

Alice and Subject Matter Eligibility

"Down the Rabbit Hole" or "Through the Looking Glass"?

A patent application must satisfy several basic requirements before it can be allowed and issued as a patent. Traditionally, the most difficult of these to satisfy have been the requirements to be novel (35 USC §102 (2006)) and non-obvious (*Id.* §103). Other requirements include clarity and proper support of the claims by the filed specification (*Id.* §112).

Another fundamental requirement is that the claims be directed to "statutory subject matter" (*Id.* § 101), whereby a patent cannot be issued for an "abstract idea," "natural phenomenon," or "law of nature." This is often referred to as "subject matter eligibility." Until a few years ago, this requirement was relatively easy to satisfy in most cases. "Anything under the sun that is made by man" was considered to be patentable subject matter. *Diamond v. Chakrabarty*, 447 U.S. 303, 309 (1980). However, in recent years the "statutory subject matter" requirement has become a major stumbling block for certain types of inventions, including software inventions and method inventions such as methods of doing business.

The recent developments regarding subject matter eligibility arguably began with the 2008 district court decision in *Bilski*, (*In re Bilski*, 545 F.3d 943,88 U.S.P.Q. 1385 (Fed. Cir. 2008), en banc, decided 10/30/2008), which established a requirement that an invention pass the "machine or transformation" test (*Gottschalk v. Benson*, 409 U.S. 63 (1972)) to be subject matter eligible, where the machine or transformation test required an invention to either be a physical invention ("machine") or a method that transformed something physical into something else that was physical. Inventions that did not satisfy this test, including most business method and software inventions, were deemed to be "ineligible" under 35 USC 101.

The pendulum swung the other way, however, when the Supreme Court reviewed *Bilski*, and "clarified" many of these issues in its decision of June 28, 2010. *Bilski v. Kappos*, 130 S. Ct. 3218 (2010). Essentially, the Supreme Court *Bilski* decision made it clear that the "machine or transformation" test was not an absolute test, but only an "investigative tool," a "useful starting point," and an "important clue" in determining

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subject matter eligibility. In other words, if an invention satisfied the test, it was likely eligible, but if it did not, then other considerations would need to be considered.

In particular, an invention could generally avoid being merely an “abstract idea” if it were “instantiated,” i.e. tied to some physical operation or concrete steps. *Diamond v. Diehr*, 450 U.S. 175, 187 (1981). “The recitation of some structure, such as a machine, or the recitation of some transformative component will in most cases limit the claim to such an application.” In practice, for many software and other computer-implemented inventions, this requirement could be met by explicitly reciting that the steps of a method were performed by a generic “computer” or “computing device.”

Recently, the pendulum has swung back yet again, due to the Supreme Court decision in *Alice v. Bank. Alice Corp. Pty. Ltd. v. CLS Bank Int’l*, 134 S. Ct. 2347 (2014). Unfortunately, the Alice decision appears to have raised as many questions as it answered. Alice involved the validity of a patent directed to a method for hedging business risks that was generally well known and had been practiced for many years before the Alice application was filed. The only new feature of the Alice invention was that it was implemented on a generic computer, rather than being practiced “by hand,” i.e. without the use of a computer. A key point is that there was nothing novel about the computer, nor anything special about the software used to implement the method. The Supreme Court in Alice ruled that “instantiation” of a method on a generic computing device was not sufficient by itself to provide subject matter eligibility.

In making this ruling, the Alice court made it clear that the same basic inquiries that had already been established in the Mayo decision (*Mayo Collaborative Servs. v. Prometheus Labs.*, 132 S. Ct. 1289, 566 US 10, 182 L. Ed. 2d 321 - Supreme Court, 2012) for determining eligibility of claims directed to laws of nature or natural phenomena should also be applied to claims that are directed to abstract ideas. Specifically, a two-step process is applied, whereby 1) it is first determined if the claim is directed to an abstract idea, and if so, then 2) it is determined whether the claim includes “something more” that would transform the abstract idea into a patentable invention.

Among the many questions raised by the Alice decision, at least two stand out as being fundamental:

1. How should the eligibility of a claim be determined if it is directed to a unique combination of abstract ideas, rather than to a single abstract idea? Of course, this also raises the question of how one determines whether all the abstract ideas in a claim add up to a single, compound abstract idea, or whether the abstract ideas in a claim must be considered separately.

2. What constitutes “something more”? In other words, how much and what kind of novelty is required to render a claim patent eligible if it is directed to an abstract idea. The only guidance given by Alice is that the “something more” must be more than simply routine, conventional, preparatory, well-understood, or generic.

In response to Alice, the USPTO has issued two Interim Guidance memos to its examiners (June 25, 2014 and December 16, 2014), as well as a set of examples issued on January 27, 2015 and an update with example issued on July 30, 2015. Nevertheless, many questions remain unanswered, including the two stated above. This is mainly because the USPTO is not empowered to answer questions that are left unanswered by the courts. At most, the USPTO can only attempt to explain existing case law in different words and with examples. It is up to the courts to create new case law that will fill in the gaps left by Alice, and that process must wait until appropriate cases reach the courts.

Indeed, cases that hinge on the Alice decision have begun to reach the courts. Unfortunately, most of them so far have been “obvious” cases, similar to Alice, in which the claimed method as a whole was already well known in the prior art, except for being implemented on a generic computer. In the meantime, many patent examiners have been routinely rejecting any claims that appear to be directed to an abstract idea, unless the claim is very similar to one of the examples of allowable claims that have been provided by the USPTO or by Alice itself. An example of such an allowable claim would be a claim to a software method that improved the functioning of a computer. Fortunately, while most of the previous examples given by the USPTO had been of “ineligible” claims, the most recent set of examples issued by the USPTO on July 30 include several examples of “eligible” examples, and stressed the importance of considering a claim as a whole, to determine whether a combination of claim elements may be eligible even if none of the elements is eligible if considered separately. This additional guidance should help to reduce some of the examiner paralysis regarding subject matter eligibility, but there are limits to what the USPTO office can do until more relevant court decisions are handed down.

As noted by the USPTO guideline memos: “Notably, *Alice Corp.* neither creates a *per se* excluded category of subject matter, such as software or business methods, nor imposes any special requirements for eligibility of software or business methods.” Nevertheless, opinions as to the ultimate impact of Alice have ranged from a virtual reinstatement of the “machine or transformation” test, which could significantly limit the ability to patent software and business methods (“down the rabbit hole”), to a relatively modest impact (“through the looking glass”), wherein a claim would only be considered ineligible if it attempted to monopolize a fundamental “building block” of technology (typically something already well known and in common use).

What are needed, of course, are “borderline” court cases that test the boundaries and “grey areas” that are not clearly illuminated by Alice. Fortunately, a few of these have begun to appear. One such is *DDR Holdings v. Hotels.com* (L.P., 773 F.3d 1245 (Fed. Cir. 2014)), which was the first decision of the Federal Circuit Court of Appeals that upheld the validity of computer-implemented patent claims. DDR basically claimed a system that instructs an Internet web server of an “outsource provider” to construct and serve to the visitor a new, hybrid web page that merges content associated with the products of the third-party merchant with the stored “visually perceptible elements” from the identified host website. The claims were held to be subject matter eligible because they did not simply take an abstract business method from the pre-internet world and implement it on a computer. Instead, the claims addressed a technological problem “particular to the internet” by implementing a solution specific to that technological environment and different from the manner suggested by routine or conventional use within the field.

The DDR decision is significant, because it establishes legal precedent, i.e. “case law” that must be followed unless overruled by an en banc review or by a Supreme Court decision. However, not all “abstract ideas” and “software” inventions can be said to address a problem that is “particular to the internet.”

Another recent court decision that is relevant to Alice is *Cal. Inst. of Tech. v. Hughes Commc’ns, Inc.*, 2014 WL 5661290 (C.D. Cal. Nov. 3, 2014). This is a decision by the California central district court, and as such it only serves as case law for that local region. Nevertheless, the analysis presented in this case appears to be sound, and will hopefully inform the decisions of other courts as similar cases arise in the future.

The patents in *Caltech* were directed to a method of generating error correction codes in digital transmissions. Although only information-processing steps were claimed, Judge Pfaelzer of the Central District of California ruled that the claims were patent-eligible because the algorithm for generating parity bits represented an inventive application of the underlying abstract ideas.

In reaching this conclusion, Judge Pfaelzer relied on several basic aspects of the Alice decision. Alice explicitly states:

“At the same time, we tread carefully in construing this exclusionary principle lest it swallow all of patent law” – Mayo

- “all inventions . . . embody, use, reflect, rest upon, or apply laws of nature, natural phenomena, or abstract ideas.”
- “[A]n invention is not rendered ineligible for patent simply because it involves an abstract concept.” See *Diamond v. Diehr*

- “[I]n applying the §101 exception, we must distinguish between patents that claim the “buildin[g] block[s]” of human ingenuity and those that integrate the building blocks into something more” – Mayo

Here are relevant points made in Caltech, some of which are directly applicable to the two basic questions posed above:

A claim is not necessarily ineligible simply because it consists of mathematical algorithms that transform data. Alice made it clear that software is not categorically excluded from patentability, and (“All software only ‘receives data,’ ‘applies algorithms,’ and ‘ends with decisions.’ That is the only thing software does. Software does nothing more.”)

While Mayo does require courts to ignore “well understood, routine, conventional activity,” neither Mayo nor any other precedent defines conventional elements to include everything found in prior art.

The concern underlying § 101 is preemption. Preemption is the idea that allowing a patent on the invention will impede innovation rather than incentivize it. Building blocks include basic tools of mathematics or formulas describing preexisting natural relationships. But “a novel and useful structure created with the aid of knowledge of scientific truth” may be patentable.

A claim is more likely to be abstract if it stands for a fundamental practice with a long history, like the method in *Bilski* for hedging risk. However, § 101 does not preclude a claim directed to a longstanding practice that adds something more. The Supreme Court left open the possibility that innovative elements, rather than “token post-solution components,” could make such a claim patent eligible.

If the court finds the claim’s purpose abstract at step one, it must then determine whether there is an inventive concept that appropriately limits the claim such that it does not preempt a significant amount of inventive activity.

The court must also consider claim elements as a combination. A combination of conventional elements may be unconventional. See *Diamond*, 450 U.S. at 188 (“[A] new combination of steps in a process may be patentable even though all the constituents of the combination were well known and in common use before the combination was made.”).

Caltech thereby attempts to answer both of the basic questions raised above by considering the “exclusionary principle” that is clearly identified in Alice as being the primary motivation driving the decision. Quoting Alice:

We have described the concern that drives this exclusionary principle as one of pre-emption. Laws of nature, natural phenomena, and abstract ideas are "the basic tools of scientific and technological work." "[M]onopolization of those tools through the grant of a patent might tend to impede innovation more than it would tend to promote it," thereby thwarting the primary object of the patent laws." (Mayo) We have "repeatedly emphasized this . . . concern that patent law not inhibit further discovery by improperly tying up the future use of "these building blocks of human ingenuity. (Mayo) [citations removed]

Accordingly, a claim must be considered as a whole, and the questions of whether it is a single, compound idea, and whether it includes "something more" are to be answered, according to Caltech, by considering the claim as a whole and determining whether or not the claim would monopolize a "building block of human ingenuity." In the Alice case, the entire claim was directed to a single concept or "building block" that was well known and in common use. However, many inventions claim novel combinations of "building blocks," none of which taken separately is new. If the analysis of Caltech is more widely adopted, and the most recent guidance issued by the USPTO in July appears to point in that direction, it is likely that such inventions will be deemed to be subject matter eligible, since they would only monopolize a specific and novel combination of "building blocks," and would not monopolize any of the "building blocks" taken separately. Hence, claims to such inventions would not be considered to unduly limit innovation.

Of course, at this point much uncertainty still remains. So, if you have invented a novel method that may not pass the "machine or transformation" test, how should you proceed? Of course, this is a business question that can only be answered by weighing relative risks and prospects for reward. It is certain, however, that if you disclose your invention without establishing a priority date by filing a patent application, you will initiate the one year "grace period" and will eventually lose the option to patent it, no matter how the case law regarding software and method patents evolves. Therefore, if you have not yet filed, you may wish to consider at least filing a provisional patent application, since this will provide one year of priority during which the situation regarding Alice will hopefully become more clear.

If you have already filed, and if you are currently facing an Alice rejection, then the strategy must be considered on a case-by-case basis. Depending on the specifics of the case, it may be advisable to use the extensions of time and other mechanisms that are available to delay and slow the prosecution as much as possible, to allow time for the uncertainty regarding Alice to (hopefully) be clarified.

To summarize, significant uncertainty remains as to whether inventions that do not pass the machine or transformation test, i.e. are directed to "abstract ideas," will be deemed patent eligible in light of Alice. There are recent developments, however, that give some cause to hope that many such inventions will be deemed eligible.

The situation is becoming clearer, and could become even more so in the coming months as decisions continue to be handed down by the courts. In the meantime, it may be advisable to continue filing patent applications for important new software and method inventions, even in light of the present uncertainty, so that patent rights are maintained. Otherwise, by the time the "sky" clears that "ship" may have already "sailed"!