INTERNET AND E-COMMERCE PATENTS

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The digital world is getting crowded. The number of Web sites has skyrocketed into the millions as companies supplement their traditional merchandising avenues with electronic commerce. Consumers spent \$7 billion shopping online during the two months of November and December 1999, according to research by Jupiter Communications, Inc.

As this new medium has become pervasive, companies with an Internet presence have labored to distinguish their Web sites and marketing techniques from the offerings of others. Consumers who purchase goods and services over the Internet want things faster, cheaper, and better. Waiting for a slow Web site to download overly complicated graphics or navigating through clunky computer screens have prompted Internet consumers to switch to user-friendly Web sites. Unlike shoppers in a grocery store or a shopping mall, shoppers on the Internet can dump vendors at the click of a mouse.

Patents have proven to be an effective tool for setting up fences in cyberspace, permitting companies to exclude others from unique techniques of advertising and selling products. As the examples discussed below illustrate, a patent can be the single most important asset to a company doing business on the Internet. Nevertheless, certain pitfalls await the unwary.

WHAT IS AN "E-COMMERCE" OR "INTERNET" PATENT?

What exactly is an "E-commerce patent?" Generally speaking, it is a patent that protects a method of buying or selling something (including goods and services) over the Internet. Examples include so-called electronic shopping carts; Web sites that employ auction-like techniques to sell goods; and computer screen designs that make it easier to transact business on the Internet. The term "Internet patent" is sometimes used to refer more generally to patents that involve anything on the Internet, and can cover methods of transmitting information over the Internet; data compression techniques; and encryption methods.

Although the number of software patents has skyrocketed in recent years, patents covering so-called "methods of doing business" have emerged as a special breed, and have gained new momentum as a result of recent court cases. The Court of Appeals for the Federal Circuit, which hears all appeals in patent infringement lawsuits, recently ruled that a business method can be patented if it produces a useful, concrete, and tangible result. State Street Bank & Trust Co. v. Signature Financial Group Inc., 149 F.3d 1368 (Fed. Cir. 1998). The same court held that a method need not involve any "physical transformation" in order to be patentable. AT&T v. Excel Communications Inc., 172 F.3d 1352 (Fed. Cir. 1999). The AT&T case involved a method of inserting a special code into a telephone call to indicate the telephone customer's calling plan. In light of

these cases, it is fair to say that if a business-related invention is new and not obvious, it can be patented.

E-commerce and Internet patents can be used to protect various types of business practices on the Internet. Numerous patents have issued in this area. Several examples are provided below, arranged by category of coverage.

A. Sales & Purchasing Techniques

Some patents cover specific techniques for purchasing goods or services over the Internet. These inventions make it faster, easier, and more enjoyable for consumers to make electronic purchases. The U.S. Patent and Trademark Office has created a special category in its patent indexing system (class 705, subclass 26) for patents of this type.

One patent that has created a recent stir is owned by on-line bookseller Amazon.com. U.S. patent number 5,960,411, which issued in September 1999, protects Amazon's "one-click" technology. In contrast to Web sites that require that consumers enter payment and shipping information and to click various buttons to place an order, Amazon's "one-click" technology allows a consumer to immediately order a book by clicking a single button. The patent specifically notes that the patented method is performed "without using a shopping cart ordering model." Some in the Internet community have complained that this patent is an obvious variation over previously available technology. As discussed in more detail below, however, a federal judge has upheld the validity of this patent on a preliminary injunction ruling against Amazon's chief rival, Barnesandnoble.com.

A company called Open Market has patented a technique for using an electronic shopping cart to purchase goods on the Internet (patent number 5,715,314, entitled "Network Sales System"). On-line merchants provide these shopping carts to permit customers to accumulate purchases and to see their accumulated totals before "checking out" to complete the purchase transaction. Another example of such a patent is U.S. patent number 5,745,681, entitled "Stateless Shopping Cart for the Web." The patent, which is owned by Sun Microsystems, relates to a shopping cart that is managed by a Web browser running on the consumer's computer.

A New Zealand woman obtained a U.S. patent on a method of purchasing goods across different Web sites using a single "shopping cart." The patented method in U.S. patent number 5,895,454, entitled "Integrated Interface for Vendor/Product Oriented Internet Websites," purportedly simplifies the online shopping process by allowing consumers to use a universal shopping cart to buy products from different Web sites. The woman has recently sued Yahoo! for patent infringement.

B. On-line Auctions

The conventional scheme for conducting an auction has been automated, tweaked, and moved into the world of the Internet. One of the most widely advertised services, Priceline.com, owns several patents in this area. Its U.S. Patent number 5,794,207, entitled "Method and Apparatus for . . . Buyer-Driven Conditional Purchase Offers," purportedly relates to the concept of allowing consumers to bid on airline tickets and other items.

U.S. patent number 5,890,138, entitled "Computer Auction System" and owned by Bid.com, purportedly covers an Internet-based reverse auction system that decreases the price of merchandise over time and reduces the available quantity of the merchandise as consumers place orders.

Yet another patent, number 6,021,398, entitled "Computer Implemented Methods and Apparatus for Auctions," relates to an on-line auction system that determines whether an auction should be terminated.

C. Financial Transactions

Some patents relate to financial transactions such as banking and securities trading on the Internet. Patent number 5,870,721, entitled "System and Method for Real Time Loan Approval," purportedly covers the concept of evaluating and approving a loan application electronically without any human intervention. Another patent (U.S. patent number 6,014,643, entitled "Interactive Securities Trading System") relates to a method for trading securities between individuals. Yet another patent, number 5,905,736, relates to a method of billing consumers for purchases made over the Internet.

D. Consumer Reward Systems

Some patents cover methods of rewarding consumers for participating in on-line activities such as advertising or game playing. One patent, owned by a company known as "CyberGold," allegedly protects the concept of paying consumers to view advertisements on the Internet. (Patent number 5,794,210, entitled "Attention Brokerage"). The more advertisements a consumer views, the more he or she is paid. Some consumers have earned thousands of dollars doing this; at least a few have been able to circumvent the requirement that they view the advertisements by employing computerized mouse-clickers that simulate browsing on the Internet.

Another patent, owned by Netcentives, Inc., supposedly covers a technique for awarding frequent-flier miles in exchange for making on-line purchases. See U.S. patent number 5,774,870, entitled "Fully Integrated, On-line Interactive Frequency and Award Redemption Program."

E. Advertising Techniques

A company known as "DoubleClick" owns a patent entitled "Method of Delivery, Targeting, and Measuring Advertising Over Networks." (Patent number 5,948,061). The company's targeted ad-delivery technology, which it refers to as DART, collects information on audience behavior and uses that information to target ads at particular consumers. DART also measures Web traffic and ad effectiveness and provides that data to Web publishers and advertisers. According to DoubleClick, the patent covers the dynamic delivery of Internet advertising by a third party ad server to network of Web sites or an individual site.

Another patent, entitled "System and Method for Assessing Effectiveness of Internet Marketing Campaign" (patent number 6,006,197), describes a Web advertising system that measures the effectiveness of Internet advertisements by correlating transactions made after an advertisement to viewing of the advertisement.

Some patents relate to providing electronic coupons over the Internet. One example is U.S. patent number 5,761,648, entitled "Interactive Marketing Network and Process Using Electronic Certificates." The patent owner, referred to as "CoolSavings," has sued several defendants for patent infringement.

F. Infrastructure

A number of patents are directed to basic Internet functions and structures. For example, U.S. Patent number 5,442,637, entitled "Reducing the Complexities of the Transmission Control Protocol for High-Speed Networking," relates to a technique for decreasing the amount of processing required to process data packets in the Transmission Control Protocol (TCP), which is used to maintain connections between computers on the Internet.

Patent number 5,675,741, entitled "Method and Apparatus for Determining a Communications Path Between Two Nodes in an Internet Protocol network," relates to a method of tracing a communication path between computers on the Internet.

G. Directories and Search Engines

Various patents describe search engines and directory schemes on the Internet. For example, U.S. patent number 6,009,459, entitled "Intelligent Automatic Searching for Resources in a Distributed Environment," relates to a Web browser that chooses a search engine based on information entered by the user. Patent number 6,009,422 ("System and Method for Query Translation/Semantic Translation Using Generalized Query Language") relates to a method of searching using multiple search engines.

U.S. patent number 5,682,525, entitled "System and Methods for Remotely Accessing a Selected Group of Items of Interest From a Database," purportedly covers the concept of searching for a business based on its geographic location. The patent owner has sued Microsoft and other companies for patent infringement. <u>See CIVIX-DDI</u>

<u>LLC v. Microsoft Corp.</u>, 52 USPQ2d 1501 (D. Colo. 1999)(The court recently granted Microsoft's motion for summary judgment).

PITFALLS OF INTERNET & E-COMMERCE PATENTS

Internet and e-commerce patents can create special problems. Some of these problems are outlined below.

1. Inappropriate Claiming Strategies

E-commerce and Internet inventions can present special problems in patent claiming strategies. Because a patent only covers what is recited in its claims, the wording of the claims becomes especially important in the Internet world, where it is sometimes difficult to target a single company or individual as an infringer.

If a patent claims a method for transmitting information between two computers, a person who has a computer that performs only half of the invention could avoid infringement if the other half is performed by an Internet Service Provider such as America Online. Careful claiming strategies could avoid this problem by drafting claims that cover each half of the invention in such a way that it is patentable and yet covers each partial infringer.

Claims can also be drafted to cover the interface or protocols used between systems, in order to catch infringers who provide partial systems that use the interface or protocol defined in the patent. For software inventions, claims can be crafted to cover unique application programming interfaces (APIs) that, if patented, could prevent a competitor from offering a compatible product. APIs usually define an interface between a high-level language and lower-level elements (e.g., operating system components) that implement a specific function.

Other situations involving off-shore computer servers that transmit Web pages into the United States can present enforcement problems if patent claims are not drafted to carefully cover such possibilities. Claims focused on the reception and manipulation of data from an infringing off-shore computer could be used to ensnare Internet Service Providers and other intermediaries who contribute to infringement of the patent.

Software patents generally require careful forethought regarding the targets of likely infringement. Claims that cover computer-readable media (so-called "Beauregard" claims) can be used to go after mass producers of disks or CD-ROMs who sell infringing software to consumers. Method claims that cover user interface steps can be used to cover Web site operators (including Internet Service Providers) that provide services to consumers. The use of means plus function claim formats should, in the author's opinion, be avoided.

2. Written Description Issues

In 1985 Charles Freeny received a patent for a method of "reproducing information in material objects" at a point of sale location. (U.S. patent number 4,528,643). The basic idea was that a customer could visit a music store and purchase a custom-made music disk. The store would transmit a catalog code to a distant computer, which would authorize the transaction, and an "information manufacturing machine" in the store would then copy the selected information (e.g., music) onto the material object (a disk or tape) for the customer.

Freeny's company sued CompuServe and a number of other defendants, alleging that the transmission of computer software and documents in digital form over the Internet to home computers infringed the patent. <u>Interactive Gift Express, Inc. v. CompuServe Inc.</u>, 47 USPQ2d 1797 (S.D.N.Y. 1998). Even though the patent made no mention of the Internet, Freeny's position was that the patent was broad enough to cover the sale of information over the Internet, and that the home computers were "information manufacturing machines" under the patent.

The district court held a so-called "Markman" hearing to interpret the claims of the patent. As part of this interpretation, the court concluded that the patent could not be stretched to cover the sale of information over the Internet.

First, the court concluded that while the claims did not specifically require that the information be pre-stored in the "information manufacturing machines," the written description portion of the patent made it clear that the information was pre-stored rather than downloaded in real time. Although the patent mentioned the possibility of transmitting the information while the customer waited (instead of pre-storing it), the patent criticized such a scheme as economically unsound. Consequently, the court ruled that the patent would not apply to systems in which the information was transmitted to home computers while the customer waited.

Second, Freeny alleged that the claimed "authorization code" provided to the "information manufacturing machine" was broad enough to cover an Internet Protocol address assigned to a home computer. The court rejected that contention, finding that the patent described the "authorization code" as a code that enabled the "information manufacturing machine" to decode or decipher the information stored in the machine.

Finally, the court rejected Freeny's contention that the claimed "point of sale location" could be a customer's home. Because the patent repeatedly referred to a retail outlet as a "point of sale location," and because the patent stated that "the point of sale location is a location where a consumer goes to purchase material objects," the court ruled that the patent was limited to locations in which a customer travels to purchase the material objects, and that it must be a location that offers for sale blank "material objects."

The court also concluded that the claimed "material object" could not be a hard disk inside a customer's computer, and that the claimed "information manufacturing machine" was limited to a machine including four specific components that were described in the patent. Based on these interpretations, the patent could not be used to cover information transmitted over the Internet to home computers.

The <u>CompuServe</u> case illustrates an important point: the written description of patents that were filed before the advent of the Internet will be carefully scrutinized to determine whether they can fairly cover later-developed Internet technologies. Broadly written but vague patents that are later urged to cover Internet technologies will likely be interpreted narrowly in order to give effect to the inventor's original intent.

Another case illustrating this problem was recently decided by the Court of Appeals for the Federal Circuit. In 1988 Wang Laboratories received a patent entitled "Videotex Frame Processing" (U.S. patent number 4,751,669). In a typical videotex system, text and graphics information is transmitted to subscribers over a telephone or TV system. The Wang invention entailed storage of pages or "frames" of data from different information suppliers. According to Wang, the patent was broad enough to cover AOL's "favorite places" and Netscape's "bookmark" features, well-known conveniences on the modern day Web.

Wang sued AOL, Netscape and others for patent infringement. The district court concluded on summary judgment that Wang's patent was limited to "character-based" frames, and could not be used to cover "bit-mapped" protocols that are used on the World Wide Web (including those used by AOL and Netscape).

On appeal, the Court of Appeals for the Federal Circuit agreed, concluding that the word "frame" as used in the Wang patent was specifically limited to character-based systems. The appeals court pointed to the figures and description in the patent, which repeatedly referred to character-based systems in explaining the invention. Although a bit-mapped protocol was mentioned in the "background of the invention" portion of the patent, that single reference was insufficient to provide support for bit-mapped systems. The court also found it significant that the Wang inventors had been unable to implement a bit-mapped graphics protocol, further supporting the view that only a character-based system had been intended. In view of the "huge" differences between character-based and bit-mapped systems, the court also found that no infringement under the doctrine of equivalents was possible.

A plaintiff tried to shoehorn vague terminology to cover Internet software in CIVIX-DDI, LLC v. Microsoft Corporation et al., 2000 U.S. Dist. LEXIS 717 (Jan. 24, 2000). One of the patents concerned electronic directories that allowed persons to locate businesses based on a geographic location. The patent disclosed and claimed "user stations" from which the directories could be operated. The plaintiffs argued that the claimed "user stations" could cover any computer device (including personal computers). The defendants argued that "user stations" were limited to public fixtures such as kiosks. The court agreed with the defendants and granted summary judgment of non-

infringement, on the basis that at the time the patent application was filed, one of ordinary skill in the art would interpret "user station" to be a fixed public structure.

In <u>Reiffin v. Microsoft Corp.</u>, 48 USPQ2d 1274 (N.D. Cal. 1998), a patent owner who claimed to have invented "multi-threading" for computer programs sued Microsoft over two patents relating to that technology. The district court ruled that the patent was invalid because the claims failed to include certain necessary elements that were described in the patent (an editor, a compiler, an interrupt means, and a return means).

According to the district court, the plaintiff's original patent application strongly suggested that four elements were critical to operation of the invention, yet the claims in the patent as issued made no reference to any of these elements. Finding that the case was similar to the Federal Circuit's decision in Gentry Gallery, Inc. v. Berkline Corp., 134 F.3d 1473 (Fed. Cir. 1998), the court invalidated the patents on the ground that the claims improperly omitted these "essential elements" of the original patent application (an appeal is pending).

The above cases illustrate problems with fast-moving technologies like those involving the Internet. If patents are written using vague terminology, courts may reign in the scope of the patent by assigning more specific definitions to the terminology based on technology in existence at the time the patent application was filed, or by invalidating the patents. New devices, protocols, and techniques that have no counterpart in older technologies may escape the patent altogether. On the other hand, writing patent claims using terminology that is too specific may limit the patent to a narrow field of protection.

3. Personal Jurisdiction Problems

When an allegedly infringing product is advertised for sale on the Internet on a Web page that can be readily viewed from any state, one might assume that it would be a straightforward matter to sue the company that is advertising the product. Similarly, when a Web site operator uses an allegedly infringing method to display information on a Web site, one would assume that it would be a clear-cut matter to establish that the party can be sued in a given forum. After all, the patent statute was amended a few years ago to make "offering for sale" an infringing product or service an act of infringement. These assumptions, however, would be incorrect.

A recurring problem that arises in cases involving the Internet is: where, if anywhere, does the infringement occur? Defendants frequently allege that they have been sued in the wrong forum, or that they cannot be sued at all. A federal judge recently issued a preliminary injunction against a Canadian-based web site, iCRAVETV, that was rebroadcasting copyrighted TV programs over the Internet. Because of the Internet's global reach, anyone in the world (including viewers in the United States) could view the programs. The Canadian company took the position that the rebroadcasts did not violate Canadian law. While this case arose in the copyright context, it is easy to see how the same issue can arise in the context of patent infringement over the Internet.

In Agar Corporation Inc. v. Multi-Fluid Inc., 45 USPQ2d 1444 (S.D. Tex. 1997), a Norwegian company advertised allegedly infringing products on its Web site. The Web site suggested that persons interested in the products should place a call to the Norway company or to its Colorado affiliate. The plaintiff sued the Norwegian company and the Colorado affiliate in Texas, asserting patent infringement based on the "offer to sell" provisions of 35 U.S.C. § 271(a). Consistent with other court decisions, the Agar court dismissed the suit for lack of personal jurisdiction, finding that the Web site was mostly "passive," providing information only and not allowing a customer to consummate a Finding that the Web site was akin to an advertisement in a national purchase. publication that was not specifically directed at Texas residents, the court concluded that there were insufficient contacts with Texas to assert jurisdiction over the companies. See also, ESAB Group Inc. v. Centricut LLC, 49 USPQ2d 1822 (D.S.C. 1999)(Web site that offered products but that was not actually used to consummate a sale from South Carolina did not constitute "purposeful availment" of South Carolina for personal Compare CoolSavings.Com Inc. v. IQ.Commerce Corp., 51 iurisdiction purposes). USPQ2d 1136 (N.D. Ill. 1999)(interactive Web site directed at entire country established minimum contacts with Illinois for patent infringement purposes; court noted that the use of the Web site itself allegedly constituted patent infringement).

In <u>CIVIX-DDI LLC v. Microsoft Corp.</u>, 52 USPQ2d 1501 (D. Colo. 1999), the court concluded that a Bellsouth Yellow Pages Web site providing search capabilities was not "directed at" Colorado residents, and dismissed Bellsouth from the lawsuit. The court found it significant that the defendant derived no advertising revenues from the Web site, and did not specifically solicit Internet users in Colorado.

The issue is even more acute with respect to companies that transmit information (including offers for sale) into the United States from an off-shore computer. This issue is presently pending in a case in the Eastern District of Virginia styled <u>Addiction Research Institute</u>, Inc. v. Healing Visions Institute for Addiction Recovery, Ltd., No. 2:99-CV-1611. The defendant, Healing Visions, transmitted offers to treat patients at an off-shore facility using a U.S.-patented method. In its motion to dismiss, Healing Visions contends that it cannot be held liable for infringement in the United States, even though its offer was transmitted into and directed at U.S. residents in Virginia.

The case law so far has generally drawn a distinction between Web sites that are "active" (i.e., those through which an order can be placed) and those that are "passive" (i.e., those that merely provide general information but do not constitute an offer to sell allegedly infringing material).

4. Prior Art Searching Problems

When evaluating the patentability of an Internet or E-commerce invention, searching for prior art can present a tricky problem. Searches through U.S. patents and issued publications frequently fail to turn up related inventions that might be similar to the subject invention. Inventors usually have access to the latest technology, and conventional prior art searches can be shunned in favor of the inventor's analysis of the

closest prior art. Consequently, it may be advisable to search the Web for related Web sites and methods, and to ask the inventors to help identify the closest prior art.

WHERE THERE ARE PATENTS, THERE ARE LAWSUITS

The recent injunction granted to Amazon.com against Barnesandnoble.com illustrates the power of a single patent. In October 1999, Amazon.com sued Barnesandnoble.com for patent infringement, alleging that Barnesandnoble.com's Web site infringed Amazon's "one-click" patented technology (U.S. patent number 5,960,411). Amazon's patented system allows online shoppers to purchase items without filling out registration and shipping information forms each time they make a purchase. Instead, repeat shoppers can merely click an item that they wish to purchase, and the sale is instantly consummated.

Amazon.com obtained its "one-click" patent in September 1999, and sued Barnesandnoble.com barely one month later, alleging that Barnesandnoble.com's "Express Lane" ordering system copied the patented method. In response to Amazon.com's motion for a preliminary injunction, Barnesandnoble.com argued that the patented method was obvious, and that the patent was invalid. The dstrict court rejected these arguments, finding that it would not have been obvious to implement a "one-click" Amazon.com Inc. v. Barnesandnoble.com Inc., 51 USPQ2d 1115, ordering method. 1125 (W.D. Wash. 1999). The district court concluded that Barnesandnoble.com's copying of the patented feature provided additional evidence of its nonobviousness, and enjoined Barnesandnoble.com from infringing the patent. Barnesandnoble.com quickly modified its allegedly infringing design to require additional "clicks" before a consumer could consummate a purchase. In the world of the Internet, its site became slightly less convenient and slower than that of its competitor.

Yahoo! is the latest dot-com company to be sued by a patent infringement plaintiff. The lawsuit, filed in Missouri in November 1999, alleges that Yahoo's "Yahoo! Shopping" feature infringes a patent owned by Juliette Harrington, a New Zealand woman. The patent, U.S. patent number 5,895,454, entitled "Integrated Interface for Vendor/Product Oriented Internet Websites," allegedly covers a universal shopping cart that permits consumers to purchase items from different Web sites in a single transaction. Harrington v. Yahoo! Inc., No. 4:99 CV-1751 (E.D. Mo.).

In another recently-filed lawsuit, Trilogy Software Inc. sued CarsDirect.com, claiming that CarsDirect infringes its patented method for permitting customers to choose options for a car ordered over the Internet. The patented technique (U.S. Patent No. 5,825,651) purportedly guides customers through the selection process by automatically including certain options and permitting the customer to choose other options, based on compatibility among options. At first glance, the patent appears to cover the mere automation of a car salesman's ordinary business practices. Triology Software, Inc. v. CarsDirect.com Inc., No. A 99CA-69 (W.D. Tex).

Another company claims to have a patent covering the sale of music in electronic form over the Internet. The company, Parsec Sight/Sound Inc., filed a lawsuit against a company for infringing its patented method (Patent No. 5,191,573, entitled "Method for Transmitting a Desired Digital Video or Audio Signal"). Parsec Sight/Sound Inc. v. N2K Inc., No. 98-CV-118 (W.D. Pa.).

Doubleclick recently sued L90 in the Eastern District of Virginia for patent infringement, claiming that L90's advertising serving and tracking software infringes the patent. (Patent number 5,948,061). The patent allegedly covers the concept of targeted advertising on the Internet based on user profiles.

Not even eBay, the pioneering auction Web site, has been immune from lawsuits. Network Engineering Software Inc. of San Jose, California, filed a patent infringement lawsuit against eBay over database technology that allows users to publish information on the Web. (U.S. Patent No. 5,778,367). The patent is entited "Automated On-Line Information Service and Directory, Particularly for the World Wide Web."

If there is one lesson from the spate of recent lawsuits, it is that patent owners are setting their sights on "big target" defendants. Large corporations with an Internet presence are more likely to be sued for patent infringement than smaller, lesser-known companies. The very nature of the Internet makes it much easier to discover infringement than was previously possible. For example, a Web site that is launched by a small jazz club can be instantly located and viewed from anywhere in the world. Automated Web "robots" can be used to search the Web for various key words or pictures that might suggest infringing conduct. As the number of Internet and E-commerce patents continues to grow, infringement lawsuits are likely to increase proportionately.

CONCLUSION

In the Internet world, where a successful business model can make the difference between a good idea and a money-making idea that draws investors from every nook and cranny, companies are in a feeding frenzy to patent their business models and methods.

Wireless Web devices that combine the technologies of cellular telephones, personal digital assistants (PDAs), and Internet technologies will be subject to patents in many different technical areas. Palm Computing's Palm VII comes with an integrated antenna that connects the device to the Internet for a nominal monthly fee. Cellular phones can now be purchased with Palm's operating systems. AT&T Wireless also offers mobile wireless services.

As protocols such as the Wireless Access Protocol (WAP) become more prevalent, wireless Internet devices are likely to be the next wave of targets subjected to a broad array of patent lawsuits. One patent that has recently come to the attention of many companies is owned by Geoworks (U.S. patent number 5,327,529). It purportedly covers the concept of rearranging pages of information to fit on the screens of phones and

mobile devices. In a press release issued on January 19, 2000, Geoworks announced that it "holds essential Intellectual Property Rights (IPR) for the Wireless Application Protocol (WAP), and the Wireless Markup Language (WML) specification." Such statements sent its stock price soaring; it remains to be seen whether a court will agree that the scope of its patent is as broad as its press release makes it appear.

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