

Are Software Patents Dead? Nearly, According to “Alice”

On June 19, 2014, the U.S. Supreme Court handed down its much-anticipated opinion in *Alice Corporation v. CLS Bank International*, 573 U.S. ____ (2014), unanimously holding that the claimed computer-implemented (software) inventions did not constitute patent-eligible subject matter. As the Court affirmed, the mere recitation of a general-purpose computer does not add an “inventive concept” sufficient to transform claimed abstract ideas—which are otherwise patent ineligible—into patentable inventions.

As a practical matter, *Alice* likely sounds the death knell for thousands of software and business method patents. As the bar for qualifying for patent eligibility has been raised, software developers now face stricter standards in obtaining patents for their software-based inventions, and (for many) a greater likelihood that their existing patents will be invalidated, if challenged.

WHAT IS PATENT-ELIGIBLE SUBJECT MATTER?

The statute defining patent-eligible subject matter, 35 U.S.C § 101 (“Section 101”), provides that:

“[w]hoever 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 therefor.”

This relatively broad provision for patent eligibility is limited by the judicially-created exceptions that laws of nature, natural phenomena, and abstract ideas are not patentable. It is by virtue of these exceptions that no one may claim exclusive rights to the idea of addition, the laws of Newtonian mechanics, Einstein’s general theory of relativity, or a computer algorithm converting decimal numbers to binary form. To allow a patent on such abstract ideas would preempt everyone else from using them, which would discourage innovation and defeat the primary objective of the patent system itself, which is to “promote the Progress of Science and useful Arts.” (U.S. Const., art. I, § 8, cl. 8.)

As the Supreme Court has cautioned, however, “too broad an interpretation of this exclusionary principle could eviscerate patent law. For all inventions at some level embody, use, reflect, rest upon, or apply laws of nature, natural phenomena, or abstract ideas.”

As software is inherently abstract, striking the right balance between the goals of the patent system and those underpinning the judicially-created

exceptions has proven quite challenging, and difficult to predict, in the context of software-based inventions. As software companies, especially start-up companies, have secured software and business-method patents as core components of their intellectual property portfolios, many in the software and technology industries have waited eagerly for clear guidance as to how their computer-implemented inventions could definitively qualify as patent-eligible subject matter. And along came *Alice* ...

ALICE IN THE DISTRICT AND FEDERAL CIRCUIT COURTS

In May 2007, CLS Bank International and CLS Services Ltd., who together operate a global network that facilitates currency transactions, filed suit against Alice Corporation (“Alice”) in the U.S. District Court for the District of Columbia, seeking a declaratory judgment of non-infringement and invalidity of several patents owned by Alice.

The patents at issue were directed to a computer-implemented scheme for mitigating settlement risk—*i.e.*, the risk that only one party to an agreed-upon financial exchange will satisfy its obligation—via “shadow accounts” maintained on a computer acting as a third-party intermediary. Alice’s patents contained three types of claims: methods for exchanging financial obligations (the method claims), a computer system configured to perform settlement risk

mitigation (the system claims), and a computer-readable medium containing program code for implementing the method of obligation exchanges (the media claims). All of these claims involved the use of a computer.

The parties filed cross-motions for summary judgment on the issue of whether the asserted claims are eligible for patenting under Section 101.

The district court held that all claims were patent ineligible because they were directed to the abstract idea of “employing a neutral intermediary to facilitate simultaneous exchange of obligations in order to minimize risk.”

On appeal, a three-judge panel of the Federal Circuit reversed, holding that it was not “manifestly evident” that Alice’s claims were directed to an abstract idea. Subsequently, the Federal Circuit granted a rehearing *en banc* (full panel), vacated the earlier panel opinion, and affirmed the judgment of the district court.

Unfortunately, underscoring the lack of consistent and coherent guidance in this area of the law, the ten-judge panel issued five separate opinions, with none garnering the support of a majority. Further, seven of the judges agreed that Alice’s method and media claims were patent ineligible, while five found the system claims ineligible.

With its patents invalidated by a fractured Federal Circuit, Alice petitioned the Supreme Court for review.

ALICE IN THE SUPREME COURT

In a unanimous opinion, the Supreme Court affirmed the Federal Circuit and held that all of Alice's claims were patent ineligible.

In reviewing Alice's claims to determine whether they fell under the abstract idea exception to Section 101 patent eligibility, the Court applied a two-step analysis first adopted in its earlier decision *Mayo v. Collaborative Services v. Prometheus Laboratories, Inc.*, 132 S. Ct. 1289 (2012):

- First, are the claims at issue “directed to one of [the] patent-ineligible concepts” of laws of nature, natural phenomena, and abstract ideas?
- Second, if the invention does fall within an exception, do the claims contain an “inventive concept” sufficient to “transform” the claimed abstract idea into a patent-eligible application?

As to the first step of the *Mayo* analysis, the Court answered in the affirmative, finding that Alice's “claims are drawn to the abstract idea of intermediated settlement.” Just as methods for hedging against the financial risk of price fluctuations were found to be patent-ineligible abstract ideas, *Bilski v. Kappos*, 561 U.S. 593 (2010), the Court found that Alice's idea of intermediated settlement also fell “squarely within the realm of ‘abstract ideas.’”

As the Court observed, “the concept of intermediated settlement is ‘a fundamental economic practice long prevalent in our system of commerce’” and “[t]he use of a third-party intermediary (or ‘clearing house’) is also a building block of the modern economy.” Accordingly, “intermediated settlement, like hedging, is an ‘abstract idea’ beyond the scope of § 101.”

As to the second step of the *Mayo* analysis, which seeks to determine whether there is an “inventive concept”—that is, “an element or combination of elements that is sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the ineligible concept itself”—, the Court found that Alice's claims did nothing more than “simply instruct the practitioner to implement the abstract idea of intermediated settlement on a generic computer.” Noting that “the function performed by the computer in each step of the process is ‘purely conventional,’” the Court found that nothing about Alice's implementation added any inventive concept to the abstract idea.

As the Court affirmed, implementing an abstract idea on a computer, without more, is insufficient to satisfy the inventive concept requirement. In finding that Alice's patent claims did not involve an “inventive concept,” the Court relied upon its earlier holdings in *Gottschalk v. Benson*, 409 U.S. 63 (1972) (implementing an algorithm to

convert binary-coded decimals into pure binary form using a “general-purpose digital computer” was insufficient to produce a patent-eligible invention); *Parker v. Flook*, 437 U.S. 584 (1978) (implementing a mathematical formula with a conventional computer was insufficient to confer patent-eligibility); and *Diamond v. Diehr*, 450 U.S. 175 (1981) (a method for curing synthetic rubber was found patent-eligible because the invention did not simply add implementation on a computer, but also “improved an existing technological process”).

Finally, the Court held that Alice’s computer system and computer-readable medium claims “fail for substantially the same reasons,” noting that the structural components recited in Alice’s claims would be present in “[n]early every computer.” In particular, the Court concluded that Alice’s “‘data processing system’ with a ‘communications controller’ and ‘data storage unit,’ for example,” were “purely functional and generic,” and that “none of the hardware recited by the system claims offers a meaningful limitation beyond generally linking the use of the method to a particular technological environment.” Accordingly, the Court held that all of Alice’s claims were ineligible for patenting under Section 101 and affirmed the *en banc* judgment of the Federal Circuit.

IMPLICATIONS OF ALICE

Alice leaves software and business method patents on unsteady grounds. While the Supreme Court was clear in noting that the “mere recitation” of some generic computer function on a generic computer does not transform an abstract idea into patent-eligible subject matter, the opinion offers no elucidation on what exactly constitutes an “abstract idea.”

Of course, the proper analytical framework remains distinguishing between patents that claim “the building block[s] of human ingenuity and those that integrate the building blocks into something more, thereby ‘transforming’ them into a patent-eligible invention.” At a minimum, adding the words “apply it with a computer” to an abstract idea does not suffice.

It remains to be seen whether the Federal Circuit or Supreme Court will provide further guidance regarding when software patent claims cover only abstract ideas and when they cover “something more”—such as improving the functioning of a computer or improving other technology or technical fields—to be patent eligible. In light of *Alice*, however, future Section 101 challenges to software and business method patents will likely succeed in invalidating such patents to the extent the underlying claims fall short of this “something more” threshold.

As viewed from *Alice's* looking glass, for software developers deciding whether to protect their software inventions through patents versus copyright and trade secrets, the latter two forms of intellectual property protection appear increasingly more promising.

(A copy of the Supreme Court's opinion in *Alice* can be found [here](#).)

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