

August 1, 2014

The Honorable Michelle K. Lee
Deputy Under Secretary of Commerce for Intellectual Property and
Deputy Director of the United States Patent and Trademark Office
United States Patent and Trademark Office
600 Dulany Street
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via email: alice_2014@uspto.gov

Re: Response to the “Request for Comments and Extension of Comment Period on Examination Instruction and Guidance Pertaining to Patent-Eligible Subject Matter” 79 Fed. Reg. 36786 (June 30, 2014)

Dear Deputy Under Secretary Lee:

I am writing to comment on the preliminary instructions (“P.I.”) that the U.S. Patent and Trademark Office (“Office”) recently issued in response to the *Alice* decision.¹

By way of background, I am a patent practitioner licensed to practice before the Office. In my career, I have prosecuted many hundreds of patent applications and filed dozens of appeals before the Patent Trial and Appeal Board. These applications are generally directed to software inventions, including software inventions that invoke mathematical and/or economic concepts. Accordingly, I have extensive experience prosecuting patent applications on inventions that are related, at least facially, to the patent asserted in the *Alice* decision. Of course, my comments here are not intended to suggest that any claim I have prosecuted is vulnerable to allegations of invalidity. On the contrary, I recommend that the Office interpret *Alice* narrowly, as further explained below.

I am writing in my own capacity and not on behalf of any firm or client associated with me.

Specific Recommendations

Before providing more general recommendations, I offer the following specific recommendations in response to the Office’s preliminary instructions.

First, the Office cites *Bilski* to hold that “certain methods of organizing human activities” are examples of impermissible abstract ideas.² I recommend that the Office remove this example from its list of impermissible abstract ideas. Instead, the Office should limit its categorization of the *Bilski* claim to the category of fundamental economic practices.³

The Office’s categorization of “certain methods of organizing human activities” as impermissible abstract ideas risks approving the concurrence in *Alice*, which failed to gather a majority. The concurrence continued to hold that “processes for organizing human activity

¹ *Alice Corporation Pty. Ltd. v. CLS Bank International, et al.*, 573 U.S. ____ (2014).

² P.I. at 2.

³ *Alice.*, slip op. at 9, citing *Bilski v. Kappos*, 130 S.Ct. 3218 (2010).

[never] were [and never] had been patentable.”⁴ Yet the Court rejected that proposition in *Bilski* and reaffirmed that rejection in *Alice*. Even if the *Bilski* claim happened to recite a method for organizing human activity, this was not the reason *why* the Court invalidated the claim. The Court invalidated the claim because it recited the fundamental economic practice of hedging.⁵ In contrast, the Court did not clearly invalidate the claim because it fell within some broader and amorphous category of “organizing human activities.”

Second, the Office lists “an idea of itself” as another example of impermissible abstract ideas. Again, I recommend that the Office remove this example from the Office’s instructions. In short, I recommend that the Office limit its examples of abstract ideas to the specific kinds of abstract ideas that the Court has identified: pure or fundamental mathematics (in *Benson*, *Flook*, and *Diehr*) and fundamental economic practices (in *Bilski* and *Alice*).⁶

Admittedly, *Alice* cites nineteenth century case law for the proposition that “an idea of itself” is not patent eligible.⁷ Yet, paradoxically, the Court has also stated that patents, unlike copyrights, do protect “the idea itself.”⁸ For the same reason, the superset of “idea[s] of [themselves]” is both too broad and too amorphous to provide meaningful guidance to the examining corps. The superset appears to include every abstract idea, including the subsets that the Supreme Court has identified (basic mathematics and basic economics), and also other mysterious subsets. Yet the Supreme Court explicitly refused to define further the legal term of art, “abstract ideas,” and refused to expand that superset to include other potential subsets.⁹

I recommend that the Office not task the examining corps. with further defining a judicial exception that the Supreme Court and Congress both refuse to define, beyond the explicit examples that the Court has identified: pure or fundamental mathematics and fundamental economics. In the hands of patent examiners, who often lack a formal legal education, overemphasis on “idea[s] of [themselves]” risks ignoring the Court’s further guidance to “tread carefully in construing this exclusionary principle lest it swallow all of patent law.”¹⁰ As the Court reaffirmed, this danger exists because “all inventions [...] embody, use, reflect, rest upon, or apply laws of nature, natural phenomena, or abstract ideas.”

Third, the Office lists both prongs of the Solicitor General’s proposed test in *Alice* as limitations that may make claims patent eligible. These prongs are “[i]mprovements to another technology or technical field” and “[i]mprovements to the functioning of the computer itself.”¹¹ These two

⁴ *Id.*, slip op. at 1 (J. Sotomayor, concurring in the judgment) (internal citations omitted).

⁵ *Id.*, slip op. at 9-10.

⁶ The *Alice* opinion provides a general overview of this precedent.

⁷ *Id.*, slip op. at 7.

⁸ *Mazer v. Stein*, 347 U.S. 201, 217 (1954) (“Unlike a patent, a copyright gives no exclusive right to the art disclosed; protection is given only to the expression of the idea—not the idea itself.”).

⁹ *Alice*, slip op. at 10. (“In any event, we need not labor to delimit the precise contours of the “abstract ideas” category in this case.”)

¹⁰ *Id.*, slip op. at 6 (internal citations omitted).

¹¹ P.I. at 3.

prongs form a “technology” test. Arguably, the technology test simply defines the inverse of business methods, thereby seeking through judicial exception what the *Bilski* Court forbade through statutory interpretation.¹² For that reason, both the Court and the Office intend these prongs to be mere examples rather than per se rules. Yet the Office only cites one other example (“meaningful limitations”), which is amorphous and uninformative.

As with the Office’s citation of “methods of organizing human activity,” the Office’s citation of the technology test risks obscuring the fact that the Court rejected that test as a per se rule. The Court most forcefully rejected the technology test in *Bilski*.¹³ Even in *Alice*, the Court continues to cite the technology test as merely one “example.”¹⁴ In short, the Office should emphasize the holding from *Bilski* that some business methods are patent eligible, so the mere failure to recite “technology” cannot exclude business methods from examination.

Fourth, I recommend restoring the Office’s emphasis on prior art rejections over technical rejections in MPEP § 706.03, as discussed further below.

General Recommendations

In general, the Office should instruct the examining corps. to apply *Alice* narrowly for the following reasons. The Office may cite these reasons in prefatory remarks at the beginning of any formal guidelines to justify a narrow interpretation of *Alice*.

First, the Supreme Court itself instructs lower tribunals and agencies to “tread carefully in construing this exclusionary principle lest it swallow all of patent law.”¹⁵ The Court’s own instruction to apply *Alice* narrowly makes perfect sense, because the abstract idea exception is extremely problematic. As the Court itself acknowledges, the exception risks “swallow[ing]” patent law. Of course, the Office should be especially careful not to “swallow all of patent law,” because Congress entrusted the Office with the mission of promoting and issuing patents. The abstract idea exception is also extremely problematic because it lacks definition, as the Court further acknowledges.¹⁶

The problematic nature of the abstract idea exception is not surprising when one considers its origin. To the extent that the exception has any definition, that definition was crafted by nontechnical judges without insight from Congress. By constitutional design, the Court generally lacks both the expertise and the authority to set national economic and innovation policy. Rather, Congress should set that policy, which it did by enacting 35 U.S.C. § 101—a statute of

¹² Compare the technology test in *Alice* with Congress’s definition for business methods in § 18(d)(1) of the America Invents Act (“For purposes of this section, the term ‘covered business method patent’ means a patent that claims a method or corresponding apparatus for performing data processing or other operations used in the practice, administration, or management of a financial product or service, except that the term does not include patents for technological inventions.”).

¹³ *Bilski*, 130 S.Ct. at 3228-29.

¹⁴ *Alice*, slip op. at 15.

¹⁵ *Id.*, slip op. at 6.

¹⁶ *Id.*, slip op. at 10 and *supra*, n. 9.

brehtaking scope. For the same reason, the Office, like the courts, should narrowly construe judicial exceptions to express statutes.¹⁷

The abstract idea exception is also extremely problematic because it is paradoxical. The exception refers to “abstract ideas,” yet all ideas are abstract. The adjective “abstract” is redundant and uninformative. Similarly, the *Alice* Court requires an “inventive concept” to cure an “abstract idea,” yet the literal interpretation of “abstract ideas” (*i.e.*, ideas) includes “inventive concepts.” At best, the Court has simply used “abstract ideas” and “inventive concepts” as shorthand for “unpatentable ideas” and “patentable ideas,” which is circular and similarly uninformative.

Moreover, Congress specifically created the Office to protect “ideas” as opposed to expressions, which are the realm of copyrights. Thus, although the Court has held that an “idea of itself” is not patent eligible, the Court has also held that patents, unlike copyrights, protect “the idea itself.”¹⁸ If all ideas are abstract, and if patents protect ideas, then the Office must surely apply the abstract idea exception narrowly, “lest it swallow all of patent law.”

Similarly, Congress directed inventors to specify broad independent claims that necessarily “abstract” the core of an invention, thereby preventing others from escaping infringement based on trivial differences.¹⁹ The Court’s hostility toward “abstract ideas” threatens to undermine Congress’s direction to inventors to claim the broadest form of their inventions through abstraction.

As a further reason, the abstract idea exception is extremely problematic because it expresses hostility toward the newest technologies that most need patent protection. Although the exception lacks definition, the words “abstract idea” suggest hostility to inventions that are less tangible, visible, and conspicuous. Yet the modern trend in technology is miniaturization. Technologies like software, wireless networking, and genetic sequencing are partially, or entirely, intangible and invisible. These technologies are too important to deny patent protection.

The Office should also apply *Alice* narrowly based on external constraints on the Office’s institutional powers. In general, the Office lacks substantive rulemaking authority.²⁰ The Office’s last attempt to approach that limit resulted in the controversy over the continuation rules package.²¹ Even after the America Invents Act, the ability of the Office to issue substantive rules remains controversial at best.²² The Office should take care, therefore, to interpret *Alice* in a

¹⁷ See, e.g., *Bilski*, 130 S.Ct. at 3226 (“This Court has ‘more than once cautioned that courts should not read into the patent laws limitations and conditions which the legislature has not expressed.’”) (internal citation omitted).

¹⁸ Contrast *Alice*, slip op. at 7 (quoting *Rubber-Tip Pencil Co. v. Howard*, 20 Wall. 498, 507 (1874)), with *Mazer*, 347 U.S. at 217; see also n. 8 and related text *supra*.

¹⁹ 35 U.S.C. § 112 (d)-(e) (establishing independent and dependent claims).

²⁰ 35 U.S.C. § 2.

²¹ *Tafas v. Doll*, 559 F.3d 1345 (Fed. Cir. 2009).

²² Melissa F. Wasserman, *The Changing Guard of Patent Law: Chevron Deference for the PTO*, 54 Wm. & Mary L. Rev. 1959 (2013), <http://scholarship.law.wm.edu/wmlr/vol54/iss6/5>.

manner consistent with its limited rulemaking authority. Specifically, the Office lacks any substantive rulemaking authority to expand the abstract idea exception beyond the Court’s clear direction, even if that expansion fits with the current policy preferences of the Executive branch. Similarly, the Office should also interpret *Alice* in a manner consistent with U.S. obligations under international treaties, such as the Uruguay Round Agreements Act (URAA) and the Trade-Related Aspects of Intellectual Property (TRIPS).²³

Lastly, the Office should return to its longstanding policy, stated in the MPEP as recently as the eighth edition but removed from the ninth, of emphasizing prior art rejections over technical rejections:

The primary object of the examination of an application is to determine whether or not the claims are patentable over the prior art. This consideration should not be relegated to a secondary position while undue emphasis is given to nonprior art or “technical” rejections. Effort in examining should be concentrated on truly essential matters, minimizing or eliminating effort on technical rejections which are not really critical. Where a major technical rejection is proper (e.g., lack of proper disclosure, undue breadth, utility, etc.) such rejection should be stated with a full development of the reasons rather than by a mere conclusion coupled with some stereotyped expression.²⁴

This policy is perfectly consistent with the Court’s instruction in *Alice* to “tread carefully.” In other words, the fact that the primary focus should normally be on prior art is consistent with the Court’s direction to apply *Alice* to rare, narrow fact patterns (e.g., applications that take an ancient economic practice and just say “apply it”). The quoted MPEP policy is also consistent with the statute’s emphasis on the “conditions of patentability” and the parallel conditions in foreign countries under the URAA and TRIPS treaties.

Of course, *Alice* follows *Mayo* in permitting overlap between §§ 101 and 103 of the Patent Act.²⁵ The Court justified that overlap based on policy concerns about the limited ability of § 103 to serve the constitutional purpose of promoting innovation.²⁶ Specifically, the Court wrote that “shift[ing] the patent-eligibility inquiry entirely to these later sections risks creating significantly greater legal uncertainty, while assuming that those sections can do work that they are not equipped to do.”²⁷

Nevertheless, the Office should permit the same overlap to address the converse dilemma—the limited ability of undefined judicially-created exceptions to serve the constitutional purpose of promoting innovation. The same principle that justifies relying on § 101 when § 103 fails *also* permits relying on § 103 when undefined and narrow judicial exceptions fail. By permitting

²³ Dr. Christopher Swift, *The USPTO Patent Subject Matter Eligibility Guidance TRIPS Over Treaty Requirements*, PhamaPatents, <http://www.pharmapatentsblog.com/2014/07/30/the-uspto-patent-subject-matter-eligibility-guidance-trips-over-treaty-requirements/>.

²⁴ MPEP § 706.03 (8th Ed., rev. 9).

²⁵ *Mayo Collaborative v. Prometheus Labs.*, 132 S.Ct. 1289, 1304 (2012).

²⁶ *Id.*

²⁷ *Id.*

overlap between the two statutes, the Court encouraged the Office to use each to correct the deficiencies of the other.

When comparing the merits of § 103 and the judicial exceptions to § 101, there can be little doubt that § 103 is usually the better tool for the job. Admittedly, the law of obviousness has its ambiguities. Yet, by comparison, the law of subject matter eligibility makes the law of obviousness look crystal clear. The law of obviousness is preferable at least because it is far more developed than the Court's law of judicial exceptions. The law of obviousness also provides precise definitions of prior art, an objective framework under *Graham*, the flexibility to reject obvious patents under *KSR*, and procedural safeguards against hindsight (such as secondary considerations analysis)—safeguards that protect the Office's primary stakeholders.²⁸ The judicial exceptions to § 101 lack all of these virtues. Terms like “abstract idea,” “inventive concept,” “fundamental,” “conventional,” “routine,” “field of use,” and “postsolution activity” lack the precision that the examining corps. needs. Indeed, *KSR* and its progeny, including the *Leapfrog* decision, already provide examiners with legal doctrines that address the policy concerns that motivated the Court.²⁹

In view of the above, the Office should expect situations to be rare where the abstract idea exception becomes needed to cure the deficiencies of § 103. Of course, *Alice* holds that at least some situations will exist where the abstract idea exception is needed. Nevertheless, the Office, in its expertise, can expect the converse situation—where § 103 is needed to cure the deficiencies of the abstract idea exception—to be far more common.

In applying *Alice*, the Office should also recognize the relative strengths of nontechnical judges and expert patent examiners, including those without formal legal education. The undefined judicial exception for “abstract ideas” provides the flexibility for seasoned, nontechnical judges to invalidate egregious patents without precise analysis of the prior art or the subtleties of obviousness. In contrast, the Office's longstanding policy to focus on the prior art perfectly suits the technical expertise of the examining corps. and the Patent Trial and Appeal Board, especially when evaluating close cases. To the extent that the Office finds the abstract idea exception difficult to administer, because the doctrine lacks the precision that the examining corps. needs, the Office should address that difficulty by following the Court's instruction to “tread carefully” and apply *Alice* narrowly.

Former Director Kappos has reached the same conclusion, writing that “the Supreme Court's unanimous ruling subtly conveyed a much more significant judgment: software, as a class, is every bit as worthy of patent protection as any other medium in which innovation can be practiced.”³⁰ In other words, the Office should normally judge software, like any other technology, according to the law of obviousness—without rejecting software at the Office gates

²⁸ *Graham v. John Deere Co. of Kansas City*, 86 S.Ct. 684 (1966); *KSR Intern. Co. v. Teleflex Inc.*, 127 S.Ct. 1727 (2007);

²⁹ *Leapfrog Enterprises, Inc. v. Fisher-Price, Inc.*, 485 F.3d 1157 (Fed. Cir. 2007).

³⁰ David Kappos, *Symposium: Supreme Court leaves patent protection for software innovation intact*, SCOTUSblog, <http://www.scotusblog.com/2014/06/symposium-supreme-court-leaves-patent-protection-for-software-innovation-intact/>.

based on a narrow, undefined, judicially-created exception to the Patent Act. Even after *Alice*, obviousness remains the “ultimate condition of patentability.”³¹ The Office formalized this policy for decades in the MPEP and should restore it when instructing the examining corps. on how to apply *Alice*. Indeed, although the MPEP previously forbade examiners from emphasizing technical rejections over prior art based on “a mere conclusion,” there are already news reports that examiners are issuing brief, boilerplate rejections of previously allowed applications based on *Alice*.³² I recommend that the Office tread more carefully than that.

Respectfully,

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³¹ NONOBVIOUSNESS — THE ULTIMATE CONDITION OF PATENTABILITY (John F. Witherspoon ed., 1980).

³² Gene Quinn, *Alice v. CLS Reality: PTO Pulling Back Notices of Allowance*, IPWatchdog, <http://www.ipwatchdog.com/2014/07/25/alice-v-cls-reality-ptu-pulling-back-notices-of-allowance/id=50529/>.