

## When can a method be patented? Will the Supreme Court change the test?

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Over the history of the U.S. Patent System, it has been generally understood that abstract ideas cannot be patented. While The Patent Act, 35 U.S.C., does not specify such prohibition, it lists only those things entitled to a U.S. patent. The items listed include a machine, an article of manufacture, a composition of matter, and a process. However, some confusion has arisen over the years since many abstract ideas are closely related to, if not defined by, a process, which, according to the words of the act, is entitled to protection. For example, the natural phenomenon of gravity is expressed by the process of an object falling to earth – an event certainly not entitled to patent protection. Similarly, a mathematical algorithm, e.g.,  $e = mc^2$ , which was discovered after much cerebral investigation, cannot be patented. Consequently, for many years methods or processes (unattached to a mechanical and/or electrical device or dislocated from a laboratory) have not been considered by the commercial world as entitled to protection under U.S. Patent Law.

However, in 1998, the Court of Appeals for the Federal Circuit (CAFC), the only U.S. Federal Court of Appeals for patent cases, changed that misconception. In *State Street Bank & Trust Co. v. Signature Financial Group*, 149 F.3d 1368 (Fed. Cir. 1998), the CAFC upheld a patent for a method of calculating the net asset value of mutual funds using a computer. The CAFC ruled that the patent laws of the U.S. were intended to patent any method, whether or not it required the aid of a computer, so long as it produced "a useful, concrete and tangible result."<sup>1</sup>

Since the *State Street* decision, the United States Patent and Trademark Office (USPTO) has received an increasing number of patent applica-

tions for methods which are outside the realm of machine/computer/electrical implementation. Consequently, the USPTO has sought to give directions to the corps of Patent Examiners responsible for determining patentability of the new method applications.

### Patent office interim guidelines

The USPTO most recently issued Interim Guidelines (November 2005) which are designed to assist patent examiners in determining whether subject matter claimed as invention(s) is eligible for patent protection.<sup>2</sup> We seek herein to summarize the U.S. Patent Office's approach to determining whether or not an invention (as claimed in an application) qualifies as patentable subject matter under U.S. Patent Law.

To begin with, a patent applicant defines his/her property rights in the claims of an application (patent), since it is the claims which set the metes and boundaries of the protectable patent estate. To determine whether an invention as defined in the claims, is patentable subject matter, it must fall within one of the categories set forth in 35 U.S.C. §101. In 1952 Congress defined four categories deemed to be appropriate subject matter of a patent: machines, articles of manufacture, compositions of matter, and *processes*. Three categories relate to "items or things," while the last listed category, "process," covers inventions that consist of a series of acts that are performed.<sup>3</sup>

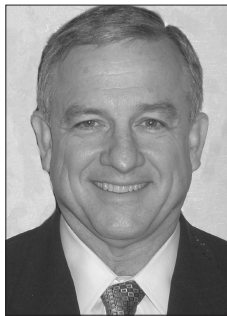
Reflecting on the 1952 Patent Statute, the U.S. Supreme Court held that Congress chose such expansive language in the statute to include "anything under the sun that is made by man."<sup>4</sup> Hence, the USPTO currently interprets the scope of 35 U.S.C. §101 to encompass any new and useful process, machine, manufacture or composition of matter under the sun that is made by man to be the proper subject matter of a U.S. Patent.

The Guidelines issued in November do identify certain limits on the scope of 35 U.S.C. §101 which reflect holdings by the Federal Courts. The phrase "anything under the sun made by man" is limited by the text of §101 to include only a machine, manufacture, composition of matter, or a process,<sup>5</sup> and 35 U.S.C. §101 requires that the subject matter be a "useful invention." However, the Courts also have excluded from patent protection, laws of nature, natural phenomenon and abstract ideas.<sup>6</sup>

Does that mean that claims which include natural phenomenon, laws of nature or abstract ideas are not eligible for patentability? Not necessarily. Under current USPTO practice, *practical applications* of natural phenomenon, laws of nature or abstract ideas are eligible for patent protection. As explained by the Supreme Court "it is now commonplace that an *application* of a law of nature or mathematical formula to a common structure or process may well be deserving of patent protection"<sup>7</sup> and that, "while a scientific truth or the mathematical expression of it, is not a patentable invention, a novel and useful structure created with the aid of scientific truth may be."<sup>8</sup>

Patent protection cannot, however, preempt ideas, laws of nature, or natural phenomena. Accordingly, the USPTO's current position is that one may not patent every substantial practical application of an idea, law of nature or natural phenomena because such a patent could operate as a patent on the idea, law of nature or natural phenomena.

With an understanding of the breadth of 35 U.S. §101, the first thing one should do is determine whether the invention as claimed falls within any of the §101 enumerated categories-process, machine, article of manufacture or composition of matter. The scope of §101 is the same regardless of category and many inventions may be a combination which includes one or more categories. For example, an application can include claims to a device,



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which is a machine, as well as claims to one or more steps performed by the machine, which is a process. The critical determination is whether the claimed invention falls into at least one of the enumerated categories.

Determining whether the claimed invention falls within one of the categories, however, does not end the analysis. The next step is to consider whether or not the claimed invention falls within recognized §101 judicial exceptions. That is to say, is the claimed invention directed to an abstract idea, natural phenomenon or law of nature. For example, as explained by the Supreme Court, claims directed to a new mineral discovered in the earth or a new plant found in the wild is not patentable subject matter under §101.<sup>9</sup> Likewise, Einstein could not patent his law of relativity nor could Newton patent the law of gravity.<sup>10</sup> Hence, the Supreme Court has made clear that abstract ideas, natural phenomena and laws of nature alone are not eligible for patenting.

The mere fact that a claim includes a §101 judicial exception, however, may not preclude patentability. The Guidelines recommend evaluating the claim, considered as a whole, to determine if the claim defines an abstract idea, natural phenomena or law of nature, or rather the application of an abstract idea, natural phenomena or law of nature. If the claim covers an application of the abstraction and does not preempt the abstraction itself, under current practice the USPTO would view the claim as containing patentable subject matter. Hence, the critical determination is whether the invention is claiming an abstract idea, natural phenomena or law of nature or is a practical application of an abstract idea, natural phenomena or law of nature.

The Guidelines explain a test for determining when 35 U.S.C. §101 judicial exception subject matter is patentable. Basically, the examiner is to decide whether or not the claimed invention "transforms" an article or physical object to a different state or thing, or if the claimed invention produces a "useful, concrete and tangible result." The guidelines recommend focusing on the final result achieved by the claim as opposed to the steps taken to achieve the final result. If the result(s) is useful and tangible and concrete, the claim

probably contains patentable subject matter.

The USPTO's interpretation of a "useful result" is that it must satisfy the utility requirement of §101. That is, the utility of an invention needs to be i) specific, ii) substantial, and iii) credible. As a result under current USPTO practice, a claim which can be read so broadly as to include both statutory and non-statutory subject matter must be amended to limit the claim to a practical application. Furthermore, if a patent specification discloses a practical application, but the claims of the application do not require a practical application, the USPTO will reject the claim.

The Guidelines further state that the "tangible result" requirement is not currently interpreted to mean that a claim must be tied to a particular machine or must operate to change materials to a different state. What the "tangible result" requirement does require is that the invention claim recite more than a § 101 judicial exception to provide a real result. It is the USPTO's view that this interpretation is consistent with the Supreme Court's ruling in *Gottschalk v. Benson* holding that a method of converting binary coded decimals (BCD) to pure binary numbers for use in programming a computer was ineligible because there was no substantial practical application and would wholly pre-empt a mathematical formula.<sup>11</sup>

The Guidelines also state that the USPTO has interpreted the "concrete result" requirement to mean that a process must have a result that is substantially repeatable. Hence, when the claimed invention requires a particular skill, a finding of "repeatability" requires a determination of the level of skill of the ordinary artisan in that field.

#### **The Supreme Court May Change the Playing Field**

In a case seemingly unrelated to eligibility of patentable subject matter, the Supreme Court has granted certiorari to consider patentability of a method which relies on "scientific relationship." *Metabolite Lab. Inc. v. Laboratory Corp. of America Holdings*, 370 F.3d 1354 (Fed. Cir. 2004) involves a claimed method for determining a deficiency of B vitamins by (i) assaying a patient's blood for an elevated level of homocysteine, and (ii) correlating the elevated cys-

teine level with deficiency of the B vitamins cobalamine and folic acid.

The question certified to the Supreme Court appears to relate to whether or not the claim defines patentable subject matter, i.e., is the claim pre-empting a law of nature, a natural phenomenon, or an abstract idea. Curiously, however, the CAFC did not consider nor does its decision relate to whether or not the claimed method defines subject matter eligible for patent protection. It may be that the Supreme Court is poised to make a statement regarding its view of eligibility for patent protection in the United States.

The USPTO is sensitive to the Supreme Court's decision to consider the *Labcorp* case, and expects a decision will be rendered by the end of June. Consequently the USPTO has extended the time for public comment on the Interim Guidelines until June 30, 2006, since the "...Court's decision in *Labcorp* may impact the broader question of patent subject matter eligibility under 35 U.S.C. §101...".

Nevertheless, in summary, under current USPTO practice enunciated in the Guidelines, if a claim covers a useful process (or method) which does not preempt an abstract idea, law of nature or natural phenomenon, the USPTO will consider the claimed invention patentable subject matter.

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1. *State Street Bank & Trust Co. v. Signature Financial Group*, 149 F.3d 1368, 1373-74 (Fed. Cir. 1998).
2. See Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility, 1300 *Off. Gaz. Pat. Office* 142 (Nov. 22, 2005).
3. See 35 U.S.C. § 100(b).
4. *Diamond v. Chakrabarty*, 477 U.S. 303, 308-309 (1980).
5. *In re Alappat*, 33 F.3d 1526 at 1542 (Fed. Cir. 1994).
6. *Chakrabarty*, 477 U.S. at 309; *Parker v. Flook*, 437 U.S. 584, 585 (1978).
7. *Diamond v. Diehr*, 450 U.S. 175, 187 (1981).
8. *Id.* at 188.
9. *Chakrabarty*, 477 U.S. at 309.
10. *Id.*
11. *Gottschalk v. Benson*, 409 U.S. 63, 71-72 (1972).

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