the order, until the purchaser has made the decision to purchase the item. As applied to the present case, Amazon argues that display of information about an item on BN's menu page does not indicate an item located with an intent to place the order; only after one moves from BN's menu page to its product page has one "located" the item for purposes of placing the order by a single action. Since it only takes a single action on BN's product page to place the order, Amazon contends that BN likely infringes the '411 patent.

Amazon's reading of the key passage from the file history injects subjective notions into the infringement analysis. For example, if a would-be purchaser has made the decision to purchase an item <u>before</u> coming to BN's menu page, and there the purchaser sees the item displayed, Amazon would have to concede that no single action taken after the item display would achieve placement of the order. Instead, the purchaser would need to take a first action to advance from the menu page to the product page, and then a second action to place the order. We are not prepared to assign a meaning to a patent claim that depends on the state of mind of the accused infringer. We thus reject Amazon's special meaning for the location of an item to be purchased.

However, as we now discuss in detail, we ultimately agree with Amazon and construe all four independent claims (<u>i.e.</u>, claims 1, 6, 9, and 11) to call for the single action to be performed immediately after a display of information about an item and without any intervening action, but not necessarily immediately after the first display or every display.

Our analysis begins with the plain language of the claims themselves. The term "single action" appears in the independent claims of the '411 patent in the following forms: "in response to only a single action being performed" (claims 1 and 9), "single-action ordering component" (claims 1, 6, and 9), "in response to performance of only a single action" (claim 6), "in response to only the indicated single action being performed" (claim 11), and "displaying an indication of a single action that is to be performed to order the identified item" (claim 11).

In claims 1, 6, and 11, the context of the claim makes it clear that the single action is performed after some information about the item is displayed. Claim 1 provides for "displaying information identifying the item," and then immediately recites that "in response to only a single action being performed," a request to purchase the item is sent to a server system. Claim 6 provides for "a display component for displaying information identifying the item," and then immediately recites "the single action ordering component that in response to performance of only a single action" sends a request to purchase the item to a server system. Claim 11 provides for "displaying information identifying the item and displaying an indication of the single action," and then immediately recites that "in response to only the indicated single action being performed" a request to purchase the item is sent to a server system. The context also indicates that the single action is performed, or is capable of being performed, after information about the item is displayed, without any intervening action. Nothing suggests, however, that the single action must be performed after every display or even immediately after the first display of information. Claim 9 does not explicitly provide for displaying information. It merely recites that a request to order an item is "sent in response to only a single action being performed." However, although claim 9 does not recite "displaying," the written description defines the claim 9 language of "single action being performed" to require that information has been displayed.

The ordinary meaning of "single action" as used in the various claims is straightforward, but the phrase alone does not indicate when to start counting actions. Therefore, we must look first to the written description of the '411 patent for further guidance.

The written description supports a construction that after information is "displayed," single-action ordering is an option available to the user, and the counting falls within the scope of the claim when single-action ordering is actually selected by the user. To the extent that the claims are considered ambiguous on this point, the written description defines "single action" to require as much. In the Summary of the Invention, the written description describes an embodiment that "displays information that identifies the item and displays an indication of an action . . . [and] [i]n response to the indicated action being performed" orders the item. Col. 2, ll. 54-59. Similarly, in the Detailed Description of the Invention, the written description states that "[o]nce the description of an item is displayed, the purchaser need only take a single action." Col. 3, ll. 65-66. This is consistent for all of the disclosed embodiments.

Therefore, neither the written description nor the plain meaning of the claims require that single action ordering be possible after each and every display of information (or even immediately after the first display of information). The plain language of the claims and the written description require only that single action ordering be possible after some display of information. Indeed, the written description allows for and suggests the possibility that previous displays of information will have occurred before the display immediately preceding an order.

The Detailed Description of the Invention describes the first figure (Fig. 1A) by stating that "this example Web page [containing a summary description of the item] was sent . . . when the purchaser requested to review detailed information about the item." Col. 4, ll. 7-9 (emphasis added). Given that the written description earlier described on-line purchasing as involving "browsing" (col. 1, l. 55), it is reasonable to conclude that some less detailed information about the item has already been displayed.

This passage also allows for the possibility that the purchaser sees a display of the less detailed information on an item, decides to browse elsewhere, then ultimately returns to obtain more detailed information on the item and to finally order it. Thus, there could be intermittent displays of information on an item, in addition to successive displays of information on an item, and each and every display need not have single action ordering capability.

The above passages indicate that the written description is not concerned with what happens on every display of information, or even immediately after the first display, but only that there be some display from which single action ordering can be performed.

The prosecution history of the '411 patent also supports the above claim construction. In response to an office action, in the passage from the prosecution history cited earlier in this opinion, the patentee stated "a purchaser first locates the item [1] by browsing through a catalog of items, [2] by searching for the item, [3] by selecting a link to the item, or [4] by using any other means for locating the item. Once the item is located, the purchaser need only perform a single action to generate an order" (enumeration added). This enumeration of the various ways an item may be located allows for information on the item to be displayed prior to single action ordering being enabled. This is seen most clearly in the third enumerated method, "selecting a link to the item." If it is to serve as "a link to the item" (emphasis added), then there must be some display of information on the item either in the link or around the link. Thus, information on the item may sometimes be displayed before "locating" the item (and, hence, before single action ordering is enabled).

Likewise, the first enumerated method (browsing) is explained in the written description to entail requesting "detailed information" about an item before single action ordering is enabled. This presumes that "un-detailed" or general information was previously displayed. Similarly, the second enumerated method (searching) commonly entails first displaying information on various items that match a search string, such as a list of all books written by a particular author or dealing with a particular subject. The purchaser than typically selects one of these items to receive more detailed information, at which point the selected item is presumably "located" and single action ordering is enabled.

VI

A

When the correct meaning of the single action limitation is read on the accused BN system, it becomes apparent that the limitations of claim 1 are likely met by the accused system. The evidence on the record concerning the operation of BN's "Express Lane" feature is not in dispute. At the time that the '411 patent was issued, BN offered customers two purchasing options. One was called "Shopping Cart," and the other was called "Express Lane." The Shopping Cart option involved the steps of adding items to a "virtual" shopping cart and then "checking out" to complete the purchase. In contrast, the Express Lane option allowed customers who had registered for the feature to purchase items simply by "clicking" on the "Express Lane" button provided on the "detail page" or "product page" describing and identifying the book or other item to be purchased. The text beneath the Express Lane button invited users to "Buy it now with just 1 click!"

BN's allegedly infringing website thus may be characterized as having "page 1," (the "menu" page) which displays a catalog listing several items but which does not contain an "order" icon, and "page 2," (the "product" or "detail" page) which includes information on one item and also shows an order icon. Someone shopping at this website would look at the catalog on page 1 and perform a first click to go to page 2. Once at page 2, a second click on the ordering icon would cause the order request to be sent. Under the claim construction set forth herein, BN likely infringes claim 1 because on page 2, the item is there displayed (meeting step 1 of the claim) and only a single action thereafter causes the order request to be transmitted (meeting step 2). The method implemented on page 1 of the BN website does not infringe, but the method on page 2 does. This has nothing to do with the state of mind of the purchaser, but simply reflects the ordinary meaning of the words of the claim in the context of the written description and in light of the prosecution history.

We recognize that under this construction, claim 1 would appear to read on the prior art shopping cart model (because the final page of a shopping cart model both displays the item to be purchased in a list of selected products and sends the order request signal in response to the single next action of clicking on the "confirm purchase" icon). However, the shopping cart model is expressly excluded from claim 1 by the whereby clause at the end of the claim.

We note that the district court concluded that "[b]arnesandnoble.com infringes claims 1, 2, 3, 5, 11, 12, 12, 14, 15, 16, 17, 21, 22, 23, [and] 24," and "also infringes claims 6-10 of the '411 patent." However, the relevant determination at the preliminary injunction stage is substantial likelihood of success by Amazon of its infringement claims, not a legal conclusion as to the ultimate issue of infringement. We therefore interpret the district court's conclusions as

determining that Amazon had demonstrated a substantial likelihood of establishing literal infringement of the enumerated claims.

B

According to the plain language of claim 2, the point of reference from which to start "counting clicks" does not begin until "information indicating the single action" to be performed is displayed (i.e., when the "EXPRESS LANE" or "BUY NOW" button is displayed). Amazon is thus correct in its assertion that only a single action is required after that point to send a request to order an item using BN's Express Lane feature. For this reason, we cannot say that BN raised a substantial question of noninfringement of claim 2 in the '411 patent with respect to the "single action" limitation at this stage in the litigation.

We point out that BN mounted an additional noninfringement argument with respect to claims 1, 2, and 11 based on the term "shopping cart model" in the "whereby" clause of those claims. Claims 1 and 2 require that the item be ordered "without using a shopping cart model." Similarly, claim 11 requires that the item be ordered "independently of a shopping cart model." Thus, according to BN, even if an ordering system accused of infringement used the claimed "single action" technology, it would still not infringe claims 1, 2, or 11 so long as the single action technology was used within the paradigm of a "shopping cart model."

Accordingly, BN argues that, even if its Express Lane feature is said to use single action technology within the scope of the claims in the '411 patent, the Express Lane feature is nevertheless a "shopping cart model" because, according to the written description, "shopping cart model" should be construed to include models in which checkout happens automatically when an item is selected for purchase. In fact, the written description of the '411 patent does mention alternative prior art shopping cart models having the feature that "when a purchaser selects any one item, then that item is 'checked out' by automatically prompting the user for the billing and shipment information." Col. 2, ll. 24-27. Thus, BN argues that its Express Lane system does not infringe because it is an embodiment of such an alternative shopping cart model admitted to be prior art in the written description of the '411 patent.

The district court construed "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." BN argues that this interpretation contradicts the written description of the '411 patent because it allegedly excludes the alternative shopping cart models mentioned in the written description. However, we discern no error with the district court's interpretation of "shopping cart model," because it is consistent with the written description and with the comments made by Amazon discussing the term during prosecution of

the '411 patent, as discussed earlier with reference to the "single action" limitation. The district court's interpretation does not improperly exclude the alternative shopping cart models mentioned by BN, because although an item may be checked out automatically when using these alternative shopping cart models, the written description states that the user must still provide billing and shipping information (unless the information is "pre-filled" with information that was provided by the user when placing a previous order). Additionally, regardless of whether the "purchaser-specific order information" is pre-filled or not, the user must still perform at least one confirmation step once the purchaser is presented with the order web page to complete the purchase. See col. 2, ll. 24-36. It follows, then, that BN's noninfringement argument based on characterizing its Express Lane feature as a "shopping cart model" fails because once a purchaser clicks on the "Express Lane" ordering button, no additional checkout or confirmation steps are required before a request to order the item is sent to the server system.

Having considered and rejected BN's alternative noninfringement arguments, we find that Amazon has carried its merits burden with respect to likely infringement of Claim 2. We note there is some redundancy between claims 1 and 2 under the claim interpretation set forth herein. However, the two claims are not identical in scope. For example, claim 2 would not read on a method where the first page of a web site includes a textual message such as "click directly on the picture of any item displayed on any of the following pages to place an order." Under such a method, there would never be a page where both the item and the single action to be taken to order the item would be displayed. Claim 2 would not be infringed by such a system, but claim 1 would.

C

We note further that Amazon has also made out its likelihood of success case with respect to infringement of claim 11. Claim 11 is similar to claim 2 because it also includes the limitation requiring "displaying an indication of a single action that is to be performed." For the reasons noted above with respect to claim 2, the district court was correct in concluding that BN had not raised a substantial question of noninfringement regarding claim 11.

D

In view of our interpretation of "single action," we find that the district court correctly concluded that BN had not raised a substantial question of noninfringement regarding claims 6 and 9 with respect to the "single action" limitation.

However, we note that BN also mounted an additional noninfringement argument with respect to claims 6 and 9 based on the terms "fulfill" and "fulfillment" in those claims. Claim 6 requires that the server system have the capability to "fulfill the

generated order to complete purchase of the item." Similarly, claim 9 requires that the single action ordering component of the server system must include "an order fulfillment component that completes a purchase of the item." BN argues that "fulfill" and "fulfillment" refer to all of the steps required to pick the product from a warehouse shelf, pack it for shipment, and ship it to the customer. Presumably, BN believes that such an interpretation would lead to noninfringement of claims 6 and 9, at least under a theory of direct infringement.

The district court ruled that the various forms of "fulfill" throughout the claims refer to order fulfillment application software executing on the server system, as opposed to the physical steps of handling or packing tangible items. We discern no error with this interpretation. As BN admits, the plain language of claims 6 and 9 require that the fulfillment steps be capable of being performed by the server system (as in claim 6) and that the order fulfillment component be part of the server system (as in claim 9). Obviously a server system, as the term is used in the '411 patent to refer to a computer system (see, e.g., col. 1, ll. 15-16), is incapable of picking a product from a warehouse shelf, packing it for shipment, and shipping it to the customer. Therefore the terms "fulfill" and its cognates are properly limited to refer to order fulfillment application software executed on the server system.

E

After full review of the record before us, we conclude that under a proper claim interpretation, Amazon has made the showing that it is likely to succeed at trial on its infringement case. Given that we conclude that Amazon has demonstrated likely literal infringement of at least the four independent claims in the '411 patent, we need not consider infringement under the doctrine of equivalents. The question remaining, however, is whether the district court correctly determined that BN failed to mount a substantial challenge to the validity of the claims in the '411 patent.

VII

The district court considered, but ultimately rejected, the potentially invalidating impact of several prior art references cited by BN. Because the district court determined that BN likely infringed all of the asserted claims, it did not focus its analysis of the validity issue on any particular claim. Instead, in its validity analysis, the district court appears to have primarily directed its attention to determining whether the references cited by BN implemented the single action limitation.

At the preliminary injunction stage of the litigation, the district court sits to deliver an equitable determination, and issues of fact naturally play into the final judgment of the district court. For example, in an invalidity analysis, the district court must assess the meaning of the prior art references cited to support the

validity challenge. However, what a reference teaches is a question of fact. In re Beattie, 974 F.2d 1309, 1311, 24 USPQ2d 1040, 1041-42 (Fed. Cir. 1992). Consequently, the district court necessarily makes fact-findings, explicitly or implicitly, concerning the meaning of the asserted references. On the basis of the district court's reading of the references, it makes judgments as to the validity of the patent in suit. We review the district court's assessment of the prior art references for clear error. See id.; Novo Nordisk, 77 F.3d at 1367, 37 USPQ2d at 1775 (Fed. Cir. 1996) (stating that an abuse of discretion in granting a preliminary injunction may be established by showing that the court made a clear error of judgment in weighing relevant factors or exercised its discretion based upon an error of law or clearly erroneous factual findings).

In this case, we find that the district court committed clear error by misreading the factual content of the prior art references cited by BN and by failing to recognize that BN had raised a substantial question of invalidity of the asserted claims in view of these prior art references.

Validity challenges during preliminary injunction proceedings can be successful, that is, they may raise substantial questions of invalidity, on evidence that would not suffice to support a judgment of invalidity at trial. See, e.g., Helifix Ltd. v. Blok-lok, Ltd., 208 F.3d 1339, 1352, 54 USPQ2d 1299, 1308 (Fed. Cir. 2000) (holding that the allegedly anticipatory prior art references sufficiently raised a question of invalidity to deny a preliminary injunction, even though summary judgment of anticipation based on the same references was not supported). The test for invalidity at trial is by evidence that is clear and convincing. WMS Gaming, Inc. v. Int'l Game Tech., 184 F.3d 1339, 1355, 51 USPQ2d 1385, 1396-97 (Fed. Cir. 1999). To succeed with a summary judgment motion of invalidity, for example, the movant must demonstrate a lack of genuine dispute about material facts and show that the facts not in dispute are clear and convincing in demonstrating invalidity. Robotic Vision Sys., Inc. v. View Eng'g, Inc., 112 F.3d 1163, 1165, 42 USPQ2d 1619, 1621 (Fed. Cir. 1997). In resisting a preliminary injunction, however, one need not make out a case of actual invalidity. Vulnerability is the issue at the preliminary injunction stage, while validity is the issue at trial. The showing of a substantial question as to invalidity thus requires less proof than the clear and convincing showing necessary to establish invalidity itself. That this is so is plain from our cases.

When moving for the extraordinary relief of a preliminary injunction, a patentee need not establish the validity of a patent beyond question. Atlas Powder Co. v. Ireco Chems., 773 F.2d, 1230, 1233, 227 USPQ 289, 292 (Fed. Cir. 1985). The patentee must, however, present a clear case supporting the validity of the patent in suit. See Nutrition 21 v. United States, 930 F.2d 867, 871, 18 USPQ2d 1347, 1349 (Fed. Cir. 1991). Such a case might be supported, for example, by showing that the patent in suit had successfully withstood previous validity challenges in other proceedings. Further support for such a clear case might come from a long period of industry acquiescence in the patent's validity. See 7

Donald S. Chisum, Chisum on Patents § 20.04[1][c], at 20-673 to 20-693 (1998) (citing cases). Neither of those considerations benefit Amazon in this case, however, because the '411 patent has yet to be tested by trial, and it was issued only a few weeks before the start of this litigation.

In Helifix, we recently confronted the situation in which a district court had granted a motion of summary judgment of invalidity based on allegedly anticipatory prior art references, and shortly thereafter denied a motion for a preliminary injunction based on a validity challenge using the same prior art references. 208 F.3d at 1344-45, 54 USPQ2d at 1302. On appeal, the patentee sought reversal of the summary judgment and claimed entitlement to a preliminary injunction. We held that the summary judgment could not stand, because disputed issues of material fact on invalidity remained for resolution at trial. Id. at 208 F.3d 1352, 54 USPQ2d 1308. Nonetheless, we expressly held that the quantum of evidence put forth—while falling short of demonstrating invalidity itself—was sufficient to prevent issuance of the preliminary injunction. Id. Particularly instructive for purposes of this case is the treatment of the anticipation issue in Helifix. A particular reference which did not on its face disclose all the limitations of the claim in suit was argued to be anticipatory, even though there was a conflict in the testimony as to whether the reference would have taught one of ordinary skill in the art the claim limitations not expressly stated on the face of the reference. Although insufficient to demonstrate invalidity for the purposes of the summary judgment motion, the reference was enough to prevent issuance of the preliminary injunction. Id. at 208 F.3d 1351-52, 54 USPQ2d 1307-08.

The situation before us is similar. Here, we have several references that were urged upon the court as invalidating the asserted claims. The district court dismissed those references, for purposes of its invalidity analysis, because it did not perceive them to recite each and every limitation of the claims in suit. As we explain below in our review of the asserted prior art in this case, each of the asserted references clearly teaches key limitations of the claims of the patent in suit. BN argued to the district court that one of ordinary skill in the art could fill in the gaps in the asserted references, given the opportunity to do so at trial.

When the heft of the asserted prior art is assessed in light of the correct legal standards, we conclude that BN has mounted a serious challenge to the validity of Amazon's patent. We hasten to add, however, that this conclusion only undermines the prerequisite for entry of a preliminary injunction. Our decision today on the validity issue in no way resolves the ultimate question of invalidity. That is a matter for resolution at trial. It remains to be learned whether there are other references that may be cited against the patent, and it surely remains to be learned whether any shortcomings in BN's initial preliminary validity challenge will be magnified or dissipated at trial. All we hold, in the meantime, is that BN cast enough doubt on the validity of the '411 patent to avoid a preliminary injunction, and that the validity issue should be resolved finally at trial.

One of the references cited by BN was the "CompuServe Trend System." The undisputed evidence indicates that in the mid-1990s, CompuServe offered a service called "Trend" whereby CompuServe subscribers could obtain stock charts for a surcharge of 50 cents per chart. Before the district court, BN argued that this system anticipated claim 11 of the '411 patent. The district court failed to recognize the substantial question of invalidity raised by BN in citing the CompuServe Trend reference, in that this system appears to have used "single action ordering technology" within the scope of the claims in the '411 patent.

First, the district court dismissed the significance of this system partly on the basis that "[t]he CompuServe system was not a world wide web application." This distinction is irrelevant, since none of the claims mention either the Internet or the World Wide Web (with the possible exception of dependent claim 15, which mentions HTML, a program commonly associated with both the Internet and the World Wide Web). Moreover, the '411 patent specification explicitly notes that "[o]ne skilled in the art would appreciate that the single-action ordering techniques can be used in various environments other than the Internet." Col. 6, ll. 22-24.

More importantly, one of the screen shots in the record (reproduced below) indicates that with the CompuServe Trend system, once the "item" to be purchased (i.e., a stock chart) has been displayed (by typing in a valid stock symbol), only a single action (i.e., a single mouse click on the button labeled "Chart ($.50)") is required to obtain immediate electronic delivery (i.e., "fulfillment") of the item. Once the button labeled "Chart ($.50)" was activated by a purchaser, an electronic version of the requested stock chart would be transmitted to the purchaser and displayed on the purchaser's computer screen, and an automatic process to charge the purchaser's account 50 cents for the transaction would be initiated. In terms of the language of claims 2 and 11 in the CompuServe Trend system, the item to be ordered is "displayed" when the screen echoes back the characters of the stock symbol typed in by the purchaser before clicking on the ordering button.

**IMAGE MISSING**

The evidence before us indicates that the billing process for the electronic stock chart would not actually commence until the client system sent a message to the server system indicating that the electronic stock chart had been received at the client system. In its brief, Amazon argues that this feature of the CompuServe Trend system amounts to an additional "confirmation step necessary to complete the ordering process," and that the CompuServe Trend system therefore does not use "single action" technology within the scope of the claims in the '411 patent. However, all of the claims only require sending a request to order an item in response to performance of only a single action. In the CompuServe Trend

system, this requirement is satisfied when a purchaser performs the single action of "clicking" on the button labeled "Chart ($.50)." The claims do not require that the billing process for the item must also be initiated in response to performance of the single action. Furthermore, in the CompuServe Trend system, the "action" of sending a message from the client system to the server system confirming successful reception of the electronic stock chart is performed automatically, without user intervention.

At oral argument, Amazon's counsel articulated three differences between the CompuServe Trend system and the claimed invention. First, Amazon's counsel repeated the district court's reasoning, and asserted that the CompuServe Trend system is not on the Internet or the World Wide Web. As mentioned above, the '411 patent specification indicates that this distinction is irrelevant.

Second, Amazon's counsel claimed that the CompuServe Trend system was different from the claims of the '411 patent because it required a user to "log in" at the beginning of each session, and therefore would not send the claimed "identifier" along with a request to purchase each item. However, claim 11 does not require transmission of an identifier along with a request to order an item. This requirement is found only in claims 1, 6, and 9, and their respective dependent claims.

On its face, the CompuServe Trend reference does not mention transmission of the claimed identifier along with a request to purchase each item. Nor does the evidence in the record at this stage indicate that the CompuServe Trend system transmitted such an identifier. BN has therefore not demonstrated that the CompuServe Trend reference anticipates the asserted claims of the '411 patent requiring transmission of such an identifier with the degree of precision necessary to obtain summary judgment on this point. However, as noted above, validity challenges during preliminary injunction proceedings can be successful on evidence that would not suffice to support a judgment of invalidity at trial. See Helifix, 208 F.3d at 1352, 54 USPQ2d at 1308. The record in this case is simply not yet developed to the point where a determination can be made whether the CompuServe Trend system transmits the claimed identifier along with a request to order an item, or whether this limitation is obvious in view of the prior art. For example, United States Patent No. 5,708,780 ("the '780 patent") (a reference cited by BN which is discussed more fully below), describes "forwarding a service request from the client to the server and appending a session identification (SID) to the request and to subsequent service requests from the client to the server within a session of requests." See '780 patent, col. 3, ll. 12-16.

Moreover, the '411 patent specification itself dismisses the distinction between ordering systems in which an identifier is transmitted along with each request to order an item, and systems in which a user logs in once at the beginning of each session. See '411 patent at col. 10, ll. 6-10 ("[T]he purchaser can be alternatively identified by a unique customer identifier that is provided by the customer when

the customer initiates access to the server system and sent to the server system with each message.").

The final distinction drawn by Amazon's counsel between the claimed invention and the CompuServe Trend system was that—according to Amazon—the only reason that a purchaser would "call up" the screen would be to actually order an electronic stock chart, and that therefore an earlier action taken by a purchaser to invoke the screen should count as an extra purchaser action. According to this argument, the CompuServe Trend system would not meet the "single action" limitation because at least two actions would need to be taken to order an item: one action to invoke the ordering screen, and a second action to click on the ordering button. However, as the screen shot plainly indicates, a purchaser could use the display screen for purposes other than to order an electronic stock chart (e.g., to "Lookup" a stock symbol). Furthermore, to the extent that Amazon argues that the CompuServe Trend fails to meet the "single action" limitation due to the "click" necessary to activate the stock chart ordering screen in the first place, Amazon also admits that BN's Express Lane feature fails to meet the same limitation because of the "click" required to proceed from a menu page to a product page when using the Express Lane feature.

As the CompuServe Trend stock chart ordering screen indicates, we note that once a purchaser types in a valid stock symbol, the screen displays both "information identifying the item" (i.e., the stock symbol identifying the desired electronic stock chart) and an indication of the "single action" to be performed to order the identified item (i.e., clicking on the button labeled "Chart ($.50)"). Therefore, the substantial question of invalidity raised by the CompuServe Trend reference is the same regardless of whether one considers claims explicitly requiring that both of these pieces of information be displayed (i.e., claims 2 and 11) or claims requiring that only the "information identifying the item" be displayed (i.e., claims 1, 6, and 9).

In view of the above, we conclude that the district court erred in failing to recognize that the CompuServe Trend reference raises a substantial question of invalidity. Whether the CompuServe Trend reference either anticipates and/or renders obvious the claimed invention in view of the knowledge of one of ordinary skill in the relevant art is a matter for decision at trial.

B

In addition to the CompuServe Trend system, other prior art references were cited by BN, but ultimately rejected by the district court. For example, BN's expert, Dr. Lockwood, testified that he developed an on-line ordering system called "Web-Basket" in or around August 1996. The Web-Basket system appears to be an embodiment of a "shopping cart ordering component": it requires users to accumulate items into a virtual shopping basket and to check these items out when they are finished shopping. Because it is an implementation of a shopping

cart model, Web Basket requires several confirmation steps for even pre-registered users to complete their purchases.

However, despite the fact that Web-Basket is an embodiment of a shopping cart model, it is undisputed that Web-Basket implemented the Internet Engineering Task Force ("IETF") draft "cookie" specification, and stored a customer identifier in a cookie for use by a web server to retrieve information from a database. In other words, when a user first visited the Web-Basket site, a cookie (i.e., a file stored by the server system on the client system for subsequent use) was used to store an identifier on the user's computer. The first time that a user purchased an item on the Web-Basket site, the information entered by the user necessary to complete the purchase (e.g., name, address) would be stored in a database on the server system indexed by an identifier stored in the cookie on the client system. On subsequent visits, the cookie could be used to retrieve the user identifier, which would serve as the key to retrieve the user's information from the database on the server system.

At the preliminary injunction stage, based on Dr. Lockwood's declaration and testimony during the hearing, BN argued that the Web-Basket reference—combined with the knowledge of one of ordinary skill in the art at the relevant time—renders obvious the claimed invention.[i]

The district court concluded that the Web-Basket system was "inconsistent with the single-action requirements of the '411 patent" because "it requires a multiple-step ordering process from the time that an item to be purchased is displayed." However, as discussed earlier, the undisputed evidence demonstrates that the accused BN Express Lane feature also requires a multiple-step ordering process (i.e., at least two "clicks") from the time that an item to be purchased is first displayed on the menu page, yet the district court concluded that BN's Express Lane feature infringed all of the asserted claims of the '411 patent. The district court's failure to recognize the inconsistency in these two conclusions was erroneous.

Moreover, the district court did not address the "cookie" aspects of the Web-Basket reference, and failed to recognize that a reasonable jury could find that the step of storing purchaser data on the server system for subsequent retrieval indexed by an identifier transmitted from the client system was anticipated and/or rendered obvious by the Web-Basket reference.

The district court dismissed BN's obviousness defense, apparently based on an alleged "admission" by BN's expert. In a section of its opinion entitled "Summary of Prior Art," the district court stated:

> 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.

Thus, the district court apparently based its conclusion of nonobviousness on Dr. Lockwood's "admission" that he personally never thought of combining or modifying the prior art to come up with the claimed "single action" invention. This approach was erroneous as a matter of law. Whatever Dr. Lockwood did or did not personally realize at the time based on his actual knowledge is irrelevant. The relevant inquiry is what a hypothetical ordinarily skilled artisan would have gleaned from the cited references at the time that the patent application leading to the '411 patent was filed. See Kimberly-Clark Corp. v. Johnson & Johnson, 745 F.2d 1437, 1453, 223 USPQ 603, 612-14 (Fed. Cir. 1984) (discussing the origin and significance of the hypothetical ordinarily skilled artisan in detail).

C

BN also presented as a prior art reference an excerpt from a book written by Magdalena Yesil entitled Creating the Virtual Store that was copyrighted in 1996. Before the district court, BN argued that this reference anticipated every limitation of claim 11. Before this court, BN also alleges that many other claim limitations are disclosed in the reference, but that there was insufficient time to prepare testimony concerning these limitations, given the district court's accelerated briefing and hearing schedule at the preliminary injunction stage.

In general terms, the reference apparently discusses software to implement a shopping cart ordering model. However, BN focuses on the following passage from Appendix F of the book:

> Instant Buy Option
>
> 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.

The district court dismissed the significance of this passage, stating that "[r]ead 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." However, the district court failed to recognize that a

reasonable jury could find that this passage provides a motivation to modify shopping cart ordering software to skip unnecessary steps. Thus, we find that this passage, viewed in light of the rest of the reference and the other prior art references cited by BN, raises a substantial question of validity with respect to the asserted claims of the '411 patent.

D

Another reference cited by BN, a print-out from a web page describing the "Oliver's Market" ordering system, generally describes a prior art multi-step shopping cart model. BN argued that this reference anticipates at least claim 9. The reference begins with an intriguing sentence:

A single click on its picture is all it takes to order an item.

Read in context, the quote emphasizes how easy it is to order things on-line. The district court failed to recognize that a reasonable jury could find that this sentence provides a motivation to modify a shopping cart model to implement "single-click" ordering as claimed in the '411 patent. In addition, the district court failed to recognize that other passages from this reference could be construed by a reasonable jury as anticipating and/or rendering obvious the allegedly novel "single action ordering technology" of the '411 patent. For example, the reference states that "[o]ur solution allows one-click ordering anywhere you see a product picture or a price." The reference also describes a system in which a user's identifying information (e.g., username and password) and purchasing information (e.g., name, phone number, payment method, delivery address) is captured and stored in a database "the very first time a user clicks on an item to order," and in which a corresponding cookie is stored on the client system. In this system, the stored information may be retrieved automatically during subsequent visits by reading the cookie. All of these passages further support BN's argument that a substantial question of validity is raised by this prior art reference, either alone or in combination with the other cited references.

E

The final reference considered by the district court is the '780 patent, entitled "Internet server access control and monitoring systems." Based on a patent application filed in the United States before the application that matured into Amazon's '411 patent, the '780 patent qualifies as prior art pursuant to 35 U.S.C. § 102(e) (1994). Before the district court, BN argued that this reference anticipated at least claim 1 of the '411 patent.

In the preferred embodiment described in the '780 patent, a user browses the web conventionally, and 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 authorization to browse. '780 patent, col. 7, ll. 35-

38. The '780 patent describes a system in which controlled pages are returned to the user's browser when an authorized request is received by the content server. We note that the '780 patent describes "forwarding a service request from the client to the server and appending a session identification (SID) to the request and to subsequent service requests from the client to the server within a session of requests." Id. at col. 3, ll. 12-16.

We conclude that the district court failed to recognize that a reasonable jury could find that such "items" (i.e., controlled pages) fall within the scope of the claimed invention, and that delivery of these controlled pages based on receiving an authorized request from a user's browser may constitute a "single action ordering component" within the meaning of the claims in the '411 patent. Therefore, the '780 patent is yet another prior art reference cited by BN which tends to raise a substantial question of validity, either alone or in combination with the other cited references.

The district court also cited certain "secondary considerations" to support its conclusion of nonobviousness. Specifically, the district court cited (1) "copying of the invention" by BN and other e-commerce retailers following Amazon's introduction of its "1-Click®" feature, and (2) "the need to solve the problem of abandoned shopping carts." First, we note that evidence of copying Amazon's "1-Click®" feature is legally irrelevant unless the "1-Click®" feature is shown to be an embodiment of the claims. To the extent Amazon can demonstrate that its "1-Click®" feature embodies any asserted claims of the '411 patent under the correct claim interpretation, evidence of copying by BN and others is not sufficient to demonstrate nonobviousness of the claimed invention, in view of the substantial question of validity raised by the prior art references cited by BN and discussed herein.

With respect to the abandoned shopping carts, this problem is not even mentioned in the '411 patent. Moreover, Amazon did not submit any evidence to show either that its commercial success was related to the "1-Click®" ordering feature, or that single-action ordering caused a reduction in the number of abandoned shopping carts. Therefore, we fail to see how this "consideration" supports Amazon's nonobviousness argument.

## CONCLUSION

While it appears on the record before us that Amazon has carried its burden with respect to demonstrating the likelihood of success on infringement, it is also true that BN has raised substantial questions as to the validity of the '411 patent. For that reason, we must conclude that the necessary prerequisites for entry of a preliminary injunction are presently lacking. We therefore vacate the preliminary injunction and remand the case for further proceedings.

## COSTS

No costs.

VACATED AND REMANDED

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**i** On appeal, BN asserts that a defense of anticipationeg;" had been raised based on the Web-Basket system by Dr. Lockwood's claimipationeg;" charts. However, our review of the record indicates that Dr. Lockwoodipationeg;" admitted that at least one claim limitation in each of the independentipationeg;" claims may not have been anticipated by the Web-Basket system. Therefore,ipationeg;" at this stage, we address only the obviousness issues related to the Web-ipationeg;" Basket system.