

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re: Request for Comments and  
Extension of Comment Period on  
Examination Instruction and Guidance  
Pertaining to Patent-Eligible Subject  
Matter

Docket No. PTO-P-2014-0036  
79 Fed. Reg. 36786

### COMMENTS OF PUBLIC KNOWLEDGE

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Public Knowledge respectfully submits the following comments in response to the Request for Comments on Examination Instruction and Guidance Pertaining to Patent-Eligible Subject Matter dated June 30, 2014.

By issuing *Alice* guidelines, the PTO has an opportunity to resolve serious problems for businesses caused by abuse of the patent system. Questionable patents burden courts and businesses with expensive and lengthy litigation, creating a “drain on the American economy,”<sup>1</sup> according to the White House. Patent eligibility is a major factor in this abuse: the GAO recently found that 93% of litigation by patent monetization entities centers around software patents, which are often of questionable subject matter eligibility.<sup>2</sup> Application of *Alice v. CLS Bank* by PTO examiners will eliminate many low-quality, abused patents, thus relieving thousands of Main Street businesses and the public generally.

Clear examiner guidelines on subject matter eligibility are a necessary first step to making this promise come to fruition. Unfortunately, *Alice v. CLS Bank* itself did not

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<sup>1</sup> Press Release, Office of the Press Sec’y, White House, *Fact Sheet: White House Task Force on High-Tech Patent Issues* (June 4, 2013), <http://www.whitehouse.gov/the-press-office/2013/06/04/fact-sheet-white-house-task-force-high-tech-patent-issues>.

<sup>2</sup> U.S. Gov’t Accountability Office, *Intellectual Property: Assessing Factors that Affect Patent Infringement Litigation Could Help Improve Patent Quality* (2013), available at <http://www.gao.gov/assets/660/657103.pdf>.

provide comprehensive bright-line rules that many hoped for. *Alice* certainly raises the standard for eligibility, but it does not fully articulate the new standard.

Thus, the task of the PTO is to extract principles from *Alice* and create a model for examiners. Even though the decision left some areas unclear, the PTO must establish clear guidelines, lest examiners be uncertain about how to determine eligibility. The PTO should give the most robust, clear, and detailed instructions possible.

In particular, Public Knowledge recommends that the PTO should expand its guidance in view of *Alice*, at least to include the following main points discussed in detail in the comments below:

1. Examiners must review claims with careful scrutiny, in view of the heightened bar set by *Alice*.
2. Abstract ideas are not limited to preexisting truths, and examiners should discount arguments to the contrary.
3. Examiners should assess whether a claim is directed to an ineligible “fundamental practice” by considering what elements are ordinarily—though not necessarily—associated with that fundamental practice, and then consulting basic references such as textbooks in the field.
4. The existence of alternative implementations of an abstract idea is not a sufficient argument for subject matter eligibility.
5. Examiners should seek out recitations of generic technologies, other than generic computers, and discount those recitations for eligibility purposes in the same way that recitations of generic computers are to be discounted.
6. Recitation of generic parts of generic computers should similarly be discounted as not rendering an otherwise abstract idea eligible.
7. The guidance for *Myriad* and *Mayo* should be reconciled with the present *Alice* guidelines to ensure consistency and to avoid confusion among examiners.

These points are not in the current *Alice* guidance, and including them would assist examiners in properly applying the Supreme Court’s jurisprudence.

## **I. The PTO’s Guidance Should Reflect *Alice*’s Demand for Thorough Scrutiny of Business Method Claims**

The PTO should emphasize, as the Court does in *Alice*, that business method claims demand careful scrutiny. Claims based on economics and business methods, such as those in *Alice*, will be among the hardest cases. This is because many of them are efforts to capture, in mathematics or software, fundamental truths about the organization of human activities. Patent eligibility will turn on nuanced, careful inspection of claims for abstract ideas.

Claims in patents do not present themselves as obviously abstract and ineligible. They may recite algorithms and formulae. They may incorporate software and computers to perform complex calculations. They may even describe executing the final results—for example, automatically ordering stock sales and purchases, or issuing warnings or bans. However, even such verbose patent claims, if drawn very generically (e.g., to “financial markets”), may be ineligible under *Alice*.

The Court thus demands careful scrutiny of patent claims, rather than mechanical application of simplistic rules. Examiners must apply such careful scrutiny to patent applications. Many patent claims of potentially indeterminate eligibility before *Alice* are now definitively ineligible. More importantly, *Alice* definitively rejects many arguments commonly presented in favor of eligibility. The PTO guidelines, then, must walk examiners through the process of thorough examination of subject matter eligibility, rather than tersely quoting the opinion as the current guidelines do now.

## **II. Understanding and Identifying Abstract Ideas (*Mayo* Step 1)**

According to *Alice*, the first step in assessing subject matter eligibility is determining whether a patent claim is directed to an abstract idea. Although the PTO correctly enumerates several examples of abstract ideas, such as fundamental economic practices, the provided guidance does not go far enough to fully capture the extent of the teachings in *Alice*.

Accordingly, the PTO should expand its guidance on this section to further advise examiners on applying the law, particularly in the areas of scientific algorithms, business methods, and control systems implemented through computers or other technology.

**A. Abstract Ideas Are Not Limited to Preexisting Truths**

*Alice* clearly held that preexisting truths are not the only kinds of abstract ideas. The Court held that a “fundamental economic practice” or a “method of organizing human activity” is an abstract idea, explicitly rejecting the notion that abstract ideas were only those “fundamental truths that exist in principle apart from any human action.” Fundamental principles, even in the most artificial and human-created fields of practice, are always abstract ideas.

Accordingly, the PTO should advise examiners, in its guidance, that abstract ideas are not limited to preexisting truths or ideas not involving human action. Such an instruction to examiners would prevent them from mistakenly accepting faulty arguments on subject matter eligibility—arguments that patent applicants and owners, including the petitioners in *Alice*, have historically proffered.

**B. The PTO Should Explain How to Identify Ineligible Fundamental Practices**

The PTO should provide guidance as to what constitutes a “fundamental” practice. The Court’s approach to abstract idea analysis in *Alice* should serve as a model for the PTO. The Court took two steps in this analysis: first, it determined which ideas were in need of scrutiny; and second, it consulted field-specific texts to see if those ideas were described as fundamental concepts or long-standing practices. The PTO should model its guidance on this pattern.

First, examiners must carefully read the claims to understand the idea. In *Alice*, the Court found a conceptual similarity between the use of “shadow records” and “exchange institutions” used by the petitioner on the one hand, and the fundamental financial concept of a “clearing-house” on the other.<sup>3</sup> Thus, the Court concluded that the

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<sup>3</sup> *Alice Corp. v. CLS Bank Int’l*, No. 13-298, slip op. at 9 (U.S. June 19, 2014).

petitioner's mechanisms were tools of "intermediated settlement, *i.e.*, the use of a third party to mitigate settlement risk."<sup>4</sup>

Importantly, a claim can be directed to an abstract idea even when reciting concrete steps ordinarily encompassed by the idea. Elements such as shadow records and end-of-day reconciliation are certainly not wholly subsumed by the idea of intermediated settlement, but those elements did not save the claims from being directed to an abstract concept.<sup>5</sup> Thus, *Alice* stands for the proposition that there is no requirement that all elements be inherent to the idea.

The guidance of the PTO should reflect the Court's approach to findings the idea to which the mechanisms were linked. In particular, the PTO should instruct examiners to consider whether claim elements are ordinary parts of an abstract idea. Inherency is emphatically **not** the test of whether an element is part of an abstract idea.

Second, examiners must place the idea in proper context. The Court consulted and cited several texts describing the area of practice in which the idea is used, including a history article on economics, an academic article, and an economics textbook.<sup>6</sup> These references gave the Court support for concluding that the concepts identified in the previous step, such as "intermediated settlement," were drawn to an abstract idea.

Following the Court's example, the PTO should instruct examiners to also consult foundational texts to establish whether an idea is fundamental to an area. If the idea is "taught in any introductory finance class," a "building block" of a field of study or practice, or one of "long-standing" use, then the idea is most likely fundamental and thus abstract.<sup>7</sup>

This second step requires neither the precision of a prior-art search in determining novelty, nor the level of mastery of one acquainted with the art in determining non-obviousness. Those are still separate standards to be used in different parts of the patent examination process. What is clear, though, is that background

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<sup>4</sup> *Id.* at 9.

<sup>5</sup> *See id.*

<sup>6</sup> *Id.*

<sup>7</sup> *Id.* at 8-10.

knowledge, found in basic textbooks and articles, is a necessary and relevant component of the subject matter eligibility determination, and the PTO must make this clear to examiners.

### **III. Understanding Proper and Improper Implementations (*Mayo* Step 2)**

The PTO should also expand its guidance on the second step of the *Mayo* analysis, namely the determination of what constitutes “significantly more” than an abstract idea, to fully capture the scope of the *Alice* decision and better guide examiners on correct § 101 assessments. In particular, the PTO should advise that (1) examiners should apply the Court’s preemption doctrine in evaluating patent claims involving abstract ideas, (2) application of an idea through generic technology does not confer eligibility, and (3) lengthy enumerations of components do not make a claim patentable.

#### **A. Examiners Should Determine Whether a Claim Preempts the Abstract Idea, Not Whether The Claim Is the Sole Implementation of the Idea**

Preemption is the guide star that “undergirds our § 101 jurisprudence,” and the PTO’s guidance must reflect that strong holding. Examiners should apply preemption to evaluate whether there is something “significantly more” than the idea itself. Following the reasoning in *Alice*, examiners should ask questions like: “Would the patent lead to monopolizing an idea?” and “Is the implementation limited to, for example, an improvement in a technical field?”

A key to understanding the reasoning in *Alice* is recognizing that alternative implementations through minor technical changes will not overcome preemption. In *Alice*, the petitioner presented three alternative implementations of the abstract idea of intermediated settlement. Yet the Court still held that the patent only claimed an abstract idea.<sup>8</sup> Thus, the PTO’s guidance should expressly dismiss the argument that existence of alternative implementations overcomes § 101.

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<sup>8</sup> The three alternatives were presented in Pet. Brief at 49-50.

The following example, drawn from the facts of *Alice*, may be provided to examiners to assist in implementing these principles.

**Example 1**

Applicant’s claims are directed to a financial transaction relating to management of accounts. The claims recite “shadow accounts that are independent of actual accounts.” Applicant argues that this recitation renders the claim eligible because there are alternative implementations of the financial transaction, such as tracking the actual accounts or repeated iterations of shadow accounts rather than a single persistent account.

The examiner should find that the claim is directed to an abstract idea. The presence of alternative implementations does not overcome that finding, since the claimed implementation would still substantially preempt or monopolize uses of the abstract idea.

**B. Examiners Should Discount Recitation of Generic Technologies for Eligibility Purposes**

*Alice* clearly held that recitation of a generic computer did not add “significantly more” to an abstract idea,<sup>9</sup> and the PTO’s current guidelines reflect this. But the PTO should give further guidance on technologies beyond computers. The same problems in *Alice* will likely arise with other ubiquitous, well-known technologies, such as computer networking, Internet communications, and consumer-level manufacturing (e.g., 3d printing).

*Alice*’s holding that addition of a generic computer did not confer eligibility rested on three main arguments. First, the Court repeatedly emphasized that “adding the words ‘apply it with a computer’ ” has the “same deficient result” in terms of eligibility as “adding the words ‘apply it.’ ”<sup>10</sup> Second, the Court distinguished *Diehr* from *Alice* because the claims in *Diehr* “improved an existing technological process” while those in

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<sup>9</sup> *Alice*, slip op. at 13.

<sup>10</sup> *Id.*

*Alice* did not.”<sup>11</sup> Third, the Court noted the “ubiquity of computers” to conclude that incorporation of a computer was nothing more than “a drafting effort designed to monopolize the abstract idea itself.”<sup>12</sup>

The PTO should follow these prescriptions and advise examiners accordingly on how to determine when recitation of a technology (other than generic computers) does not confer eligibility. There are three points to consider in examining claims:

1. Does the use of machines or technology to an idea substantially differ from mere application of the idea; i.e., does the recitation of the technology amount to “a mere instruction to implement an abstract idea”<sup>13</sup> with that technology?
2. Does the claim effect an improved technological process?
3. Is the recited technology ubiquitous such that its recitation does not provide “any practical assurance that the claim is more than a drafting effort designed to monopolize” the abstract idea, even within the field of its use?<sup>14</sup>

These considerations ought to be part of the examiners’ procedure in determining subject matter eligibility.

The following example illustrates the principles above.

### **Example 2**

Applicant’s claim to a financial transaction is directed to an abstract idea. The claim uses networked computers in performing the transaction.

Applying the three factors above, the examiner should find the following: first, the use of networking amounts to a mere instruction to implement the idea on a computer network; second, the claim does not improve the network itself; and third, computer networking is ubiquitous. Thus, the recitation of computer networking in the claim does not amount to “significantly more” under *Mayo* analysis step 2.

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<sup>11</sup> *Id.* at 13, 15.

<sup>12</sup> *Id.* at 13.

<sup>13</sup> *Id.*

<sup>14</sup> *Id.*



### C. Examiners Should Identify and Discount Recitation of Generic Parts of Generic Computers for § 101 Purposes

Enumerating computer parts does not constitute something “significantly more” than the idea itself, according to *Alice*. The claims recited “what petitioner characterizes as specific hardware—a ‘data processing system’ with a ‘communications controller’ and ‘data storage unit,’ for example.”<sup>15</sup> But the Court rejected these representations, concluding that this supposedly “specific hardware” was in fact “purely functional and generic,” because “[n]early every computer will include” such components.<sup>16</sup>

The PTO should instruct examiners to review recited hardware (and other elements) carefully for whether they are actually generic components of a generic machine. In searching for those elements that are “substantially more” than an abstract idea, examiners cannot rely on either a lengthy, detailed claim that appears to describe unique or specialized components of a machine or technology, or on representations by applicants about the nature of hardware components—*Alice* demonstrates the fallacy of such an approach. None of these indicate whether a claim amounts to more than an abstract idea. The PTO did not include this point in the guidance, and it should do so.

#### **Example 3**

Applicant claims a financial transaction method that is directed to an abstract idea. The claim recites a computer, including a network transmitter, used in performing part of the claimed method.

The examiner should determine that a network transmitter is a generic part of a generic computer. Network transmitters are commonly found on generic computers, and the claimed method does not relate to the functioning of the network transmitter itself. Therefore, the recitation of the network transmitter does not add “significantly more” to the abstract idea, and so fails patent eligibility under *Mayo* analysis step 2.

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<sup>15</sup> *Id.* at 16.

<sup>16</sup> *Id.*

#### IV. Aspects of the *Mayo-Myriad* Guidelines Should Be Incorporated Into the *Alice* Guidelines

*Alice* held that the *Mayo* framework for subject matter eligibility is the sole framework for assessing all subject matter eligibility, including assessment of abstract ideas. Despite this, the *Myriad-Mayo* guidance<sup>17</sup> and the *Alice* guidance deviate significantly from each other, which could lead to potential confusion and uncertainty among examiners. Thus, the PTO should review and coordinate these issued instructions.

In particular, the *Alice* guidance includes a paragraph stating that “the basic inquiries to determine subject matter eligibility remain the same.” This section has caused a great deal of confusion among practitioners, who interpret that paragraph to mean that the entire analytical framework of subject matter eligibility is unchanged by *Alice*.<sup>18</sup> This notion is clearly rejected by the Court’s opinion, by the explanation presented in these comments, and by the current *Alice* guidance memorandum itself.<sup>19</sup>

Clarifying this misinterpretation is simple upon reconciling the *Alice* guidance with the *Myriad-Mayo* guidance. The latter memorandum presents a clear flowchart of the process of determining subject matter eligibility. The flowchart would be appropriate in both memoranda.

Additionally, the *Myriad-Mayo* guidance included a section of practical examples of how to apply the law of those cases. The *Alice* guidance should do the same, as that section of examples offers clear, useful patterns for examiners to follow. The several examples, presented in the previous sections, may be considered as starting points for such a section.

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<sup>17</sup> Andrew H. Hirshfeld, *2014 Procedure for Subject Matter Eligibility Analysis of Claims Reciting or Involving Laws of Nature/Natural Principles, Natural Phenomena, and/or Natural Products* (Mar. 4, 2014), available at [http://www.uspto.gov/patents/law/exam/myriad-mayo\\_guidance.pdf](http://www.uspto.gov/patents/law/exam/myriad-mayo_guidance.pdf).

<sup>18</sup> *E.g.*, Gene Quinn, *USPTO Guidance on Alice v. CLS: Software Still Patentable*, IPWatchdog (June 25, 2014), <http://www.ipwatchdog.com/2014/06/25/uspto-guidance-software-still-patentable/id=50178/> (“Therefore, nothing has changed as far as the USPTO is concerned.”).

<sup>19</sup> Indeed, upon careful reading, it is clear that the paragraph only states that what has remained the same are the *initial steps* of the subject matter inquiry, namely reviewing the four statutory categories and then turning to the judicial exceptions.

## V. Conclusion

For the foregoing reasons, Public Knowledge recommends that the PTO expand its examiner guidelines on subject matter eligibility, to incorporate the suggestions presented above.

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