

**Keywords:** patentable subject matter, patent-eligible subject matter, machine or transformation

**General:** Previous tests for patentable subject matter under 35 U.S.C. § 101 are replaced with a “machine or transformation” test, particularly for method claims arguably relating to fundamental principles and mental processes.

*In re Bernard L. Bilski and Rand A. Warsaw*  
No. 2007-1130 (Fed. Cir. Oct. 30, 2008) (en banc)

## **I. Facts**

Bilski et al. filed a patent application in 1997 relating to a method for managing consumption risk (essentially a hedge technique). Claim 1 (of 11 claims being examined) reads:

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

- (a) 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;
- (b) identifying market participants for said commodity having a counter-risk position to said consumers; and
- (c) 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.

The patent examiner rejected the claim on the basis that it did not recite patentable subject matter, relying on the “technical arts” test. The applicants appealed, and the Board observed that the examiner applied the wrong test. The Board held that the requirement of a “specific apparatus” was also erroneous, and phrased the test in terms of whether there was a “transformation of physical subject matter from one state to another.” Using that test, the Board held that the claim did not recite patentable subject matter. The Board also seems to have relied upon the “useful, concrete and tangible result” test.

The applicants then appealed to the CAFC.

## **II. Issues**

- A. What test should be used to determine whether a method claim recites patent-eligible subject matter?
- B. Did this claim pass that test?

## **III. Discussion**

- A. The court reconsidered past CAFC decisions and Supreme Court precedent in the field, rejecting certain formulations that had developed over recent years, and espousing a test that it

says dates back to the Supreme Court decisions, particularly *Gottschalk v. Benson*, 409 U.S. 63 (1972), *Parker v. Flook*, 437 U.S. 584 (1978), and *Diamond v. Diehr*, 450 U.S. 175 (1981). Among the CAFC decisions reconsidered were *In re Freeman*, 573 F.2d 1237 (CCPA 1978), *In re Walter*, 618 F.2d 758 (CCPA 1980), *In re Abele*, 684 F.2d 902 (CCPA 1982), *In re Alappat*, 33 F.3d 1526 (Fed. Cir. 1994), *State St. Bank & Trust Co. v. Signature Fin. Group*, 149 F.3d 1368 (Fed. Cir. 1998), and *In re Comiskey* 499 F.3d 1365 (Fed. Cir. 2007). Although the court did not clearly overturn its previous decisions in those cases, it did interpret them in a way that will significantly affect patentability determinations.

In reviewing the Supreme Court precedent, and particularly the *Benson* decision, the court seems to have focused on terms that will likely become key in this area of patent law. They include “patent-eligible,” meaning subject matter that passes a subject matter test under Section 101; “pre-empt,” meaning the scope of claims and the extent to which they would cover any and all machines, applications and fields of use; “fundamental principle,” which the court defines in footnote 5 as “laws of nature, natural phenomena, and abstract ideas;” and “machine or transformation,” the name given to the “new” test for patentable-eligible subject matter.

Interestingly, the citations made by this court to earlier Supreme Court cases refer to “fundamental principles” outside of the actual Supreme Court language—it seems that this court found it useful to coin that term to cover broad classes of subject matter that will be subject to “machine or transformation” test. It is also worth note that the court does not limit the application of the test to such fundamental principles, but applies it as well to mental processes.

It is also interesting that this court, while seemingly careful to divorce the inquiry into patent-eligible subject matter from that of whether an invention is new, non-obvious and useful, is close to crossing that line by use of the pre-emption argument. That is, for specific claims, the court reacts negatively to the eligibility of the subject matter when the scope of pre-emption is large (particularly when the “machine” becomes more general, or the “transformation” is limited only by seemingly insignificant process steps).

The nature of the machine or transformation test (largely based on the tension between the unpatentability of the data conversion claimed in *Benson*, and the patentability of the mold opening process claimed in *Diehr*), will apparently proceed as follows:

1. does the body of the claim recite a particular machine to which the method is applied? or;
2. does the claim recite steps for the transformation of an article into a different state of thing?

There seem to be several caveats in the application of the test. First, the “machine” must (probably) be more than a general purpose computer (to avoid the *Benson* outcome), although this is not clear. Secondly, the mere recitation of a “field of use” will not satisfy the test (either the “machine” or the “transformation” requirement), as the issue of overly broad pre-emption is still posed.

Moreover, regarding the “transformation” portion of the test, the recitation of insubstantial “postsolution” activities (or as this court, rightfully, expands this criterion to “extra-solution” activities), will not save a claim that does not otherwise pass the test.

The court reviewed other tests to determine the effect of this decision on their application. While not clearly overturning those decisions, several previous formulations will clearly be

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supplanted by the newly formulated “machine or transformation.” If it were not clear from earlier decisions, it is now clear that the following tests will no longer apply:

1. the “technological arts” test;
2. reference to an individual step that may not itself be patentable;
3. the “application to physical elements or process steps” test (*Freeman-Walter-Abele* test for algorithms);
4. the “useful, concrete, and tangible result” test (of *State Street*).

Here again, however, it is important to note that this court DID NOT state that inventions held as patentable under those tests are not patentable at all (including business methods), but only that the tests applied were incorrectly formulated. If the same inventions pass the “machine or transformation” test, they will be patentable today. This decision, and the earlier decisions and the claims they involved SHOULD BE REVIEWED closely for guidelines on how claims may be formulated to pass the newly formulated test (see, e.g., the discussion of *Abele* on page 26 of the opinion, relating to recitations of the nature of data manipulated).

- B. No. The applicants had admitted that the method did not require any particular machine (none was recited), and in fact did not require a machine at all. The transformation portion of the test was somewhat more interesting. However, the court considered that the steps required no more than manipulation of abstract concepts, similar to the calculation of numbers, which is insufficient to meet the transformation component of the test.

#### **IV. Conclusion**

The “new” or newly formulated test for patent-eligible subject matter, particularly when a fundamental principle or mental process is involved is the machine or transformation test, to the exclusion of all other tests previously applied.

#### OPEN ISSUES:

1. The court clearly invited the Supreme Court to review this issue and, perhaps to alter the test (as this court had interpreted it based on the Supreme Court cases). This is particularly relevant in view of “new” technologies such as digital computers, the Internet, and so forth.
2. The court was somewhat unclear as to just how far a claim must go in reciting a “machine.” One type of claim to avoid will certainly be that of *Benson*, probably meaning that a method that can only be carried out on a digital computer and that does not otherwise pass the test should be avoided. However, there are no clear guidelines as to how precisely a “machine” should be recited.
3. The same is true of “transformations” and particularly for the precision of reciting steps in processes. While “storing a result in a memory” or “outputting a result or signal” may not pass muster (which itself is unclear), the line is unclear.
4. It seems that the opinion only relates to method claims. However, this may not be the case, particularly in view of dicta of the *Comiskey* case. That is, if a method is not otherwise patentable, the mere conversion of a method claim to another statutory class with no essential alteration in scope may result in a subject matter rejection. For example, a method that does not pass the machine or transformation test, reformulated as

“a programmed computer comprising code configured to . . .” may not be patentable, although apparently in a different statutory class.

POSSIBLE TIPS FOR DRAFTING AND PROSECUTION:

1. Some may consider narrowing reissues for high-value patents with claims that may arguably not pass this new test.
2. ALWAYS include claims of different scope, including broad method claims, and more narrow method claims.
3. ALWAYS include system or apparatus claims (probably more than just a “programmed computer”).

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