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Yao Wang

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CyberSource Decision Raises the Patent-Eligibility Bar for Software

On August 16, 2011, the Court of Appeals for the Federal Circuit (CAFC) issued its decision in *CyberSource Corp. v. Retail Decisions, Inc.*, affirming patent-ineligibility of a reexamined software patent. The patent-in-dispute, U.S. Patent 6,029,154, is directed to detecting credit card fraud on the Internet and claims 2 and 3 were at issue. The court's reasoning recognized that software is still patent-eligible after *Bilski*, but held that the bar has been raised – which has important implications for the software industry.

In analyzing the patent-eligibility of claim 3 - the process claim of the `154 patent - the court first applied the machine-or-transformation test and concluded that claim 3 fails both prongs. *Slip. Op. at 8.* On the transformation prong, the court asserted that "mere collection and organization of data regarding credit card numbers and Internet addresses" is insufficient for transformation. *Slip. Op. at 9.* On the machine prong, the court reasoned that claim 3 is not tied to a particular machine even though it recites the Internet. *Slip. Op. at 9.* The court noted that (1) the Internet cannot perform the recited fraud detection steps; and (2) the recited Internet is merely a data source. *Id.* Since the machine-or-transformation test "is not the sole test for deciding whether an invention is patent-eligible process," the court went on to characterize claim 3 as an unpatentable abstract idea because all three recited steps of claim 3 can be performed by human thought alone. *Slip Op. at 9 (quoting Bilski v. Kappos, 130 S.Ct. 3218, 3227).* According to the court, computational methods which can be performed entirely in the human mind are the type of methods that embody the "basic tools of scientific and technological work" that are free to all men and reserved exclusively to none. *Slip. Op. at 14 (quoting Gottschalk v. Benson, 409 U.S. 63, 67).*

In analyzing the patent-eligibility of claim 2 - the Beauregard claim of the `154 patent – the court first asserted that claim 2 recites nothing more than a computer-readable medium containing program instructions for executing the method of claim 3. *Slip. Op. at 16.* The court, in its decision *In re Beauregard*, 53 F.3d 1583, (Fed. Cir. 1995), endorsed a claim format that recites a computer-readable medium (e.g., CD-ROM, floppy disk, etc.) containing software instructions that, when executed by a computer, causes the computer to perform a method. Hence, the name Beauregard claim. Six years earlier, the same court, in its decision *In re* Iwahashi, 888 F.2d 1370, (Fed. Cir. 1989), once construed a Read-Only Memory (ROM) as a device. In *CyberSource*, however, the court corrected what it considered the long-held misconception that a computer-readable medium can be construed as a device. Thus, despite its Beauregard claim format, claim 2 is treated as a process claim and held as patent-ineligible because the underlying process is not directed to patentable subject matter. *Slip Op. at 18.*

The court then rebutted the patent owner's argument that the computer-readable medium of claim 2 meets the machine prong (i.e., the medium contains software instructions that can only be executed by "one or more processors of a computer system"). *Slip. Op. at 18.* The court noted that incidental use of a computer to perform a mental process does not impose a sufficiently meaningful limit on the claim's scope. *Slip. Op. at 19.* Citing *Benson*, the court also noted that, even when performed by a computer, a purely mental process can still be unpatentable. *Slip. Op. at 19.* The court further noted that Benson and its progeny never indicated that the Beauregard claim format would automatically confer patent-eligibility over a process claim. *Slip. Op. at 20-21.*

The machine prong of the machine-or-transformation test is considered by many as more robust for patent-eligibility than the transformation prong. The decision casts doubt on this common perception. For a software invention to be patent-eligible, the court underscored the importance to tie the invention to a specific machine. *Slip. Op. at 9.* Since all software algorithms may be implemented by a human using paper and pencil, the court suggested that a patent-eligible algorithmic process, as a practical matter, cannot be performed entirely in a human's mind and without a machine. *Slip. Op. at 21 (emphasis added).* However, the court also noted that "if an algorithm is so abstract and sweeping as

to cover both known and unknown uses," then the algorithm is not patent-eligible even though the algorithm had "no substantial practical application except in connection with a digital computer." *Slip. Op. at 20 (quoting Benson at 71).* Thus, the court seemed to suggest that *Benson* allows the judicially-created abstract idea exception to override a favorable finding under the machine prong. In view of this transcending abstract idea exception, software patent applicants must endeavor not to word their claimed inventions "so abstract and sweeping as to cover both known and unknown uses." *Id.*

This decision also casts uncertainty of patent-eligibility for certain categories of software inventions. For example, the court's characterization of the Internet may be a hindrance to software inventions in cloud computing, which relies on the Internet and collects data from the Internet. *Slip. Op. at 9.* The court's categorical treatment of human intelligence as patent-ineligible also has implications for those software disciplines studying software algorithms that mimic human intelligence (e.g., artificial intelligence and machine learning). *Slip. Op. at 11-12 (Citing In re Comiskey, 554 F.3d 967, 980 (Fed. Cir. 2009)).*