

# Software inventions face new USPTO standards for patenting

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The lack of clarity in the law with respect to patent subject matter eligibility under Section 101 of the Patent Act, 35 U.S.C.A. § 101, has made it difficult for patent attorneys to advise their clients regarding patent protection for software inventions.

Since the case law regarding subject matter eligibility is nebulous and fluid, the USPTO's guidance to its examiners regarding the eligibility of software is also nebulous. To make matters worse, patent examiners do not consistently apply the guidance.

Given this lack of clarity and uneven application, it is exceedingly difficult for patent attorneys to advise their clients regarding their chances of receiving patent protection for software inventions.

To get more consistent rulings from their patent examiners, the USPTO has published the 2019 Revised Patent Subject Matter Eligibility Guidance. The revised guidelines synthesize the current case law and provide clearer standards for patent examiners to follow when determining if an invention, such as software, is too abstract to receive patent protection.

Understanding the revised guidelines should make it somewhat easier for patent attorneys to advise their clients regarding software inventions.

## BACKGROUND BEHIND REVISED GUIDELINES

It is no secret that the USPTO has struggled to apply the Supreme Court's "*Alice/Mayo* test" for patent subject matter eligibility in a clear and consistent manner.

The high court developed the test in *Alice Corp. Pty. Ltd. v. CLS Bank International*, 573 U.S. 208 (2014), building on its earlier ruling in *Mayo Collaborative Services v. Prometheus Laboratories Inc.*, 566 U.S. 66 (2012).

The USPTO uses a two-step framework that includes the *Alice/Mayo* test for determining whether a claim is drawn to patent-eligible subject matter:

- Step 1: A claim must be directed to a process, machine, manufacture or composition of matter.

- Step 2: If so, the two-part analysis from *Alice Corp.* applies.

- Step 2A: Determine whether a claim is directed to a judicial exception (e.g., an abstract idea, a law of nature or a natural phenomenon).

- Step 2B: Even if a claim is determined to be directed to an abstract idea (or another judicial exception), the claim may still be patentable if any element, or combination of elements, in the claim is sufficient to ensure that the claim as a whole amounts to significantly more than an abstract idea.

The USPTO published the revised guidelines Jan. 7 to provide clarity regarding the application of the above-mentioned *Alice/Mayo* test in step 2.

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The agency has explicitly stated that the revised guidelines supersede the corresponding section of the Manual of Patent Examining Procedure, MPEP § 2106.04(II), to the extent that section equates claims "reciting" a judicial exception with claims "directed to" a judicial exception, along with any other portion of the MPEP that conflicts with this guidance.

The revised guidelines also supersede all versions of the USPTO's Eligibility Quick Reference Sheet Identifying Abstract Ideas and any eligibility-related guidance issued prior to the Ninth Edition, R-08.2017, of the MPEP (published January 2018).

The USPTO, however, has also said that "any claim considered patent eligible under prior guidance should be considered patent eligible under this guidance."

## THE REVISED GUIDELINES: A SUMMARY

The Patent Office asserts that the revised guidelines are "designed to more accurately and consistently identify claims that recite a practical application of a judicial exception."



To do this, the USPTO has segmented the *Alice/Mayo* test under step 2 into three prongs. The first two prongs apply to step 2A, and the last applies to step 2B.

In the first two prongs of the USPTO's version of the *Alice/Mayo* test under the revised guidelines, the USPTO makes the distinction between claims that merely "recite" and claims that are "directed to" a judicial exception.

In prong 1, the examiner must determine whether the claim recites a judicial exception. In prong 2, the examiner must determine whether the recited judicial exception is integrated into a practical application.

If a claim recites a judicial exception but fails to integrate the exception into a practical application, then the claim is "directed to" a judicial exception and further analysis is needed under prong 3 (i.e., step 2B).

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In prong 3, a claim that does not integrate a judicial exception into a practical application may nonetheless be patent eligible if additional elements recited in the claim recite "significantly more" than the judicial exception.

#### **Prong 1: Evaluate whether the claim recites a judicial exception**

Prong 1 is the first prong of the analysis under step 2A. Prong 1 requires an examiner to evaluate whether the claim recites a judicial exception (i.e., an abstract idea, a law of nature or a natural phenomenon).

If no judicial exception is recited, this concludes the analysis and the claim is eligible. However, if the claim does recite a judicial exception, then it requires further analysis under prong 2 of revised step 2A to determine whether it is directed to the recited judicial exception.

For laws of nature and natural phenomena, the guidance does not change, and examiners will continue to follow existing guidance to identify whether a claim recites one of these exceptions under MPEP § 2106.04 (b)-(c).

However, there is a change to previous guidance with respect to abstract ideas. According to the revised guidelines at page 16:

To determine whether a claim recites an abstract idea in prong one, examiners are now to: (a) identify the specific limitation(s) in the claim under examination (individually or in combination) that the examiner believes recites an abstract idea; and (b) determine whether the identified

limitation(s) falls within the subject matter groupings of abstract ideas enumerated in Section I of the 2019 Revised Patent Subject Matter Eligibility Guidance.

The abstract idea exception under Section I, pages 9-11, of the revised guidelines includes the following groupings of abstract subject matter:

- (1) Mathematical concepts — mathematical relationships, mathematical formulas or equations, mathematical calculations;
- (2) Certain methods of organizing human activity — fundamental economic principles or practices (including hedging, insurance, mitigating risk); commercial or legal interactions (including agreements in the form of contracts; legal obligations; advertising, marketing or sales activities or behaviors; business relations); managing personal behavior or relationships or interactions between people (including social activities, teaching, and following rules or instructions); and
- (3) Mental processes — concepts performed in the human mind (including an observation, evaluation, judgment, opinion).

Claims that do not fall within the enumerated categories should not be treated as abstract ideas except in the rare circumstance that the claim limitation does not fall within the enumerated categories but the examiner nonetheless believes that the claim limitation should be treated as an abstract idea.

In such a case, the examiner is to follow the guidance described in Section III C of the revised guidelines.

According to Section III C, the examiner should initially treat the claim limitation as a tentative abstract idea and continue with the analysis in prong 2 and prong 3 to determine if the claim would be considered "directed to" the judicial exception and if the claim has additional elements that recite significantly more than the judicial exception.

If the examiner believes that the tentative abstract idea is directed to the judicial exception and there aren't additional elements that make the claims so the judicial exception cannot apply, then the tentative abstract idea must be approved as an abstract idea by the technology center director before the examiner moves to the next phase.

#### **Prong 2: Evaluate whether the judicial exception is integrated into a practical application**

Prong 2 is the second part of the analysis under step 2A.

In prong 2, the claim is evaluated to determine whether the claim "as a whole integrates the recited judicial exception into a practical application of the exception."

According to the revised guidelines, a practical application “will apply, rely on, or use the judicial exception in a manner that imposes a meaningful limit on the judicial exception, such that the claim is more than a drafting effort designed to monopolize the judicial exception.”

To analyze the claim, the examiner should identify whether there are “additional elements” recited in the claim beyond a judicial exception and then evaluate the additional elements individually and in combination to determine whether they integrate the exception into a practical application.

To determine whether the claim is directed to a judicial exception, the USPTO points the examiner to the case law of the U.S. Court of Appeals for the Federal Circuit and the Supreme Court.

This clearly marks a place in the analysis where the patent practitioner should be able to draft claims and make arguments based on analogous case law.

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The revised guidelines at pages 20-21 specifically list exemplary and non-exclusive “considerations” indicative that judicial exception has been integrated into a practical application, including when an additional element:

- Reflects an improvement in the functioning of a computer, or an improvement to other technology or technical field.
- Applies or uses a judicial exception to effect a particular treatment or prophylaxis for a disease or medical condition.
- Implements a judicial exception with, or uses a judicial exception in conjunction with, a particular machine or manufacture that is integral to the claim.
- Effects a transformation or reduction of a particular article to a different state or thing.
- Applies or uses the judicial exception in some other meaningful way beyond generally linking the use of the judicial exception to a particular technological environment, such that the claim as a whole is more than a drafting effort designed to monopolize the exception.

If the claim is not integrated into a judicial exception, then the claim is “directed to” the judicial exception, and one must analyze it under step 2B and prong 3.

One interesting part of the analysis from the revised guidelines is that it specifically excludes evaluations of whether the additional element is well-understood, routine, conventional activity from the analysis of step 2A.

In fact, the Patent Office expressly admits that a claim that includes conventional elements may still integrate the exception into a practical application and thus be patent eligible.

Instead, the analysis with respect to well-understood, routine, conventional activity has been shifted to step 2B and prong 3.

#### Step 2B: Evaluate whether the claim provides an inventive concept

A claim that does not integrate a judicial exception into a practical application may nonetheless be patent eligible if the additional elements recited in the claims provide “significantly more” than the judicial exception.

More specifically, if the element is unconventional and is more than well-understood, routine, conventional activity in the field, the claim may have an inventive concept (i.e., additional elements that amount to significantly more than the judicial exception itself) that makes the claim patent eligible.

Whether any additional elements amount to significantly more may depend on whether the additional element or combination of elements “adds a specific limitation or combination of limitations that are not well-understood, routine, conventional activity in the field, which is indicative that an inventive concept may be present” or instead “simply appends well-understood, routine, conventional activities previously known to the industry, specified at a high level of generality, to the judicial exception, which is indicative that an inventive concept may not be present.”

One specific example of a situation where additional elements may provide significantly more relates to data gathering.

In this example, the USPTO states that the examiner may consider the data gathering steps to be insignificant extra-solution activity under revised step 2A, but may then determine under step 2B that the data is gathered in an unconventional way and therefore includes an “inventive concept” that makes the claim patent eligible under step 2B.

However, a claim that does not meaningfully integrate the judicial exception into a practical application and does not include additional subject matter that amounts to significantly more should be rejected as patent ineligible.

#### USE CAUTION IN DRAFTING CLAIMS

Given the analysis under the revised guidelines, it is advisable that the patent practitioner stay away from the categories enumerated by the Patent Office under prong 1 of the analysis.

In some circumstances, this may not be possible. In those cases, whenever it is possible to do so patent practitioners should draft claims that are analogous to patent eligible claims that are either written in Federal Circuit or Supreme Court cases or that clearly and unequivocally fall under the principles of patent eligibility in those cases.

Such claims are more likely to be considered integrated into a practical application of a judicial exception and thus be patent eligible under prong 2.

When it is not possible to draft claims based on favorable existing case law, the patent practitioner should attempt to identify what is unconventional about a client's invention and focus the claims on those unconventional features to satisfy prong 3 of the analysis under the revised guidelines.

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