



30 October 2015

**Via Electronic Mail: [2014\\_interim\\_guidance@uspto.gov](mailto:2014_interim_guidance@uspto.gov)**

Attn: Raul Tamayo  
Mail Stop Comments—Patents  
United States Patent and Trademark Office  
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Re: Comments on *July 2015 Update on Subject Matter Eligibility*, 80 Fed. Reg. 45429 (July 30, 2015)

Dear Mr. Tamayo:

IEEE-USA writes in response to the USPTO's Request for Comment on the USPTO's 2015 Update. IEEE-USA appreciates the care given by the USPTO to the 2015 Update, and its clear commitment to provide guidance to examiners. IEEE-USA also appreciates that the USPTO is informing inventors, attorneys, investors, entrepreneurs, and employers of the USPTO'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. Under the IEEE bylaws IEEE-USA represents the interests of IEEE members before the USPTO, 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, 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.

Recent Supreme Court decisions, (*Alice Corp. Pty. Ltd. v. CLS Bank Intern.*, 134 S.Ct. 2347 (2014), *Association for Molecular Pathology v. Myriad Genetics, Inc.*, 133 S.Ct. 2107 (2013), *Mayo Collaborative Services v. Prometheus Laboratories, Inc.*, 132 S.Ct. 1289 (2012), and *Bilski v. Kappos*, 561 U.S. 593 (2010)), have made extensive changes to the law regarding subject matter eligibility, particularly with respect to the exceptions for laws of nature, natural phenomena, and abstract ideas. In *Mayo* and *Alice*, the Supreme Court set forth and applied a new framework for distinguishing patents that claim such judicial exceptions from those that claim patent-eligible applications of those exceptions. The recent Supreme Court decisions have

generated extensive debate in the patent community, including within IEEE-USA’s Intellectual Property Committee. We sympathize with the USPTO in having to implement their teachings, and recognize that any meaningful guidance will be difficult. Nonetheless, we urge the USPTO 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.

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**1. IEEE-USA’s Comments Focus: Follow Requirements Imposed by Administrative Law**

IEEE-USA’s comments here are focused on the provisions of administrative law that require the USPTO to take specific steps in carrying out its functions, including its obligations to the public. These provisions, which are addressed in greater detail below, are referred to throughout these comments. The recommendations below are focused on achieving those obligations, requirements, and rights arising under the administrative law, and bringing issues to resolution quickly for the efficiency of the USPTO and of applicants.

## 2. Recommendations relating to global issues

### 2.1. Examination Guidance should be consistent with the case law: “Step One” and “Step Two” should have the meanings used in the rest of the law

From our reading of the 2015 Update, the USPTO appears to propose that the procedure outlined by the Supreme Court for determining subject matter eligibility is actually a three step process, with an additional step at the outset to ascertain whether a claim is directed to one of the four statutory categories.

In keeping with the requirement under the Paperwork Reduction Act to write rules using plain, coherent, and unambiguous terminology, and to avoid the confusion that results from renaming the Supreme Court’s Steps One and Two to “Step 2A” and “Step 2B,” we recommend renaming the USPTO’s current “Step One” to “Step Zero,” so that “Step One” and “Step Two” retain the meanings assigned by the Supreme Court. This is analogous to the “step zero” nomenclature that was applied to a new step added to the beginning of the Supreme Court’s *Chevron* inquiry.<sup>1</sup>

**Recommendation 1.** We urge that the Examination Guidance be drafted to use the Supreme Court’s naming conventions (“Step One,” and “Step Two”). To preserve that naming, we urge that any predecessor step be referred to as “Step Zero,” or a “prequalification under the categories,” or similar.

We will use the Supreme Court’s naming convention in this letter.

### 2.2. Examination Guidance should be clarified by reorganizing around the principle that (at present) there are three *separate* tests for subject matter eligibility, and mix-and-match is inappropriate

Examination Guidance must be clear that the old “machine-or-transformation” test, the pre-*Mayo* “law of nature” test, and new *Mayo/Alice* test are three distinct tests, much as enablement, written description, and utility are three separate tests.

For example, *Alice* states “The fact that a computer ‘necessarily exist[s] in the physical, rather than purely conceptual, realm,’ ... is beside the point.” If “physical” vs. “conceptual” is “beside the point,” this is clearly an *entirely* different legal analysis.

A claim must be analyzed “as a whole” under whatever test is applied. It is incorrect and confusing to “mix-and-match,” with Step One identifying an applicable judicial exception and the elements of a claim that recite that exception, and in Step Two applying a “something more” test for a different type of judicial exception to all or some of the remaining claim elements—it’s inconsistent with the “as a whole” requirement to apply one test in part, and a different test subsequently.

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<sup>1</sup> Thomas W. Merrill & Kristin E. Hickman, *Chevron’s Domain*, 89 Georgetown L.J. 833, 836, 839 & n.25 (2001) (coining the term “*Chevron* step zero”); adopted in *Tafas v. Doll*, 559 F.3d 1345, 1353, 90 USPQ2d 1129, 1134–35 (Fed. Cir. 2009),

- The “machine-or-transformation” test is still a “useful and important clue, an investigative tool” for determining whether some claimed inventions are processes under § 101.” *Bilski v. Kappos*, 130 S. Ct. 3218, 3227 (2010). Under “machine-or-transformation,” the relevant characteristic is whether each and every step, as recited, is “abstract” in the dictionary sense, relating to “mental process” without physical embodiment. *See, e.g., In re Comiskey*, 554 F.3d 967, 979 (Fed. Cir. 2009). Under this test, claims are considered with care and precision, analogous to an analysis related to § 102. The presence or absence of an “abstract idea” is determined as a matter of *claim interpretation*, not as a matter of fact amenable to official notice.
- Under the pre-*Mayo* test for “law of nature” and “natural phenomenon,” the relevant characteristic is whether each claim limitation is free of the hand of man. As in the “machine-or-transformation” test, claims are considered with precision, and the presence of human intervention is determined as a matter of claim interpretation.
- The *Mayo/Alice* test is as different from the pre-*Mayo* “machine-or-transformation” test as oil and water. The relevant characteristic is whether each claim limitation, separately or in combination, is abstract in an entirely different sense, for example fundamental, “long prevalent,” “well known,” “obvious,” and similar characteristics relating to scope, time, and breadth of knowledge.
- There are several differences in analysis that follow from the classification:
  - Under the old tests, outcomes turn on claim construction, so claims are construed with the precision used in evaluations under § 102 and § 103. In contrast, under the *Mayo/Alice* test, claims are considered in a less formal matter—for example, claim language that recites that a step is necessarily performed with a “computer” or in a “digital memory” may be “equivalent” to paper and pencil.
  - The *Mayo/Alice* test raises matters of fact (rather than claim interpretation), and thus requires *evidence*, though that evidence may come in through official notice of *documents* (though not through judicial notice of facts).

Before *Mayo* and *Alice*, it was well understood that the test for “abstract idea” claims and the test for “law of nature” claims were distinct and separate—for example, before 2010, no case of which we are aware mixed the two lines of reasoning, to observe that one part of a claim was performed in the human mind, and another part operated by natural principles—a claim only failed if it met one test or the other in its entirety. Similarly, both the Supreme Court and Federal Circuit have made clear that the new *Mayo/Alice* test is entirely separate from the older machine-or-transformation or “law of nature” tests as they were known before 2010. For example:

- In *Alice*, 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* is disjoint from the reasoning applicable under the “machine-or-transformation” test. *Alice* quite pointedly states that

even when a limitation of a claim is, with “no dispute ... in § 101 terms a ‘machine’,” that is “beside the point.”<sup>2</sup>

- The Federal Circuit keeps the tests distinct. For example, in *Allvoice Developments US v Microsoft Corp*, 612 Fed.Appx. 1009 (Fed. Cir. May 22, 2015), which was decided after *Alice*, uses “machine-or-transformation” reasoning, not a mix-and-match.

It would be improper to reject a claim by noting that one element meets the *Alice* Step One test for a *Mayo/Alice* abstract idea (for example, a long prevalent economic practice), and then in Step 2, other elements of the claim are excluded because they are in the human mind (but new), and other claim elements are natural.

We recognize that *Ultramercial Inc. v. Hulu, LLC*, 772 F.3d 709, 112 USPQ2d 1750 (Fed. Cir. 2014) (*Ultramercial VI*) uses machine-or-transformation reasoning for Step One, and *Mayo/Alice* reasoning for Step Two. However, the reasoning of *Ultramercial VI* is inconsistent with *Alice*’s statement that “machine-or-transformation” reasoning is “beside the point,” and the result is irreconcilable with *DDR Holdings*.

**Recommendation 2.** In order to comply with the requirement of the *Good Guidance* directive to provide helpful guidance that channels agency discretion, where the subject matter eligibility tests diverge, the Update should be broken apart into separate sections to make the distinctions clear. We present the three separate tests on the enclosed flow chart. This ripples through the Update at a number of places: For example:

- In the 2015 Update, sections III(A) and (B) (“fundamental economic practice” and “human activity”) are applicable under the *Mayo/Alice* test, while III(C) and III(D) (“an idea of itself” and “mathematical relationships/formulas”) are relevant under the machine-or-transformation test. It will confuse matters to present them together as if they were interchangeable alternatives to satisfying Step One (under the Court’s nomenclature) of a unified test.
- The Update on page 3 states that “examiners should keep in mind that judicial exceptions need not be old or long prevalent, and that even newly discovered judicial exceptions are still exceptions, despite their novelty.” The USPTO statement is true for the machine-or-transformation test, but not necessarily true for the *Mayo/Alice* test. (The 2015 Update offers no support or citation for this proposition. If this statement is retained in any future Examination Guidance as to *Alice* exceptions, IEEE-USA requests citation to support.)

**Recommendation 3.** The three tests are to be applied separately, but may be applied serially. For example, a claim that recites a “mathematical algorithm” that describes a natural law, and is either “long prevalent” or “fundamental,” could well trigger three inquiries, one under machine-or-transformation test (prompted by the presence of the algorithm) another under the *Mayo/Alice* test (prompted because the algorithm, even if implemented in a machine, might be “long prevalent” or “fundamental”), and a third under the “law of nature” test (prompted by the

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<sup>2</sup> *Alice*, 134 S.Ct. at 2358-59.

“law of nature” underlying the algorithm). The relevant characteristics to be considered under the three tests are different, and in that sense, the three are separate. All three sit in the same two-step framework.

**Recommendation 4.** Examination Guidance should clearly indicate that, while there is an analytical framework that encompasses review of subject matter eligibility under 35 U.S.C. § 101, there are three entirely different legal phenomena in play, and that reasoning applicable to one is not necessarily applicable to another. Segregating the Examination Guidance into three separate sections will clarify the instructions and make the distinctions clear. The Examination Guidance may make clear that examiners are free to apply more than one test for subject matter eligibility to a claim, but once they identify a judicial exception and start applying the test associated with it to the claim, that test should be applied through the entire analysis of the claim. Should the examiner elect to identify a second judicial exception and apply the test associated with the second exception to the claim, that second test should be applied through the entire second analysis of the claim, independent of the earlier analysis.

**Recommendation 5.** To comply with the requirement of the *Good Guidance* directive for helpful guidance, and the requirement of the Paperwork Reduction Act to minimize costs to the public, Examination Guidance should make clear that the Step Two analysis should use the same test as applied for Step One.

**Recommendation 6.** To minimize costs as required by the Paperwork Reduction Act, written rejections should clearly state which of the analyses is in play.

### **2.3. Examination Guidance should communicate the reasoning of the decisions they restate**

The 2015 Update gives categories and examples for subject matter eligibility, but does not provide the reasoning used by the courts for classifying the examples into the categories. Examiners are left to their own judgment to evaluate which properties of the facts are relevant and which are not, which analogies are apt, and which are not.

The 2015 Update states that an examiner should discuss how a rejected claim is “similar to at least one concept that the courts have identified as an abstract idea” but says *nothing* about how to identify the relevant point of similarity—Economic vs. commercial vs. medical vs. manufacturing vs. something else? Performed by computer vs. the human mind vs. a rubber molding press? Passive voice verbs vs. active voice?<sup>3</sup>

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<sup>3</sup> Attorneys contributing to this letter have been told by examiners in telephone interviews that claim language recited in passive voice would not be given weight for § 101 purposes, but had to be rewritten in active voice. After discussion of *IPXL Holdings LLC v. Amazon.com Inc.*, 430 F.3d 1377, 1384, 77 USPQ2d 1140, 1145 (Fed. Cir. 2005), the issue was resolved. Though the issue was resolved in this case, it illustrates the point—without express guidance as to the characteristics that *are* relevant under the law, a significant number of Office actions issue that rely on characteristics that are *not*, and this raises costs for both the PTO and for applicants. Such costs must be “minimized” under the Paperwork Reduction Act. See footnote 5.

**Recommendation 7.** In order to comply with the administrative law that requires agencies to provide their employees with guidance that provides “ascertainable standards” for application.<sup>4</sup> IEEE-USA suggests that Examination Guidance should instruct examiners that the relevant point of similarity is the characteristic that the courts have identified for each test for determining subject matter eligibility. The Paperwork Reduction Act requires the USPTO to “minimize” burden on the public,<sup>5</sup> and this guidance to identify relevant characteristics is required in order to meet that requirement.

The 2015 Update states “the courts have declined to define abstract ideas, other than by example.” True, there is no “definition” in the sense of a Webster’s “definition” that sets out metes and bounds, but the *Alice* Court was very clear in identifying relevant characteristics, in the manner of almost all common law reasoning. In *Alice*, the relevant characteristics that define an “abstract idea” relate to long use, scope and breadth of use, and the like:

- a fundamental economic practice **long prevalent** in our system of commerce;
- taught in **any introductory** finance class;
- a **building block** of our modern economy;
- **longstanding** commercial practice.

The relevant characteristics used in Step Two of *Alice* and *Mayo* (the “something more” portions of the analysis) also relate to long use, scope and breadth of use, and the like: “generic,” “well known in the art,” “conventional,” “purely conventional,” “well-understood, routine, conventional activities” previously known to the industry.” Though not strictly part of Step One (using the Courts’ nomenclature, step 2A in the 2015 Update), the reasoning for Step Two amplifies the inference that length, scope, and breadth of use are the characteristics relevant under Step One.

**Recommendation 8.** Examination Guidance must capture the reasoning of the cases, and explain to examiners the analogies and reasoning that is permissible, and what is irrelevant. For Step One of the *Mayo/Alice* test, an “abstract idea” must be “long prevalent,” “fundamental,” or a building block of human ingenuity. Examination Guidance must identify the “abstract idea” recited in the claim or laid out in the spec, and then identify the relevant characteristics, such as “long prevalent, well-known,” or “fundamental,” and supporting evidence.

**Recommendation 9.** Similarly, for a “machine-or-transformation” abstract idea, the relevant characteristic that defines the abstract idea is subject matter that, standing alone, can be calculated mentally. For example, the Arrhenius equation, standing alone, can be calculated mentally. The *Flook* formula is a simple multiplication and addition, easily calculated mentally.

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<sup>4</sup> *Holmes v. New York City Housing Auth.*, 398 F.2d 262, 265 (2d Cir. 1968).

<sup>5</sup> *Dole v. United Steelworkers of America*, 494 U.S. 26, 32 (1990) (The Paperwork Reduction Act requires “Agencies ... to minimize the burden on the public to the extent practicable. See 44 U.S.C. § 3507(a)(1).”)

Likewise, Examination Guidance should take care not to inject irrelevancy and unpredictability by departing from the case law. For example, at page 4, the 2015 Update reads “The term ‘fundamental’ is used in the sense of being foundational or basic, not in the sense of necessarily being ‘old’ or ‘well-known.’” Strikingly, the word “foundation” is used nowhere in *Alice*, and the word “basic” is never used in the way ascribed by the 2015 Update.

The problem is clearly visible in section III(A), the discussion of “Certain Methods of Organizing Human Activity.” All the 2015 Update says is that some “human activities” are covered, some are not, and then lists examples. However, the Update gives no reasoning or sorting characteristic to explain why some “human activity” falls in one category, and other activity does not. Mere categories without explanation of the factors that define those categories is not helpful in advancing prosecution. This leaves examiners with essentially no guidance on how to structure analogies from the listed examples to the claims under review, the consequence of which is that examiners are granted unlimited discretion.

As a matter of substantive law, the 2015 Update errs in not communicating the reasoning of the Court, in failing to require examiners to rely on it, and in lacking guidance in how to interpret the explanations and examples that are provided. Procedurally, the 2015 Update violates the Paperwork Reduction Act in not limiting the number of rejections that have to be responded to to only those with some valid basis,<sup>6</sup> and violates the Administrative Procedure Act by failing to provide their employees with an “ascertainable standard”<sup>4</sup> to apply.

**Recommendation 10.** In order to meet the requirement of the *Good Guidance* directive to provide helpful guidance, we strongly recommend that the next update of the Examination Guidance provide both examples and reasoning—including giving the reasoning to explain which analogies to the examples are legally relevant. A further update to Examination Guidance should set out the reasoning, and then tie in the examples to illustrate application of that reasoning. Such Examination Guidance would be genuinely helpful to both the examiner and to the public.

**Recommendation 11.** To comply with the requirement of the *Good Guidance* directive for helpful guidance, IEEE-USA urges that revised Examination Guidance provide the reasoning used by courts, so that examiners know which analogies and explanations are relevant and permissible—thereby making clear that other reasoning is impermissible—and so that applicants may refer to the reasoning in developing responses to examiners’ rejections.

#### **2.4. Examination Guidance should correctly state the law of official notice, and apply it to examination according to administrative law principles**

The 2015 Update states that:

Courts have not identified a situation in which evidence was required to support a finding that the additional elements were well-understood, routine or conventional, but rather treat the issue as a matter appropriate for judicial notice.

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<sup>6</sup> See footnote 5.

This statement is not accurate for many reasons:

**First:** The USPTO is obliged to support adverse decisions by “substantial evidence.”

The USPTO is not an Article III court. Unlike Article III courts, the USPTO is bound by the Administrative Procedure Act. The APA requires agencies (including the USPTO) to support any adverse decision by “substantial evidence.”<sup>7</sup> Courts have *not* granted the USPTO an exemption from the APA requirement for “substantial evidence.” There are many courses that are open to courts that are not open to the USPTO. Analogies to the powers of Article III courts must be made with great care, and this one is misleading.<sup>8</sup>

**Recommendation 12.** “Judicial notice” is inapplicable to administrative agencies; reference and analogies to judicial notice should be entirely removed.

**Second:** The permissible scope of official notice in agency proceedings is limited in ways not recognized in the 2015 Update.

There are two different kinds of judicial notice (and official notice)—notice of documents, and notice of facts. The two are quite different, and the misunderstanding in the Update may reflect a misunderstanding of this difference:

- The USPTO may take official notice of a standard reference work, such as Webster’s Unabridged Dictionary, and in turn may rely on that work to support a factual finding, such as that it was old to use vacuum for moving letters, packages and related matter by air pressure.<sup>9</sup>
- A court or agency may take notice of the combination of documents to show that a term is an established term of art, for example, the combination of a scientific book, a journal article, and a newspaper article to establish that the term “red gold” is a term of art. The tribunal may then take notice of a standard reference work, such as the Oxford English Dictionary, for the definition of that term.<sup>10</sup>
- An agency may admit a government report into evidence, but may not take official notice of every fact, summary, or opinion in that report<sup>11</sup>--notice of the document is not the same thing as notice of facts.

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<sup>7</sup> *In re Gartside*, 203 F.3d 1305, 1316, 53 USPQ2d 1769, 1774–75 (Fed. Cir. 2000) (USPTO findings must be supported by “substantial evidence”).

<sup>8</sup> As the USPTO argued to the Supreme Court—and won—court/court review and court/agency review are different, and analogies to one do not necessarily apply to the other. *Dickinson v. Zurko*, 527 U.S. 150, 154-55, 50 USPQ2d 1930, 1932-33 (1997).

<sup>9</sup> *In re Boon*, 439 F.2d 724, 727, 169 USPQ 231, 234 (CCPA 1971).

<sup>10</sup> *Solid 21, Inc. v. Breitling USA Inc.*, 2011 WL 2938209 at \*4 (C.D. Cal. Jul. 19, 2011).

<sup>11</sup> *Galina v. Immigration and Naturalization Svc.*, 213 F.3d 955, 958 (7th Cir. 2000) (Posner, J).

- Article III courts and agencies have the power to take judicial notice or official notice of standard treatises and the like, and once noticed, the document itself becomes “evidence.”

The explanation of the evidentiary issue in the 2015 Update does not take into account the limits on the scope of agency power to assert official notice, the agency’s obligation to provide “substantial evidence” support, and the procedures for getting evidence into the record at various phases of proceedings.

**Third:** The 2015 Update does not take into account the actual practice of the courts regarding reliance on evidence.

In applying the *Mayo/Alice* test, courts *do* cite evidence, sometimes introduced through judicial notice of *documents*. For example, *Alice* cites evidence for every point in its reasoning.<sup>12</sup> As the Update itself notes, so does *Bilski*. The 2015 Update notes, correctly, that the evidence cited in *Bilski* to show that “hedging” was well-known was not itself prior art. However, even though the documents themselves may not have been “prior,” they discuss that the relevant hedging and settlement techniques were in practice long prior to the date of the invention. A later document may show a prior state of the art. *In re Epstein*, 32 F.3d 1559, 1567, 31 USPQ2d 1817, 1822 (Fed. Cir. 1994). Second, in *Alice*, the Court supplemented its showing in *Bilski* of the history and extent of knowledge of “hedging” by citing a prior art document (an 1896 treatise) to show that “intermediated settlement” is “long prevalent.”

Under the older machine-or-transformation test, any requirement for activity outside the human mind was decided as a matter of claim interpretation, not as a matter of fact. Because there was no matter of fact, the question was *not* handled “as a matter appropriate for judicial notice.”

Thus, in application of the *Mayo/Alice* test, the statement that courts do not rely on “evidence” is incorrect. Under the “machine-or-transformation” test, the statement is a *non sequitur*. In either case, the statement only creates confusion, and should be removed.

**Fourth:** The definition of the term “evidence” encompasses more than is described in the 2015 Update.

In analogizing the use of judicial notice by examiners to its use by the courts, the 2015 Update likens examiners to appellate judges, and attempts to draw an analogy between the two tribunals in their admission of evidence into the record. The 2015 Update asserts:

[The materials cited by the Supreme Court in *Bilski*] cannot be evidence, however, because the Supreme Court is an appellate court limited to review of the record created below, *i.e.*, by the Office’s rejections.

and in footnote 18:

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<sup>12</sup> For example, *Alice* cites Emery, Speculation on the Stock and Produce Exchanges of the United States, in 7 Studies in History, Economics and Public Law 283, 346–356 (1896); Yadav, The Problematic Case of Clearinghouses in Complex Markets, 101 Geo. L. J. 387, 406–412 (2013); J. Hull, Risk Management and Financial Institutions 103–104 (3d ed. 2012).

It is a fundamental principle of law that an appellate court does not act on evidence that was not before the lower courts.

The statements in the Guideline do not take into account the following:

- On court review of an *agency*, new evidence often comes into the record during an appellate court’s review—new evidence is still “evidence.”<sup>13</sup> Judge Richard Posner of the Seventh Circuit has noted that he, like all other appellate judges, regularly looks outside the record to public sources for evidence of “legislative facts” and sources eligible for judicial notice.<sup>14</sup>
- The USPTO is not an Article III court—as the USPTO itself argued in *Dickinson v. Zurko*,<sup>15</sup> the standards are different, and analogies between Article III courts and administrative agencies are often misleading.
- An examiner is not an appellate tribunal. An examiner is a tribunal of first instance. Like any other tribunal of first instance, a crucial part of the examiner’s job is developing an evidentiary record. The Administrative Procedure Act requires *agencies* (including the USPTO) to support its factual determinations by “substantial evidence,” including factual determinations underlying § 101.
- Article III courts and agencies have the power to take judicial notice of standard treatises and the like, and once noticed, the document itself becomes “evidence.”

**Fifth:** The fact issues arising under the *Mayo/Alice* test are uniquely unsuitable for official notice.

In *Mayo/Alice* cases, to rebut official notice of “long prevalent” or “fundamental” would require an applicant to prove a negative—and the nature of that negative is essentially impossible to establish. Such a question is uniquely *not* suitable for official notice. If an idea is indeed either “fundamental” or “long prevalent” and also “capable of instant and unquestionable demonstration,” it will be *simple* for an examiner to locate “substantial evidence” to so demonstrate, by coming forward with a document showing the idea. The contrary is nearly impossible, and expecting applicants to do so is counter to the USPTO’s obligation under the

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<sup>13</sup> Stark and later-D.C. Circuit Chief Judge Sarah Wald, *Setting No Records: The Failed Attempts to Limit the Record in Review of Administrative Action*, 36 Admin. L. Rev. 333, 335–36 (Fall 1984) (“courts have developed so many unwritten exceptions to the doctrine of record review, that industrious advocates can now introduce any evidence they choose in cases involving review of informal administrative action.”); *Esch v. Yeutter*, 876 F.2d 976, 991 (D.C. Cir. 1989) (setting out eight categories of evidence that may be adduced in a court of appeals on review of an agency decision).

<sup>14</sup> Richard A. Posner, Effective Appellate Brief Writing, [http://www.abanet.org/litigation/litigationnews/trial\\_skills/appellate-brief-writing-posner.html](http://www.abanet.org/litigation/litigationnews/trial_skills/appellate-brief-writing-posner.html) (Sep. 1, 2010) (unpublished) (“The Web is an open source; it is as great a resource for lawyers as for judges”).

<sup>15</sup> *Dickinson v. Zurko*, 527 U.S. 150, 155, 50 USPQ2d 1930, 1933 (1999) (5 U.S.C. § 559 requires that departures or exemptions from government-wide requirements of the Administrative Procedure Act exist only where stated explicitly).

Paperwork Reduction Act and Executive Order 12,866 to avoid shifting disproportionate costs or burdens onto the public.

**Sixth:** Under either the machine-or-transformation test and *Mayo/Alice* test, “official notice” in a USPTO rejection is inappropriate:

- Under the older machine-or-transformation test, “judicial notice” or “official notice” are irrelevant. The presence of an “abstract idea” is determined as a matter of claim interpretation, not as a matter of fact. “Notice” only applies to facts.
- Under the *Mayo/Alice* test, “official notice” is beyond the USPTO’s authority. As an agency governed by the APA, making a decision on a matter of fact, the USPTO must support all factual determinations decisions adverse to the applicant by substantial evidence.

Under either test, official notice is inapplicable, so reference to official notice should be removed.

**Recommendation 13.** To comply with the “substantial evidence” requirement of the Administrative Procedure Act, Examination Guidance should make clear that when the *Mayo/Alice* test is invoked, the determination that an idea is “abstract” must be supported by substantial evidence. Guidance should make clear that examiner assertion or explanation is not evidence.

**Recommendation 14.** To comply with the requirement of the *Good Guidance* directive for helpful guidance, and the requirement of the Paperwork Reduction Act to minimize costs to the public, references to judicial notice and official notice should be removed.

**Recommendation 15.** IEEE-USA has noted before that the USPTO’s official notice practice is almost certainly in violation of the Paperwork Reduction Act.<sup>16</sup> The discussion of official notice in MPEP § 2144.03 should be corrected as we discussed in our 2012 and 2013 letters.

**2.5. Any action stating a § 101 subject matter rejection should begin by clearly and precisely identifying the applicable exception, and the particular “abstract idea,” “law of nature,” or “natural phenomenon” that triggers that exception**

**Recommendation 16.** To comply with the requirement of the *Good Guidance* directive for helpful guidance, and the requirement of the Paperwork Reduction Act to minimize costs to the public, every rejection under § 101 should expressly state the “abstract idea,” “law of nature,” or “natural phenomenon” at issue. Like any other legal statement, the statement 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

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<sup>16</sup> IEEE-USA, comment letter on Request for Continued Examination (RCE) Practice, 77 Fed. Reg. 72830 (Dec. 6, 2012), [http://www.uspto.gov/sites/default/files/patents/law/comments/ieee\\_20130204.pdf](http://www.uspto.gov/sites/default/files/patents/law/comments/ieee_20130204.pdf) at § 3.10 (Feb. 4, 2013).

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 the appropriate analysis in Step Two (under the Court’s nomenclature) of the *Mayo/Alice* framework is likewise unclear.

Imprecision in identification of the abstract idea has consequences for the entire rest of the analysis. Attorneys contributing to this letter have received Office Actions in which the Step One discussion uses one “abstract idea,” and the Step Two analysis uses a different abstract idea. Had the two been consistent, there is a good likelihood that no rejection would have been raised. This is inefficient for both the USPTO and for applicants.

**Recommendation 17.** In order to comply with the USPTO’s obligations under the Paperwork Reduction Act, and *Good Guidance* directive, to increase efficiency, enhance fairness, and fully explain the reasoning of examiners, further-revised Examination Guidance 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,” “law of nature,” or “natural phenomenon,” 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 7, avoidable delay is inconsistent with the USPTO’s obligations under administrative law.

### **3. Recommendations relating to the machine-or-transformation test and the *Chakrabarty* “law of nature / natural phenomenon” test**

In large part, USPTO’s pre-*Alice* explanation of the machine-or-transformation test as stated in the 2010 edition of the MPEP § 2106 was reasonably accurate.

**Recommendation 18.** Pursuant to the *Good Guidance* directive, these sections should be retained, and clearly labeled as applicable under the *Chakrabarty* “law of nature” test or the machine-or-transformation test.

Often, a claim recites some language that is clearly not mental, or not natural, and the claim is nonetheless rejected under § 101; yet there is no discussion of the most-relevant claim language. The applicant is left to guess—did the examiner have some view on this language to suggest that it is not the necessary “something more” or “application,” or did the examiner simply overlook it?

**Recommendation 19.** To comply with the USPTO’s obligations to minimize costs under the Paperwork Reduction Act, and to provide guidance that channels agency discretion to avoid shifting costs to the public, IEEE-USA recommends that revised Examination Guidance require

the examiner to review the claim to identify one or two “best candidates.” It may well be that the examiner will find this language sufficient to satisfy the *Chakrabarty* or machine-or-transformation tests, and no rejection will be raised. If the examiner has the view that even this “best candidate” language is insufficient, the examiner should give a clear explanation or examples—this will allow the applicant to efficiently meet the examiner’s concern.

#### **4. Recommendations relating to the *Mayo/Alice* test**

##### **4.1. IEEE-USA appreciates the careful categorization of abstract ideas**

IEEE-USA appreciates the care taken by the USPTO to providing a navigational path through “abstract idea” by providing a careful categorization of “abstract ideas” found in court decisions. Further revisions to the Examination Guidance should constrain abstract ideas to those that fall into particular categories, without freely expanding them. In addition, the Examination Guidance should provide the examiners with guidance as to the reasoning the courts used in characterizing the categorized “abstract ideas” (see sections 2.3 and 4.2).

As noted in the 2014 *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.

**Recommendation 20.** To comply with the USPTO’s obligations to provide explanations that are sufficient to permit an applicant to know how to respond, IEEE-USA recommends that “abstract ideas” be limited to the categories enumerated in the 2015 Update, unless the examiner obtains clearance through use of a specified procedure that complies with the *Bulletin on Agency Good Guidance Practices* requirements for “appropriate justification and supervisory concurrence.” One appropriate procedure would require examiners to provide a clear explanation in the Action, with the signoff of a designated “§ 101 specialist” in the examining group, exercising great care. To comply with the USPTO’s obligations to applicants with respect to receiving examination that proceeds under written, predictable, ascertainable standards, we also recommend that Examination Guidance should clarify and enforce the adopted procedure.<sup>17</sup>

The 2015 Update and the 2014 *Preliminary Instructions* use phrases such as “*certain* methods of organizing human activities.” Such terms create confusion among both examiners and the public. What is the test for “certain?” With no ascertainable standard, this phrase of the 2015

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<sup>17</sup> The *Bulletin on Agency Good Guidance Practices* (which we discuss at section 7.4 of this letter) notes that first-level agency decision-makers, such as examiners, should not go beyond USPTO guidance without “appropriate justification and supervisory concurrence.” *Good Guidance* directive (footnote 36) § II(1)(b), 72 Fed. Reg. 3440 col. 1; <http://www.whitehouse.gov/omb/memoranda/fy2007/m07-07.pdf> at 20.

Update and the 2014 *Preliminary Instructions* is unhelpful, and, under administrative law, likely unlawful.<sup>18</sup>

**Recommendation 21.** To comply with the USPTO’s obligations to write its regulations and rules using plain, coherent, and unambiguous terminology, a further revision to the Examination Guidance should eliminate terms such as “certain” or “some.” IEEE-USA suggests that the USPTO consider using terms such as “enumerated.”

#### **4.2. In the context of the *Mayo/Alice* test, Examination Guidance should restate the necessary characteristics of an *Alice* “abstract idea”**

When applying the *Mayo/Alice* test (as opposed to the machine-or-transformation test), the characteristics that defined an “abstract idea” during the “machine-or-transformation” era (from *Diehr* through *Alappat* and *Bilski*) are irrelevant. When applying the *Mayo/Alice* test, the following characteristics define a *Mayo/Alice* abstract idea (see the relevant language quoted in section 2.3):

- The purported *Alice* “abstract idea” must fit an enumerated specific categories of section 4.1, with the proviso we recommend in section 4.1, Recommendation 20.
- An *Alice* abstract idea is defined by characteristics relating to scope, time, and breadth of knowledge, such as “fundamental” or “long prevalent.” For example,
  - for “long prevalence”, the law requires a showing, with “substantial evidence” support, that the idea is “long” known, and “prevalently” used.
  - For “fundamental”, the law requires “substantial evidence” support, such as at least one introductory text showing that the idea is taught in an introductory course in the subject, or some similar showing that the idea was deeply embedded throughout the relevant field.
  - Even if an idea is logical and correct, an idea is not “abstract” unless it is “long prevalent,” “fundamental,” or a “building block of human ingenuity.”
  - Mere § 102 novelty one day before an applicant’s filing date is insufficient to show that the purported *Mayo/Alice* abstract idea is a “building block of human ingenuity.”

**Recommendation 22.** To comply with the requirement of the *Good Guidance* directive for helpful guidance, as we urged in section 2.3, IEEE-USA urges that revised Examination Guidance provide the reasoning used by courts, so that examiners know which analogies and explanations are relevant and permissible to establish a *Mayo/Alice* abstract idea. It should be

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<sup>18</sup> 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 36), Introduction (urging agencies to use guidance to “channel” the activities of employees).

clear that other reasoning is impermissible—or at least requires “appropriate justification and supervisory concurrence.” Examination Guidance should make clear that an applicant may rebut the examiner’s showing of an *Alice* abstract idea. A rebuttal may argue that the examiner omitted a necessary showing-- for example, if the examiner relies on "long prevalent," it would be an effective rebuttal to point out that the action only shows a single use, not "prevalent." Other effective rebuttals would argue that the examiner failed to provide substantial evidence, or that the showing is irrelevant to the legally-relevant characteristics (perhaps a mixing of machine-or-transformation mental steps with *Alice*-type abstract idea characteristics). The applicant need not rebut every conceivable showing that could conceivably support the showing of "abstract idea." Rather, because the examiner bears burden of going forward, the applicant need only rebut the showings presented by the examiner's action.

**Recommendation 23.** To comply with the requirement of the Good Guidance directive for helpful guidance, revised Examination Guidance should clarify that an idea is “abstract” in the *Alice* sense only if it is “long prevalent,” “fundamental,” or a “building block” of the field.

#### **4.3. Each step in a *Mayo* or *Alice*-based rejection must be supported by substantial evidence**

As we discussed in section 2.4 of this letter, each showing for an *Alice* rejection 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 each finding of a characteristic of a *Mayo/Alice* abstract idea, such as “long” standing, “prevalent,” or “fundamental.” Examination Guidance must make clear that examiner explanation, or argument is not “substantial evidence.”<sup>19</sup> Examination Guidance should make clear that an examiner’s personal assertion or explanation that something is “well known” under MPEP § 2144.03 is not relevant to the evidentiary showings required for § 101.

**Recommendation 24.** To comply with the requirement of the Administrative Procedure Act for “substantial evidence,” and the requirement of the *Good Guidance* directive for helpful guidance, the USPTO should supply form paragraphs that include “fill-ins” requiring express written findings of:

- the designated category of the purported *Mayo/Alice* abstract idea, with citation to the claim element(s) or location in the specification that set forth the purported *Mayo/Alice* abstract idea, an identification of the characteristics that make it an “abstract idea” (such as being “fundamental “or “long prevalent”), each (as appropriate) supported by citation to substantial evidence; and
- Identification of the best candidate “inventive concept” as recited in the remainder claim elements along with citation to the claim element(s) that set forth the purported “inventive concept”; comparison of the best candidate “inventive

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<sup>19</sup> *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”).

concept” to substantial evidence to show that and how the best candidate “inventive concept” does not recite “something more” to transform the claim into patent-eligible subject matter, such as being “well known,” fundamental, or the like, with citation to substantial supporting evidence (Step Two).

#### **4.4. Examination Guidance should clearly state permissible grounds of rebuttal of Step One**

**Recommendation 25.** To comply with the requirement of the *Good Guidance* directive for helpful guidance, and the requirement of the Paperwork Reduction Act to minimize costs to the public, a further revision to Examination Guidance should make clear that an applicant may rebut the abstract idea identified in Step One (under the Court’s nomenclature) by any enumerated showings such as one of the following:

- An omission of a showing required in either section 2.5 or 4.2. 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 *Mayo/Alice* 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 Office action to identify an “algorithm” that was unrelated to the claim, and a return to such unclear rejections should be avoided.
- The purported *Mayo/Alice* abstract idea is not as identified in the Action, for example, it is not “long prevalent,” “fundamental,” or a “building block of human ingenuity” (whichever was shown in the Action).
- The showing of *Mayo/Alice* abstract idea is not supported by substantial evidence.
- The purported *Mayo/Alice* abstract idea identified in the Action does not fit in the category from section 4.1.

IEEE-USA and several other commenting parties raised this in the last round of comments, and we are puzzled that it is not included in this Update, nor is there a “robust response to comment” as required by the *Good Guidance* bulletin (see 7.4). Of course an agency has no obligation to accept every suggestion when revising its economically significant guidance, but it does have an obligation to explain when it chooses not to do so, just as when an agency declines a suggestion in a regulatory notice-and-comment setting. The 2015 Update purports to respond to six groups of comments, however, several of IEEE-USA’s comments (and comments of others) do not fall within those six groups.

#### **4.5. Examination Guidance should require clear and explicit written findings in Step Two**

In order to comply with the requirements imposed by administrative law, Examination Guidance should require clear and explicit written findings in Step Two. Examination Guidance should make clear that an Action containing a § 101 rejection must make an element-by-element showing against each and every claim limitation, in the same manner as a § 103 rejection is made. *Alice*, slip op. at 14-15, considers each claim element, and makes express findings to establish that each is “purely conventional” or similarly “obvious” or “well known.” This is the essence of the

Step Two analysis (“Two” under the Court’s nomenclature, 2B under the nomenclature used in the 2015 Update), and its omission from the 2015 Update should be corrected.

**Recommendation 26.** *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* and *Mayo* require that each element and the “ordered combination” be more than “well-understood, routine, conventional activity.” *Mayo*, 132 S. Ct. at 1298. Examination Guidance should make clear that showings that might be adequate for a § 103 rejection are not adequate for a § 101 rejection.

**Recommendation 27.** To comply with the requirement of the *Good Guidance* directive to provide guidance that channels agency discretion and reduces costs to the public, and the requirement of the Paperwork Reduction Act to minimize costs to the public, Examination Guidance and form paragraphs should require an element-by-element comparison of the claim to whatever evidence is relied on.

**Recommendation 28.** To comply with the requirement of the *Good Guidance* directive for helpful guidance, and the requirement of the Paperwork Reduction Act to minimize costs to the public, Examination Guidance 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. Examination Guidance 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 2.5.

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 USPTO backlog. Making the requirements clear *a priori* will prevent examiners from spending time on fruitless and frustrating tasks, and is required to comply with the USPTO’s obligations under the Paperwork Reduction Act to minimize costs to the public.

#### **4.6. Pre-emption should be discussed in the Step Two showings**

The 2015 Update handles pre-emption on page 8, at § VI: “The Supreme Court has described the concern driving the judicial exceptions as preemption; however, the courts do not use preemption as a stand-alone test for patentability.”

**Recommendation 29.** To comply with the requirement of the *Good Guidance* directive for helpful guidance, IEEE-USA urges that a great many rejections could be avoided if Examiner Guidance for *prima facie* rejected instructed review the claim for one or two “best candidate” claim limitations (or a combination) that would show *non* pre-emption, that is, a situation that *does* involve the purported *Mayo/Alice* abstract idea, but falls outside the claim. (Any claim limitation that is relevant to distinguish the art for novelty or non-obviousness would be a good candidate.) Any written rejection should address those “best candidate” claim limitations to show that the *Mayo/Alice* abstract idea remains pre-empted. Pursuant to the USPTO’s duty to minimize costs to applicants,<sup>20</sup> and indeed to save costs to itself by saving examiners the time of writing poorly-

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<sup>20</sup> See footnote 5.

founded rejections, Examination Guidance should require examiners to identify “best candidate” claim language, and show that it is nonetheless insufficient to provide the “something more” required by the *Mayo/Alice* framework. We anticipate costs savings in rejections *not* raised.

**Recommendation 30.** Pre-emption is highly relevant to *rebuttal*. *Alice* reiterates several times that “pre-emption” is the fundamental concern in this area, and that *Alice*’s claims were invalid because they would pre-empt all use of “a fundamental economic practice long prevalent in our system of commerce.”

**Recommendation 31.** To comply with the requirement of the *Good Guidance* directive for helpful guidance, and the requirement of the Paperwork Reduction Act to minimize costs to the public, Examination Guidance should make clear that an applicant may rebut by showing at least one substantial embodiment that falls outside the claim, and uses the abstract principle identified under provision 2.5. If there is an embodiment of the abstract idea that is not claimed, then the principle is not pre-empted, and the claim is eligible.

#### **4.7. Examination Guidance should clearly state the bases on which an applicant may rebut Step Two**

**Recommendation 32.** In order to comply with the requirement of the *Good Guidance* directive for helpful guidance, and the requirement of the Paperwork Reduction Act to minimize costs to the public, Examination Guidance should clarify that Step Two can be rebutted by any of the following showings:

- An omission of any of the showings of section 4.5.
- 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].”
- That the claim does not pre-empt the purported “abstract idea” or “law of nature”—Examination Guidance should explain that a showing that there are embodiments of the idea or law that fall outside the claim require that the rejection must be withdrawn, as we discussed further in section 4.6.

Examination Guidance should also clarify that “long-standing,” “long prevalent,” or similar phraseology is not equivalent to “always existing” as from the beginning. On the other hand, “long prevalent” requires substantially more than recent discovery. It requires some “long” length of time of existence (somewhere between “always” and just discovered). “Prevalent” requires a showing of use in many past settings.

Likewise, some length of knowledge is a factor in whether an idea is a “building block of human ingenuity.” It may be a factor in whether an idea is “fundamental.” Showing that an idea or concept is a building block of human ingenuity is difficult if it is recent, and it may be impossible if it is not well known or not in widespread use.

#### **4.8. 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.

**Recommendation 33.** In order to comply with the requirement that guidance clarify and appropriately limit discretion,<sup>21</sup> Examination Guidance should describe the role that the “improvement” considerations play: they are not necessary to rebuttal or eligibility. Rather, 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 4.4 and 4.7 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.

**4.9. Examination Guidance should clarify that examiners may not combine multiple “abstract ideas” in a claim or designate the entire claim as a single “abstract idea” to eviscerate the “remainder” of the claim**

**Recommendation 34.** In order to comply with the requirement that guidance clarify and appropriately limit discretion,<sup>21</sup> Examination Guidance 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 sections 4.1 and 4.2 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. Examination Guidance 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.

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<sup>21</sup> The Paperwork Reduction Act, discussed in section 7.2 and 7.3 of this letter, and the *Good Guidance* directive, discussed in section 7.4 of this letter.

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

**Recommendation 35.** In furtherance of the *Good Guidance* directives' obligation to channel agency discretion, Examination Guidance should reiterate the holding of *Bilski v. Kappos*, 561 U.S. 593 (2010), that there is no categorical exclusion of business methods from patent eligibility.

IEEE-USA's recommendation from sections 4.1 and 4.2 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. Relatively new, or little used, business methods are not "abstract ideas" for the *Mayo/Alice* test.

**4.11. Examination Guidance 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).

**Recommendation 36.** In order to comply with the requirement of the *Good Guidance* directive to provide helpful guidance to channel the discretion of agency employees, Examination Guidance should specify that lack of clarity is not the kind of "abstractness" that raises concern under § 101.

**4.12. Examination Guidance should explain the relationship between obviousness and abstract idea**

**Recommendation 37.** In order to comply with the requirement of the *Good Guidance* directive to provide helpful guidance to channel the discretion of agency employees, Examination Guidance may suggest that an action raising a § 101 rejection may rely in part on findings made under § 102 and § 103 (though with the additional requirements for "longstanding" and "prevalent" from sections 4.2 and 4.5),

**Recommendation 38.** To comply with the USPTO's obligations under the Paperwork Reduction Act to minimize costs to the public, Examination Guidance may suggest that, if a claim is not rejected for either anticipation or obviousness, and is rejected under *Mayo/Alice*, then the Action should carefully explain how the claim "in ordered combination" has no "inventive concept." It is plausible that a claim could fail § 101 and meet § 102/§ 103, but such situations are the exception, and should be carefully explained.

**4.13. Examination Guidance should clarify that Step Two must consider the claim with the precision and completeness of a § 102 or § 103 analysis**

**Recommendation 39.** In order to comply with the requirement of the *Good Guidance* directive to provide helpful guidance to channel the discretion of agency employees, imposed by administrative law, Examination Guidance 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.<sup>22</sup> § 101 rejections must cite “substantial evidence,” just as any § 102 or § 103 (and many § 112(a)) rejection must. It is incomplete for an Office Action to reject dependent claims or independent claims reciting similar or a different combination of limitations that have already been reviewed under § 101 without making an element-by-element showing against each and every claim limitation, in the same manner as a § 103 rejection is made, to determine whether the claims, in whole or in part, recite eligible subject matter.

## **5. Examination Guidance 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.

**Recommendation 40.** To comply with the requirement of the Administrative Procedure Act, that an agency explain its position on each material issue in an adverse decision, Examination Guidance should make clear that a *pro forma* § 101 rejection does not substitute for careful consideration of all other issues, including § 102, § 103, and § 112. An applicant is entitled to an Action that is “complete with respect ... to compliance of the application ... with the applicable statutes and rules” and “complete as to all matters” 37 C.F.R. § 104(a) and (b). This is especially important with respect to § 103, because issues clearly stated under § 103 and resolved in that context may ease allowance under § 101 as well.

## **6. Final rejection**

In four recent decisions, the Federal Circuit has given substantial guidance on the definition of “new ground of rejection.”<sup>23</sup> 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 USPTO with costs when the USPTO’s position ran contrary to the court’s previous holdings). The Court reiterated that its “new ground” line of cases arises under the Administrative Procedure Act.<sup>24</sup>

In most instances, a § 101 rejection under the *Alice* test will include at least one new finding of fact, either that that some concept is an abstract idea, law of nature, or natural

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<sup>22</sup> See footnote 19.

<sup>23</sup> *In re Biedermann*, 733 F.3d 329, 336–37, 108 USPQ2d 1623, 1628 (Fed. Cir. 2013) (“Under the APA, the PTO must assure that an applicant’s petition is fully and fairly treated at the administrative level. The APA requires the PTO to provide prior notice to the applicant of all matters of fact and law asserted prior to an appeal hearing before the Board.”); *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).

<sup>24</sup> *In re Biedermann*, 733 F.3d 329, 336, 108 USPQ2d 1623, 1628 (Fed. Cir. 2013); *Rambus, Inc. v. Rea*, 731 F.3d 1248, 1255, 108 USPQ2d 1400, 1406 (Fed. Cir. 2013) (same); *In re Stepan Co.*, 660 F.3d 1341, 1345, 100 USPQ2d 1489, 1492 (Fed. Cir. 2011) (same); *In re Leithem*, 661 F.3d 1316, 1319, 100 USPQ2d 1155, 1159 (Fed. Cir. 2011) (same).

phenomenon, and/or that certain claim limitations are “purely conventional” in the sense of *Alice* and *Mayo*.

**Recommendation 41.** To comply with the USPTO’s obligations under the Administrative Procedure Act, further revisions to Examination Guidance should clarify that these “new findings of fact” are “new grounds” that prevent final rejection if not necessitated by amendment.

**Recommendation 42.** The USPTO’s guidance on “new ground of rejection” in MPEP § 1207.03(a) is incorrect, and should be updated. We note the suggestions offered by public comment letters.<sup>25</sup> 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. The USPTO has two separate obligations to so respond, one under the APA for the past regulatory comment letters, and under the *Good Guidance* directive for this comment on economically significant guidance.

## 7. Relevant Administrative Law and Regulatory Principles

Our suggestions above are grounded in specific provisions of administrative law that require the USPTO to take steps to minimize burden to the public.

### 7.1. Examiners have an obligation to explain, and supervisory staff (SPEs, TC Directors, Ombudsmen, etc.) have an obligation to manage and direct to ensure that that duty is carried out

The 2015 Update states, correctly, that “In particular, the initial burden is on the examiner to explain why a claim or claims are unpatentable clearly and specifically, so that applicant has sufficient notice and is able to effectively respond.” However, the 2015 Update provides no enforcement mechanism to ensure that examiners properly fulfill their initial burdens.

As IEEE-USA explained in an earlier comment letter, the convention of nonintervention by supervisory personnel is contrary to statute.<sup>26</sup> SPEs, TC Directors, and petitions decision-makers have an obligation to intervene when an examiner is silent or uses reasoning that departs from the reasoning set forth in Examination Guidance. When the examiner has put reasoning to paper, and there is a point validly in dispute between the examiner and applicant, then the exclusive jurisdiction of the Board kicks in. However, if the dispute is between the examiner and

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<sup>25</sup> 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](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](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](http://www.uspto.gov/news/fedreg/comments/0651-0031_IEEE_Comment.pdf) at pages 34-40 and 52-57 (May 29, 2012)

<sup>26</sup> IEEE-USA, comment letter on Request for Continued Examination (RCE) Practice, 77 Fed. Reg. 72830 (Dec. 6, 2012), [http://www.uspto.gov/sites/default/files/patents/law/comments/ieee\\_20130204.pdf](http://www.uspto.gov/sites/default/files/patents/law/comments/ieee_20130204.pdf) at § 3.7 and Attachment E (Feb. 4, 2013).

the Director's instructions set forth in Examination Guidance, supervisory staff have an obligation to supervise.

Applicants have a procedural right to have examiners follow the rules. The Board has been clear that it lacks subject matter jurisdiction to enforce that procedural right, and indeed it is a frustrated with examiners that don't do their jobs as applicants are.

**Recommendation 43.** In order to comply with the requirements imposed by administrative law, a further update to Examination Guidance should make clear that SPEs, TC Directors, and the Office of Petitions have the obligation to keep examiners on track, at least to the extent of requiring that an Action sets forth all elements of a *prima facie* case, and answer all material traversed. Once an examiner does that much—even if it's totally wrong—*then* the supervisory role is ended, but not before.

## **7.2. Several laws require that the USPTO seek to minimize costs and burden on the public**

- The USPTO 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.”<sup>27</sup> the obligation to examine applications in a “fair, impartial, and equitable manner,”<sup>28</sup> the obligation under the Administrative Procedure Act to “in a reasonable time, conclude a matter presented to [the agency]”,<sup>29</sup> the Paperwork Reduction Act and its implementing regulations (further discussed in section 7.3),<sup>30</sup> Executive Order 12,866, the *Bulletin on Agency Good Guidance Practices* (further discussed in section 7.4),<sup>31</sup> and the like. Generally, these laws require the USPTO to take into account costs to the public, to weigh them against whatever savings the USPTO hopes to achieve, and to minimize costs to the public. The Examination Guidance we recommend above are focused on forcing issues to resolution quickly.
- The burden of proof is on the USPTO to prove that the applicant is not entitled to a patent on his invention. The courts have routinely held that this means that the USPTO has a burden of showing a *prima facie* case of anticipation, obviousness, etc. in order to

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<sup>27</sup> See *Helfgott & Karas, P.C. v. Dickinson*, 209 F.3d 1328, 1336, 54 USPQ2d 1425, 1431 (Fed. Cir. 2000).

<sup>28</sup> 35 U.S.C. § 3(a)(2)(A).

<sup>29</sup> 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>.

<sup>30</sup> 44 U.S.C. § 3501 *et seq.* and 5 C.F.R. Part 1320.

<sup>31</sup> *Good Guidance Bulletin* (footnote 36).

overcome this presumption of patentability.<sup>32</sup> 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.

### 7.3. The Paperwork Reduction Act

IEEE-USA again draws the USPTO'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."<sup>33</sup> 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."<sup>34</sup>
- Rules must be "written using plain, coherent, and unambiguous terminology."<sup>35</sup>
- "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 USPTO take clear account of cost to the public, and to seek to minimize those costs.

### 7.4. The Bulletin on Agency Good Guidance Practices

In its 2007 Bulletin to agencies, OMB reminded agencies of properties of good guidance documents:<sup>36</sup>

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,

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<sup>32</sup> *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").

<sup>33</sup> 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).").

<sup>34</sup> 44 U.S.C. § 3506(c)(3)(C), 5 C.F.R. § 1320.5(d)(1), § 1320.9(c).

<sup>35</sup> 44 U.S.C. § 3506(c)(3)(D), 5 C.F.R. § 1320.9(d).

<sup>36</sup> 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).

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 USPTO to follow this advice, to provide guidance that genuinely “channels” examiners, and provides clear notice and (to the extent possible) “lines.” Examination Guidance 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.

This Examination Guidance is unquestionably an “economically significant guidance document” covered by the *Good Guidance Bulletin*,<sup>37</sup> § IV. IEEE-USA reminds the USPTO that after reviewing public comments on “economically significant guidance documents,” the USPTO “must prepare a robust response-to-comments document and make it publicly available.”<sup>38</sup> IEEE-USA appreciates the USPTO’s compliance with its obligation to provide response to comments in the 2015 Update, and looks forward to reviewing the USPTO’s future response to comments. IEEE-USA respectfully requests such responses be issued more quickly in future, as uncertainty in determining subject matter eligibility will result in loss of patent rights for IEEE’USA’s members.

**Recommendation 44.** The 2015 Update does not clearly specify which guidance remains in effect, and which has been superseded. This lack of clarity is problematic under the *Good Guidance Bulletin*,<sup>39</sup> as well as the Information Quality Act<sup>40</sup> and the USPTO’s own *Information Quality Guidelines*.<sup>41</sup> IEEE-USA respectfully recommends that the USPTO identify which parts of previous guidance remain in effect and which are superseded.

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<sup>37</sup> *Good Guidance Bulletin* (footnote 36) at § IV.

<sup>38</sup> *Good Guidance Bulletin* (footnote 36) at 17, 72 Fed. Reg. at 3438, col. 2.

<sup>39</sup> 44 U.S.C. § 3506(c)(3)(D) (agency rules must be “written using plain, coherent, and unambiguous terminology and is understandable to those who are to respond”).

<sup>40</sup> Consolidated Appropriations Act, 2001 Pub.L. 106-554, § 1(a)(3) [Title V, § 515] (Dec. 21, 2000), codified in notes to 44 U.S.C. § 3516.

<sup>41</sup> U.S. Patent and Trademark Office, Information Quality Guidelines, <http://www.uspto.gov/web/offices/ac/ido/ifoqualityguide.html>.

## **8. Conclusion**

IEEE-USA thanks the USPTO for considering these comments in reviewing its proposal for the 2015 Update. We would welcome any further discussions with the USPTO on these matters.

Respectfully submitted,

James Jefferies  
2015 IEEE-USA President

# Mayo/Alice §101 Analysis Framework



