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Federal Circuit Interprets *Bilski* and Gives Teeth to 35 U.S.C. § 101 in Challenging the Patentability of Software Claims

The United States Court of Appeals for the Federal Circuit issued a significant decision last week regarding the patentability of software under 35 U.S.C. § 101. Specifically, in *Cybersource Corporation v. Retail Decisions, Inc.*, No. 2009-1358 (Fed. Cir. Aug. 16, 2011), the court held that the method claims at issue were unpatentable because all the steps could be performed in the human mind, or by a human using pen and paper.¹ The Federal Circuit also held that the *Beauregard* (computer readable medium) claims at issue were unpatentable because they merely claimed a software implementation of a mental process that could otherwise be performed without the use of a computer.²

The Federal Circuit's opinion may be of interest to companies that make or use software and companies that own software patents because the decision leaves a large number of existing software patents potentially vulnerable to challenge, especially those that employ the so-called *Beauregard* claim format, a popular way of writing software claims since the 1990s. The Federal Circuit interpreted the Supreme Court's decision in *Bilski v. Kappos*, 129 S. Ct. 3218 (2010) expansively, and gave teeth to 35 U.S.C. § 101 as a means of challenging the validity of software patent claims. The decision is also notable because it limits the applicability of Federal Circuit precedent that software is patentable subject matter: "we have never suggested that simply reciting the use of a computer to execute an algorithm that can be performed entirely in the human mind falls within the *Alappat* rule."³

Software Claims Held Unpatentable

The Federal Circuit in *Cybersource* considered the patent-eligibility of two software claims in *Cybersource*. Claim 3 is a method claim that reads:

A method for verifying the validity of a credit card transaction over the Internet comprising the steps of:

- a) obtaining information about other transactions that have utilized an Internet address that is identified with the [] credit card transaction;
- b) constructing a map of credit card numbers based upon the other transactions and;

¹ *Cybersource Corporation v. Retail Decisions, Inc.*, No. 2009-1358, slip op. at 12-14 (Fed. Cir. Aug. 16, 2011).

² *Id.* at 18-19.

³ *Id.* at 17-18 (discussing *In re Alappat*, 33 F.3d 1526 (Fed. Cir. 1994)).

- c) utilizing the map of credit card numbers to determine if the credit card transaction is valid.⁴

Claim 2 is a *Beauregard* claim that reads:

A computer readable medium containing program instructions for detecting fraud in a credit card transaction between a consumer and a merchant over the Internet, wherein execution of the program instructions by one or more processors of a computer system causes the one or more processors to carry out the steps of:

- a) obtaining credit card information relating to the transactions from the consumer; and
- b) verifying the credit card information based upon values of plurality of parameters, in combination with information that identifies the consumer, and that may provide an indication whether the credit card transaction is fraudulent,

wherein each value among the plurality of parameters is weighted in the verifying step according to an importance, as determined by the merchant, of that value to the credit card transaction, so as to provide the merchant with a quantifiable indication of whether the credit card transaction is fraudulent,

wherein execution of the program instructions by one or more processors of a computer system causes that one or more processors to carry out the further steps of:

- [a] *obtaining information about other transactions that have utilized an Internet address that is identified with the credit card transaction;*
- [b] *constructing a map of credit card numbers based upon the other transactions; and*
- [c] *utilizing the map of credit card numbers to determine if the credit card transaction is valid.*⁵

The Federal Circuit affirmed the district court's grant of summary judgment that both claims were invalid for failure to recite patent-eligible subject matter, reasoning that the claimed subject matter (1) did not satisfy the machine-or-transformation test, and (2) constituted unpatentable mental processes or abstract ideas.

A. Machine-Or-Transformation Test Not Satisfied

The Federal Circuit held that the plain language of claim 3 does not require the method to be performed by a particular machine, or even a machine at all.⁶ In particular, the Federal Circuit noted that regardless of whether the Internet could be viewed as a machine, the Internet

⁴ *Id.* at 8.

⁵ *Id.* at 15-16 (emphasis added by the Federal Circuit).

⁶ *Id.* at 8-9.

cannot perform the fraud detection steps and nothing in the claim requires an infringer to use the Internet to obtain the data analyzed in the claim. Similarly, with respect to claim 2, the Federal Circuit held that the "mere manipulation or reorganization of data" does not satisfy the transformation prong.⁷

B. Claimed Subject Matter is Unpatentable Mental Processes (i.e., Abstract Ideas)

1. Methods That can be Performed Entirely in the Human Mind are Unpatentable

The Federal Circuit held that claim 3 is unpatentable because all the steps can be performed mentally in the human mind, and the scope of the patent is not limited to any particular fraud detection algorithm.⁸ Following *Bilski*, the Federal Circuit explained that mental processes, or equivalents of human mental work, are unpatentable abstract ideas that embody the "basic tools of scientific and technological work" that are open to all.⁹ Further, even if some physical steps are required to perform the steps in the claimed method, such as obtaining information from a database (e.g., entering a query via a keyboard, clicking a mouse), the Federal Circuit reaffirmed that "such data-gathering steps cannot alone confer patentability."¹⁰

2. Purely Mental Processes can be Unpatentable, Even When Performed by a Computer

With respect to claim 2, the Federal Circuit held that, despite its *Beauregard* claim format, it is treated as a process claim for patent-eligibility purposes. According to the Federal Circuit, the patentee did not meet its burden of demonstrating that the claim is "truly drawn to a specific" computer readable medium, rather than to the underlying method of credit card fraud detection.¹¹ The Federal Circuit reasoned that to impart patent-eligibility to an otherwise unpatentable process under the theory that the process is linked to a machine, the machine must "impose meaningful limits on the claim's scope," i.e., "play a significant part in permitting the claimed method to be performed."¹² The Federal Circuit then reasoned that "it is clear that the invention underlying both claims 2 and 3 is a method for detecting credit card fraud, not a manufacture for storing computer-readable information."¹³ The Federal Circuit thus determined that the "incidental use of a computer to perform the mental process of claim 3 does not impose a sufficiently meaningful limit on the claim's scope." In so holding, the Federal Circuit distinguished the rule in *Alappat* that programming a general purpose computer to perform an algorithm "creates a new machine, because a general purpose

⁷ *Id.* at 18.

⁸ *Id.* at 12.

⁹ *Id.* at 10, 14.

¹⁰ *Id.* at 13 (citing *In re Grams*, 888 F.2d 835, 839-40 (Fed. Cir. 1989)).

¹¹ *Id.* at 17-18.

¹² *Id.* at 18.

¹³ *Id.* at 17.

computer in effect becomes a special purpose computer once it is programmed to perform particular functions pursuant to instructions from program software."¹⁴

Finally, the Federal Circuit distinguished the claims in this case from claims upheld in other cases that required the use of a computer to perform the claimed method.¹⁵ For example, the Federal Circuit noted that a "method for calculating an absolute position of a GPS receiver and an absolute time of reception of satellite signals" recited patent-eligible subject matter.¹⁶ Similarly, a method that requires the manipulation of computer data structures and the output of a modified computer data structure could not be performed entirely in a human's mind, and is therefore directed to patentable subject matter.¹⁷

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This memorandum is not intended to provide legal advice, and no legal or business decision should be based on its content. Questions concerning issues addressed in this memorandum should be directed to:

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¹⁴ *Id.* at 17-18 (quoting *Alappat*, 33 F.3d at 1545).

¹⁵ *Id.* at 20-21.

¹⁶ *Id.* at 21 (citing *SiRF Tech., Inc. v. In't Trade Comm'n*, 601 F.3d 1319, 1333 (Fed. Cir. 2010)).

¹⁷ *Id.* (citing *Research Corp. Techs. v. Microsoft Corp.*, 627 F.3d 859 (Fed. Cir. 2010)).

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