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Introduction

Yesterday, the Federal Circuit issued its long-awaited decision on the patent-eligibility of business methods under Section 101 of the Patent Act. In In re Bilski, No. 2007-1130, slip op. (Fed. Cir. Oct. 30, 2008), the en banc court held that any process, including a business method, is eligible for patent protection only if it is tied to a particular machine or apparatus or transforms a particular article into a different state or thing. In doing so, the court modified its decision in State Street Bank & Trust Co. v. Signature Financial Group, 149 F.3d 1368 (Fed. Cir. 1998), which suggested that any process that produced a useful, concrete, and tangible result was potentially patent-eligible. At the same time, the Federal Circuit refused to impose per se exclusions to patent-eligibility for business methods, software, non-technological processes, or other subject matter categories.

The court's en banc opinion in Bilski will have a significant impact on the ability to obtain patents, as well as to defend against a charge of patent infringement, in a wide variety of fields, from financial transactions to computer software to medical diagnostics. At the same time, the Federal Circuit provided relatively little guidance on how its newly defined "machine-or-transformation test" should be applied in practice, and explicitly declined to decide the important question of the patent-eligibility of computer-implemented processes. As a result, the impact of Bilski will depend in large measure on how later decisions apply this new "machine-or-transformation" test and, of course, whether the Supreme Court grants certiorari.

Background

In recent years, the USPTO and the Federal Circuit have struggled with the proper standard for patent-eligibility of so-called "business method" inventions. Section 101 of the Patent Statute, 35 U.S.C. § 101, classifies “any new and useful process, machine, manufacture, or composition of matter” as patent-eligible subject matter. Despite this broad language, courts for much of the 20th century applied a "business method exception" to the reach of patent-eligibility. The rise of the “Information Age,” and the vast computer-implemented processes that it generated, forced courts to reconsider this per se exclusion to Section 101. In its 1998 State Street decision, the Federal Circuit laid the "ill-conceived [business method] exception to rest," holding business method inventions subject to the same requirements of patentability as any other method inventions. 149 F.3d at 1375. State Street, along with the subsequent decision in AT&T Corp. v. Excel Communications, Inc., 172 F.3d 1352 (Fed. Cir. 1999), suggested that a process, including a business method, satisfied Section 101 as long as it produced a "useful, concrete, and tangible result." State Street, 149 F.3d at 1375.

The State Street decision resulted in a flood of patents and patent applications in fields long thought beyond the reach of patent protection, creating a backlash against State Street's broad standard for patent-eligibility. Last fall, the Federal Circuit appeared to constrain State Street, holding in In re Comiskey, 499 F.3d 1365 (Fed. Cir. 2007), that “the statute does not allow patents to be issued on
particular business systems,” such as the system of arbitration claimed by Comiskey, “that depend entirely on the use of mental processes.” *Id.* at 1378. Instead, it held that a process must be tied to a machine or create or involve a composition of matter or manufacture to satisfy Section 101.

On October 1, 2007, ten days after *Comiskey* issued, a Federal Circuit panel heard oral argument in *Bilski*. Bilski claimed a method for hedging risk in the field of commodities trading by entering into contracts to purchase and sell commodities at fixed prices. Bilski admitted that his broadest claim did not require a computer or other specific apparatus, and the USPTO rejected his patent for failure to claim patent-eligible subject matter under Section 101.

In February 2008, before the Federal Circuit panel issued an opinion, the court took the unusual step of *sua sponte* ordering the case reheard *en banc*. The *en banc* briefing and oral argument, which occurred in May 2008, addressed five overlapping questions:

1. Whether the broadest claim of Bilski’s patent application claimed patent-eligible subject matter under 35 U.S.C. § 101?

2. What standard should govern in determining whether a process is patent-eligible subject matter under Section 101?

3. Whether the claimed subject matter is not patent-eligible because it constitutes an abstract idea or mental process; when does a claim that contains both mental and physical steps create patent-eligible subject matter?

4. Whether a method or process must result in a physical transformation of an article or be tied to a machine to be patent-eligible subject matter under Section 101?

5. Whether it is appropriate to reconsider *State Street Bank & Trust Co. v. Signature Financial Group, Inc.*, 149 F.3d 1368 (Fed. Cir. 1998), and *AT&T Corp. v. Excel Communications, Inc.*, 172 F.3d 1352 (Fed. Cir. 1999), in this case and, if so, whether those cases should be overruled in any respect?

The *En Banc* Decision in *Bilski*

Writing for the *en banc* court, and joined by Judges Lourie, Schall, Bryson, Gajarsa, Linn, Dyk, Prost, and Moore, Chief Judge Michel’s opinion focused on the second of the *en banc* questions—the proper standard for determining whether a process is patent-eligible subject matter under Section 101.

**A Process Is Patent-Eligible Subject Matter If It Is Tied to a Particular Machine or Transforms a Particular Article into a Different State or Thing.**

The Federal Circuit began by noting that the Supreme Court has narrowed the term “process” in Section 101 by excluding laws of nature, natural phenomena, and abstract ideas from patent-eligibility. These “fundamental principles,” as the Federal Circuit called them, are part of the “storehouse of knowledge” to which no person can claim an exclusive right. Slip op. at 7. As a result, process claims that pre-empt substantially all uses of a fundamental principle are not patent-eligible, but process claims that only foreclose particular applications of these fundamental principles are patent-eligible under Section 101.

In perhaps its clearest statement, the Federal Circuit held:

> 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.

*Id.* at 10. The Federal Circuit rejected qualifying language in earlier Supreme Court decisions, which Judge Newman relied on in dissent, that would leave the door open for patent-eligibility for some processes that did not meet this test. Instead, the court, relying on the absence of such qualifiers in later Supreme Court opinions, held that the “machine-or-transformation test” was the sole test for determining patent-eligibility of a process under Section 101, at least until the Supreme Court
In limiting patent-eligibility to processes that satisfy the “machine-or-transformation test,” the Federal Circuit overruled or rejected several other tests. Most importantly, the Federal Circuit held that the “useful, concrete, and tangible result” test, first identified in *In re Alappat*, 33 F.3d 1526 (Fed. Cir. 1994) and most closely associated with *State Street*, did not adequately restrict the patent-eligibility for processes under Section 101, even if the test was helpful in indicating whether a claim was drawn to a fundamental principle or practical application of such a principle.

Similarly, the Federal Circuit rejected restricting patent-eligibility to processes involving physical elements or steps, as was done by the Court of Customs and Patent Appeals and as *Comiskey* could be read to support. The court held that the proper question was whether the process satisfied the “machine-or-transformation test” regardless of whether or not it involved “physical steps.”

Finally, the Federal Circuit rejected various categorical restrictions on patent-eligibility for processes. The court refused to adopt the position advocated by Judge Mayer in dissent that would limit patent eligibility to processes representing “technology” or the “technological arts,” concluding that these terms were too ambiguous and ever-changing. Slip op. at 21; slip op. (Mayer, J., dissenting) at 6-12. Similarly, the court refused to adopt *per se* rules advocated by various *amici* that would exclude software, business methods, and other categories of processes from patent-eligibility.

The Scope and Application of the Machine-or-Transformation Test Remains Unclear.

The *Bilski* decision clarifies the patent-eligibility of processes under Section 101 by adopting a single test and explicitly rejecting a variety of other tests. However, as Judge Rader noted in dissent, it also raises many questions about how this test should be applied in practice.

The opinion makes clear that a process that is tied to a machine or that transforms an article into a different state or thing is patent-eligible under Section 101. However, the court proceeded to further limit patent-eligibility by noting that “the use of a specific machine or transformation of an article must impose meaningful limits on the claim’s scope” and “must not merely be insignificant extra-solution activity.” Slip op. at 24. The court failed to explain what it meant by imposing “meaningful limits” or “insignificant extra-solution activity.” Similarly, the court held that a process invention is not made patent-eligible merely by limiting the process to a certain field of use, such as Bilski’s limitation to commodities hedging.

Moreover, because Bilski admitted that his claim did not require any specific machine or apparatus, the court left “to future cases the elaboration of the precise contours of machine implementation,” including “whether or when recitation of a computer suffices to tie a process claim to a particular machine.” *Id.* This open question is particularly significant, since most “business methods” of any value are computer-implemented.

Even though the court provided extensive comment on the “transformation” prong of the “machine-or-transformation test,” its discussion still left many open questions. The court first noted that the “transformation must be central to the purpose of the claimed process,” though it did not explain what it meant to be “central” to the process. *Id.* The court also held that processes that transform physical objects or substances, as well as electronic data that represent physical and tangible objects, are patent-eligible. By contrast, the court held that processes that transform “abstract constructs such as legal obligations, organizational relationships, and business risks” are not patent-eligible. *Id.* at 25. The court did not address where the line fell between these two categories of transformations.

The court concluded that Bilski’s process only involved “ineligible transformations,” such as the transformation of legal obligations. Since the process did not result in “the transformation of any physical object or substance, or an electronic signal representative of any physical object or substance,” it was not patent-eligible under Section 101. *Id.* at 28.

The Impact of *Bilski*

*Bilski* clearly restricts the patent-eligibility of processes generally, and business methods in particular. The decision rejects the post-*State Street* view that any useful series of steps could, potentially, be eligible for patent protection. As a result, it will now be more difficult to obtain patents.
protecting “pure” business methods that are unassociated with any specific implementation mechanism, such as Comiskey’s method of arbitration or Bilski’s method of hedging risk in commodities transactions. Following Bilski, such methods are ineligible for patent protection because they are not tied to a particular machine and merely transform “abstract constructs such as legal obligations, organizational relationships, and business risks,” rather than physical objects or data representing physical objects. Id. at 25.

The dissents suggest that all “information-based and computer-managed processes” (Judge Newman) and “software” (Judge Rader) are now ineligible for patent protection under the majority’s “machine-or-transformation test.” See slip op. (Newman, J., dissenting) at 30; slip op. (Rader, J., dissenting), at 9-10. The Bilski majority, however, expressly declined to comment on the patent-eligibility of business method inventions that are explicitly required to be computer-implemented. Consequently, the impact of Bilski on the vast field of computer-implemented processes must await later Federal Circuit decisions applying the requirements that the process must be “tied” to a “particular” machine and that the machine must “impose meaningful limits on the claim’s scope” rather than “merely be insignificant extra-solution activity.” Slip op. at 24.

The court noted repeatedly that the Bilski decision is directed to process claims, distinguishing these from both the machine claims at issue in State Street and the manufacture claims at issue in In re Nuijten, 500 F.3d 1346 (Fed. Cir. 2007). Consequently, the impact of Bilski on the patent-eligibility of a particular invention will depend in large measure on how that invention is claimed. For example, if a business method invention can be claimed as a “system” or “device” rather than as a “process” or “method,” some of the more significant consequences of Bilski may be reduced or avoided with respect to the non-process claims.

Finally, the Supreme Court may still weigh in on this subject by granting certiorari. Perhaps cognizant of this possibility and the Court’s recent string of reversals in patent cases, the Federal Circuit emphasized Supreme Court precedent Supreme Court precedent even at the cost of eschewing its own precedent, as it also did in its last en banc decision in In re Seagate Technology, LLC, 497 F.3d 1360 (Fed. Cir. 2007). At the same time, the Federal Circuit in Bilski appeared to almost invite Supreme Court review, noting that “the Supreme Court may ultimately decide to alter or perhaps even set aside this test to accommodate emerging technologies.” Id. at 15.