

IP NEWS QUARTERLY



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CHANGES TO SOFTWARE PATENT EXAMINATION

Introduction

In view of various Supreme Court and other lower court rulings, in recent years, there have been significant changes in how software patent applications are examined and processed by the United States Patent and Trademark Office (USPTO). These changes have aggravated inventors and practitioners alike as they attempt to decipher the inconsistent and vague examination procedures set by the USPTO. In the January 7, 2019 issue of the Federal Register, the USPTO issued an updated Revised Patent Subject Matter Eligibility Guidance which attempts to clarify their position and provide greater consistency in the software patent examination process. This issue of IP News Quarterly will look at the history of the changes in how software patent applications are examined and will also investigate the most recent guidelines.

Brief Legal History of Software Patents

Congress has set in 35 U.S.C. 101 that a patent can only be issued on a process, a machine, a manufacture and a composition of matter. In addition, the Supreme Court identified "judicial exceptions" to patents, meaning that a patent cannot be issued on a law of nature, a natural phenomena, or an abstract idea as these patents "are the basic tools of scientific and technological work . . . [and] monopolizing these tools by granting patent rights may impede innovation rather than promote it" (Manual of Patent Examining Procedure, Section 2106). In the 1970's and 1980's the Supreme Court ruled in three major cases (the last of which, and likely most notable being *Diamond v. Diehr* in 1981) which all reinforced the principle that mathematical formulas were abstract ideas and could not be patented on their own, but seemed to indicate that the process of a computer implementing the mathematical formula was in fact patentable.

However, this idea that computers implementing mathematical formulas or other computational codes was patent eligible was challenged in the 2010's. In the 2010 case *Bilski v. Kappos*, the Supreme Court ruled that the process of having a computational system which hedged losses in one sector of an industry by making investments in a different sector was not patent eligible as it simply applied the abstract and well known idea of hedging losses to a computer and thus was an attempt to obtain a patent on an abstract idea. Then, in 2014, the Supreme Court ruled in *Alice Corp v. CLS Bank International* that a computer-implemented electronic escrow service was similarly using a computer as a cover for an attempt to obtain a patent on a well-known and abstract idea. As these two cases were the first major software cases decided by the Supreme Court since *Diamond v. Diehr* in 1981, this was seen as a change in course, now determining that using a computational system to implement a mathematical formula, computational code, or other abstract ideas were no longer patent eligible. In an attempt to mitigate this confusion, the Supreme Court offered guidance on how to determine patent eligibility in the form of a Two-Step Analysis:

- I. Determine if the claim is directed to a judicial exception (law of nature, natural phenomenon, abstract idea);
- 2. If directed to a judicial exception, determine if the claim recites additional elements that causes the claim to demonstrate an inventive concept beyond the judicial exception.

USPTO Response

After the Alice ruling, the USPTO updated its guidelines for how to examine patents which included the Supreme Court's Two-Step procedure. In a 2014 Interim Guidance, the USPTO clarified that 'directed to' in step I "means the exception is recited in the claim, i.e., the claim sets forth or describes the exception" and does not mean that the "invention is merely based on or involved an exception" (2014 Interim Guidance on Subject Matter Eligibility). This Two-Step method was included and somewhat expanded upon in the January 2018 revision of the MPEP. However, the exact definition of an abstract idea was purposefully, and frustratingly, not given by the courts, which led to significant variation between examiners as well as the courts themselves as to what types of claims fall under this judicial exception. In the 2019 Revised Patent Subject Matter Eligibility Guidance, the USPTO admits that "properly applying the Alice/Mayo test in a consistent manner has proven to be difficult, and has caused uncertainty in this area of the law. Among other things, it has

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Did You Know?

Martin A. Goetz was awarded the first ever software patent, Patent Number 3,380,029, on April 23, 1968, which protected a data sorting and processing system. This patent was awarded at a time when IBM and other smaller computer companies were offering their software for free with the lease or purchase of their hardware. In 1969, the **United States** Department of Justice filed a complaint against IBM alleging IBM was monopolizing the computer system. While the lawsuit was eventually dropped, IBM did "unbundle" software and hardware during the proceedings, which allowed for the separate development of these technologies, leading to the tech world we know today.

become difficult in some cases for inventors, businesses, and other patent stakeholders to reliably and predictably determine what subject matter is patent-eligible." Initially, the USPTO instructed its examiners to note "whether or not certain subject matter [claimed in a patent application] has been identified as an abstract idea [by the courts]." They then further state that while "that approach was effective soon after Alice was decided, it has since become impractical. The Federal Circuit has now issued numerous decisions identifying subject matter as abstract or non-abstract in the context of specific cases, and that number is continuously growing. In addition, similar subject matter has been described both as abstract and not abstract in different cases. The growing body of precedent has become increasingly more difficult for examiners to apply in a predictable manner, and concerns have been raised that different examiners within and between technology centers may reach inconsistent results" (2019 Revised Patent Subject Matter Eligibility Guidance). This problem has led to a significant increase in the number of 35 U.S.C. 101 rejections. Thus, the USPTO has attempted in this latest Patent Subject Matter Eligibility Guidance to better define "abstract idea" as well as further expand and standardize the process by which claims, specifically software claims, are examined.

Changes to Patent Eligibility Examination

In the 2019 Patent Subject Matter Eligibility Guidance, the USPTO has defined abstract ideas as falling under three main categories:

- 1. Mathematical concepts—mathematical relationships, mathematical formulas or equations, and 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);
- 3. Mental processes—concepts performed in the human mind (including an observation, evaluation, judgment, or opinion).

Additionally, the 2019 Guidance standardizes a Three-Step Process for analyzing Patent Eligibility:

- 1. Determine if the claim is directed to a judicial exception (law of nature, natural phenomenon, abstract idea);
- 2. If directed to a judicial exception, determine if the claim integrates the judicial exception into a practical application—determine if the claim applies, relies on, or uses the judicial exception in a matter that imposes meaningful limits on the judicial exception, such that the claim is more than an effort designed to monopolize the judicial exception;
- 3. If directed to a judicial exception with no practical application, determine if the claim recites additional elements that causes the claim to demonstrate an inventive concept beyond the judicial exception.

Examiners and practitioners now have better guidelines for what constitutes 'practical application,' such as improving the functioning of a computer, using a judicial exception with a specific device crucial to the claim, or applying a judicial exception to transform or reduce a particular article to a different state or thing. Simply adding superfluous limitations or stating a device is applying a judicial exception does not constitute a practical application.

Moving Forward

The USPTO is requesting public input on the 2019 Patent Subject Matter Eligibility Guidance through March 8, 2019, which opens up the possibility that even more clarity may be possible moving forward. On January 14, 2019, only a week after the 2019 Guidance was published, the Patent Trial and Appeal Board (PTAB) overturned an examiner's rejection of software related claims using the above-referenced Three-Step Process. The PTAB stated that "the Examiner determined that the 'claims are directed to an abstract idea of itself of updating software, which includes the nominal steps of gathering data, processing data, and storing data'... [but that this concept does not fall] within one of the enumerated grouping of abstract ideas in the Revised Guidance." Further, even if the concept the examiner stated was abstract was included in the Revised Guidance, the PTAB concluded that the concept is integrated "into a specific practical application of those ideas" and so the claims are patentable (PTAB Appeal No. 2018-004973).

For practitioners and inventors, these Guidelines should be an aid when constructing and defending claims moving forward. The focus of any patent practitioner, such as the patent agents and attorneys at IP Attorneys Group, should be ensuring that any software or other application claims do not fall under the defined abstract idea categories. If the claims do contain an abstract idea or another judicial exception, the practitioner should ensure that the claims incorporate the judicial exception into a practical or limited application, or that the claims contain additional crucial elements which demonstrate inventive concept. Having these elements will be key to having the patent granted.



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