

# Intellectual Property Magazine

July 2010

Trademarks

Branding

Patents

Copyright

Licensing

Strategy

## Focus on Licensing

- **Bilski**  
The wait is over
- **To sell or to licence?**  
That is the question
- **Brand licensing in retail**  
Retailers muscle in
- **Patent pools**  
Dip a toe in the water
- **Pirates of the console**  
How to protect your games

informa



# Machine-or-transformation is “a useful and important clue”, but not the sole test

By **Kenneth R Adamo, Timothy K Wilson, John V Biernacki, and Susan M Gerber**, of Jones Day and the SAS Institute, analyse the most eagerly awaited patent case of recent times: *Bilski*.

On June 28, 2010, the United States Supreme Court issued its long-awaited decision in *Bilski v Kappos*,<sup>1</sup> addressing whether inventions claiming business methods are eligible for patent protection. The Supreme Court affirmed the Court of Appeals for the Federal Circuit’s (“Federal Circuit”) *en banc* decision that the patent application in *Bilski* did not claim patent-eligible subject matter, but reversed the holding that the machine-or-transformation test was the sole test for determining whether an invention satisfied Section 101 of the Patent Act.

## Decision snapshot

The Supreme Court’s decision in *Bilski* struck down the “pure” business method claimed in the patent application for failing to recite patent-eligible subject matter. The Court’s majority opinion rejected two categorical limitations on Section 101. *First*, the Court rejected the Federal Circuit’s prior holding that the “machine-or-transformation” test should be the sole test in favor of a more flexible view: that the test is “a useful and important clue,” but not the sole method for determining patent-eligible subject matter. *Second*, the Court rejected a categorical exclusion of business methods from the scope of patent-eligible subject matter. *Finally*, all the members of the Court agreed that the invention claimed in *Bilski* was not patent-eligible because it claimed an abstract idea. Four justices concurred in the judgment but would have held instead that business methods are categorically excluded from patent-eligible subject matter. Two justices wrote separately to emphasise the areas of agreement among the members of the Court.

## Background of section 101

Section 101 states a requirement that must be satisfied before a patent is issued: “Whoever 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, subject to the conditions and requirements of this title.”<sup>2</sup> This provision has proven difficult to apply as technology has evolved in the world of computers and cyberspace. Particularly when software and business method inventions are at issue, courts have sometimes framed Section 101 in terms of what is *not* eligible as patentable subject matter – an abstract idea, a law of nature, or a physical phenomenon.<sup>3</sup> Stating the test for what is patent-eligible subject matter in a “positive” and comprehensive manner has been more difficult.

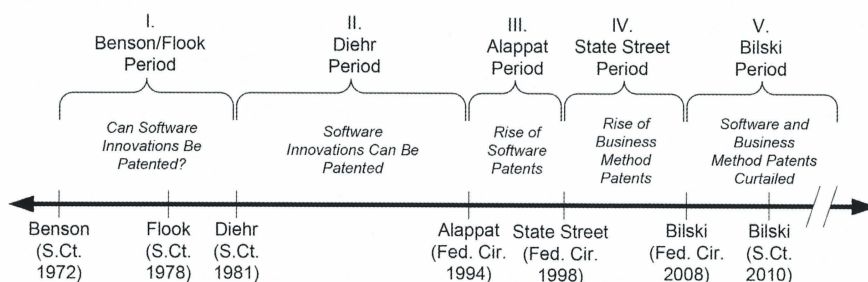
## Patent eligibility for software and business methods – the last 40 years

Over the last forty years, US courts have struggled to set guidelines that protect and reward innovation without eviscerating the requirements of Section 101. Marked by a number of landmark decisions, the evolution of this jurisprudence can be separated into five periods, with the ending point of the currently ongoing period denoted by the broken axis:

in the US. In *Gottschalk v Benson*,<sup>4</sup> the Court held that a computer algorithm that converted binary code decimal numbers to equivalent pure binary numbers on a general purpose computer did not constitute patent-eligible subject matter. Six years later, the Court reinforced this view in *Parker v Flook*, holding that an algorithm to calculate an alarm limit number was not patent-eligible subject matter.<sup>5</sup>

The next Supreme Court case, *Diamond v Diehr*, ushered in the second period and reversed the trend of the first period, holding that, with the proper limitations, software innovations could be patent-eligible.<sup>6</sup> There, the Court held that the invention was a *practical application* of a mathematical formula because the formula was used to transform an article into a different state or thing; namely, transforming uncured rubber into a cured rubber product.

Software inventions continued to face difficulties satisfying Section 101. In 1994, however, the third period emerged, marked by the Federal Circuit’s *en banc* decision in *Alappat*, which eased the applicant’s burden to show that a software



invention contained patent-eligible subject matter.<sup>7</sup> There, the Federal Circuit ruled that an algorithm to improve the display of data on the screen of an oscilloscope constituted patent-eligible subject matter

because it produced a useful, concrete, and tangible result. This period saw a significant rise in the number of software patent applications filed with the United States Patent and Trademark Office.

The fourth period opened with another landmark decision from the Federal Circuit that flung open the door to patenting of business methods, such as the one at issue in *Bilski*. In *State Street Bank & Trust Co v Signature Financial Group*, the Federal Circuit held that a patent for managing mutual funds produced a useful, concrete, and tangible result and, therefore, described patent-eligible subject matter.<sup>8</sup> Immediately after the *State Street* decision, patent applicants flocked to file business method patents, flooding the Patent

The Federal Circuit's 2008 decision in *In re Bilski* marked yet another turn in the law, and the fifth period saw a general curtailment of business method patents.

### The Federal Circuit's decision in *In re Bilski*

The patent application at issue in *In re Bilski* was filed on April 10, 1997. It claimed a "pure" business method innovation for managing or hedging the consumption risk costs of a commodity sold at a fixed price. The method sought to be patented comprised steps that did not require implementation with a machine:

A method for managing the consumption risk costs of a commodity sold by a commodity provider at a fixed price comprising the steps of:

for patenting under Section 101.<sup>9</sup> The Federal Circuit considered whether *Bilski's* claim recited a fundamental principle, *ie*, a law of nature, a physical phenomenon, or an abstract idea, and, if so, whether it would preempt substantially all of the uses of that fundamental principle if the claims were granted. Citing *Benson* and *Diehr*, the court applied the Supreme Court's "machine-or-transformation test":

The Supreme Court, however, has enunciated a definitive test to determine whether a process claim is tailored narrowly enough to encompass only a particular application of a fundamental principle rather than to pre-empt the principle itself. A claimed process is surely patent-eligible under § 101 if: (1) it is tied to a particular machine or apparatus, or (2) it transforms a particular article into a different state or thing.<sup>10</sup>

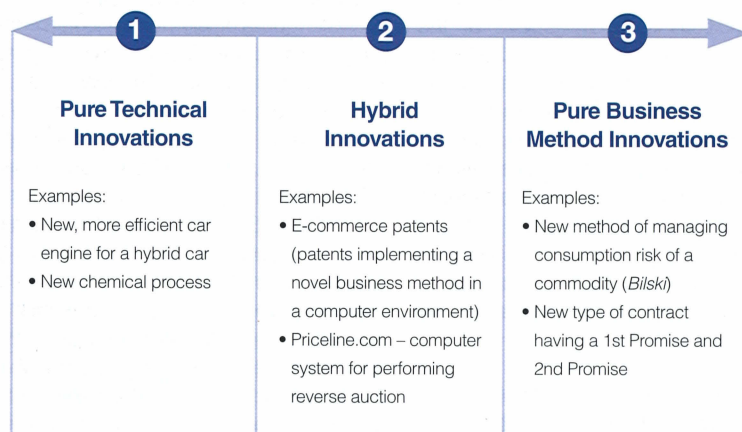
Embracing the machine-or-transformation test as the exclusive test, the Federal Circuit held that the method in *Bilski's* application did not recite patent-eligible subject matter because the method was neither tied to a particular machine, nor did it transform physical objects or substances, or representations thereof, into a different state or thing.

Three judges dissented. Judge Newman (joined by Judges Dyk and Linn) dissented because, in her view, the machine-or-transformation test was contrary to the statute and precedent, would exclude many types of inventions applicable to today's electronic and photonic technologies, and would have an unknown impact on future patents as well as thousands of patents already granted. Judge Rader dissented because, in his view, the case could have been addressed simply by finding *Bilski's* claim was directed to an abstract idea. He expressed concern that the majority's opinion disrupted "settled and wise principles of law." The third dissent from Judge Mayer suggested that business methods should simply not be eligible for patenting, and that *State Street and AT&T Corp. v Excel Communications, Inc.*, should be overruled.

### The Supreme Court affirmed that the business method invention in *Bilski* is not patent-eligible, but reversed the federal circuit's holding that the machine-or-transformation test is the sole test for determining patent eligibility

the Supreme Court struck down the "pure" business method claim in *Bilski*.<sup>11</sup> The

#### Business Method Patent Spectrum



Office with these applications. During this fourth period, the inventors sought patent protection for a wide variety of inventions, spanning a broad spectrum of potentially patentable subject matter:

At one end of the spectrum (category #1) were traditional technology-laden innovations, such as new automotive engine designs or new chemical manufacturing process. The middle category contained the hybrid inventions. Software-implemented inventions, like e-commerce type patents exemplified this category. At the other end of the spectrum (category #3) were "pure" business method innovations, such as the business method at issue in *Bilski*.

Most business method patents filed during the fourth period were hybrids of internet technology and business innovation. Many patent practitioners, however, believed that *State Street* was broad enough to permit the patenting of business methods that did not require a computer or any type of technological implementation, which led to the filing of a number of "pure" business method patent applications.

- Initiating a series of transactions between said commodity provider and consumers of said commodity wherein said consumers purchase said commodity at a fixed rate based upon historical averages, said fixed rate corresponding to a risk position of said consumer;
- Identifying market participants for said commodity having a counter-risk position to said consumers; and
- Initiating a series of transactions between said commodity provider and said market participants at a second fixed rate such that said series of market participant transactions balances the risk position of said series of consumer transactions.

*Bilski's* application was rejected by both the patent examiner and the Board of Patent Appeals and Interferences. *Bilski* appealed these rejections to the Federal Circuit. The court, sitting *en banc*, held that the claimed method did not recite subject matter eligible

Court first confirmed the three specific exceptions to Section 101's "broad patent-eligibility principles: 'laws of nature, physical phenomena, and abstract ideas.'" Balancing the breadth of Section 101, the Court noted that this inquiry is only a threshold test: "Even if an invention qualifies as a process, machine, manufacture, or composition of matter, in order to receive the Patent Act's protection the claimed invention must satisfy 'the conditions and requirements of this title.'"<sup>12</sup> Those requirements include novelty (Section 102), nonobviousness (Section 103), and a sufficiently fulsome disclosure of the invention (Section 112).

Moving to the specific issue presented, the Court considered "two proposed categorical limitations ... the machine-or-transformation test and the categorical exclusion of business method patents." The Court rejected both categorical limitations.

First, applying the ordinary meaning of the statutory language, the Court rejected the idea that the machine-or-transformation test should be the sole test for determining patent-eligible subject matter under Section 101:

Adopting the machine-or-transformation test as the sole test for what constitutes a "process" (as opposed to just an important and useful clue) violates these statutory interpretation principles. Section 100(b) provides that "[t]he term 'process' means process, art or method, and includes a new use of a known process, machine, manufacture, composition of matter, or material." The Court is unaware of any "'ordinary, contemporary, common meaning,'" *Diehr*, supra, at 182, of the definitional terms "process, art or method" that would require these terms to be tied to a machine or to transform an article.

Instead, the Court held that "[t]his Court's precedents establish that the machine-or-transformation test is a useful and important clue, an investigative tool, for determining whether some claimed inventions are processes under §101. The machine-or-transformation test is not the sole test for deciding whether an invention is a patent-eligible 'process.'"<sup>13</sup>

Second, the Court rejected the idea that business methods were categorically excluded by Section 101. Again, applying the ordinary meaning of the statutory language, the Court concluded that the term "method", which is found in Section 100(b)'s definition of "process", "may include at least some methods of doing business." As supporting this conclusion, the Court noted that Congress'

enacted Section 273 containing a prior use defense against infringement of methods of doing or conducting business, suggesting that business methods may be patent-eligible: "In other words, by allowing this defense the statute itself acknowledges that there may be business method patents."<sup>14</sup>

Moving to the specific question of whether the business method claim in *Bilski* was patent-eligible, the Court held that it was not because the claim recited an abstract idea,

**"Justice Stevens would have resolved the case in a "far more sensible and restrained way" by finding that the claim in *Bilski* was a business method, and business methods are not patentable."**

which is excluded from the scope of Section 101. The Court declined, however, to place any further limits on Section 101:

Today, the Court once again declines to impose limitations on the Patent Act that are inconsistent with the Act's text. The patent application here can be rejected under our precedents on the unpatentability of abstract ideas. The Court, therefore, need not define further what constitutes a patentable "process," beyond pointing to the definition of that term provided in §100(b) and looking to the guideposts in *Benson*, *Flook*, and *Diehr*.<sup>15</sup>

Justice Stevens (joined by Justices Ginsburg, Breyer and Sotomayor) wrote a lengthy opinion concurring in the judgment, but strongly disagreeing with the approach taken by the majority. Justice Stevens opined that "[t]he wiser course would have been to hold that petitioner's method is not a 'process' because it describes only a general method of engaging in business transactions – and business methods are not patentable." Justice Stevens first rejected the Court's ordinary-meaning analysis:

The Court, in sum, never provides a satisfying account of what constitutes an unpatentable abstract idea. Indeed,

the Court does not even explain if it is using the machine-or-transformation criteria. The Court essentially asserts its conclusion that petitioners' application claims an abstract idea. This mode of analysis (or lack thereof) may have led to the correct outcome in this case, but it also means that the Court's musings on this issue stand for very little.<sup>16</sup>

Justice Stevens then embarked on a lengthy review of the language and legislative history of Section 101, the Court's precedents, and the history of patent law dating back to the 1600's in England. He concluded that "[a]lthough it may be difficult to define with precision what is a patentable 'process' under §101, the historical clues converge on one conclusion: A business method is not a 'process.'" For this reason, Justice Stevens would have resolved the case in a "far more sensible and restrained way" by finding that the claim in *Bilski* was a business method, and business methods are not patentable.

Justice Breyer also wrote separately, concurring in the judgment, to emphasize his view that there was "substantial agreement among the many Members of the Court on the many fundamental issues of patent law raised by this case." Justice Breyer (joined by Justice Scalia) defined four points of agreement:

- Although the text of Section 101 is broad, it is not without limit. Physical phenomena, mental processes, and abstract intellectual concepts are not patentable.
- The machine-or-transformation test is a test that 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.
- The machine-or-transformation test cannot be turned around to mean that anything which produces a useful, concrete and tangible result is patentable.<sup>17</sup>

Justice Breyer concluded, "[I]t is my view that, in reemphasising that the 'machine-or-transformation' test is not necessarily the sole test of patentability, the Court intends neither to de-emphasise the test's usefulness nor to suggest that many patentable processes lie beyond its reach."<sup>18</sup>

### **Software and Business Method Patents After *Bilski***

While technically an affirmation, by reversing the Federal Circuit's holding that the machine-or-transformation test is the exclusive test for patent eligibility under

Section 101, *Bilski* continues the trend of reversals in an era of unprecedented Supreme Court interest in patent issues.<sup>19</sup> Time and again, the Federal Circuit has instituted a bright line type of test only to have it struck down by the Supreme Court.

In addressing *Bilski* going forward, consider:

• **More flexibility?** Instead of restricting the Section 101 analysis to the machine-or-transformation test, the Court chose a more flexible approach to ensure that future innovations are not foreclosed from patent protection by a test that is too rigid to accommodate unforeseen technologies. Query whether the Court may have opened the door for analyses that may permit patent protection for a broader range of inventions.

• **Other tests applied by the Federal Circuit?** While the Court rejected the machine-or-transformation test as the sole test to define the boundaries of Section 101, it gave no guidance as to what other tests might be used, such as those employed by the Federal Circuit in *State Street and AT&T Corp.* Citing both decisions, the Court stated, “nothing in today’s opinion should be read as endorsing interpretations of §101 that the Court of Appeals for the Federal Circuit has used in the past,” but the Court did not overrule those decisions either. Justice Breyer’s concurrence comes closer to rejecting the *State Street* test – “this [decision] by no means indicates that anything which produces a ‘useful, concrete, and tangible result’ ... is patentable” – but he was not speaking for the Court. On the other hand, the majority went out of its way to commend the Federal Circuit’s *en banc* review of *Bilski*: “Students of patent law would be well advised to study these scholarly opinions.” These somewhat mixed signals provide little to no guidance for the patent community and lower courts in the post-*Bilski* era.

• **The Court’s view of business method patents?** Three members of the Court joined Justice Stevens’ concurrence to voice a strong opinion that “business methods” should be held categorically unpatentable, but the opinion does not define what Justice Stevens (who will retire from the Court after this term) meant by “business methods.” It remains, therefore, unclear how the remaining Justices might rule in the future if presented with a different business-method-type invention.

• **Clarity in the post-*Bilski* era?** Most people in the patent community, without regard to their specific role, hoped for

clarity and a workable framework for determining patent eligibility from the *Bilski* Court. One may argue whether that was the result. It appears that the door may have been opened a little wider for software and e-commerce patents, but with that seeming flexibility, the Court has appeared to have re-introduced a degree of unbounded uncertainty.

• **Prosecution issues?** Because the Patent Office and prosecutors have become somewhat conversant with the machine-or-transformation test, patent prosecutors will most likely continue to bolster their business method and software claims with machine-type features where applicable and to emphasise the real-world aspects of the data being transformed. Prosecutors may also start submitting claims that de-emphasise the machine aspect or emphasise a transformation that might be less physical. Such claims might be brought later in a continuation application after the “bolstered” claims have been allowed, citing the flexible view pronounced by the Supreme Court in *Bilski*.

• **Next steps at the Federal Circuit?** The patent community may not have long to wait to see the Federal Circuit’s response to *Bilski*. The day after the Supreme Court decided *Bilski*, it granted certiorari in two other cases from the Federal Circuit, vacated the Federal Circuit decisions, and remanded to the Federal Circuit for further consideration in light of *Bilski*.<sup>20</sup>

#### Footnotes

1. 561 U.S. \_\_\_, slip op. (June 28, 2010).
2. 35 U.S.C. § 101 (2007).

3. *Diamond v Diehr*, 450 U.S. 175, 185 (1981).
4. 409 U.S. 63 (1972).
5. 437 U.S. 584 (1978).
6. 450 U.S. at 175.
7. *In re Alappat*, 33 F.3d 1526 (Fed. Cir. 1994) (en banc).
8. 149 F.3d 1368, 1370 (Fed.Cir.1998).
9. 545 F.3d 943, 954 (Fed. Cir. 2008) (en banc).
10. *Id.* at 954.
11. The majority opinion of the court was authored by Justice Kennedy, and joined by Justices Roberts, Thomas, Alito, and (with the exception of two sections) Scalia.
12. Slip op. at 5.
13. *Id.* at 7-8.
14. *Id.* at 10-11.
15. The opinion of the court discusses some of the reasons why flexibility might be desirable in applying Section 101, see *id.* at 9, and positing some reasons rejecting a categorical prohibition against business method patents, see *id.* at 12, but Justice Scalia did not join in those parts of the opinion and they are not binding.
16. Slip op. at 9 (Stevens, J., concurring in the judgment).
17. Slip op. at 2-3 (Breyer, J., concurring in the judgment).
18. *Id.* at 3.
19. From 2002 to date, the Supreme Court has granted certiorari 13 times in patent cases arising from the Federal Circuit and decided eleven of them (two were dismissed). In none of them did the Court affirm the Federal Circuit’s holdings in their entirety.
20. See *Classen Immunotherapies, Inc. v Biogen Idec*, Appeal No. 08-1509 and *Mayo Collaborative Svcs., v Prometheus Laboratories*, Appeal No. 09-490.

#### Authors



Kenneth R. Adamo is a partner at Jones Day and a member of the bar in Illinois, New York, Ohio, and Texas.



Timothy K. Wilson is Senior IP Counsel at SAS Institute Inc. and a member of the bar in Pennsylvania and New York.



John V. Biernacki is a partner at Jones Day and a member of the bar in Michigan and Ohio.



Susan M. Gerber is an associate at Jones Day and a member of the bar in Ohio.