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United States
Business methods patents survive… for now

On June 28 2010 the Supreme Court issued its long-awaited *Bilski v Kappos* opinion on the patentability of business methods. In a broad, rambling opinion, the court seemed able to agree only that the Bilski claims at issue for hedging by commodities buyers and sellers against the risk of price changes in the energy market were unpatentable subject matter. It did so narrowly by finding that the claims were attempts to patent abstract ideas and not by using the 'machine or transformation' test espoused by the Federal Circuit in the same case in 2009. Notably, the court seemed in unanimous agreement that the machine or transformation test is not the sole test for patent eligibility under Section 101; in fact, the majority expressly stated that a process need not be tied to a machine or transformation. Along the way, the court permitted business methods in general to survive — but it was a close call.

Analysing the decision

Understanding just how close the call was requires a section-by-section analysis of the opinion, as the number of justices supporting each section of the main opinion (written by Justice Kennedy) varied. In Section II.B.1, five of the justices (Justices Kennedy, Roberts, Thomas, Alito and Scalia) held that the machine or transformation test was not the sole or exclusive test for deciding whether a method is patentable. While the machine or transformation test is a "useful and important clue, an investigative tool" for determining whether some inventions are patentable processes or methods, a valid process or method patent may issue even if this test is not met.

In Section II.B.2, Kennedy explained that the machine or transformation test should not be the sole criterion for determining the patentability of inventions in the new information age. New technologies call for new inquiries; he pointed to innovations in software and advanced diagnostic medical techniques as examples. No replacement test was proposed. However, Scalia did not join in Section II.B.2, making this section just a concurrence.

Section II.C.1 reverted back to a majority opinion (Scalia rejoined). Here the court held that there was no categorical exclusion of business methods from patentability. The statutory term 'process' includes methods and may include at least some methods of doing business. This conclusion was further supported by 35 USC Section 273(b)(1), which provides an alleged infringer with a prior use defence if a patent holder claims infringement based on a method in a patent. Section 273(a)(3) defines 'method' for purposes of this defence as a "method of doing or conducting business". If business methods were categorically excluded from patentability, this section would be rendered meaningless.

Section II.C.2 is another concurrence (Scalia dropped). Kennedy returned to his discussion of the information age and searched for a "limiting principle" to apply to business method patents. However, he did not define a more limiting principle, leaving the Federal Circuit to struggle with the problem.

Scalia rejoined in Section III, where the five-justice majority addressed the claims at issue and found them to be unpatentable as abstract ideas. Narrowly resolving the issue based on its prior decisions in *Benson, Flook* and *Diehr*, the court explained that it is textbook law that one cannot patent a mathematical formula, an abstract idea or an algorithm. The application of a law of nature or mathematical formula to a known structure or process may be patentable, but one cannot circumvent the prohibition by attempting to limit the use of the formula or idea to a particular technological environment or by adding insignificant post-solution activity.

Using these precedents, the court found that two of the Bilski claims attempted to patent the basic concept of hedging, which was an unpatentable abstract idea. The remaining claims were broad examples of how hedging could be used in commodities and energy markets, but as they simply limited an abstract idea to a field of use, they were also unpatentable.

Justice Stevens, joined by Justices Ginsburg, Breyer

and Sotomayor, concurred in the judgment. However, in a discussion almost three times longer than the main opinion, Stevens stated that business methods should be categorically unpatentable. This exclusion, he argued, would restore patent law to its historical and constitutional moorings. In effect, this section may best be read as a dissent.

While joining the Stevens' concurrence/dissent in its entirety, Breyer also wrote separately to "highlight the substantial *agreement* among many Members of the Court on many of the fundamental issues of patent law". He provided four points of consistency:

- Although the text of Section 101 is broad, it is not without limit.
- The machine or transformation test has repeatedly helped the court to determine what is a patentable process.
- While the machine or transformation test has always been a useful and important clue, it has never been the sole test for determining patentability.
- Nothing indicates that anything which produces a "useful, concrete, and tangible result" is patentable.

Implications

The most significant result is that business method patents in general survive. It was close, as four of the nine justices held that business methods should be categorically excluded. And Scalia's support appeared to be limited, as he did not join in the sections that particularly espoused the need for patent law to adapt in response to innovation in the information age. However, with Stevens' retirement, one of the four in support of the categorical exclusion will be gone the next time that the issue is addressed, thus providing at least some assurance against the success of a frontal attack in the future on business methods as a class (at least in the judiciary).

Instead, we can expect a renewed wave of attacks on business methods as being unpatentable abstract ideas. However, patent practitioners, applicants and owners are left with no firm guidance on this issue. In fact, in his concurrence Stevens noted that the court "never provides a satisfying account of what constitutes an unpatentable abstract idea".

Attempts to circumvent the abstract idea issue will likely run into arguments that the claims are mere 'field of use' restrictions or merely add insignificant post-solution activity. Ambiguity and uncertainty are likely to abound, and we can expect to see inconsistent rulings for some time as the courts struggle with this issue.

Further, once again the Supreme Court has demonstrated its dislike for bright-line tests in the patent world. In recent years the court has repeatedly rejected the Federal Circuit's attempts to provide some firm guidance to patent practitioners and its rejection of the machine or transformation test as an exclusive test was fairly predictable. One wonders whether the Federal Circuit will finally take the hint.

Interestingly, Kennedy appeared to invite the Federal Circuit to undertake the search for a 'limiting principle' and to define a narrower category or class of patent application that claims to instruct how business should be conducted, and then rule that the category is unpatentable. He made clear that any such limitation would need to accord with controlling precedent. However, any such exclusion would likely be some form of bright-line test. In light of the Supreme Court's dislike of bright-line tests, one does not envy the Federal Circuit its job.

The opportunity for the Federal Circuit to take action will be immediate, as the Supreme Court granted *certiorari*, summarily vacated the lower court decision and immediately remanded two pending appeals back to the Federal Circuit for further consideration in light of the *Bilski* ruling. The first is *Mayo v Prometheus Labs*, in which the Mayo Clinic has been challenging two Prometheus patents claiming an iterative three-step dosing method. The Federal Circuit had held the method to be patentable because the administration of the drug transformed an article into a different state or thing. The second is *Classen Immunotherapies v Biogen IDEC*, with claims to a method of determining whether an immunisation schedule affects the incidence or severity of a chronic immune-mediated disorder in a treatment group of mammals relative to a control group. The base claim had two steps: immunising mammals in the treatment group with one or more doses of one or more immunogens according to an immunisation schedule and comparing the incidence, prevalence, frequency or severity of said immune-mediated disorder in the treatment group with that in the control group. The Federal Circuit had summarily held that the claims were unpatentable under the previous machine or transformation test.

In contrast, at the same time the Supreme Court denied *certiorari* in *Ferguson v Kappos*, in which the Federal Circuit had rejected claims directed to marketing a product using a shared marketing force. The denial of *certiorari* leaves standing the rejection of all the *Ferguson* claims, thus indicating that the Supreme Court considered these claims to be unpatentable as abstract ideas.

More recently, in *Ultramercial v Hulu* a federal district court in California dismissed a suit for patent

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infringement on the basis that the patent claims were directed to an abstract idea (ie, paying for media by sitting through an online advertisement). The court found that patent invalid very early in the procedural stages by granting a motion to dismiss. It rejected the idea that it should wait until after claim construction, holding that the patent terms were clear and that there was no need to construe the claims formally.

The US Patent and Trademark Office (USPTO) Board of Patent Appeals and Interferences also took quick action in the month following the Supreme Court decision. In *Ex parte Prouder* it cited *Bilski* in rejecting a method claim by Hewlett-Packard for controlling processing of data, stating that a claim that recites no more than software, logic or a data structure is unpatentable. In *Ex parte Birger* claims to a computer architecture providing a real-time, bi-directional communication layer for device communication were rejected on the same basis. In *Ex parte Caccavale* a method of analysis of performance of a data processing system was rejected. And in *Ex parte Fellenstein* an apparatus and method for identifying optimal times to contact a target user of a messaging system, implemented as computer instructions, were also rejected, as the claimed apparatus comprised software entities, not hardware.

Machine or transformation safe harbour

While the machine or transformation test is no longer the sole test to be used for method claims, it will continue to be a key element of USPTO practice. It thus will provide some certainty to patent applicants and will effectively act as a safe harbour.

Shortly after the *Bilski* opinion was released, the USPTO issued a memorandum instructing its examiners to continue using the machine or transformation test as a tool for determining whether the claimed invention is a patentable process. If a claimed method meets the test, the method will be considered patent eligible unless there is a clear indication that the method is directed to an abstract idea.

This approach was expanded by the July 27 2010 USPTO publication of its Interim Guidance for Determining Subject Matter Eligibility for Process Claims in View of *Bilski v Kappos* (Fed Reg 43922). The USPTO established four factors to be considered by examiners in determining whether method claims are directed to abstract ideas. If the factors indicate that the claimed method is directed to an abstract idea, the claim will be rejected under Section 101. The applicant will then have the opportunity to explain why the claimed method is not directed to an abstract idea. These four factors are as follows:

- The method involves or is executed by a particular machine or apparatus. In this case, the claims are more likely to be considered patentable subject matter. Subfactors include the degree to which the machine in the claim can be specifically identified (ie, not any and all machines), whether the machine or apparatus is integral to implementation of the steps of the method, and the extent to which the machine or apparatus imposes meaningful limits on the execution of the claimed method steps. Thus, if the machine or apparatus contributes only nominally or insignificantly to the execution of the method (eg, for a data-gathering step), the method is unlikely to be considered patent eligible.
- Performance of the method results in or involves a transformation of a particular article. In this case, the method is more likely to be considered patentable

subject matter. Subfactors include the particularity or generality of the transformation, whether the article can be specifically identified, the nature of the transformation, the nature of the article transformed and the extent to which the transformation imposes meaningful limits on the execution of the claimed method steps. Thus, if the transformation contributes only nominally or insignificantly to the execution of the method (eg, for a data-gathering step), the method is unlikely to be considered patent eligible.

- Performance of the method involves the application of a law of nature, even in the absence of a particular machine or transformation. In this case, the claims are less likely to be drawn to an abstract idea. Subfactors include the particularity or generality of the application, whether the application solely involves subjective determinations (eg, ways to think about the law of nature) and whether its involvement is merely extra-solution activity or a field-of-use limitation.
- A general concept (ie, principle, theory, plan or scheme) is involved. In this case, the claims are unlikely to be considered patentable subject matter. A large number of subfactors may be considered, including whether use of the concept would be pre-empted in other fields, the extent to which the claim covers both known and unknown uses of the concept, the extent to which the claim effectively covers all possible solutions to a particular problem, whether the concept is disembodied and not instantiated and the mechanisms by which the steps are implemented.

The USPTO interim guidance gives several examples of general concepts:

- basic economic practices or theories (eg, insurance, financial transactions);
- basic legal theories (eg, dispute resolution, contracts);
- mathematical concepts (eg, algorithms);
- mental activity (eg, forming a judgement, observation, evaluation or opinion);
- interpersonal interactions or relationships (eg, dating);
- teaching concepts; and
- instructing how business should be conducted.

Although it remains to be seen how the interim guidance will be put into practice, it provides some structure for applicants. Most patent applicants will wisely draft at least some of their claims with an eye towards meeting the machine or transformation test. Of course, they may push the envelope by including broader, more abstract claims, but anyone doing so should expect to have a fight on their hands.

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