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Patents That Protect Methods of Doing Business: A License to Steal?

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On June 20, 1893, John T. Hicks received US Patent Number 500,071, entitled "Method of and Means for Cash Registering and Account Checking." The patent, which described a method of preventing theft by restaurant waiters, was one of the earliest so-called business method patents issued by the US Patent and Trademark Office (PTO). Thousands of such patents have been issued over the ensuing 10 decades with little or no fanfare.

More than one hundred years later, on September 28, 1999, Amazon.com received US Patent Number 5,960,411, which protects Amazon's "one-click" method of shopping on the Internet. The patented method supposedly allows shoppers to instantly purchase goods without requiring order confirmation and checkout procedures. This patent, a modern-day "business method" patent, has invoked the ire of commentators, the Internet community, and even Congress. Some have even called for abolishment of such patents.

What Is a Business Method Patent?

In recent years, the PTO has issued numerous patents that are said to cover "methods of doing business." Examples include a method of operating a dating service (patent number 5,920,845); an interactive game show (patent number 5,108,115); a method for conducting a survey of music listeners (patent number 5,913,204); and a method of estimating damage to a vehicle (patent number 5,839,112). Other examples include a method of forecasting business performance based on weather trends (patent number 5,832,456); a method of using estimates of the future earnings potential of college students to fund their college tuition (patent number 5,809,484); and even a method of walking underwater (patent number 5,906,200), appropriately entitled "Method for a Sea-Bottom Walking Experience and Apparatus for a Sea-Bottom Walking Experience."

Consumers who surf the Internet have undoubtedly seen so-called auction Web sites, such as Priceline.com, where one can bid on hotel rooms and airline tickets. Priceline claims that its process, which makes bids available to multiple sellers, is patented. Another inventor claims to have patented a method of teaching janitors how to clean a building more efficiently by using a training book with step-by-step instructions and illustrations (patent number 5,851,117). Patents like these have raised the eyebrows of commentators and legislators, who fear that such patents could thwart the progress of the Internet and the economy.

Yet it is too easy to discuss business method patents without ever actually defining what is meant by the term. The phrase "business method patent" has been used loosely to refer to all sorts of patents, including those that do not protect methods *per se*. Although there is no widely accepted definition, many in the patent law community refer to a patent as a "business method patent" if it concerns a method or system for operating a business enterprise, for processing financial data, for teaching or education, for advertising or marketing, or for entertainment.

Although the PTO has assigned a separate patent classification to handle business method patents, the boundaries of that classification are unclear, as demonstrated by the wide variety of patents assigned to that classification and by the fact that other seemingly business-related patents are not included in that category.

Some have criticized the PTO, which traditionally examines patent applications with technical features such as computer chips and industrial processes, for issuing patents covering obvious marketing and financial techniques. Partly in response to such criticism, the PTO has hired more patent examiners with business-related skills and has instituted a "second review" procedure that scrutinizes such patents more carefully before they are issued.

Given that a successful business model in the Internet world can produce millions of dollars of investment funds, new World Wide Web companies have quickly patented their specific techniques for selling goods and services in the hope that they can corner a small piece of the Internet market. A patent owned by a company called CyberGold, for example, involves a method of paying consumers to view advertisements on the Internet (patent number 5,794,210, entitled "Attention Brokerage"). Another patent, owned by Open Market Inc., allegedly covers a method for using an electronic shopping cart to purchase goods on the Internet (patent number 5,715,314, entitled "Network Sales System"). Yet another patent, number 5,774,870, covers a method of awarding frequent flyer miles in exchange for making online purchases.

The free-wheeling nature of the Internet and the increasingly frequent issuance of these patents has led to complaints that innovation on the Internet will ultimately be stifled. Some of this criticism, however, comes from those who believe that patents involving software should not be granted regardless of their merit. Similar arguments have been raised in recent years over so-called gene patents, pharmaceutical patents, and the patenting of new life forms. But whatever the source of the criticism, business method patents are here to stay; yet because of their somewhat unique nature, it is not entirely clear how such patents should be evaluated for purposes of licensing, enforcement, and portfolio development.

Statutory Basis for Business Method Patents

The patent statute provides that an inventor is entitled to a patent for any new, useful, and nonobvious process, machine, article of manufacture, or composition of matter. The term "process" is synonymous with "method" and, according to the Supreme Court, is a series of steps that transforms and reduces something to a different state or thing.[1] More recently, the Court of Appeals for the Federal Circuit has held that a method need not even involve any physical transformation in order to be patentable.[2]

Given that computers constitute a "machine" according to the use of that term in the patent statute, computers programmed with new and nonobvious software can be patented as a machine, while the series of steps executed by such computers can also be protected as a method. Aside from a statutory exception for patents covering methods of performing surgical procedures[3] there is no statutory impediment to obtaining and enforcing patents concerning a "method of doing business." Although certain exceptions apparently remain for inventions that involve merely mental steps or that are merely "printed matter," for practical purposes there are few obstacles to patenting a new method of doing almost anything. Indeed, in a case upholding the right of an inventor to patent a new life form, the Supreme Court acknowledged that Congress intended to permit patenting "anything under the sun that is made by man."[4]

The Supreme Court struggled during the 1970s and 1980s with patents covering computer software, as it tried to decide whether a process involving numerical computation was a useful process rather than an abstract idea. Courts in the early part of this century struck down patents that included mental steps on the grounds that they were not a "useful process" covered by the patent statute. The Court of Appeals for the Federal Circuit, despite its more recent cases on the subject, held as late as 1994 that a method of competitive bidding was not a useful process because it lacked any physical transformation of subject matter.[5] Yet the court apparently changed its mind just a few short years later, concluding in *AT&T* that no such physical transformation was necessary.

Business method patents have been given new momentum by a recent Federal Circuit decision holding that an invention that produces a useful and tangible result is not invalid merely because it involves a method of doing business.[6] In that decision, a computer programmed to calculate the value of investment funds for tax purposes was found to be patentable, even though it was characterized as a "method of doing business." The court's decision one year later in *AT&T* extended that principle to methods involving mere manipulation of computer data for purposes of tracking telephone call charges. Partly in response to these court decisions, patent filings covering business techniques have skyrocketed.

Recent Lawsuits Involving Business Method Patents

Business method patents have received heightened scrutiny in the press in light of Amazon.com's recent lawsuit against its chief rival, Barnesandnoble.com. Amazon.com successfully forced Barnes & Noble to modify its Web site in response to a preliminary injunction during the height of the 1999 Christmas shopping season. The suit was filed in Seattle barely a month after the Amazon patent issued.

Yahoo is another dotcom company that has been 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, entitled "Integrated Interface for Vendor/Product Oriented Internet Websites" (US patent number 5,895,454), allegedly covers a universal shopping cart that permits consumers to purchase items from different Web sites in a single transaction.[7]

In another recently filed lawsuit, Trilogy Software Inc. sued CarsDirect.com, claiming that CarsDirect infringes its patented method of permitting customers to choose options for a car ordered over the Internet. The patented technique (US Patent No. 5,825,651) guides customers through the selection process by automatically including certain options and permitting the customer to choose other options, based on the compatibility among them. At first glance, the patent appears to cover the mere automation of the ordinary practices of a car salesman.

Fashion has entered the Internet patent wars as well. Andrea Rose claims to have a patent covering a method for fashion shopping over the Internet. She filed a lawsuit against Public Technologies Multimedia, Inc. for infringing her patented method, (Patent No. 5,930,769 entitled, "System and Method for Fashion Shopping") which supposedly covers a method that involves the steps of receiving personal information from a customer; selecting a body type and fashion category; selecting fashions from a different clothes items based on body type and category; and receiving and processing orders for the selected fashions.[8]

Not to be outdone in the fashion wars, another company sued Ms. Rose over the same patent, claiming that the patent is invalid because of prior use and sale of a competing Internet fashion delivery method offered under the trademark Digital Dressing Room,™ purportedly covered by US Patent 5,680,528. The company also alleges that the Rose patent is invalid because Rose marketed her "Andrea Rose Fashion Reflection Profile System" to the public more than one year prior to the filing date of the patent, which is in violation of the patent laws.[9]

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

One reason that these so-called business method patents are receiving more attention is that the Internet has made the advertising and sales techniques of competitors highly visible. Anyone with a computer and an Internet connection can discover a competitor's sales techniques for products and services. Companies are vying to provide advantages in consumer convenience, and patents provide a valuable edge to protect every improvement.

Issued patents can, of course, be challenged in court. One procedural problem for infringers, however, is the statutory presumption of validity afforded to issued patents. Juries are frequently impressed by the existence of a patent, making it harder to show by clear and convincing evidence that the patent never should have been granted. Although patents can also be challenged under a lower administrative burden at the PTO under a re-examination procedure, certain disadvantages and limitations of that procedure have dissuaded many infringers from making use of them.

Consultants and Accountants Can Be Inventors, Too

Given that new methods of processing financial data, marketing techniques, and even a method of swinging a golf club can be patented, who owns the rights to such patents? Under US patent law, the inventor or inventors own the rights to a patent unless there is a written document transferring rights to another person or corporation. The fact that business people can be inventors creates the possibility that corporate managers, marketing and sales personnel, and even accountants will be named on patents and, unless there is an employment agreement to the contrary, will own the patent rights.

Consider the fact that many companies hire consultants or consulting firms to design their Web sites, program their computers, or even develop their marketing strategy. If a company hires a consultant to develop a certain business practice, the consultant will own the patent rights to that business practice, even if the company paid the consultant to develop it. (The same is generally true for copyright ownership; absent an express written agreement to the contrary or an employee acting within the scope of his or her employment, the originator of a copyrighted work owns the copyright, notwithstanding the fact that somebody else paid for the work.)

Some consulting companies are patenting techniques that were developed at the behest of clients, often as early as when the consulting company prepares a detailed proposal for the client. Any resulting patent could be enforced against the client, particularly if the client decides to use another consulting firm but uses ideas from the original proposal that are then patented. Companies that are a party to such consulting arrangements should carefully scrutinize their consulting contracts to ensure that they own the rights to any potentially patentable techniques that are developed during the course of the consulting arrangement. The common assumption that an employer or contractor who pays for development of an invention is entitled to any patent rights flowing from the invention is, unfortunately, not valid.[10]

Similarly, employment agreements including an invention clause should cover not only "technical" employees such as engineers and scientists, but also employees in marketing, accounting, and even executive management. Failure to obtain a written agreement can doom patent rights at a later date.

What Is a Business Method Patent Worth?

Like any intangible asset, figuring out what a patent is worth is a tricky and notoriously fallible undertaking. As with other patents, the value of a business method patent can depend on a number of factors, including the strength and scope of the patent; the potential cost savings or revenue increases attributable to use of the patented method; the remaining life of the patent; the cost of "designing around" the patent; the royalty rates and income streams for patents in similar technology; the cost of acceptable substitutes; goodwill associated with the patented technology; and the nature of a license under the patent (*e.g.*, exclusive or nonexclusive).

Assuming a transaction has occurred between a willing buyer and seller, one measure of a fair market value for an intangible asset such as a patent is the present value of the future economic benefits of ownership. (Because patents convey a right to exclude others from using the patented invention but do not give the patent owner the right to use the patented invention, this fact must be taken into account when evaluating "ownership" benefits.) Although numbers regarding the value of existing patents are hard to obtain, recently launched Web sites that attempt to create a market for buying, selling, and licensing patents may give rise to a wealth of information concerning the value of patents in years to come.

Another way of assessing the value of a patent is to consider the likely damages that the patent owner could collect for infringement, discounted by some factor to account for the uncertainty of litigation and the exigencies of the patent and its owner (*e.g.*, prior litigation involving the patent; questions regarding the validity of the patent; or prior licenses to others). The patent statute provides that a patent owner can obtain compensatory damages in the amount of lost profits or, in the alternative, no less than a "reasonable royalty" for infringement. An infringer should also evaluate the cost of a potential injunction against it, which could prevent it from future infringement. Assuming that one of these accounting methods can be employed, a potential licensee or prospective purchaser could estimate what the patent would be worth if it were successfully enforced. A widely-cited court decision identifies 15 factors that are important in deriving a reasonable royalty.[11]

What makes business method patents somewhat unique is that they have the potential to be much more widely enforced than, say, an industrial process for manufacturing synthetic rubber. The royalties from Amazon.com's so-called one-click patent, for example, could dwarf the revenue stream generated by earlier patents on basic technology such as Polaroid's instant camera business, if it is successfully enforced against the multitude of companies that are supposedly now using some form of "one-click" technology. The ease with which such patented methods can be copied across the thousands of Internet-driven businesses makes infringement much easier to find and may subject many more companies to a potential charge of patent infringement.

Because method patents can accrue royalties based on *use* of the patented method rather than the value of a machine that implements the method (*e.g.*, a computer), there is in theory no cap on the amount of damages that could be attributable to a single machine. Stated differently, the damages attributable to a patented method are not limited by the cost of the machine with which the method is used. There is some evidence that patent owners have been seeking more per-transaction royalties based on method patents rather than traditional paid-up license or per-unit royalty structures.

Suppose that a new Internet company sets up a Web site that sells widgets to the general public. Suppose further that the company spends $100,000 creating the Web site (including the computer, software, and programming expertise), and is able to sell $50 million worth of widgets to the general public through the Web site. If the widget ordering process on the Web site infringes a "business method" patent (for example, Amazon.com's "one-click" patent), the potential infringement damages could be much higher than the $100,000 spent by the company on its infringing Web site. If the patent owner can establish a reasonable royalty rate of one percent based on the value of every infringing sale made through the Web site, the potential damages would be $500,000 (1% of $50 million) and could be trebled to $1.5 million if the infringement were found to be willful. As a small comfort to the infringer, the Court of Appeals for the Federal Circuit has suggested that royalties based solely on use of an infringing product should not be awarded unless there is some evidence that others have licensed on that basis.[12]

Another factor that may play into future lawsuits and license negotiations is the existence of a new "prior user rights" defense that was added to the patent statute in 1999. Previously, a patent infringement defendant who had secretly used a business method for years could be found liable for infringement over a patent that was filed and issued years later to another inventor. Under the new law, a patent infringement defendant can escape infringement if the defendant can show that it had been using the patented method for more than a year before the patent application was filed. The new defense applies only to business method patents. The term "business method" is not defined in the statute, making it unclear how the defense will be applied in specific cases. Nevertheless, the existence of this new defense may introduce some uncertainty or reduce the value of some business method patents.

Conclusion

Notwithstanding criticism of business method patents and software patents, such patents have proven to be an effective tool for creating value for thousands of start-up companies, particularly for those involving the Internet. For many small companies, patents are their most valuable assets.

As to the possibility that the new breed of patents could stifle free and open trading on the Internet, such concerns are not unique to the Internet. Patents are designed to provide a limited monopoly in exchange for an inventor's complete disclosure of how the invention works. The culture of free information exchange and sharing that occurs on the Internet should not bar patents to inventors whose business models are creating great wealth and employment. Patents provide a powerful engine that drives many new companies, some whose only assets are in the form of intellectual property.

Criticism of business method patents has prompted Congress to get involved. Representatives Howard Berman (D-CA) and Rick Boucher (D-VA) have introduced a bill (H.R. 5364), entitled "Business Method Patent Improvement Act," which aims to make it easier to attack such patents. Among other things, the bill would allow the public to oppose specific business method patents before they are issued; would create a presumption of obviousness for such patents in certain cases; and would lower the burden of proof for challenging such patents. Although few believe the bill in its present form will be enacted any time soon, the fact that legislation has been drafted suggests that political lobbying and editorial attacks in this area are having an impact.

So what about Amazon.com's "one-click" patent, which has become a lightning rod for critics of business method patents? There has apparently been widespread copying and praise for the invention, suggesting that it was at the least a new idea that had some merit. Amazon's opponents will have their day in court when they can challenge both the validity and infringement of Amazon's patent. Barnesandnoble.com was apparently able to quickly "design around" the patent by adding an additional click to its check-out procedures. Such actions are entirely contemplated by the patent system, which encourages further innovation by disclosing new ideas to the public and encouraging others to find new ways to achieve similar results. The fact that many business method patents involve the free-wheeling Internet unfairly tars a whole class of patents merely because they are much more visible and can be more easily copied. Similar issues are brewing in the copyright world, where copyrighted music is freely downloaded, copied, and distributed among those who have little regard for the intellectual property rights of others.

1. Diamond v. Diehr, 450 U.S. 175 (1981).
2. AT&T Corp. v. Excel Communications, Inc., 172 F.3d 1352 (Fed. Cir. 1999).
3. 35 U.S.C. § 287(c).
4. Diamond v. Chakrabarty, 447 U.S. 303 (1980).
5. In re Schrader, 22 F.3d 290 (Fed. Cir. 1994).
6. State Street Bank & Trust Co. v. Signature Fin. Group, Inc., 149 F.3d 1368 (Fed. Cir. 1998).
7. Harrington v. Yahoo! Inc., No. 4:99 CV-1751 (E.D. Mo.).
8. Andrea Rose v. Public Technologies Multimedia, Inc., No. 99-CV-10614 (S.D.N.Y.).
9. Compucloz Corp. v. Andrea Rose, No. 00-CV-1254 (S.D.N.Y.).
10. *See, e.g.,* Banks v. Unisys Corp., 228 F.3d 1357 (Fed. Cir. Sept. 28, 2000); Arachnid, Inc. v. Merit Indus., Inc., 939 F.2d 1574 (Fed. Cir. 1991).
11. Georgia-Pacific Corp. v. United States Plywood Corp., 318 F. Supp. 1116 (S.D.N.Y. 1970), *modified*, 446 F.2d 295 (2d Cir. 1970).
12. Stickle v. Heublein, Inc., 716 F.2d 1550 (Fed. Cir. 1983).