

# PTO Publishes Interim Examination Instructions for Evaluating Subject Matter Eligibility Under 35 U.S.C. § 101 in View of *In Re Bilski*

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## Overview

On August 24, 2009, the Patent and Trademark Office (PTO) issued interim Guidelines for Examiner's instructions on examining applications involving claims related to the issues presented in *In re Bilski*, which is currently before the United States Supreme Court. The Guidelines, which supercede previous guidelines on this matter, clarify the guidelines set out in MPEP 2106-2106.02 by addressing process claims being reviewed in light of the machine or transformation test. Decisions from the Board of Patent Appeals and Interferences (Board) involving claims rejected in view of *Bilski* appear to be withheld since the Supreme Court granted Certiorari. It is unclear as to whether the Board is waiting for the Supreme Court Decision or whether the Board was waiting for these PTO Guidelines to be released.

Of note is that the Federal Circuit stated (maj. op. at 24) that “[w]e leave to future cases the elaboration of the precise contours of machine implementation, as well as the answers to particular questions, such as whether or when recitation of a computer suffices to tie a process claim to a particular machine.” This is understood to mean that future cases will determine whether the recitation of a computer *per se* will be sufficient to meet the machine part of the test. However, the PTO Guidelines, as discussed, *infra*, make clear that simply tying the process to a recitation of a computer *per se* will not be sufficient unless there are steps (such as a program implemented on a computer) that would turn a general purpose computer into a special purpose computer.

## Background

The basic issue in the *Bilski* case involves the question of what constitutes statutory subject matter under 35 U.S.C. § 101 (§ 101), and whether the sole test for determining if a process is statutory under § 101 is the machine or transformation test.

## Statutes

§ 100(b) defines a process as:

“process, art, or method, and includes a new use of a known process...”

§ 101 recites that “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 therefore, subject to the conditions and the requirements of this title.”

Of note is that 35 U.S.C. § 101 does not limit what is meant by any new and useful process, or any new and useful improvement thereof.

### **The Federal Circuit En Banc Decision**

The Federal Circuit, in a majority opinion authored by Chief Judge Michel, agreed with the PTO that in order to be a statutory process, the claim must pass the machine or transformation test.

### **PTO Guidelines**

The Guidelines set forth two criteria for determining subject matter eligibility and state that both criteria must be satisfied. The claimed invention:

- 1) must be directed to one of the four statutory categories, and
- 2) must not be wholly directed to subject matter encompassing one of the judicially recognized exceptions.

The PTO Guidelines provide a two-step analysis for evaluation of these criteria.

### **PTO Definition of “Process”**

Notwithstanding the definition of “process” in 35 U.S.C. § 100, the Guidelines define a process as an act, or series of acts or steps that are tied to a particular machine or apparatus or transform a particular article into a different state or thing. If a claim is tied to a machine or transformation, the second criterion imposed by the Guidelines is whether the claim wholly embraces a judicially recognized exception (non-statutory), or whether the claim is directed to a practical application of a judicial exception (statutory).

### **Subject Matter Eligibility for non-process claims**

The Guidelines provide an example of how a claim drawn to a machine may also fail to recite statutory subject matter. The example given is a claim drawn to “a machine comprising...”, but as drafted, fails to include tangible limitations, and is not limited to a practical application. In this instance, the claim would not be statutory under § 101.

### **Determining if a claim is directed to a preemption of a judicial exception**

The Guidelines explain that once a practical application has been established, the limited occurrence of preemption must be evaluated to determine whether the claim impermissibly covers substantially all practical applications of the judicially excepted subject matter. If so, the claim is not patent eligible. However, if the claim only covers a particular practical application

of judicially excepted subject matter, the claim is directed to eligible subject matter. Judicially excepted subject matter is often recited as descriptive material. Descriptive material should be evaluated to determine if it has a functional relationship to the underlying structure in order to evaluate whether it creates a patentable distinction over the prior art, or whether it is merely non-functional descriptive material which has no patentable distinction. An example of non-functional descriptive material, which is non-statutory, is music stored on a CD. Because the music on the CD is non-functional, the claim is non-statutory.

### **Machine or Transformation Test**

Turning to process claims, for a process claim to be statutory, the claim must pass the machine or transformation test. This ensures that the process is limited to a particular practical application, and ensures that the process is not drawn to an abstract idea, a mental process or substantially all practical uses of a law of nature or a natural phenomenon. To pass the machine or transformation test, it is not enough that the claim be tied to a machine or transform an article to a different state or thing. Rather, the claim must be tied to a particular machine or must transform a particular article to a different state or thing.

### **Machine or Transformation must impart a meaningful limitation on the claim scope.**

The Guidelines explain that the use of a particular machine or transformation must impose a meaningful limit on the claimed scope. Thus, a machine tie-in to a “field of use” limitation would not be sufficient. In addition, the use of a particular machine or transformation must involve more than insufficient “extra-solution” activity. If the machine or transformation are present in a field of use limitation or in a step that is only insignificant “extra-solution” activity, the claim fails the test despite the presence of a machine or transformation in the claim. The claim should be clear as to how the machine implements the process rather than simply stating “a machine implemented process.” Machine limitations should make clear that the tie to a machine in the claimed process imposes a meaningful limitation on the claimed scope. The guidelines also note that an article to be transformed can be electronic data to represent a physical object or substance. As a test, the data should be more than an abstract value. The Guidelines define transformation as an article that is changed to a different state or thing. The Guidelines note that mathematical manipulation of data *per se* has not been deemed a transformation, but that transformation of electronic data has been found when the nature of the data has been changed such that it has a different function or is suitable for different use.

### **Process tied to a General Purpose computer**

For computer implemented processes, the “machine” is often described as a general purpose computer. However, a general purpose computer becomes a special purpose computer when programmed to perform the process steps. The reason is that the programming creates a new machine, because a general purpose computer becomes a special purpose computer once it is programmed to perform particular functions pursuant to instructions from software. The special purpose computer is now particularly tied to the process and is statutory.

### **Process tied to a “field of use”**

A “field of use” limitation does not impose boundaries on the scope of the claim. A “field of use” simply indicates that the method is for use in a particular environment. Thus, a “field of use” limitation does not impose a meaningful limit on the claimed invention as would be necessary to make the claim statutory.

### **Process tied to insufficient “Extra-solution” activity**

Insufficient “extra-solution” activity means activity that is not central to the purpose of the method invented by the applicant, e.g., gathering data to use in a method does not impose a meaningful limitation on the claim.

### **Explanation of the two PTO Flowcharts**

The Guidelines issued by the PTO include two flowcharts, both of which are titled “Subject Matter Eligibility Test.” In the first flowchart, the first question asked is whether the claim is directed to a process, machine, manufacture or composition of matter. If the answer is no, then the claim is not eligible subject matter under § 101. If the answer is yes, the next question asked is whether the claim is directed to a process. If not, then the question becomes whether the claim is directed to an “abstract idea, law of nature or natural phenomenon” which are traditionally recognized exceptions to statutory subject matter. If not, then the claim qualifies as eligible subject matter. If the claim recites an abstract idea, law of nature or natural phenomenon, then the next question becomes whether the claim as a whole is directed to a practical application of the abstract idea, law of nature or natural phenomenon. If the answer is no, the claim is not eligible subject matter under § 101. If the claim is directed to a practical application of an abstract idea such as an algorithm, etc., then the next question becomes whether the claim covers substantially all practical applications of the abstract idea, law of nature or natural phenomena. If the answer is yes, then the claim does not qualify as eligible subject matter. If the answer is no, then the claim qualifies as eligible subject matter.

Turning back to the question of whether the claim is directed to a process, if the answer is yes, then the analysis branches to the second flowchart to determine if the machine or transformation test is met. A process is determined to be statutory under the machine or transformation test by determining whether the claim is directed wholly to a judicial exception which would make it ineligible under § 101, or the particular practical application of a judicial exception which would be eligible subject matter.

The first question to be asked with respect to a process claim, is whether the process is implemented by a machine. If the answer is yes, then the question is whether the tie to a machine imposes a meaningful limit on the claim scope. In other words, only if the recitation of a machine involves more than a field of use limitation and involves more than insignificant extra-solution is the method considered a statutory process. If the claim does not require that the method be implemented by a particular machine, then the question becomes whether the claim requires that the method transform a particular article. If the answer is no, the claimed process does not require a transformation of a particular article and the method is not subject matter eligible under § 101. If the answer is yes, then the next question is whether the transformation imposes a meaningful limit on the scope that involves more than a field of use and whether the

transformation involves more than insufficient extra-solution activity. If the answer is yes, then the process is a statutory process, which is then examined for patentability under 35 U.S.C.

§§ 112, 102 and 103. If there is no transformation that imposes a meaningful limit on the claim scope, then the process is non-statutory.

### **Summary of the PTO Guidelines**

In sum, for a process claim, the process must not simply be tied to a machine. Rather, the process must be tied to a particular machine. If the claimed process is not tied to a particular machine, then the process must require a transformation of an article into a different state or thing. In addition to being tied to a machine or transformation, it must further be determined whether the transformation or the machine imposes a meaningful limitation on claim scope, i.e., the process must involve more than a “field of use” limitation and involve more than insignificant “extra-solution” activity. Only if all conditions are met is the claim directed to statutory subject matter. In addition, the Guidelines note that in most situations, the chemical process will include a transformation, whereas in mechanical and electrical cases, the process will generally be tied to a particular machine.

### **Practical Tips on How to Address Bilski Rejections of Process Claims**

With these guidelines in mind, we must consider what to do until the Supreme Court rules in the Bilski case. We now understand from the above discussion how the Examiners are being trained. However, what should we as practitioners or corporate counsel do to address the Bilski rejections that we receive from the PTO in this interim period? At the outset, you may wish to file a continuation in applications where the claims were amended to overcome a Bilski rejection, so that if Bilski is overturned or the standard broadened, you can add broader claims.

When confronted with a process, the first thing to do is to tie this process to a particular machine. For example, in an image processing method, add to the end of a step that the step is carried out by an image processing apparatus or is carried out by an image processing apparatus and stored in a memory therein, etc. It should be sufficient to do this in one or two steps. It is not necessary to do this for every step. However, it is not sufficient to simply state that the step is carried out by a computer, as this may be construed by the Examiner as merely being tied to a machine in general but not to a particular machine. Nor should the limitation be tied to a “field of use” or to insignificant “extra solution” activity.

Below is an example of an imaginary claim that is under a Bilski rejection.

1. A method of processing an image, said method comprising:
  - the step of receiving an image of a patient;
  - the step of analyzing said received image; and
  - the step of processing said received image.

This claim would likely receive a Bilski rejection on the basis that the claim is drawn to an abstract idea and reads on a person looking at a patient and receiving the image through their eyes and analyzing and processing the image with their mind. The claim can be amended to make it statutory by tying the process to a particular machine, which will prevent the claim from being considered to be a preemption of an abstract idea with no practical application. The following is an example of how the claim might be modified

1. A method of processing an image, said method comprising:

- the step of receiving an image from a patient provided by an X ray machine;
- the step of analyzing said received image; and
- the step of processing said received image using an image processing apparatus.

This will tie the process to a particular machine and will not preempt an abstract idea.

The claim can alternatively be amended to recite a transformation of an article to a different state or thing, as set forth below.

1. A method of processing an image, said method comprising:

- the step of receiving an image of a patient;
- the step of analyzing said received image; ~~and~~
- the step of processing said received image by processing the analyzed image and transforming said image into electrical signals; and
- the step of transforming the processed electrical signals into an image showing a portion of the inside of the patient.

The above claim, while not tied to a particular machine, provides a transformation of an article, that is not tied to a field of use or to an insufficient extra-solution activity.

From the above claim modifications, examples are provided to illustrate how non-statutory claims can be revised to meet the PTO's machine or transformation test.

The following practical tips result from the information given above: (1) tie your process claims to a particular machine or transformation; and (2) guard against relying upon a field of use, insufficient extra-solution activity, or a general purpose computer, to ensure against preempting one or more judicial exemption, i.e., an abstract idea, natural phenomenon or a law of nature. For further information or discussion of this topic, please feel free to contact me at [slevy@sughrue.com](mailto:slevy@sughrue.com).

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