Recent Developments Regarding Business Method Patents

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In recent years there has been considerable debate about whether business methods should be patentable. Although there is no precise definition of business methods, they often relate to trading, finance, economics, advertising, or customer service. In a recent decision, *Bilski v. Kappos*,[1] a fractured Supreme Court rejected a categorical rule that business methods are unpatentable. Instead, the Supreme Court emphasized the limitation that patents should not be granted for abstract ideas.[2] In addition, recently enacted legislation is likely to have a significant impact on business method patents.

Section 101 of the Patent Act states that "[w]hoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor."[3] The term "process" is defined as a "process, art, or method, and includes a new use of a known process, machine, manufacture, composition of matter, or material."[4] However, despite this broad statutory language, the Supreme Court and the Court of Appeals for the Federal Circuit have imposed limitations on patentable subject matter, with significant consequences for business methods.

Business Method Patents Post-*Bilski*

As the Supreme Court noted in *Bilski*, its precedents prohibit granting patents for "laws of nature, physical phenomena, and abstract ideas."[5] The applicant in *Bilski* claimed a method of protecting against the risk of price fluctuations in a market.[6] The Supreme Court analyzed the claimed method in view of its decisions in *Benson*,[7] *Flook*,[8] and *Diehr*,[9] and concluded that the claimed method was an example of an unpatentable abstract idea.[10]

According to the Supreme Court, granting a patent in *Bilski* would impermissibly give the applicant a monopoly over risk hedging in all fields.[11] Further, claims limiting the method to commodities and energy markets were mere field-of-use restrictions that did not render the idea patentable.[12] In analyzing the patentability of the claimed method, the Supreme Court rejected the machine-or-transformation test proposed by the Federal Circuit as the sole test for patentability under Section 101, because this test may not always be suitable for evaluating inventions in the Information Age.[13] However, the machine-or-transformation test may provide an important and useful clue for determining whether an invention is patentable.[14]

The Supreme Court invited the Federal Circuit to develop further principles clarifying the limits on the patentability of business methods.[15] Since *Bilski*, the Federal Circuit has decided several cases that provide further guidance regarding what constitutes an unpatentable abstract idea. The Federal Circuit itself has noted the substantial difficulties in defining an abstract idea, as well as its own internal disagreements regarding what constitutes patentable subject matter.[16]

In *Cybersource*, the Federal Circuit held that a method of detecting credit card fraud in transactions over the Internet was unpatentable.[17] The court first affirmed that the claimed method failed to meet the machine-or-transformation test. With regard to the machine prong, the explicit language of the claim did not require the method to be performed by a machine, such as a computer or the Internet. Further, although the credit card transaction was performed over the Internet, the claim did not require the Internet to be used to obtain the data.[18] In addition, the

Internet could not perform the recited fraud detection steps, and was merely the source of the data.[19] With regard to the transformation prong, merely collecting and organizing data regarding credit card numbers and Internet addresses was insufficient to transform a particular article into a different state or thing.[20]

The Federal Circuit then analyzed whether the method claim was directed to an abstract idea. The court found that the claim was unpatentable because it was drawn to "an unpatentable mental process — a subcategory of unpatentable abstract ideas."[21] In particular, all of the steps could be performed entirely in the human mind, or by a human using only a pen and paper.[22] Neither the claim nor the specification described any specific fraud detection algorithm. Citing *Benson*, the court stated that "computational methods which can be performed *entirely* in the human mind are the types of methods that embody the 'basic tools of scientific and technological work' that are free to all men and reserved exclusively to none."[23]

The Federal Circuit then held that a corresponding Beauregard claim was also unpatentable. A Beauregard claim is directed to a computer readable medium, such as a disk or a hard drive, that contains program instructions (*i.e.*, software) for causing a computer to perform a method. Previously Beauregard claims were typically considered to be patentable articles of manufacture, even if the corresponding method was unpatentable. However, according to the Federal Circuit, it was clear that the Beauregard claim in *Cybersource* was directed to the underlying method of credit card fraud detection, instead of a specific computer readable medium.[24] Further, the incidental use of a computer to perform the unpatentable mental process did not render the claim patentable.[25] Instead, the computer "must play a significant part in permitting the claimed method to be performed."[26]

In contrast to its decision in *Cybersource*, the Federal Circuit held in *Ultramercial* that a method for distributing copyrighted products over the Internet for free in exchange for viewing advertising materials was patentable.[27] The court noted that although abstract ideas are unpatentable, it may be possible to patent the application of an abstract idea to a "new and useful end."[28] In particular, "inventions with specific applications or improvements to technologies in the marketplace" are likely to be eligible for patent protection.[29]

Applying these principles to the claimed invention in *Ultramercial*, the Federal Circuit reasoned that a purpose of the invention was to address problems with banner advertising, thereby improving existing technology in the marketplace.[30] Further, the claimed invention recited a practical application of the abstract idea of using advertising as currency.[31] Many of the recited method steps were "likely to require intricate and complex computer programming," and some steps "clearly require specific application to the Internet and a cyber-market environment."[32] However, the Federal Circuit purposefully declined to define the required level of complexity of computer programming, and did not hold that using an Internet website to practice the method was necessary or sufficient to render the invention eligible for patent protection.[33] The court implied that the invention in *Ultramercial* would satisfy the machine prong of the machine-or-transformation test, because a general purpose computer would become a special purpose computer upon being programmed to perform the claimed method, even though the claims did not explicitly recite a computer or processor.[34] Further, failing to recite a specific mechanism for delivering the copyrighted products to the consumer did not render the claims too abstract.[35]

The Federal Circuit characterized the invention in *Ultramercial* as "a particular method for collecting revenue from the distribution of media products over the Internet."[36] This distinguished the invention from the mental process that was found to be unpatentable in *Cybersource*. Specifically, the court concluded that the controlled interaction with the consumer via the Internet website in *Ultramercial* was "far removed from *purely* mental steps."[37]

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The Federal Circuit has provided two additional examples of business methods considered to be unpatentable abstract ideas in *Dealertrack*[38] and *Fort Properties*.[39] In *Dealertrack* the court held that a computer-aided method of processing credit applications over electronic networks was unpatentable. The claims were "directed to an abstract idea preemptive of a fundamental concept or idea that would foreclose innovation in this area."[40] According to the Federal Circuit, granting a patent for the broad claims would impermissibly preempt the concept of processing information through a clearinghouse. Further, the recital of "computer-aided" in the preamble of the claims was insufficient to limit the claims to a practical application of the concept. The claims did not specify "how a computer aids the method, the extent to which a computer aids the method, or the significance of a computer to the performance of the method."[41] The district court construed the claims as not being limited to any specific algorithm, and the patentee did not challenge this construction. Further, using the clearinghouse only for car loan applications was a "field of use" limitation that was insufficient to render the claims patentable.[42]

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Similarly, in *Fort Properties* the Federal Circuit held that an investment tool for enabling owners to buy and sell properties without incurring tax liability was unpatentable. The court found that the claimed method of aggregating property, making the property subject to an agreement, and issuing ownership interests in the property to multiple parties consisted "entirely of mental processes and abstract intellectual concepts."[43] The ties to deeds, contracts, and real property were insufficient to render the investment tool patentable. Further, like the "computer aided" recital in *Dealertrack*, a claim limitation requiring a computer to generate deedshares was characterized as "insignificant post-solution activity."[44] The computer did not play a significant role in allowing the claimed method to be performed. During claim construction, the patentee agreed that "using a computer" should be interpreted simply as "operating an electronic device that features a central processing unit."[45]

The cases discussed above provide some guidance regarding best practices for preparing, prosecuting, and enforcing business method patents. It is clear that an application for a business method patent must be carefully drafted to illustrate that the invention is not an abstract idea. Some possibilities include explaining why a computer or the Internet is required to perform the method, providing examples of specific algorithms that can perform the method, and distinguishing data analysis steps from merely gathering or organizing the data. Complex computer programming and a specific Internet application seem to weigh heavily in favor of patentability of a business method. Also, a patentee should avoid agreeing to claim constructions that characterize the invention as being performed by a general-purpose computer.

Post-Grant Review Under the America Invents Act

In September 2011, the Leahy-Smith America Invents Act (the AIA) was signed into law. The AIA created a new "post-grant review" procedure that will allow third parties to challenge the validity of issued patents, including business method patents.[46] Under the new post-grant review procedure, a petitioner may challenge a patent based on any ground of invalidity, except for best mode.[47] The petitioner must show that it is more likely than not that at least one of the challenged claims is unpatentable, or raise a novel or unsettled question of law.[48] For example, the petitioner will be able to challenge a business method patent under Section 101 based on the grounds discussed in the above cases. However, post-grant review will not be effective until September 16, 2012, and only applies to patents with an effective date on or after March 16, 2013.[49] Moreover, the petitioner must institute post-grant review within nine months of the issuance of the patent.[50]

In view of these limitations, the AIA also includes a transitional program that allows for post-grant review of certain types of business method patents. This transitional program may only be used by parties that have either been sued or charged with infringement of "covered business method patents."[51] A "covered business method patent" is "a patent that claims a method or corresponding apparatus for performing data processing or other operations used in the practice, administration, or management of a financial product or service, except that the term does not include patents for technological inventions."[52] As with the other post-grant review procedure, the transitional program related to covered business method patents will take effect on September 16, 2012. However, unlike the other post-grant review procedure, the transitional program will apply "to any covered business method patent issued before, on, or after that effective date … ."[53] Also, it is unnecessary to request post-grant review for covered business method patents within the nine-month window. Thus, as of September 16, 2012, the transitional program will enable a defendant in a patent litigation to challenge a covered business method patent-in-suit via post-grant review. The transitional program is set to expire on September 16, 2020.[54]

Business Method Patent or Trade Secret?

As described above, there are noticeable inconsistencies in the Federal Circuit decisions, and it may be difficult to predict how the U.S. Patent and Trademark Office[55] and the federal courts will analyze a specific business method claim. Moreover, even if a party successfully obtains a business method patent, it may be subject to post-grant review by a third party, increasing the chances that the patent will be invalidated or limited. As a result, the inventor of a business method may want to consider keeping the business method as a trade secret, especially if it would be difficult for a competitor to reverse-engineer the method based on publicly available information. Alternatively, if the inventor only plans to file a patent application in the United States, the inventor could file a non-publication request, in which case the application would be published only if it eventually issues as a patent. The business method could remain a trade secret if the patent is never granted.

Of course, a party that chooses to practice its invention as a trade secret must meet certain requirements. In Virginia, trade secrets are defined by the Virginia Uniform Trade Secrets Act (VUTSA) as "information, including but not limited to, a formula, pattern, compilation, program, device, method, technique, or process, that:

- Derives independent economic value, actual or potential, from not being generally known to, and not being readily ascertainable by proper means by, other persons who can obtain economic value from its disclosure or use, and

- Is the subject of efforts that are reasonable under the circumstances to maintain its secrecy."[56]

Thus, while the up-front costs of filing a patent application and obtaining an issued patent may be a significant, the ongoing costs associated with maintaining the secrecy of the information can be substantial and difficult to implement, especially for certain types of business information. In addition, if the trade secret can be reverse engineered easily, it may be advantageous to seek patent protection at least as a defensive measure.

Conclusion

The law related to obtaining and enforcing business method patents is undergoing substantial changes stemming from the *Bilski* decision and the AIA. As a result, companies seeking to protect their intellectual property rights and business operations face an uncertain landscape when trying to determine the proper course of action. Entities are therefore likely to be best served by closely considering the business and legal implications associated with pursuing the differing types of intellectual property protection available on a case-by-case basis.

Endnotes:

1 130 S. Ct. 3218, 3228-29 (2010). Four of the Justices would have held that all business methods are unpatentable. *Id.* at 3232 (Stevens, J., concurring).
2 *Id.* at 3229-30.
3 35 U.S.C. § 101 (2006).
4 35 U.S.C. § 100(b) (2006).
5 *Bilski*, 130 S. Ct. at 3221.
6 *Id.* at 3223.
7 *Gottschalk v. Benson*, 409 U.S. 63 (1972).
8 *Parker v. Flook*, 437 U.S. 584 (1978).
9 *Diamond v. Diehr*, 450 U.S. 175 (1981).
10 *Bilski*, 130 S. Ct. at 3229-30.
11 *Id.* at 3231.
12 *Id.*
13 *Id.* at 3225-26. The Federal Circuit had held that an invention is patentable only if "(1) it is tied to a particular machine or apparatus, or (2) it transforms a particular article into a different state or thing." *Bilski v. Kappos*, 545 F.3d 943, 954-956 (Fed. Cir. 2008) (en banc).
14 *Id.* at 3227.
15 *Id.* at 3222-23.
16 *MySpace, Inc. v. Graphon Corp.*, 2012 U.S. App. LEXIS 4375 (Fed. Cir. 2012) at *19-21. As Judge Plager colorfully remarked: "This effort to descriptively cabin § 101 jurisprudence is reminiscent of the oenologists trying to describe a new wine. They have an abundance of adjectives—earthy, fruity, grassy, nutty, tart, woody, to name just a few—but picking and choosing in a given circumstance which ones apply and in what combination depends less on the assumed content of the words than on the taste of the tongue pronouncing them." *Id.* at *21.
17 *Cybersource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366 (Fed. Cir. 2011).
18 *Id.* at 1370.

19 *Id.* According to the Federal Circuit's precedents, "mere data-gathering steps cannot make an otherwise nonstatutory claim statutory."
20 *Id.*
21 *Id.* at 1371.
22 *Id.* at 1372.
23 *Id.* at 1373 (emphasis in original).
24 *Id.* at 1374-75. The Federal Circuit previously held that "as a general matter, programming a general purpose computer to perform an algorithm 'creates a new machine, because a general purpose computer in effect becomes a special purpose computer once it is programmed to perform particular functions pursuant to instructions from program software.'" *Id.* at 1375, citing *In re Alappat*, 33 F.3d 1526, 1545 (Fed. Cir. 1994). In *Cybersource*, the Federal Circuit clarified that "simply reciting the use of a computer to execute an algorithm that can be performed entirely in the human mind" did not fall within the *Alappat* rule.
25 *Id.* at 1375.
26 *Id.*
27 *Ultramercial, LLC v. Hulu, LLC*, 657 F.3d 1323 (Fed. Cir. 2011).
28 *Id.* at 1327 (citing *Benson*).
29 *Id.*
30 *Id.* at 1328.
31 *Id.*
32 *Id.*
33 *Id.*
34 *Id.* at 1329. Specifically, "a programmed computer contains circuitry unique to that computer. That 'new machine' could be claimed in terms of a complex array of hardware circuits, or more efficiently, in terms of the programming that facilitates a unique function." *Id.*
35 *Id.*
36 *Id.*
37 *Id.* at 1330 (emphasis in original).
38 *Dealertrack, Inc. v. Huber*, 2012 U.S. App. LEXIS 1161 (Fed. Cir. 2012).
39 *Fort Properties, Inc. v. American Master Lease LLC*, 2012 U.S. App. LEXIS 3900 (Fed. Cir. 2012).
40 *Dealertrack*, 2012 U.S. App. LEXIS at *47.
41 *Id.* at *48.
42 *Id.* at *50-51.
43 *Fort Properties,* 2012 U.S. App. LEXIS at *12-13.
44 *Id.* at *17.
45 *Id.*
46 *See* 35 U.S.C. §§ 321-329.
47 *See* 35 U.S.C. § 321(b)
48 *See* 35 U.S.C. §§ 324(a) and (b)
49 *See* 35 U.S.C. § 329(f)(1).
50 *See* 35 U.S.C. § 321(c) ("A petition for a post-grant review may only be filed not later than the date that is 9 months after the date of the grant of the patent or of the issuance of a reissue patent (as the case may be)").
51 Leahy–Smith America Invents Act, § 18(a)(1)(B).
52 *Id*. at § 18(d)(1).
53 *Id*. at § 18(a)(2).
54 *Id*. at § 18(a)(3).
55 The U.S. Patent and Trademark Office has issued "Interim Guidance for Determining Subject Matter Eligibility for Process Claims in View of *Bilski v. Kappos*" (July 27, 2010), *available at* http://www.uspto.gov/patents/law/exam/bilski_guidance_27jul2010.pdf. The Interim Guidance lists several dozen factors that may be weighted by the Examiner in assessing the patentability of a business method claim.
56 Virginia Uniform Trade Secrets Act, VA Code § 59.1-336.