

Federal Circuit to Re-Assess Standards for Patent-Eligible Subject Matter

BY C.J. ALICE CHUANG

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FENWICK & WEST LLP

The subject matter requirement prescribed in 35 U.S.C. section 101 has lately been back on the Federal Circuit Court's radar. Section 101 obligates a patent examiner to determine that the claimed invention qualifies as subject matter deemed patentable before she evaluates any other requirement for patentability. Until the fall of last year, this requirement was viewed generally as encompassing a broad scope of subject matter. The phrase "any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof," 35 U.S.C. section 101, had been interpreted broadly by both the U.S. Supreme Court and the Federal Circuit Court of Appeals.

On Sept. 20, 2007, the Federal Circuit handed down two decisions that revisited the previously vague limitations placed on patentable subject matter, trimming back the overgrown hedges that had been blurring the boundaries surrounding the requirement, particularly for process claims. *In re Comiskey*, 499 F.3d 1365 (Fed. Cir. 2007); *In re Nuijten*, 500 F.3d 1346 (Fed. Cir. 2007). More recently, on Feb. 15, 2008, the Federal Circuit *sua sponte* "granted" an en banc hearing in the *In re Bilski* appeal (No. 2007-1130) signaling its intention to further define — or re-define, as the case may be — the standard for determining when a process claim constitutes patent-eligible subject matter under section 101. In its list of questions for supplemental briefing by the parties and amici curiae in *Bilski*, the Federal Circuit expressed its willingness to reconsider its current standards for determining patentable subject matter, and even overturn some of its own precedent. In *Bilski*, the Federal Circuit will consider the following: whether claim 1 of the 08/833,892 patent application claims patent-eligible subject matter under 35 U.S.C. section 101; what standard should govern in determining whether a process is patent-eligible subject matter under section 101; whether the claimed subject matter is not patent-eligible because it constitutes an abstract idea or mental process, and when does a claim that contains both mental and physical steps create patent-eligible subject matter; 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; and 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), and, if so, whether those cases should be overruled in any respect.

Given the nature of these questions — their specificity, in particular — it is worth looking back at how the Federal Circuit got to this point, and what it will *not* be reconsidering in *Bilski*.

The current language of section 101 was codified by Congress in 1952. In 1980, the U.S. Supreme Court reminded us all in *Diamond v. Chakrabarty*, 447 U.S. 309 (1980), that Congress' intention was to include in section 101 "anything under the sun that is made by man." Acknowledging, however, that this did not mean the scope of patentable subject matter was limitless, the court reiterated the three areas of discovery that they have always excluded: "laws of nature, physical phenomena, and abstract ideas." The *Chakrabarty* court determined that a manmade micro-organism — or more precisely, bacterium — was patentable, focusing on the fact that the bacterium was not naturally occurring and had "potential for significant utility." The court bolstered its holding by stressing the broadness of the statute.

Following quickly on the heels of *Chakrabarty*, the U.S. Supreme Court fielded the issue of patentable subject matter again one year later, in *Diamond v. Diehr*, 450 U.S. 175 (1981), holding that a process for molding synthetic rubber products constituted patentable subject matter. The examiner had rejected the process claim because it required a computer to carry out many of its steps, a decision with which the Patent and Trademark Office Board of Appeals agreed, but the Court of Customs and Patent Appeals disagreed. The view of the Court of Customs and Patent Appeals ultimately prevailed. The Supreme Court confirmed that the process claim was eligible because it affected the transformation of an article into "a different state or thing," and the involvement of a computer did not automatically render it unpatentable under section 101, stating that "a claim drawn to subject matter otherwise statutory does not become nonstatutory because a computer is involved."

Chakrabarty and *Diehr* thus formed the basis for the Federal Circuit's jurisprudence on patentable subject matter; and it does not appear that the Federal Circuit intends to re-visit these basic tenets in the *Bilski* appeal. Indeed, the issues surrounding the patentability of mental processes, or processes that are mere applications of

a mathematical algorithm, did not begin to take real shape until the Federal Circuit's *State Street Bank* and *Excel Communications* decisions. Although relying on the Supreme Court's reasoning from *Chakrabarty* and *Diehr*, the Federal Circuit's opinions in *State Street* and *Excel Communications* provide further guidance in the particular area of process claims, guidance that the Federal Circuit will soon reassess.

In *State Street*, the patentee claimed a "system for managing a financial services configuration of a portfolio," requiring certain "means" that corresponded to "arithmetic logic circuits" rather than more traditional structural means. Although the Federal Circuit clearly indicated its view that the system was more of a machine than a process, it found the distinction irrelevant so long as one of the statutory categories was invoked. The court did think it important, however, to clarify that mathematical algorithms were only unpatentable if they were abstract ideas without practical application (and to do away with the misconception that any business method exception to statutory subject matter ever existed). Thus, even though the claimed system clearly relied on mathematical algorithms, its practical application of the algorithms to transform data into "useful, concrete and tangible" results (aka, final share prices) rendered it patent-eligible.

Excel Communications applied the *State Street* reasoning to find AT&T's method claims, which included steps for data gathering and then applying a mathematical algorithm to the data, to be patent-eligible. This time, the Federal Circuit was even more explicit about the narrow view it took of "the judicially defined proscription against patenting of a 'mathematical algorithm,' to the extent such a proscription still exists." Determining that the process claimed by AT&T was not merely an abstract idea because it applied the mathematical principal "to produce a useful, concrete, tangible result," the court concluded that the process claim fell "comfortably" within the scope of section 101.

The *Excel Communications* court further interpreted *Diehr* as offering "physical transformation" as merely one example of how a mathematical algorithm might have a practical application, and that such a transformation is not necessary for a process claim to be patent-eligible.

In their questions for the *Bilski* appeal, the Federal Circuit invites the parties to question (or defend) these rules set forth nearly a decade ago in *State Street* and *Excel Communications*. The Federal Circuit panels in the recent *Nuijten* and *Comiskey* appeals offer some hints as to where the court leans with respect to some of these issues.

The court in *Nuijten* set forth the additional threshold that process claim must cover at least "an act or series of acts." Thus, although *Nuijten*'s claim for "a signal" — namely, one embedded with additional data, or "watermarked" — necessarily implies a physical carrier of some sort, the Federal Circuit handily rejected the argument that such a "transitory embodiment," however novel or useful, was a patent-eligible process because it lacked any act(s).

From *Comiskey*, we can glean that process claims must be even more than just "an act or series of acts," and have more than just a practical application, to be patent-eligible subject matter. At least for mental processes, the *Comiskey* court articulated that such processes must be tied to another category of eligible subject matter — machine, manufacture, or composition of matter. Mental processes alone, even ones with evident practical applications, such as *Comiskey*'s methods for mandatory arbitration, do not qualify.

Ironically, the *Comiskey* court's reasoning that mental processes are patent-eligible if they are tied to another category of eligible subject matter resulted in several of *Comiskey*'s claims being deemed worthy **because** they required computers or other machines, in contrast with the court's decision over two decades earlier in *Diehr*, where claims were deemed worthy **despite** their connection to computers. Although the holdings are not at practical odds with each other, the drastic change in rhetoric from *Diehr* to *Comiskey* serves as a warning about the influence that the evolution of technology has on the Federal Circuit's treatment of section 101. In view of the fact that the section 101 standards have thus far been forced to evolve along with changes in technology, questions remain as to whether any revised standard can, or should, be immune to the influence of changing technology.

C. J. Alice Chuang is an associate in the litigation group of Fenwick & West in Mountain View. Her practice includes litigation involving patents and other intellectual property. If you have questions please contact Ms. Chuang at achuang@fenwick.com or 650-335-7163.

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