



31 July, 2014

Via Electronic Mail: alice_2014@uspto.gov

Attn: Raul Tamayo
Mail Stop Comments—Patents
United States Patent and Trademark Office
P.O. Box 1450
Alexandra, VA 22313–1450

Re: Comments on *Preliminary Examination Instructions in view of the Supreme Court Decision in Alice Corporation Pty. v. CLS Bank Int'l* (June 19, 2014)

Dear Mr. Tamayo:

IEEE-USA writes in response to the PTO's Request for Comment on the PTO's *Preliminary Instructions*. IEEE-USA appreciates the care that the PTO exerted in the *Preliminary Instructions*, and the apparent commitment to provide guidance to examiners. IEEE-USA also appreciates that the PTO is informing inventors, attorneys, investors, entrepreneurs, and employers of the PTO's intended course of action. We write to offer suggestions that will result in further clarification.

IEEE-USA is the United States unit of the IEEE, the world's largest professional association for technological professionals. IEEE-USA has 210,000 members, largely electrical, software, electronic, mechanical, and biomedical engineers, working in thousands of companies from the largest and most-established to the smallest and newest. IEEE-USA represents the interests of IEEE's US-based members before the PTO, and seeks to enhance their careers and their ability to create the next generation of America's companies and jobs. Efficient operation of the patent system, an appropriate balance of rights and responsibilities between applicants and the public, and quality patents reflecting the balances drawn by Congress, are key to that future.

The *Alice* decision has generated extensive debate in the patent community, including within IEEE-USA's Intellectual Property Committee. We sympathize with the PTO in having to implement the teachings of *Alice*, and recognize that any meaningful guidance will be difficult. Nonetheless, we urge the PTO to remember that patents are fundamentally about business and about investment in innovation. Uncertainty is bad for business: investment freezes up, and because investment is typically the most constrained resource in innovation, innovation freezes up as well. Thus we urge the PTO to provide as much direction, guidance, and clarity to examiners as possible. As the President urged all agencies in 2007, "Guidance documents, used properly,

can channel the discretion of agency employees, increase efficiency, and enhance fairness by providing the public clear notice of the line between permissible and impermissible conduct while ensuring equal treatment of similarly situated parties.”¹

The *Alice* decision itself, while unequivocally supporting the patentability of software, provides very little guidance. IEEE-USA encourages the PTO to take the initiative and show leadership in developing useful and concrete guidance that provides some predictability. Final instructions should be highly prescriptive: they should set forth precise steps and showings that are required, permissible rebuttals by applicants, examples, case studies, and the like. This is not the time for ambiguity.

1. RECOMMENDATIONS

1.1. Any action stating a § 101 subject matter rejection should begin by clearly and precisely identifying the “abstract idea,” “law of nature,” or “natural phenomenon”

Every rejection under § 101 should expressly state the “abstract idea,” “law of nature,” or “natural phenomenon” at issue. Like any other legal statement, the rejection should be definitive enough to be falsifiable or rebuttable. An assertion that the claim is “directed to an abstract idea/law of nature/natural phenomenon,” without specific identification of the particular purported idea/law/phenomenon, allows for no meaningful rebuttal and sends the rest of the analysis into uncertainty. Without a clear and specific designation of the abstract idea, law of nature, or natural phenomenon, it is not clear what the remainder of the claim is to be considered, and thus the scope of step two of the *Alice* analysis is likewise unclear.

Final instructions and any form paragraphs should require an express written identification of specific claim language that implicates the purported abstract idea, law of nature, or natural phenomenon. If the examiner looks outside the literal language of the claim for the purported abstract idea, law of nature, or natural phenomenon, the written action should specifically identify a point in the specification that implicates the specific purported abstract idea, law of nature, or natural phenomenon. Specificity will enable an applicant to better understand what the examiner means by “abstract idea” and to make any necessary clarifying claim modifications, thereby reducing both examination and prosecution time.

A clear and precise identification of the abstract idea, law of nature, or natural phenomenon will create predictability and will result in a faster conclusion to the prosecution. Without a clear identification of the precise abstract idea, law of nature, or natural phenomenon at issue, and the precise basis for the determination, examination will present a “moving target” that will result in cost and delay. As noted in section 3, avoidable delay is inconsistent with the PTO’s obligations under administrative law.

¹ Executive Office of the President, *Final Bulletin for Agency Good Guidance Practices*, OMB Memorandum M-07-07, <http://www.whitehouse.gov/omb/memoranda/fy2007/m07-07.pdf> (Jan. 18, 2007), 72 Fed. Reg. 3432 (Jan. 25, 2007).

1.2. Final instructions should restate the necessary characteristics of an “abstract idea”

Alice can be reasonably read as rendering irrelevant the characteristics that defined an “abstract idea” during the “machine or transformation” era (from *Diehr* through *Alappat* and *Bilski*) with three new characteristics that define an “abstract idea.”² The Supreme Court speaks in rather strong language to dismiss concerns of “fundamental truth” and ideas that “exist in principle apart from any human action,” thereby making clear that the reasoning of *Alice* extends beyond business methods to all “abstract idea” cases:

- The purported “abstract idea” must fit one of the specific categories of section 1.3, with the proviso we recommend in section 1.3.
- *Alice* notes that the abstract idea of “intermediated settlement” is “long” prevalent. Therefore, mere § 102 novelty one day before an applicant’s filing date is insufficient for an “abstract idea;” the idea must be “fundamental” and long prevalent to be an abstract idea.
- *Alice* requires that an “abstract idea” must have been “prevalent,” “fundamental,” “taught in any introductory finance class,” and/or “a building block of the modern economy.” A known-but-rarely-used concept is not “abstract” under the reasoning of *Alice*. Even if an idea is logical and correct, an idea is not “abstract” unless it is “prevalent.”

Note that the latter two characteristics are far more stringent than mere novelty under § 102 with respect to time of knowledge and breadth of use.

Each of the latter two showings must be supported by “substantial evidence” in the sense of the Administrative Procedure Act. The Action must cite to either a statement in the applicant’s specification or in a third-party reference, to support both “long” standing and prevalent. Final instructions must make clear that examiner explanation or argument is not “substantial evidence.”³ Final instructions should make clear that an examiner’s personal assertion that something is “well known” under MPEP § 2144.03 is not relevant to the evidentiary showings required for § 101.

Final form paragraphs should include three “fill-ins” requiring express written findings that the purported abstract idea is in a designated category, “longstanding” and “prevalent,” and citation to substantial evidence.

1.3. Final instructions should make clear that the categories of “abstract idea” are not to be freely expanded

Final instructions should clarify that “abstract ideas” are limited to enumerated categories, unless there is a clear explanation in the Action, with the signoff of a designated “§ 101 specialist”

² See *Alice*, slip op. at 10 (“One of the claims in *Bilski* reduced hedging to a mathematical formula, but the Court did not assign *any special significance to that fact*, much less the sort of talismanic significance petitioner claims.”) (Emphasis added.)

³ *In re Dembiczak*, 175 F.3d 994, 999–1000, 50 USPQ2d 1614, 1617 (Fed. Cir. 1999) (broad conclusory statements about the teaching of references are not “substantial evidence”); *Donohue v. Barnhart*, 279 F.3d 441, 446 (7th Cir. 2002) (Easterbrook, J.) (“Evidence is not ‘substantial’ if vital testimony has been conjured out of whole cloth”).

in the examining group, exercising great care. As noted in the *Preliminary Instructions*, the courts have tread carefully in construing the abstract idea exclusion, because, at some level, all inventions embody, use, reflect, rest upon or apply abstract ideas and the other exceptions. Any Action should precisely designate the precise category of abstract idea.

Not all “fundamental economic practices” are abstract (as noted in the 2nd-to-last line of page 2 the *Preliminary Instructions*). Alice held that a “fundamental economic practice” is abstract only if it is “*long prevalent* in our system of commerce and taught in any introductory finance class.” *Alice*, slip op. at 8. This may appear anomalous, until one realizes that *Alice* entirely replaces the old machine-or-transformation analytical framework for § 101, based on the *kind* of subject matter, with a new framework centered on “long prevalent” (as two separate requirements). Just because a concept may be logical and correct does not necessarily make it “fundamental” or “abstract.”

Final instructions should not leave either examiners or the public to guess what is required. Phrases such as “*certain* methods of organizing human activities” simply create confusion among both examiners and the public. What is the test for “certain?” With no ascertainable standard, this phrase of the *Preliminary Instructions* is unhelpful, and likely unlawful.⁴ Final instructions should be clear and specific, explaining *what* “methods of organizing human activities” are implicated. *Alice*, slip op. at 10, makes clear that the relevant concern for “human activity” is whether the practice is “longstanding.”

1.4. Final instructions should clearly state permissible grounds of rebuttal of step one

Final instructions should make clear that an applicant may rebut the abstract idea identified in step one by any of the following showings:

- An omission of a showing required in either section 1.1 or 1.2. Silence is an error correctable under MPEP § 710.06, by telephone call to the SPE, by the ombudsman, or by petition requesting withdrawal of premature final rejection.
- The purported “abstract idea” is not within the scope of the claim, or would not be practiced by practice of the claim. In the days of *Freeman-Walter-Abele*, it was not uncommon for an action to state an “algorithm” that was unrelated to the claim.
- The purported “abstract idea” fails either the “longstanding” or “prevalent” subcomponents of the test of section 1.2.
- The purported abstract idea does not fit in the category from section 1.3 identified in the Action.
- *Alice* reiterates several times that “pre-emption” is the fundamental concern in this area, slip op. at 5, 6, 13, and that *Alice*’s claims were invalid because they would pre-empt all

⁴ Paperwork Reduction Act and its implementing regulations, 44 U.S.C. § 3506(c)(3)(D), 5 C.F.R. § 1320.9(d) (rules that request the public to submit information must be “written using plain, coherent, and unambiguous terminology. ”); *Moon v. U.S. Dep’t of Labor*, 727 F.2d 1315, 1318 (D.C. Cir. 1984) (“an agency must provide a reasoned explanation for its actions and articulate with some clarity the standards that governed its decision. ”); *Good Guidance Bulletin* (footnote 1), Introduction (urging agencies to use guidance to “channel” the activities of employees).

use of “a fundamental economic practice long prevalent in our system of commerce.” Slip op. at 8, 9. Final instructions should make clear that an applicant may rebut by showing substantial noninfringing use of the abstract principle identified under provision 1.1.

1.5. Final instructions should require clear and explicit written findings in step two

Final instructions should make clear that an Action containing a § 101 rejection must make an element-by-element showing against each and every claim limitation, much like a § 103 rejection. *Alice*, slip op. at 14-15, considers each claim element, and makes express findings to establish that each is “purely conventional.” This is the essence of the step two analysis, and its omission from the *Preliminary Instructions* should be corrected.

Alice step two is not satisfied when an element is merely known to, or in use by, at least one person in the § 102 sense; *Alice* requires that each element and the “ordered combination” be *well* known and *purely* conventional. *Alice*, slip op. at 12. Final instructions should make clear that showings that might be adequate for a § 103 rejection are not adequate for a § 101 rejection.

Final instructions and form paragraphs should require an element-by-element comparison of the claim to whatever evidence is relied on.

Final instructions should require that a written rejection identify at least one point in the claim that could arguably “amount[s] to significantly more than the abstract idea,” or at least the best candidate. This language should be identified with specificity. Final instructions should then require an express written explanation of why this language is insufficient to take the claim beyond the specific abstract idea identified in step one.

The goal of this requirement is not to burden examiners, but to prevent needless work for both the examiner and the public, to bring focus early in the process, and to prevent incomplete Actions that burden the public and increase PTO backlog. Making the requirements clear *a priori* will prevent examiners from spending time on fruitless and frustrating tasks.

1.6. Final instructions should clearly state the bases on which an applicant may rebut step two

Final instructions should clarify that step two can be rebutted by any of the following showings:

- An omission of any of the showings of section 1.5.
- That some claim element, either singly or in “an ordered combination” is not “well known in the art” or “long in use” or “purely conventional” or “well-understood, routine, conventional activit[ies]”

1.7. The “improvement” examples drawn from *Flook* and *Benson* are not the exclusive bases to rebut step two; they are analogous to the “secondary considerations” to rebut *prima facie* obviousness that only come into play after a *prima facie* showing is set forth completely

The *Preliminary Instructions* read as follows:

Limitations referenced in *Alice Corp.* that may be enough to qualify as "significantly more" when recited in a claim with an abstract idea include, as non-limiting or non-exclusive examples:

- Improvements to another technology or technical fields;
- Improvements to the functioning of the computer itself;
- Meaningful limitations beyond generally linking the use of an abstract idea to a particular technological environment.

Final instructions should make clear that these considerations are analogous to the “secondary considerations” of *Graham v. John Deere* for obviousness—unpatentability can be rebutted by challenging the *prima facie* case itself (steps one and two as described in sections 1.4 and 1.6 above), *or in the alternative*, by showings of this sort. Note that the Court does not treat these considerations as part of the *prima facie* case—in both *Mayo* and *Alice*, failure of § 101 is established by the element-by-element walk-through of the claim. These “improvement” considerations are mentioned only as consequences of that walk-through, not as the fundamental test under step two.

1.8. Final instructions should clarify that examiners may not combine multiple “abstract ideas” in a claim to eviscerate the remainder of the claim

Final instructions should expressly address situations in which an examiner identifies multiple distinct “abstract ideas” in a claim by requiring (a) that each “abstract idea” be independently identified in accordance with the recommendations from section 1.2 and 1.3 of this letter, and (b) that for each such “abstract idea,” *all other* claim elements shall be regarded as the remainder of the claim for purposes of step two analysis. Final instruction should therefore clarify that steps one and two must be *repeated* for each “abstract idea” identified with the corresponding (and different) remainder of the claim. Because any claim can be broken into sufficiently small elements that are arguably “abstract ideas,” this procedure is required in order to prevent improper depletion of claim elements from the remainder of the claim.

1.9. Final instructions should remind examiners of the 5-vote plurality in *Bilski*, that there is no broad proscription against methods of doing business

In *Bilski v. Kappos*, 561 U.S. 593 (2010), a 5-vote plurality held that there is no categorical exclusion of business methods from patent eligibility. Final instructions should reiterate this point.

IEEE-USA’s recommendation from section 1.2 and 1.3 of this letter, that step one of *Alice* is only triggered by “fundamental economic practice[s] *long prevalent* in our system of commerce,” resolves any conflict between the two relevant principles.

1.10. Final instructions should make clear that § 101 is not to be intermixed with other statutory requirements

Since *Alice* was issued, members of the IEEE-USA Intellectual Property Committee have seen rejections nominally designating § 101, but whose reasoning tracks § 112(b). Final instructions should specify that lack of clarity is not the kind of “abstractness” that raises concern under § 101.

1.11. Final instructions should clarify that step two must consider the claim with the precision and completeness of a § 102 or § 103 analysis

Final instructions should make clear that any showing of “old” or “conventional” must cite “substantial evidence” (in an Administrative Procedure Act sense), and should expressly remind examiners of the basic principle that examiner opinion or explanation is *not* “evidence” at all, let alone substantial evidence.⁵ § 101 rejections must cite “substantial evidence,” just as any § 102 or § 103 (and many § 112(a)) rejection must.

Final instructions may suggest that an action raising a § 101 rejection may rely on findings made under § 102 and § 103 (though with the additional requirements for “longstanding” and “prevalent” from sections 1.2 and 1.5), and should suggest that the examiner carefully consider the additional necessary findings before rejecting a claim under § 101 that has been allowed under § 102/§ 103.

1.12. Final instructions should require careful consideration of all statutory requirements

The *Preliminary Instructions* state that claims should be fully examined under all laws, including double patenting, §§ 112, 102, and 103. Final instructions should make clear that a *pro forma* § 101 rejection does not substitute for careful consideration of all other issues, including § 102, § 103, and § 112.

2. FINAL REJECTION

In four recent decisions, the Federal Circuit has given substantial guidance on the definition of “new ground of rejection.”⁶ In particular, the Federal Circuit has repeated the same point in each of its recent cases, that any new finding of fact is a “new ground of rejection” (and, in one case, *Rambus v. Rea*, sanctioned the PTO with costs when the PTO’s position ran contrary to the court’s previous holdings).

In most instances, a § 101 rejection under the *Alice* instructions will include at least one new finding of fact, either that that some concept is an abstract idea, law of nature, or natural phenomenon, and/or that certain claim limitations are “purely conventional” in the sense of *Alice*

⁵ See footnote 3.

⁶ *In re Biedermann*, 733 F.3d 329, 336–37, 108 USPQ2d 1623, 1628 (Fed. Cir. 2013); *Rambus, Inc. v. Rea*, 731 F.3d 1248, 1255–56, 108 USPQ2d 1400, 1406 (Fed. Cir. 2013); *In re Stepan Co.*, 660 F.3d 1341, 1345, 100 USPQ2d 1489, 1492 (Fed. Cir. 2011); *In re Leithem*, 661 F.3d 1316, 1319, 100 USPQ2d 1155, 1159 (Fed. Cir. 2011).

The PTO’s guidance in MPEP § 1207.03(a) is incorrect, and should be updated. We note the suggestions offered by public comment letters, Kipman T. Werking and Jonathan R. Lee, comment letter, http://www.uspto.gov/ip/boards/bpai/procedures/rules/rule_comment_nov2010_werking_lee_a.pdf (Jan. 14, 2011); David Boundy, comment letter, http://www.uspto.gov/ip/boards/bpai/procedures/rules/rule_comment_nov2010_boundy.pdf (Jan. 14, 2011); IEEE-USA comments on paperwork ICR 0651-0032, http://www.uspto.gov/news/fedreg/comments/0651-0031_IEEE_Comment.pdf at pages 34-40 and 52-57 (May 29, 2012). The suggestions in these comment letters accurately predict the Federal Circuit’s holdings—and sanctions against the PTO—in *Biedermann*, *Rambus*, *Stepan*, and *Leithem*. Further consideration of those letters and the Federal Circuit’s four cases would be warranted.

and *Mayo*. The final *Alice* instructions should clarify that these “new findings of fact” are “new grounds” that prevent final rejection if not necessitated by amendment.

3. RELEVANT ADMINISTRATIVE LAW AND REGULATORY PRINCIPLES

Several of our suggestions above are grounded in specific provisions of administrative law that require the PTO to take steps to minimize cost to the public.

3.1. Several laws require that the PTO seek to minimize costs and burden on the public

- The PTO has obligations under a number of statutes and executive branch directives, including an obligation to interpret the statute and rules to avoid “unnecessary expenditure of resources.”⁷ the obligation to examine applications in a “fair, impartial, and equitable manner,”⁸ the obligation under the Administrative Procedure Act to “in a reasonable time, conclude a matter presented to [the agency]”,⁹ the Paperwork Reduction Act and its implementing regulations (further discussed in section 3.2),¹⁰ Executive Order 12,866, the *Bulletin on Agency Good Guidance Practices* (further discussed in section 3.3),¹¹ and the like. Generally, these laws require the PTO to take into account costs to the public, to weigh them against whatever savings the PTO hopes to achieve, and to minimize costs to the public. The instructions we recommend above are focused on forcing issues to resolution quickly.
- The burden of proof is on the PTO to prove that the applicant is not entitled to a patent on his invention. The courts have routinely held that this means that the PTO has a burden of showing a *prima facie* case of anticipation, obviousness, etc. in order to overcome this presumption of patentability.¹² IEEE-USA’s recommendations are largely directed to ensuring that examiners meet their duties to make out an affirmative *prima facie* case of patent-ineligible subject matter.

⁷ See *Helfgott & Karas, P.C. v. Dickinson*, 209 F.3d 1328, 1336, 54 USPQ2d 1425, 1431 (Fed. Cir. 2000).

⁸ 35 U.S.C. § 3(a)(2)(A).

⁹ See particularly 5 U.S.C. § 555 and the case law arising thereunder cited by IEEE-USA in its February 2013 letter on RCE practice, <http://www.ieeeusa.org/policy/policy/2013/020413.pdf>.

¹⁰ 44 U.S.C. § 3501 *et seq.* and 5 C.F.R. Part 1320.

¹¹ *Good Guidance Bulletin* (footnote 1).

¹² *E.g., In re Warner*, 379 F.2d 1011, (CCPA 1967) (“We think the precise language of 35 U.S.C. 102 that ‘a person shall be entitled to a patent unless’” concerning novelty and unobviousness, clearly places a burden of proof on the Patent Office which requires it to produce the factual basis for its rejection of an application under sections 102 and 103”).

3.2. The Paperwork Reduction Act

IEEE-USA again draws the PTO's attention to the Paperwork Reduction Act (PRA) and the President's implementing Information Collection Regulations in 5 C.F.R. Part 1320. The PRA requires agencies:

- To “reduce [burden] to the extent practicable and appropriate.” The agency must seek to “*minimize* the burden of the collection of information on those who are to respond.”¹³ The agency must “demonstrate that [the agency] has taken *every reasonable step* to ensure that the proposed collection of information: ... [is] the *least burdensome necessary* for the proper performance of the agency's functions.”¹⁴
- Rules must be “written using plain, coherent, and unambiguous terminology.”¹⁵
- “The agency shall also seek to minimize the cost to itself of collecting, processing, and using the information, but *shall not* do so by means of *shifting disproportionate costs or burdens onto the public*.”

We urge that the PTO take clear account of cost to the public, and to seek to minimize those costs.

3.3. The *Final Bulletin on Agency Good Guidance Practices*

In its 2007 Bulletin to agencies, OMB reminded agencies of properties of good guidance documents:¹⁶

Well-designed guidance documents serve many important or even critical functions in regulatory programs. Agencies may provide helpful guidance to interpret existing law through an interpretive rule or to clarify how they tentatively will treat or enforce a governing legal norm through a policy statement. Guidance documents, used properly, can channel the discretion of agency employees, increase efficiency, and enhance fairness by providing the public clear notice of the line between permissible and impermissible conduct while ensuring equal treatment of similarly situated parties.

We urge the PTO to follow this advice, to provide guidance that genuinely “channels” examiners, and provides clear notice and (to the extent possible) “lines.” Final instructions should avoid wishy-washy tests, such as “factor balancing”—they give no guidance or predictability, especially when no case law suggests use of such indistinct tests.

The *Alice* and *Mayo* instructions are both unquestionably “economically significant guidance documents” covered by the *Good Guidance Bulletin*,¹⁷ § IV. IEEE-USA reminds the PTO that after reviewing public comments on “economically significant guidance documents,” the

¹³ 44 U.S.C. § 3506(c)(2)(A)(iv), § 3504(c)(3); *Dole v. United Steelworkers of America*, 494 U.S. 26, 32 (1990) (the Paperwork Reduction Act requires “Agencies [must] minimize the burden on the public to the extent practicable. See 44 U.S.C. § 3507(a)(1).”).

¹⁴ 44 U.S.C. § 3506(c)(3)(C), 5 C.F.R. § 1320.5(d)(1), § 1320.9(c).

¹⁵ 44 U.S.C. § 3506(c)(3)(D), 5 C.F.R. § 1320.9(d).

¹⁶ *Good Guidance Bulletin* (footnote 1), Introduction.

¹⁷ *Good Guidance Bulletin* (footnote 1) at § IV.

PTO “must prepare a robust response-to-comments document and make it publicly available.”¹⁸
IEEE-USA looks forward to reviewing the PTO’s response to comments.

4. CONCLUSION

IEEE-USA thanks the PTO for considering these comments in reviewing its proposal for the Examination Instructions in view of the Supreme Court Decision in *Alice*. We would welcome any further discussions with the PTO on these matters.

Respectfully submitted,

A handwritten signature in black ink, appearing to be 'T. Tierney', written in a cursive style.

Dr. Thomas Tierney

Vice President, Government Relations

¹⁸ *Good Guidance Bulletin* (footnote 1) at 17, 72 Fed. Reg. at 3438, col. 2.