

Amazon's one-click patent loses its teeth

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..... The US Federal Circuit court of appeals has dissolved the preliminary injunction that for several years kept barnesandnoble.com from offering its Internet customers the one-click shopping that Amazon.com offers. The one-click patent, one of the most derided business-method patents, took a heavy thrashing from the Federal Circuit, but it hasn't been knocked out by complete invalidation yet.

This decision is interesting, not only because of the notoriety of the one-click patent, but also because the decision illustrates several peculiarities of the patent system and of business-method patents in particular.

Background

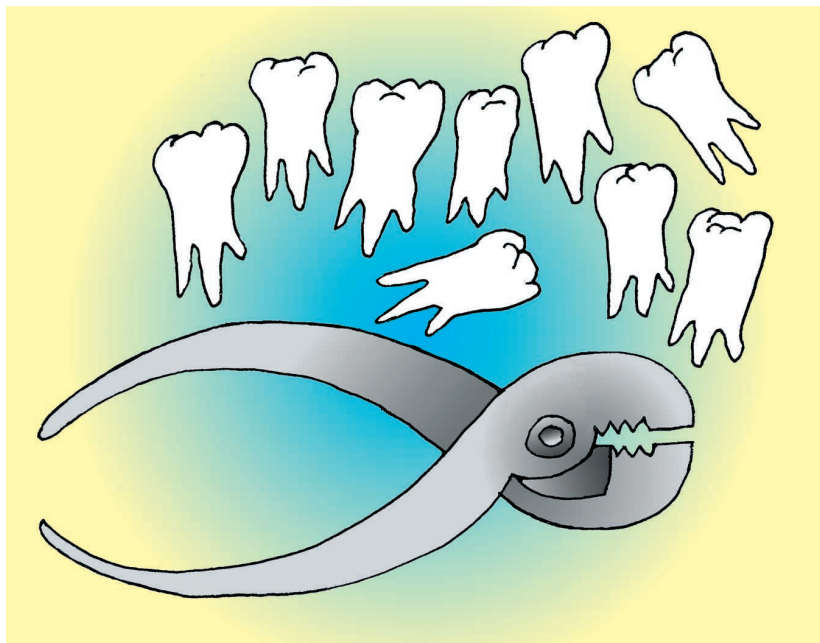
Amazon.com received its one-click patent in September 1999. Within three weeks, it sued barnesandnoble.com for patent infringement, seeking a preliminary injunction against B&N's use of this patented business method in its Express Lane system. The Seattle trial court ordered accelerated briefings and arguments for the preliminary injunction hearing and then granted the preliminary injunction. B&N immediately appealed. The appeal was argued in September 2000, and the Federal Circuit issued its reversal opinion in February 2001.

The one-click patent claims a method

for completing a purchase order over an electronic network using only a single action, such as a mouse click, keystroke, voice command, or other comparable action. The electronic network can be the Internet, some other wide area network, or a local area network.

The one-click method purportedly overcomes the supposed frustrations of the previous dominant business model: the shopping cart. Under the shopping-cart model, a purchaser selects an item from an electronic catalog—say, the seller's Web page. Clicking on a button or icon such as "Add to shopping cart" places a representation of the item into a virtual shopping cart. The purchaser can in the same way add other items from the same catalog. When the customer finishes selecting items, she moves the virtual shopping cart to a virtual checkout counter by clicking another icon. On an electronic form, she provides her name, address, credit card number, and other needed information. This information goes into a seller database, which the customer can optionally review or change. Finally, the customer clicks on a button or icon to confirm the transaction. The seller's computer then processes the order with fulfillment software.

The one-click process supposedly reduces the number of customer actions. (One possible method is to store the address and credit card information in a seller database, with an identification number, and subsequently invoke the



stored information by means of a cookie in the customer's computer.) Each relevant claim of the patent contains a statement to the effect (claim limitation) that the customer's order is fulfilled by a single action or does not require use of the shopping-cart model. B&N's challenge to the patent centered on whether its own process actually used the single-action model rather than the shopping-cart model and whether prior-art systems long antedated Amazon's use of the single-action model. (A prior art system is one that was generally known before the date of the invention, was described in a publication more than a year before the patent application was filed, or was in commercial use more than a year before the patent application was filed.)

The trial court had rejected all of B&N's contentions. Although the Federal Circuit upheld the trial court's determination that Express Lane used the one-click patent's method, it reversed the trial court's decision on the preliminary injunction because it considered the validity of the patent doubtful in view of the prior art.

How many clicks does it take?

The basic issue concerned properly defining a "single action." This definition in turn required determining when to start counting the clicks. Clearly, the entire purchasing process is never going to have only a single action. Customers must at the very least go through some steps to find and click on an identifier of the desired purchase item. Furthermore, B&N's Express Lane used a menu or index page to help customers navigate to a desired item. Customers would thus find the item on the index page; click on a link located there, which sent them to the item page; and then click on an order icon to signify that they wanted the product. That's at least two clicks.

Amazon's first proposal about how to define a single action was that the single action should occur after the customer decides to make a purchase of a given item—say, after locating the item's page at the Web site. This would rule out the click occurring at the index page.

The Federal Circuit, however, said this subjective definition of when the crucial single click occurs was unacceptable. Consider the following series of hypothetical customers.

- Customer 1 does not know what he wants, and so browses the menu page to find something interesting. He finds volume 34 of the *Transactions of the IEEE Tergiversation Society*, says "hmm, maybe I want that," clicks on the link, goes to the item page, reads the description, ponders, and decides to order. He then clicks on the order icon. This process fits Amazon's paradigm.
- Customer 2 does not know what she wants, and so browses the menu page to find something interesting. She finds volume 34 of the *Transactions of the IEEE Tergiversation Society*, says "aha, just what I want," clicks on the link, goes to the item page, finds the order icon, and orders. Does this fit Amazon's paradigm?
- Customer 3 knows that he wants—say, *Perl Scripting for Utter Twits*. He goes to the index just to get to the page containing the description and order icon. Amazon would have the first click disregarded—why?
- Customer 4 begins like customer 1. She does not know what she wants, and so browses the menu page to find something interesting. She too finds volume 34 of the *Transactions of the IEEE Tergiversation Society*, says "hmm, maybe I want that," clicks on the link, goes to the item page, reads the description, and ponders, but then decides to look for something else. After checking out several other possibilities, she returns to the page containing volume 34 of the *Transactions* and orders it. Does this fit Amazon's paradigm?

The Federal Circuit said it was not prepared to assign a meaning to a patent claim that depends on the process user's state of mind. It therefore rejected Amazon's first proposal.

However, the Federal Circuit adopted Amazon's second proposal: The critical point after which the single action can occur must come immediately after a display of information about the item and without any further intervening action, but not necessarily after the first display or each display thereafter. This proposal appeared to fit all likely customer scenarios suggested in the patent's specification. Under this definition of single action, B&N infringed.

This very broad interpretation of single action would probably sweep up a great many—perhaps nearly all—current shopping procedures. It was important also because of the rule that a claim must be interpreted the same way for purposes of infringement and for purposes of determining validity. A broad interpretation sweeps up more prior art. So, the more widely a patentee sweeps its net for infringers, the more widely the patent becomes vulnerable to invalidation by prior art.

Invalidity issues

The Federal Circuit then turned to whether prior art invalidated the patent. It noted that a weaker evidentiary showing by an accused infringer might suffice to defeat a preliminary injunction, but might not succeed at actual trial or even on a motion for summary judgment. Raising a substantial question about validity is enough to defeat a preliminary injunction; however, at trial or on summary judgment, proof must be clear and convincing. For a preliminary injunction, the Federal Circuit said, the test is the patent's vulnerability to a validity challenge.

Sometimes the patentee has a clear enough case on vulnerability because the patent has survived validity challenges in previous litigation, or because most of the industry has yielded to the patent and taken a license. But here, Amazon sued B&N about three weeks after the patent was issued, so none of those lack-of-vulnerability badges were available to Amazon. It had only the statutory presumption of validity, which the type of prior art evidence B&N submitted might well over-

come in this kind of case. But it remains to be seen, the Federal Circuit said, whether any shortcomings in B&N's present validity challenge against the patent will be magnified or dissipated at trial.

Trend System

One telling piece of prior art was CompuServe's mid-1990 Trend System, which sold stock market data to CompuServe customers. Trend System wasn't a Web product, but the one-click patent claims say nothing about the Internet. The claims permit any electronic network—meaning CompuServe's network qualifies. If a customer clicked once on a Trend System screen button offering a stock price chart for 50 cents, CompuServe would send the chart in electronic form (for example, a GIF file) to the customer and bill the customer's CompuServe account. The item ordered was displayed when a customer typed in a stock identifier, and the display screen echoed back the keystrokes. The customer then clicked once to order. Although the record on the CompuServe system did not indicate how the identifier for billing purposes was correlated with the order, the Federal Circuit said that it might be obvious at trial in view of other art before the court. The showing was good enough for a preliminary injunction proceeding.

Web Basket

A 1996 online ordering system called Web Basket also put the validity of the one-click patent in question. Web Basket stored the customer's credit card and address information in a cookie in the customer's computer, along with an identification number stored in both the cookie and the seller's database. When the system was used, the customer's computer relayed the identification number to the seller's database. If the same identification number was in the seller's database, the seller's server read the cookie and used either the information in the cookie or the same information stored in the seller's database that corresponded to the identification number.

Interestingly, the expert witness, Dr.

Lockwood, who had devised Web Basket, testified that it had never occurred to him to make it a one-click system by eliminating some of the unnecessary clicks. Amazon said this showed the nonobviousness of its invention, and the trial court agreed. But the Federal Circuit rejected this argument, saying the proper legal test is what would be obvious to a hypothetical person of ordinary skill in the art, not Dr. Lockwood or any other specific individual.

And many more

Several other references found by B&N each showed all of the elements of the one-click patent claims, but the elements were scattered throughout each reference (say, chapter 1 and chapter 3) instead of combined in one reference passage (say, contiguously in chapter 3). Amazon had struck so fast, with all of its ducks in a row, that B&N didn't have time to prepare adequate testimony about the references under the accelerated briefing and hearing schedule ordered by the trial court. This is common for preliminary injunction hearings. The Federal Circuit, however, which took from September 2000 (when the case was argued) to February 2001 to issue its opinion, had more opportunity to study these references and concluded that they too raised serious questions about the patent's validity.

The net result is that Amazon will have an uphill battle to sustain the validity of the one-click patent at trial in this case, if in fact the case is ever tried on the merits (that is, not just a preliminary injunction hearing to issue an order to protect the status quo, but a full trial as to liability for damages and a permanent injunction against infringement). Nevertheless, with its until then adroit use of the legal system, Amazon succeeded in keeping B&N from using one-click shopping for two Christmas seasons.

What conclusions should we draw?

The one-click patent case illustrates several features of the patent system and business-method patents. First, none of the references leading to the Federal Circuit's determination of vulnerability had been

before the Patent and Trademark Office (PTO) during the one-click patent application proceeding. This is commonplace—in fact, almost universal—for software-related patents, including business-method patents.

This fact does not necessarily indicate a lack of competence within the PTO. Software-related prior art is notoriously difficult to find because it's not well indexed and not indexed in the search categories that the PTO uses for other patent applications. Often, the only ones who can find pertinent, useful prior art are those who taught or worked in the relevant sector of the software industry at the relevant time. They remember where to find poorly documented art and how to locate witnesses who can testify about it. The cost of doing a really good prior art search is disproportionate to the value of doing so—and to the PTO's available funds and personnel—in a patent-application examination proceeding.

That is not so, however, when someone like Amazon sues someone like B&N for many millions of dollars. Such litigation concentrates the defendant's thinking. Funds, therefore, become available to find prior art like the Web Basket, which the PTO could never have been expected to unearth.

This may suggest a different future strategy for operating the patent system, at least in the software and business-method field. Only about 1 percent of all patents are ever litigated. A defendant in a major litigation might think spending \$1 to 5 million on a thorough prior-art search is a good investment when hundreds of millions of dollars are at stake. But multiplying that search expenditure by the 99:1 ratio of unlitigated patents to litigated patents would be the price of doing a comparable search on all software and business patent applications. In this field, at least, if not in others as well, investing vast resources to do a far better preissuance search for art would make far less sense than just waiting for litigation, if it ever occurs, and then spending the money to do a thorough search. If the litigation never occurs, as happens 99 per-

cent of the time, you save the expense. Therefore, maybe doing a great search isn't worth the expense unless the patent appears important enough to litigate.

(There may be other policies to consider, however, such as concern over intellectual property intimidation.) Maybe we need a two-tier system of patent prosecution:

Business as usual for most software and business-method patents, but allow suit only if the patent has been subjected to an exhaustive PTO search over and above the usual job.

Another approach would be to not bother even going through the motions of examination on software and business-method patents; just check for formalities, and then issue the patent and wait until a real, live defendant finances the kind of research that B&N must have done here. Of course, this approach suggests something is wrong with the presumption of validity in these cases. The usual presumption of patent validity is based on the idea that the PTO has subjected the patent application to a searching examination at the hands of experts in the field. This is a legal fiction in the software area.

The Federal Circuit in the Amazon case spoke of the ordinary presumption at trial that the patent must be shown invalid by clear and convincing evidence, not just a mere preponderance of evidence. In contrast, at a preliminary injunction hearing, the accused infringer merely has to show the patent's vulnerability to a validity challenge—the lack of a clear case for validity. In these software/business method cases, even at trial, a weaker presumption of validity (such as for preliminary injunctions) is more appropriate than the present clear-and-convincing-evidence standard for invalidity proof. Perhaps it is time for the patent law to acknowledge that reality.

The intellectual property subcommittee of the US House of Representatives Judiciary Committee plans to hold oversight hearings on business-method patents some time in 2001. Representatives Berman and Boucher introduced a House bill on this subject late in the last session of Congress, just to provide a basis for discussion. One concern they expressed was the incongruity between the high presumption of patent validity and the known weakness of the patent system's prior-art searching infrastructure. In a future issue of *Micro Law*, I will address the possibility of legislative action on business-method patents.

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