



## *Alice Corp. v. CLS Bank:* Did the Supreme Court Sign the Warrant for the “Death of Hundreds of Thousands of Patents”?

Many software and internet companies have secured patents to protect their technology investments. For some companies—especially startups—software or business-method patents may be their only valuable assets. In recent years, those kinds of patents have been attacked for being too abstract—and thus not eligible for a U.S. patent under 35 U.S.C. § 101. This trend has been welcome news for companies defending against software or business method patents in litigation, but at the same time, it presents challenges for companies seeking to patent, license, and enforce their innovations.

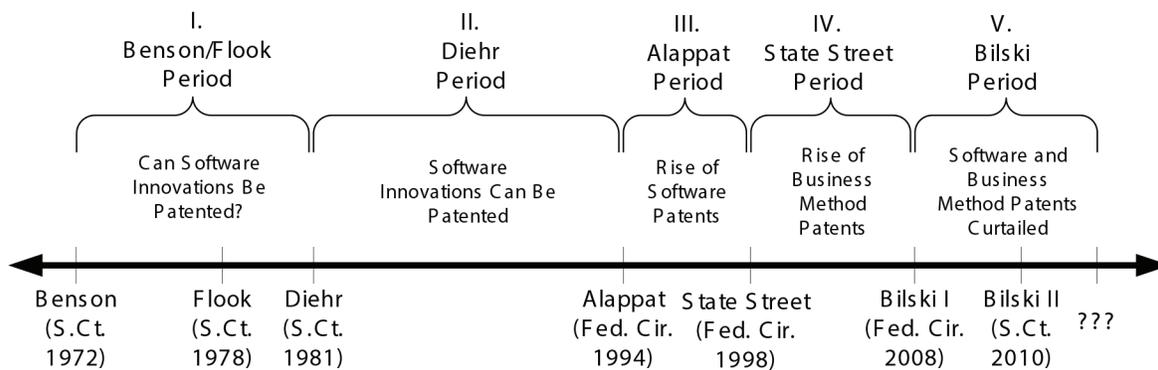
Over the last four years, the U.S. Supreme Court has issued a series of decisions that have strengthened Section 101 as a weapon for patent challengers, including in such cases as *Bilski v. Kappos*, 130 S. Ct. 3218 (2010) and *Mayo Collaborative Servs. v. Prometheus Labs., Inc.* 132 S. Ct. 1289 (2012). On June 19, the Court issued another such opinion, *Alice Corp. v. CLS Bank Int'l*, holding that the computer-implemented patents at issue in that case were not eligible for patenting. This decision provides some guidance—but raises

even more questions—for future Section 101 challenges to computer-implemented claims.

### Background

Section 101 and computers had their first meeting in the Supreme Court in 1972, in a case called *Benson v. Gottschalk*. Even then, long before the ubiquity of computers, the difficulty of navigating the Section 101 patent-eligibility inquiry was plain. The figure at the top of the next page shows the evolution of this difficulty, starting with the Court’s decision in *Benson* holding that computer-implemented claims for binary number conversion were not patent-eligible. Along with a later (1978) case, *Parker v. Flook*, there were serious doubts whether any software innovations could be patented.

Along came *Diamond v. Diehr* in 1981. *Diehr* held— notwithstanding *Benson* and *Flook*—that a computer-implemented process for curing rubber was patent eligible. *Diehr* signaled the beginning of a new era, in which the courts acknowledged that software innovations could be patented, but only a limited amount of software patenting occurred.



A year later, in 1982, the U.S. Court of Appeals for the Federal Circuit was created by Congress, with the explicitly stated purpose of bringing uniformity to the patent law in order to “strengthen the United States patent system in such a way as to foster technological growth and industrial innovation.” And that court, when given the opportunity, made the patent environment more favorable to software patents. Between 1994, when the Federal Circuit decided *In re Alappat*, and 1998, when it handed down its decision in *State Street Bank*, the Federal Circuit’s decisions ushered in a new era of hyperactivity in the area of software and business-method patents. This period of time also coincided with the “dot-com era” and the associated boom in the U.S. economy; indeed, the dot-com sector was engaged in an intense pursuit of business-method patents at this time.

An adjustment was inevitable, as many began to question the plethora of business-method and software patents being issued by the U.S. Patent and Trademark Office. And that adjustment came in the form of several subsequent decisions, starting in 2008 with the Federal Circuit’s *Bilski* decision (affirmed by the Supreme Court in 2010), which used Section 101 of the Patent Act to curtail both software and business-method patents.

Against this backdrop, the courts tackled the financial-related computer patents of Alice Corporation. These patents relate to a computerized platform to eliminate risk in conducting financial transactions between two parties by using a neutral intermediary. The neutral intermediary, essentially an escrow, ensured that each party met its respective obligations before any obligations were actually exchanged.

Both the district court and the Federal Circuit found Alice’s patent claims ineligible for patenting under 35 U.S.C. § 101. The Federal Circuit heard the case *en banc*—meaning with all of its active judges, not just a three-judge panel, sitting to hear and decide the case—and issued a decision holding that Alice’s patent claims were ineligible under Section 101. But the judges were unable to agree *why* this was the case. The decision was accompanied by hundreds of pages of opinions, authored by five different judges, but none commanding a majority of the 12-judge court. *CLS Bank Int’l v. Alice Corp.*, 717 F.3d 1269 (Fed. Cir. 2013) (*en banc*). Alice sought review from the U.S. Supreme Court, which was granted last spring.

## The Supreme Court’s Two-Prong Analysis

The Supreme Court unanimously affirmed the Federal Circuit’s decision that Alice’s claims were ineligible because they “are drawn to the abstract idea of intermediated settlement” and “merely require [a] generic computer implementation [that] fails to transform that abstract idea into a patent-eligible invention.” The Supreme Court primarily relied on the Section 101 analytical framework outlined in *Mayo* (a case involving medical diagnostic methods) in affirming the Federal Circuit’s plurality decision invalidating Alice’s patent claims.

The *Mayo* framework asks two questions. First, are the claims at issue directed to “abstract ideas,” “laws of nature,” or “natural phenomena,” each of which is categorically ineligible for patenting? One of the challenges in making this first inquiry, of course, is that every patent claim has an “idea,” or a “law of nature,” or a “natural phenomenon” (or some combination

of the three) at its core. Another challenge, regularly present in cases (like *Alice*) that involve computerized or business-method patent claims, is that the Court has never provided a definition of what constitutes an “abstract idea.” Instead, the Court was left to draw upon its prior decisions for examples:

- *Benson* (1972): claims for an algorithm to convert binary coded decimal numerals into pure binary form constituted a patent-ineligible abstract idea.
- *Flook* (1978): mathematical formula for computing “alarm limits” in a catalytic conversion process constituted a patent-ineligible abstract idea.
- *Bilski* (2010): method for hedging against the financial risk of price fluctuations is a fundamental concept in economic practice and therefore constitutes a patent-ineligible abstract idea.

Using these decisions as a guide, the Court looked to *Alice*'s claims and deemed them essentially indistinguishable from the business-method claims deemed ineligible in *Bilski*, because—like *Bilski*'s “hedging” method—*Alice*'s claims were drawn to the concept of intermediated settlement, i.e., the use of a third party to mitigate settlement risk: “Like the risk hedging in *Bilski*, the concept of intermediated settlement is ‘a fundamental economic practice long prevalent in our system of commerce.’” Accordingly, the Court concluded that *Alice*'s claims are directed to an abstract idea.

The Court then turned to the second question asked by its recent Section 101 decisions: Do the claims contain an “inventive concept” that is sufficient to transform the claimed abstract idea into a patent-eligible application? The Court again turned to its earlier decision in *Mayo* for guidance: “*Mayo* made clear that transformation into a patent-eligible application requires ‘more than simply stat[ing] the [abstract idea] while adding the words ‘apply it.’”

*Mayo* was instructive in what type of transformation would be insufficient for the second prong. In *Mayo*, the claims involved methods for determining a patient’s metabolite levels that were already “well known in the art.” Simply appending conventional steps (i.e., steps “well known in the art”), specified at a high level of generality, was not “enough” in *Mayo* to supply an “inventive concept” that could transform the claims into a patent-eligible application.

Applying *Mayo* to *Alice*'s claims, the Court reviewed each step of *Alice*'s representative method claim and concluded that it did little more than say “implement this abstract idea using a general-purpose computer.” For example, the step of “obtaining start-of-day balances based on the parties’ real-world accounts at exchange institutions” constituted a “well-understood, routine, conventional” activity previously known to the industry and thus did not supply an “inventive concept” sufficient to show eligibility for patenting under Section 101.

The Court’s 1981 decision in *Diehr* provided the Court with an opportunity to contrast, by example, what the Court viewed as necessary to show patent eligibility—the presence of a method step reciting nonconventional activities. In *Diehr*, a thermocouple device was used in a nonconventional way for recording temperature measurements within a rubber mold, thereby providing the needed “inventive concept.” According to the *Alice* Court’s interpretation of *Diehr*, the computer aspects of the patent claim (for reading temperature measurements of a rubber mold and repeatedly recalculating the remaining cure time) did not contribute to the patent-eligibility of the invention.

*Mayo*'s second prong not only examines the claim elements individually but also “as an ordered combination.” In *Alice*, viewing the representative claim as whole did not change the Court’s conclusion; the claim did not solve a technological problem or improve the functioning of the computer itself or any other “technology or technical field.” “Instead, the claims at issue amount to ‘nothing significantly more’ than an instruction to apply the abstract idea of intermediated settlement using some unspecified, generic computer.” According to the Court, “that is not ‘enough’ to transform an abstract idea into a patent-eligible invention.”

*Alice*'s computer system and computer-readable medium claims suffered the same fate as its representative method claim. Despite the presence of hardware and computerized functions, the Court concluded that in essence the system and computer-readable medium claims merely recite generic and conventional computer components for implementing the same abstract idea as the representative claim. Accordingly, the Court found that these claims, too, lacked an “inventive concept” sufficient for patent eligibility.

## The Future of Computer Software and Business Method Patents

At this point, the *Alice* opinion raises more questions than it answers:

**Is this the End of Software Patents?** One of the dissenting opinions from the Federal Circuit had predicted that its decision, if affirmed, would be “the death of hundreds of thousands of patents.” While some patent claims may be invalidated based on the *Mayo* framework, as applied by the Supreme Court in *Alice*, it is unlikely that this decision is the death knell for all software patents. The Court made a point to note “that many computer-implemented claims are formally addressed to patent-eligible subject matter.” Thus, the Court recognized that software claims that do improve the functioning of a computer or improve other technology or a technical field, as well as potentially other categories of software innovations, may be eligible for patent protection.

### **Will Business-Method Patent Claims Be Subjected to a Higher Level of Scrutiny than Other, More Technical Claims?**

In a concurring opinion, Justices Sotomayor, Ginsburg, and Breyer reiterated their stance from *Bilski*, where they (along with now-retired Justice Stevens) argued for a categorical rule that business-method claims are not patentable. While the Court’s opinion in *Alice* does not expressly make a statement that heightened scrutiny should be applied, the observed result of *Bilski* and now *Alice* implies that a significant contingent of the Court is uncomfortable with any amount of patent protection for business-method inventions. When performing the initial “abstract idea” inquiry, it appears that the Court may lean in favor of finding an abstract idea when “business concepts” are involved. This, in effect if not in so many words, would create a higher bar for such patents. Companies pursuing protection for such subject matter should consider taking affirmative steps to tie their inventions to improvements of technology or technological fields.

### **What Will the Patent and Trademark Office, the Federal Circuit, and Lower Federal Courts Do with the Vague Tests Articulated by the *Alice* Court?**

Will they endeavor to give meaning to the term “abstract idea”? Will they seek to articulate the outer limits of an “inventive concept” and when additional steps will be “enough” to demonstrate that one is

present? How much “more” is needed to satisfy the Court’s unelaborated requirement, first announced in *Mayo*, that eligible patent claims must recite “significantly more” than just the ineligible law of nature (or abstract idea) and routine applications thereof?

### **How Will the Federal Circuit—in Future Cases—Address the Supreme Court’s Application of the “Inventive Concept” Inquiry from *Mayo* to a Software/Business Method Patent?**

In the Federal Circuit’s *Alice* decision, the court paid little attention to the “inventive concept” language of *Mayo*, with one opinion stating that those judges “do not read the [Supreme] Court’s occasional use of [the ‘inventive concept’] language in the § 101 context as imposing a requirement that such limitations must necessarily exhibit ‘inventiveness’ in the same sense as that term more commonly applies to two of the statutory requirements for patentability.” The Supreme Court emphatically disagreed, holding that the second step of the patent-eligibility analysis requires an examination of “the elements of the claim to determine whether it contains an ‘inventive concept’ sufficient to ‘transform’ the claimed abstract idea into a patent-eligible application.” Will the Federal Circuit take this instruction to heart in future cases?

### **Is this a Resurrection of the “Technological Arts Test”?**

At points across the history of software and business-method patents, the “technological arts test”—under which patents supposedly should not issue for claimed inventions falling outside the “technological arts”—arose as a possible measuring stick under Section 101. The Federal Circuit in *In re Bilski*, 545 F.3d 943 (Fed. Cir. 2008), found the technological arts test unworkable because the meanings of the terms “technological arts” and “technology” are disputed and ambiguous. In *Alice*, the Supreme Court at several points looked to the technological aspects of the claimed subject matter, including whether the claims address a technological problem. This implies that claims having a more significant technological foundation are more likely to recite patentable subject matter (consider, for example, the Court’s statement that *Alice*’s “claims do not, for example, purport to improve the functioning of the computer itself... [n]or do they effect an improvement in any other technology or technical field”). Thus, the *Alice* decision could represent the Court’s acceptance of at least some aspects of the technological arts test.

**What Does this Mean for Future Efforts to Prosecute and Obtain Patents in Related Areas?** The *Alice* decision could present a challenge to those who prosecute patent applications in the software and business-method areas of technology. According to the Court, it is not sufficient to combine an abstract idea with a computer and simply “apply it.” A major problem could exist for pending applications that lack sufficient disclosure regarding the details of advances to technology provided by an invention. Practitioners may need to adopt claim-drafting techniques that target a lower level of abstraction, including incorporating implementation details into claims that illustrate an improvement of the functioning of a computer, technology, or technical field provided by an invention.

**How Will the Recent Retirement of Chief Judge Rader Affect the Section 101 Landscape at the Federal Circuit?** *Alice* is by no means the first time that the Supreme Court has attempted to rein in the universe of patentable subject matter. Judge Rader was long seen as a leader of a largely pro-patent Federal Circuit that has sought to protect patent rights, many times in the face of Section 101 attacks. His June 30 retirement may change the playing field, with one of the most vocal proponents of a lower Section 101 bar leaving the arena. It remains to be seen whether the remaining Federal Circuit judges will be more deferential to the Supreme Court’s guidance regarding subject matter eligibility going forward.

## Conclusion

The Supreme Court’s decision in *Alice* is significant because for the first time in more than 30 years, the Supreme Court has expressly ruled on what types of computer-implemented patent claims can satisfy the patent-eligibility requirements of Section 101.

The computer industry has changed enormously over those 30 years. This change has not only included incredible technological advancements but also how the computer industry has decided to legally protect its core assets. Numerous

software companies, especially start-up companies, have secured software and business-method patents and rely upon them as significant assets for enforcement, licensing, financing, and other purposes. These companies and their patent attorneys will be studying this decision to understand what impact *Alice* will have on the value of their current software and business-method patent portfolios as well as how they should prepare and prosecute such cases in the future.

In the Federal Circuit *Alice* decision, Judge Moore predicted that their decision may result in “the death of hundreds of thousands of patents.” It remains to be seen whether this prediction comes true as a result of the Supreme Court’s affirmance.

## Lawyer Contacts

For further information, please contact your principal Firm representative or one of the lawyers listed below. General email messages may be sent using our “Contact Us” form, which can be found at [www.jonesday.com](http://www.jonesday.com).

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