



November 4, 2015

The Honorable Michelle K. Lee
Under Secretary of Commerce for Intellectual Property &
Director of the United States Patent and Trademark Office
Mail Stop Comments – Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450
Attention: Raul Tamayo, Senior Legal Advisor, Office of Patent Legal Administration

Via email: 2014_interim_guidance@uspto.gov

Re: IPO Comments on July 2015 Update on Subject Matter Eligibility

Dear Director Lee:

Intellectual Property Owners Association (IPO) submits the following comments in response to the United States Patent and Trademark Office's request for input on its examination guidance on patent subject matter eligibility, as set forth in 80 Fed. Reg. 146 (July 30, 2015) ("July 2015 Update" or "Update").

IPO is a trade association representing companies and individuals in all industries and fields of technology who own or are interested in intellectual property rights. IPO's membership includes more than 200 companies and more than 12,000 individuals who are involved in the association, either through their companies or through other classes of membership.

The July 2015 Update discusses issues raised by the public comments on the 2014 Patent Interim Eligibility Guidance ("IEG"). IPO has reviewed all of the public comments the USPTO received on the IEG and appreciates the USPTO's work to address these comments in the Update. IPO is concerned, however, that the interpretation of the patent eligibility case law diverges from the narrow holdings of the cases and the views of many commentators and stakeholders. The current guidelines may lead examiners to unnecessarily reject applications that should be patent eligible.

I. General Comments and Recommendations

Our comments focus on application of Patent Act section 101 to claims that may raise issues under the judicial exception related to "abstract ideas." IPO reserves further comment on application of section 101 to claims that may raise issues under the judicial exceptions related to "laws of nature" and "natural phenomena" pending the USPTO's release of supplemental guidance on those exceptions.

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A. The USPTO Should Consider Evidence of Non-Preemption During Its Initial Determination of Patent Eligibility

A core issue in developing a framework for patent eligibility is the proper role of preemption. This issue was raised repeatedly in public comments to the USPTO in response to the June 2014 Preliminary Instructions and the IEG. Many commentators emphasized that evidence by applicants showing that their claims did not preempt an entire field must be considered in addition to the eligibility analysis under the *Mayo* test.^{1, 2}

The July 2015 Update minimized the role of non-preemption evidence, stating that “the courts do not use preemption as a standalone test for eligibility. Instead, questions of preemption are inherent in the two-part framework from *Alice Corp.* and *Mayo* (incorporated in the 2014 IEG as Steps 2A and 2B), and are resolved by using this framework to distinguish between preemptive claims.”³ The Update stated that “while a preemptive claim may be ineligible, the absence of complete preemption does not guarantee that a claim is eligible.”⁴

This analysis is inconsistent with many stakeholders’ views on the role and importance of non-preemption evidence, as well as the express holdings of the Supreme Court, and the actual practice of the district courts applying the *Mayo* test. Although courts may not treat preemption as a standalone test, evidence showing that claims do not preempt a judicial exception should be considered, even after applying the *Mayo* test. For example, in *DDR Holdings*, after applying the *Mayo* test, the Federal Circuit specifically considered non-preemption evidence. The court said, “[T]he claims at issue do not attempt to preempt every application of the idea of increasing sales by making two web pages look the same, or of any other variant suggested by NLG.”⁵ Similarly, a majority of district court opinions since *Alice*, including those that found claims ineligible under the *Mayo* test, expressly considered whether evidence of non-preemption was present.⁶

And the Supreme Court has not stated that preemption need not be considered once the *Mayo* test is applied. To the contrary, even in *Alice*, the Court considered evidence of non-preemption,

¹See *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 132 S. Ct. 1289 (2012).

²See Letter from ABA to USPTO (Mar. 12, 2015) at 2; Letter from ACLU to USPTO (Mar. 16, 2015) at 3; Letter from AIPLA to USPTO (Mar. 16, 2015) at 6; letter from Boston Patent Law Ass’n to USPTO (Mar. 16, 2015) at 2; Letter from IPO to USPTO (Mar. 16, 2015) at 3; Letter from Japan Patent Attorneys Ass’n to USPTO (Mar. 11, 2015) at 10; Letter from Higher Ed. Ass’n (representing over 920 universities, colleges, teaching hospitals, academic and scientific societies, and over 3200 technology managers) to USPTO (Mar. 13, 2015) at 2; Letter from Howard IP Law Group to USPTO (Mar. 16, 2015) at 5; Letter from Pharmaceutical Research and Mfrs. of Am. to USPTO at 2; along with comments from multiple individual commentators available at <http://www.uspto.gov/patent/laws-and-regulations/comments-public/comments-2014-interim-guidance-patent-subject-matter.html>. The *only* major organization to argue that preemption should not be considered is the Coalition for 21st Century Medicine in its Letter to USPTO (Mar. 16, 2015) at 6.

³July 2015 Update at 8.

⁴*Id.*

⁵*DDR Holdings L.L.C. v. Hotels.com, L.P.*, 773 F.3d 1245, 1259 (Fed. Cir. 2014).

⁶There are over 136 district court decisions on patent eligibility since *Alice*, and the issue of preemption was considered by the court in more than 100 of them.

specifically in what is now considered Step 2B:

We have described step two of this analysis as a search for an “inventive concept”—i.e., an element or combination of elements that is “sufficient to ensure that the patent *in practice* amounts to significantly more than a patent upon the [ineligible concept] itself.”⁷

Thus, if a patent’s recitation of a computer amounts to a mere instruction to “implemen[t]” an abstract idea “on . . . a computer,” *Mayo, supra, at* ___, 132 S. Ct. 1289, 182 L. Ed. 2d 321, 337), that addition cannot impart patent eligibility. *This conclusion accords with the preemption concern that undergirds our §101 jurisprudence.*⁸

Evaluating preemption is necessary to distinguish between claims that preempt fundamental building blocks and those that “pose no comparable risk of preemption, and therefore remain eligible for the monopoly granted under our patent laws.”⁹ Without consideration of the preemption one cannot determine whether the risk of preemption is disproportionate; the mere possibility of preemption is not sufficient.

Subsuming preemption into the *Mayo* test makes it the sole test of eligibility, which is contrary to the Supreme Court’s analysis in *Bilski v. Kappos*. There, the Court overturned the Federal Circuit’s adoption of the machine-or-transformation test as the sole test for eligibility.¹⁰ Similarly, the Supreme Court did not intend the *Mayo* test to be the sole test of eligibility. Instead, the *Mayo* test is just one way to address the preemption concern.

IPO recommends that evidence of non-preemption be considered at two points in the examination process. First, IPO suggests that evidence of non-preemption provides a sufficient and complete basis for conducting the streamlined eligibility analysis that the USPTO proposes in the IEG. As stated in the plurality opinion in *CLS v. Alice*, setting forth the two-step framework from *Mayo*:

[T]he animating concern is that claims *should not be coextensive* with a natural law, natural phenomenon, or abstract idea; a patent-eligible claim must include one or more substantive limitations that, in the words of the Supreme Court, add “significantly more” to the basic principle, with the result that the claim covers significantly less. *See Mayo* 132 S. Ct. at 1294. Thus, broad claims do not necessarily raise § 101 preemption concerns, and seemingly narrower claims are not necessarily exempt. What matters is whether a claim threatens to subsume the full scope of a fundamental concept, and when those concerns arise, we must look for meaningful limitations that prevent the

⁷*Alice Corp. v. CLS Bank Int’l*, 134 S. Ct. 2347, 2355 (2014) (citing *Mayo*, at 3; emphasis added).

⁸*Alice*, 134 S. Ct. at 2358 (emphasis added).

⁹*Id.*

¹⁰*Bilski v. Kappos*, 130 S. Ct. 3218, 3226 (2010) (“Adopting the machine-or-transformation test as the sole test for what constitutes a “process” (as opposed to just an important and useful clue) violates these statutory interpretation principles.”).

*claim as a whole from covering the concept's every practical application.*¹¹

If an examiner can readily determine during the streamlined analysis that a claim on its face is not so broad as to cover all practical applications of any judicial exception and contains limitations so that it is not coextensive with a judicial exception, then the claim should pass the streamlined analysis.

Second, IPO suggests that examiners consider non-preemption evidence after applying Step 2B and while making an initial determination of whether a claim recites “significantly more.” In particular, examiners should consider and give weight to an applicant’s examples and explanations as to how a claim does not disproportionately preempt a judicial exception. If the applicant can identify and explain specific practical applications of the judicial exception that are not preempted by the claim, then the claim should be considered as patent eligible.

B. The USPTO Should Make a Detailed Showing to Support a Rejection for Patent Ineligibility

The second major issue raised in the public comments regarding the IEG was the *prima facie* case requirement and, in particular, the role of evidence. IPO, along with numerous other commentators, emphasized that examiners should be required to make a detailed *prima facie* showing on all elements of a rejection under section 101.¹² Examiners should have to provide documentary evidence to support a conclusion that a claim is directed to a judicial exception or that claim limitations are well-understood, routine, and conventional. As IPO and others pointed out, rejections consisting of boilerplate language that lack specific evidence or analysis violate notice obligations and are difficult to respond to because there is no objective document or basis in the record for the applicant to address.¹³

The July 2015 Update states that no evidence is required for a section 101 rejection because eligibility is a question of law and courts do not rely on evidence to establish that a claim is directed to a judicial exception.¹⁴ Yet, the Update notes that the courts treat the issue of whether something is well-understood, routine, and conventional as “a matter appropriate for judicial notice,”¹⁵ which is a finding of fact. Courts take judicial notice strictly under the requirements of the Federal Rules of Evidence, Rule 201, which states, “The court may judicially notice a fact that is not subject to reasonable dispute because it ... can be accurately and readily determined from sources whose accuracy cannot reasonably be questioned.”¹⁶ If the USPTO allows its examiners to

¹¹ *CLS Bank Int'l v. Alice Corp. Pty. Ltd.*, 717 F.3d 1269, 1281 (Fed. Cir. 2013) (Lourie, J.) (emphasis added).

¹² See ABA Letter at 5; AIPLA Letter at 5; Letter from Business Software Alliance to USPTO (Mar. 16, 2015) at 4; IPO Letter at 2; Japan Patent Attorneys Ass’n Letter at 11; along with comments from multiple individual commentators available at <http://www.uspto.gov/patent/laws-and-regulations/comments-public/comments-2014-interim-guidance-patent-subject-matter.html>.

¹³ *Id.*

¹⁴ See July 2015 Update at 6.

¹⁵ See *id.* at 7.

¹⁶ See Fed. R. Evid. 201(b)(2).

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use a similar approach, official notice in section 101 rejections should be formally recognized and examiners should be held to the standard of official notice as set forth in MPEP § 2144.03:

Official notice without documentary evidence to support an examiner's conclusion is permissible only in some circumstances. While "official notice" may be relied on, these circumstances should be rare when an application is under final rejection or action under 37 CFR 1.113. Official notice unsupported by documentary evidence should only be taken by the examiner where the facts asserted to be well-known, or to be common knowledge in the art are capable of instant and unquestionable demonstration as being well-known.

The USPTO is an administrative agency and bound by the Administrative Procedure Act (APA).¹⁷ The Federal Circuit has clarified that the APA requires the production of substantial evidence for the factual findings made by the USPTO in a rejection.¹⁸ Although substantial evidence review is deferential, it nevertheless requires there to be "some concrete evidence" supporting a factual finding or that factual finding cannot be maintained on appeal.¹⁹ This requirement has consistently been upheld by the courts including the Federal Circuit.²⁰

The July 2015 Update, however, states, "[A] rejection should only be made if an examiner relying on his or her expertise in the art can readily conclude in the Step 2B inquiry that the additional elements do not amount to significantly more (*Step 2B: NO*)." This is directly contrary to the Federal Circuit's interpretation of the APA's requirements.²¹ As the Federal Circuit makes plain, the examiner can rely on "his or her expertise" only for peripheral issues, not for the "core factual

¹⁷*Dickinson v. Zurko*, 527 U.S. 150, 152 (1999) ("The Administrative Procedure Act (APA) sets forth standards governing judicial review of findings of fact made by federal administrative agencies. 5 U.S.C. § 706. We must decide whether § 706 applies when the Federal Circuit reviews findings of fact made by the Patent and Trademark Office (PTO). We conclude that it does apply, and the Federal Circuit must use the framework set forth in that section."). Indeed, in its *Zurko* decision, the Supreme Court held this to be true at the behest of the USPTO. *Id.* at 153 ("[T]he Federal Circuit believes that it should apply the 'clearly erroneous' standard when it reviews findings of fact made by the PTO....The Commissioner of Patents, the PTO's head, believes to the contrary that ordinary APA court/agency standards apply.").

¹⁸*In re Gartside*, 203 F.3d 1305, 1313 (Fed. Cir. 2000) ("[T]he plain language of §§ 7 and 144 of Title 35 indicates that we review Board decisions 'on the record of an agency hearing provided by statute,' and that we should therefore review Board fact finding for 'substantial evidence.'").

¹⁹*In re Zurko*, 258 F.3d 1379, 1386 (Fed. Cir. 2001) ("[T]he Board must point to some concrete evidence in the record in support of these findings. To hold otherwise would render the process of appellate review for substantial evidence on the record a meaningless exercise.").

²⁰*See, e.g., In re Sang-Su Lee*, 277 F.3d 1338, 1344-1345 (Fed. Cir. 2002) ("The Board's findings must extend to all material facts and must be documented, on the record, lest the 'haze of so-called expertise' acquire insulation from accountability. 'Common knowledge and common sense,' even if assumed to derive from the agency's expertise, do not substitute for authority when the law requires authority."); *Velander v. Garner*, 348 F.3d 1359, 1380-1381 (Fed. Cir. 2003); *Perfect Web Techs., Inc. v. InfoUSA, Inc.*, 587 F.3d 1324, 1328 (Fed. Cir. 2009) ("an examiner may not invoke 'good common sense' to reject a patent application without some factual foundation, where 'basic knowledge and common sense was not based on any evidence in the record.'"); and *K/S HIMPP v. Hear-Wear Techs., LLC*, 751 F.3d 1362, 1365 (Fed. Cir. 2014) ("The determination of patentability of claims with this limitation therefore requires a core factual finding, and as such, requires more than a conclusory statement from either HIMPP or the Board.").

²¹*In re Zurko*, 258 F.3d at 1385-86. The importance of this case was discussed in many of the comments on the IEG, and yet it was not mentioned in the July 2015 Update.

findings.”²² Even though patent eligibility may be a question of law, it nonetheless is based on factual determinations. Whether an economic concept is long prevalent, whether an additional element is routine, conventional, or well-understood, and whether some particular operation of a computer is generic are all questions of fact.

IPO suggests that the final guidance should differentiate between an examiner’s evidentiary burden in *Mayo* Step 2A and Step 2B. Assuming an examiner may properly state that the claim is directed to a judicial exception without citing supporting evidence in Step 2A, asserting in Step 2B that a claim element is routine or conventional without having any supporting evidence fails to comply with the USPTO’s obligation under 35 U.S.C. § 132.²³ The Federal Circuit has noted that this statutory notice function requires “stating the reasons for such rejection, together with such information and references as may be useful in judging the propriety of continuing prosecution of [the] application.”²⁴ When a factual finding is made without evidentiary support, and is not capable of “unquestionable demonstration as being well-known,” it becomes impossible to judge the propriety of the finding. In the absence of such evidence provided by the examiner, the applicant is forced to prove a negative—that steps are not well-understood, conventional, or routine.

C. Clarification of the Abstract Ideas

1. “Prevalent and Long Standing”

The July 2015 Update states that abstract ideas need not be prevalent and longstanding to be fundamental, noting that even novel abstract ideas are ineligible.²⁵ The guidelines argue that “[t]he Supreme Court’s cited rationale for considering even ‘just discovered’ judicial exceptions as exceptions stems from the concern that ‘without this exception, there would be considerable danger that the grant of patents would tie up the use of such tools and thereby inhibit future innovation premised upon them.’”²⁶ Yet, the reason the Court is concerned about inhibiting future innovation is not because the ideas are abstract in some metaphysical sense, but because they are fundamental concepts, “building blocks of human ingenuity.”²⁷ And, abstract ideas are

²²See also *K/S HIMPP*, 751 F.3d at 1365 (citing *Zurko* for the proposition that the “[Board] expertise may provide sufficient support for conclusions as to peripheral issues.”).

²³See *In re Zurko*, 258 F.3d at 1385 (“With respect to core factual findings in a determination of patentability, however, the Board cannot simply reach conclusions based on its own understanding or experience—or on its assessment of what would be basic knowledge or common sense. Rather, the Board must point to some concrete evidence in the record in support of these findings.”) See also *In re Jung*, 637 F.3d 1356, 1362 (Fed. Cir. 2011) (“the PTO carries its procedural burden of establishing a prima facie case when its rejection satisfies 35 U.S.C. § 132, in ‘notify[ing] the applicant . . . [by] stating the reasons for [its] rejection, or objection or requirement, together with such information and references as may be useful in judging of the propriety of continuing the prosecution of [the] application.’ 35 U.S.C. § 132. That section ‘is violated when a rejection is so uninformative that it prevents the applicant from recognizing and seeking to counter the grounds for rejection.’”).

²⁴*In re Jung*, 637 F.3d at 1363.

²⁵See 2015 Guidelines at 3 (“[W]hen identifying abstract ideas, 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.”). The Guidelines state that there are examples in *Flook*, *Mayo*, and *Myriad* in which the claimed judicial exceptions were novel, and hence not long standing.

²⁶See *id.*

²⁷*Alice*, 134 S. Ct. at 2354 (“Accordingly, in applying the §101 exception, we must distinguish between patents that claim the ‘buildin[g] block[s]’ of human ingenuity and those that integrate the building blocks into something more.”).

fundamental concepts and building blocks in the Supreme Court’s jurisprudence precisely because they are long standing and prevalent.²⁸

The 2015 Guidelines differ, stating, “The term ‘fundamental’ is used in the sense of being foundational or basic.” In practice, what makes an idea foundational or basic is that it has become widely accepted and adopted in the relevant community.²⁹ IPO respectfully notes that the best way to determine that something is foundational and basic is to look to the literature of the relevant field, which provides objective evidence for this conclusion.

2. Methods of Organizing Human Activity Are Not Necessarily Patent Ineligible.

The July 2015 Update states that some methods of organizing human activity can be ineligible as economic practices,³⁰ but provides no explanation to define when this is the case.³¹ According to the 2015 Guidelines, “Several cases have found concepts relating to managing relationships or transactions between people abstract,” including *buySAFE*, *Bilski*, *Alice*, *DealerTrack*, *Bancorp*, *PlanetBingo*, *Gametek*, and *Accenture*.³² These decisions, however, did not expressly find that the methods involved were methods of organizing human activity; the USPTO has created this category after the fact.³³

²⁸That the Court chose to use the terminology of *long standing* and *prevalent* further shows that this requirement is much stricter than mere lack of novelty under 35 U.S.C. §102.

²⁹This is how the Federal Circuit explained this concept in *buySAFE Inc. v. Google, Inc.*, 765 F.3d 1350 (Fed. Cir. 2014) when discussing the holdings of *Bilski* and *Alice*: “More narrowly, the Court in both cases relied on the fact that the contractual relations at issue constituted “a fundamental economic practice *long prevalent* in our system of commerce.” *Id.* at 1353-54 (emphasis added). The court explained that “the claims are squarely about creating a contractual relationship—a ‘transaction performance guaranty’—that is *beyond question of ancient lineage*.” *Id.* at 1355 (emphasis added). This directly contradicts the USPTO’s position that fundamental has nothing to do with being “old” or “well known.”

³⁰“For example, the concept of hedging claimed in *Bilski* was described by the Supreme Court as both a method of organizing human activity and a fundamental economic practice.” However, *Bilski* does not imply that methods of organizing human activity are themselves per se abstract. The USPTO appears to recognize this, as evidenced by its statement in the July 2015 Update stating that this category “is not meant to cover human operation of machines.” Still, the USPTO offers no case law support for this exception to an exception. The arbitrary nature of this distinction is apparent when one considers that a claim to a human operating a machine would arguably inherently entail at least some mental steps that a human operator must make, such as selecting a particular part of the machine to control or manipulate in a particular manner because no one operates a machine without thinking about it.

³¹See July 2015 Update at 4. More precisely, the USPTO states that “a method of organizing a human activity and a fundamental economic practice ... have common characteristics.”

³²*Id.*

³³For example, the USPTO lists *buySAFE* as an example that “creating a contractual relationship” is a method of organizing human activity. However, the Federal Circuit did not hold that the claims in that case were a method of organizing human activity. Instead, the court found them to be “fundamental economic practices” meeting the long standing and prevalent requirements. *Dealertrack* is listed as putting “processing loan information” into the category of organizing human activity. Again, this is incorrect. The Federal Circuit made no mention whatsoever of methods of organizing human activity. Indeed, the court never specifically put the claims in any category at all, but simply stated that “we are compelled to conclude that the claims are invalid as being directed to an abstract idea preemptive of a fundamental concept or idea that would foreclose innovation in this area.”

The USPTO’s efforts to develop this category only creates confusion for examiners: Is the claim mental steps, an economic practice, an idea, or a method of organizing human activity? Is it two or three or four of these? As a result, just about any patent claim that involves the application of information processing to any commercial, business, social, educational, financial, or other human-centric problem can be placed in this category and then by definition said to be abstract. Further, informing examiners that a given claim may be found abstract under several different categories again places the burden on the applicant to rebut each and every characterization separately—a nearly impossible and unnecessary task.

IPO respectfully suggests that there is no need for a separate category of methods of organizing human activity until there is a final court decision finding a claim ineligible on this ground alone. Any claim that could be characterized as being a method of organizing a human activity can be more discretely categorized into another category.

3. The USPTO’s New Category of “an Idea of Itself” Is Not Supported by the Case Law as a Category of Patent Ineligible Subject Matter

The Update has attempted to define “an idea of itself” as another ineligible category “used to describe an idea standing alone such as an unsubstantiated concept, plan or scheme, as well as a mental process (thinking) that can be performed in the human mind, or by a human using a pen and paper.”³⁴ In support of this statement, the Update cites *Cybersource Corp. v. Retail Decisions, Inc.*, stating, “methods which can be performed mentally, or which are the equivalent of human mental work, are unpatentable abstract ideas—the ‘basic tools of scientific and technological work’ that are open to all.”³⁵ The citation to *Cybersource* is misplaced; that court never mentions the phrase “idea of itself,” let alone attempts to explain it. This category is nothing more than a restatement of the mental steps category—that is, there is nothing that is an idea of itself that is not simply a mental step or steps.

As with the category of methods of organizing human activity, the cases cited in the Update did not hold that the claims involved an idea of itself. All of the cited cases had express holdings or statements that put the claims into the following categories:

- Mental Steps: *Cybersource*, *SmartGene*, * *Classen*, *PerkinElmer*, * *Ambry*, * *Myriad (CAFC)*, *Content Extraction*.³⁶

³⁴See July 2015 Update at 5.

³⁵*Id.*

³⁶*Cybersource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1371 (Fed. Cir. 2011) (“we find that claim 3 of the ’154 patent fails to recite patent-eligible subject matter because it is drawn to an unpatentable mental process”); *Smartgene, Inc. v. Advanced Biological Labs.*, No. 2013-1186 (Fed. Cir. 2014) (“the claim at issue here involves a mental process excluded from section 101.”); *Classen Immunotherapies, Inc. v. Biogen Idec*, 659 F.3d 1057, 1069 (Fed. Cir. 2011) (“The representative claim of the ’283 patent is directed to the single step of reviewing the effects of known immunization schedules, as shown in the relevant literature.... [T]he method claimed in the ’283 patent simply invites the reader to determine the content of that knowledge.”); *PerkinElmer, Inc. v. Intema Ltd.*, No. 2011-1577 (Fed. Cir. 2012) (“The claims thus recite the mental process of comparing data to determine a risk level”); *University of Utah Res. Found. et al. v. Ambry Genetics Corp.*, No. 2014-1361 (Fed. Cir. 2014) (“patent ineligible because it claimed an abstract mental process of ‘comparing’ and ‘analyzing’ two gene sequences.”); *Association for Molecular Pathology v. U.S.P.T.O.*, 689 F.3d 1303, 1309 (Fed. Cir. 2012) (claims “cover only patent-ineligible abstract, mental steps”); *Content Extraction and Transmission, L.L.C. v. Wells Fargo Bank, Nat’l Ass’n*,

- Mathematical Algorithms: *In re Grams, Digitech*.³⁷
- Economic Activities: *Ultramercial*³⁸

*non-precedential cases.

Thus, there are no precedential Federal Circuit or Supreme Court cases that have defined an idea of itself as a distinct category. As with methods of organizing human activity, there is no need for the USPTO add new categories. To do so only serves to create confusion for the examiners and applicants alike.

4. The Guidelines Do Not Provide Enough Guidance on the Proper Analysis of Mathematical Algorithms

IPO is concerned that the July 2015 Update fails to provide sufficient guidance for examiners to distinguish between eligible and ineligible claims that involve mathematical algorithms. The Update merely lists cases that have held claims invalid as mathematical algorithms, without explanation. The underlying court opinions also offer no explanation. The IEG and July 2015 Update state that some courts have found mathematical concepts to be laws of nature, but again without explanation.

The problem with merely stating that courts have found mathematical algorithms to be abstract ideas is that every invention in modern engineering can be described using mathematical descriptions. All modern engineering, including, civil, mechanical, electrical, chemical, and computer, relies on mathematical analysis and notation for design and formulation. This is because mathematics “is unique among languages in its ability to provide precise expression for every thought or concept that can be formulated in its terms.”³⁹ The physical and engineering sciences use mathematics as a way of precisely describing physical relationships and processes. That something can be described mathematically does not make it abstract. For example, one could construct an equation that determines the number of cookies C as a function of quantities of flour F, eggs E, milk M, butter B, and sugar S: $C=F*E*M*B*S$. This would not make the process of baking cookies an abstract idea. Thus, the presence of a mathematical algorithm in a specification or a patent claim does not imply or suggest anything by itself about the underlying concept, and should not be relied upon by examiners as an automatic evidence of an ineligible abstract idea.

IPO respectfully submits that the proper distinction to be applied to mathematical algorithms is found in the very definition used by the Supreme Court when it introduced this term—a distinction between pure mathematics and applied mathematics. Applied mathematics is a branch of

Nos. 13-1588,-1589, 14-1112, -1687 (Fed. Cir. 2014) (“The concept of data collection, recognition, and storage is undisputedly well-known. Indeed, humans have always performed these functions.”).

³⁷*In re Grams*, 888 F.2d 835, 841 (Fed. Cir. 1989) (“we affirm the Board’s holding that the applicants’ claims are unpatentable under section 101 as being drawn to a non-statutory mathematical algorithm’); *Digitech Image Tech’s v. Electronics for Imaging, Inc.*, 758 F.3d 1344, 1350 (Fed. Cir. 2014) (“The method in the ’415 patent claims an abstract idea because it describes a process of organizing information through mathematical correlations”).

³⁸*Ultramercial, Inc. v. Hulu, L.L.C.*, 772 F.3d 709, 715 (Fed. Cir. 2014) (“Although certain limitations ... add a degree of particularity, the concept embodied by the majority of the limitations describes only the abstract idea of showing an advertisement before delivering free content.”)

³⁹A. Adler, *Mathematics and Creativity*, *The New Yorker*, Feb. 19, 1972, at 39-45.

mathematics that uses mathematical methods in science, engineering, business, computer science, and industry. Pure mathematics is the study of mathematics without any specific application but directed entirely to the purely formal properties of abstract entities such as numbers, sets, groups, proofs and so forth.⁴⁰ The Supreme Court in *Benson* stated:

A procedure for solving a given type of mathematical problem is known as an “algorithm.” The procedures set forth in the present claims are of that kind; that is to say, they are a generalized formulation for programs to *solve mathematical problems of converting one form of numerical representation to another.*⁴¹

The Court’s definition of a mathematical algorithm was specific to a procedure for solving mathematical problems, not just any kind of problem. The Court expressly noted the limited scope of its definition in *Diehr*, stating that in *Benson*, “we defined ‘algorithm’ as a ‘procedure for solving a given type of mathematical problem.’”⁴² The Court also expressly rejected a broader definition of algorithm that covered any procedure for solving problems.⁴³

The Supreme Court was drawing a line between problems in pure mathematics—“procedure for solving a given type of mathematical problem”—and the “broader” definition of “[a] sequence of formulas and/or algebraic/logical steps to calculate or determine a given task; processing rules.” Thus, in the Court’s own words, it limited its definition of mathematical algorithms and did not hold that all mathematical expressions are inherently abstract ideas.

The July 2015 Update also states that “the courts have described some mathematical concepts as laws of nature.”⁴⁴ This remark is contradicted by Justice Stevens, the author of *Flook*, who specifically cautioned against sweeping algorithms into laws of nature. “[T]he inclusion of the ambiguous concept of an ‘algorithm’ within the ‘law of nature’ category of unpatentable subject matter has given rise to the concern that almost any process might be so described and, therefore, held unpatentable.”⁴⁵

IPO suggests that adhering to the distinction between applied mathematics and pure mathematics would properly serve the Supreme Court’s concern in avoiding preemption of the basic tools of scientific and technological work. IPO believes that examiners can distinguish between patent claims that address topics in pure mathematics and those that apply mathematics to specific applications and that examiners are sufficiently skilled to recognize this distinction in practice.

⁴⁰The Supreme Court in *Benson* set forth a definition of *mathematical algorithm* that follows this explanation. The Court was considering the patent eligibility of a particular way to convert numbers between two different number systems: from binary coded decimal to binary. The Court took pains to explain the purely mathematical operations involved in this process.

⁴¹*Gottschalk v. Benson*, 409 U.S. 63, 65 (1972) (emphasis added).

⁴²*Id.*

⁴³*Diamond v. Diehr*, 450 U.S. 175, 197, n.9 (1981).

⁴⁴See July 2015 Update at 5.

⁴⁵*Diehr*, 450 U.S. at 219 (Stevens, dissenting).

D. The USPTO's Suggestion of Using Well-Understood, Routine, and Conventional Functions of a Computer, Without Further Analysis, Is Improper

The July 2015 Update states that examiners may rely on what the courts have recognized as “well-understood, routine, and conventional functions” of computers, including “performing repetitive calculations,” “receiving, processing, and storing data,” “receiving or transmitting data over a network.” The Update also states, “This listing is not meant to imply that all computer functions are well-understood, routine and conventional.”⁴⁶

IPO is concerned that this single caveat is insufficient to avoid improper analysis in Step 2B. If taken literally the list essentially wipes out all computing operations as they are typically claimed. Just as claims for mechanical devices recite the well-understood operations of such devices using conventional verbs—pressing, grinding, milling, shaping, forming, rotating, agitating, and so forth for thousands of such functions—so too do the claims for computer-implemented inventions use the verbs that correspond to types of operations performed by a computer: receiving, storing, processing, determining, transmitting, calculating, etc. In short, there is no other way to describe the operations of a computer except by using such terms.⁴⁷

As suggested by the July 2015 Update, and as is occurring, examiners consider only the gerund itself (“receiving,” “processing”) rather than the entirety of the claim when assessing whether a claim limitation is well-understood, routine, and conventional. The conclusion is foregone; such verbs, standing alone are well-understood because otherwise the claim would likely be indefinite. It makes no sense for examiners to look for verbs (by themselves) that are not well-understood, routine, and conventional, because they will not find them.

Rather, what matters in evaluating a claim limitation in Step 2B is not just the gerund alone, but 1) the specific items on which these operations are conducted, and 2) the specific results of the operations. Ignoring these portions of the claim improperly eliminates the real substance of the claim limitation, precisely where such elements would be the portion that provides “significantly more” to the claimed step.

IPO respectfully submits that examiners should be instructed to consider the entirety of each claim limitation during Step 2B, not merely the gerund or predicate portion of a claim limitation. Only where the recited limitation as whole is generic, should it be removed from consideration of providing “something more.” As but one example, a claim limitation that recites “storing data in a memory” would be a recitation that did not provide significantly more. However, the limitation “storing the determined measurement in the history table in the sample database” would be something more, as it calls out specific data to be stored, in a specific structure, none of which are generic components of general purpose computer.

⁴⁶See July 2015 Update at 7.

⁴⁷See *Oplus Techs. Ltd. v. Sears Holding Corp.*, No. 2:12-cv-5707, 2013 WL 1003632, at *12 (C.D. Cal. Mar. 4, 2013) (“All software only ‘receives data,’ ‘applies algorithms,’ and ‘ends with decisions.’ That is the only thing software does. Software does nothing more.”).

II. The *Mayo* Test Should Be Applied Consistently Across All Art Units

IPO commends the USPTO on its overall implementation of the IEG, and the training of examiners in its application. We are pleased that in the most of the technology centers and the vast majority of work groups, there has been little change in the overall rejection rates (including both non-final and final) based on section 101 before and after the *Alice* decision. This is the correct outcome. The *Alice* decision was conservative, placing itself within the pre-existing framework of patent-eligibility decisions, and providing a clear statement that the judicial exceptions to section 101 should not “swallow” the patent law.

IPO is concerned, however, that the IEG and the *Mayo* test are not being applied consistently across the patent examination corps. See Appendix A for more detailed statistics and analysis. IPO recommends that examiner training be consistent across all art units so that patent applications from every technology sector are treated similarly. IPO believes that the practices of the examination groups outside of business methods is likely to be more reflective of the correct approach to examination of patent eligibility, and urges the USPTO to focus its training on ensuring a more consistent application of the case law to patent eligibility requirements.

III. Analysis of Computer-Related Examples in Appendix 1 of the July 2015 Update

IPO appreciates that the USPTO included seven additional detailed computer-related examples in Appendix 1 of the July 2015 Update pertaining to subject matter eligibility. These examples should provide examiners and practitioners with clearer guidance on the intended analysis of claims under section 101. The teaching value of the examples rests in their processes. Because the ultimate eligibility determinations are necessarily fact-specific, the findings of eligibility or ineligibility will be of limited precedential value while the processes described are likely to be mimicked by examiners in the future.

IPO is concerned that the examples do not identify which claim elements are part of the abstract idea and which are not. This has become an important issue with the examining corps, and has become pronounced in day-to-day rejections. Examiners often include many claim elements as part of the abstract idea, which means that important claimed features are often ignored in the Step 2B “significantly more” analysis.

At least examples 21 and 22 characterize the claims, then re-characterize the claims, and then do it yet again, each time at a higher level of abstraction. Because the original claim elements are not present in the characterization that is eventually deemed abstract, the original claim elements are never treated in Step 2A and Step 2B. As a result, many claim elements in these examples are never treated at all. According to the 2014 IEG and USPTO administrative procedure (*In re Oetiker*), the failure to treat every claim element is a failure to make a *prima facie* case for a rejection.⁴⁸ Thus, IPO suggests that the examples be clarified to address this issue.

IPO has provided additional information about concerns and provided more detailed suggested changes regarding these and other examples from the Update in Appendix B to this letter.

⁴⁸See 70 Fed. Reg. 74624 at col. 3; MPEP § 2106(III) (referring to the well-known requirement from *In re Oetiker*, 977 F.2d 1443, 1445 (Fed. Cir. 1992) that examiners bear the initial burden of presenting a *prima facie* case).

IV. The USPTO Should Not Rely on Non-Precedential Decisions

The July 2015 Update asserts that “the 2014 IEG instructs examiners to refer to the body of case law precedent in order to identify abstract ideas by way of comparison to concepts already found to be abstract,” along with multiple other references to precedent.⁴⁹ Yet, the Update makes repeated reference to, and express reliance upon, multiple non-precedential decisions of the Federal Circuit:

- *Planet Bingo, LLC v VKGS LLC*
- *SmartGene, Inc. v Advanced Biological Labs.*
- *Dietgoal Innovations LLC v. Bravo Media LLC*
- *Fuzzysharp Techs. Inc. v. Intel Corp.*
- *Federal Home Loan Mortg. Corp. aka Freddie Mac v. Graff/Ross Holdings LLP*
- *Gametek LLC v. Zynga, Inc.*
- *PerkinElmer, Inc. v. Intema Ltd.*
- *Cyberfone Sys., LLC v. CNN Interactive Grp., Inc.*

IPO has provided additional details and recommendations regarding several of these non-precedential decisions in Appendix C.

The Update also misconstrues the abstract ideas at issue in some of these cases. For example, as discussed further in Appendix C, the Guidelines suggest that the abstract idea in *Planet Bingo* was “managing a bingo game,” when it was actually the more narrow idea of solving tampering problems and minimizing security risks during bingo ticket purchases. The Guidelines also list *Gametek v. Zynga* as an example of organizing human activity when the claims were directed to the economic practice of purchasing items.⁵⁰ We are concerned about the possibility of broad categorizations from non-precedential decisions, categorizations that might be relied on without further inquiry as to the underlying facts of the case or the non-precedential status.

IPO respectfully requests that the USPTO remove any reference to non-precedential cases from the guidance. If the USPTO decides to continue referencing such cases, it should expressly inform examiners that the cases are non-precedential and explain that they can only be relied on with respect to their specific facts, not as setting forth general rules or principles.

We thank you for considering these comments and would welcome any further dialogue or opportunity to provide additional information to assist your efforts in developing guidance on patent subject matter eligibility.

Sincerely,



Philip S. Johnson
President

⁴⁹See July 2015 Update at 3 (emphasis added).

⁵⁰*Gametek L.L.C. v. Zynga, Inc.*, 597 Fed. Appx. 644 (Fed. Cir. 2015).

Appendix A

Statistics and More Detailed Analysis Regarding Overall Consistency of Application of Mayo Test within the USPTO

As shown here, even after *Alice* most technology centers (TCs) have a § 101 rejection rate between 11% and 20%¹:

Tech Center	Before Alice		After Alice		% Change Allowances	% Change 101 Rejs.
	Allowances	101 Rejs.	Allowances	101 Rejs.		
1600	28%	13%	30%	20%	2%	7%
1700	26%	3%	27%	4%	1%	1%
2100	28%	28%	30%	24%	2%	-4%
2400	29%	21%	32%	20%	3%	-1%
2600	32%	15%	36%	14%	4%	0%
2800	39%	4%	41%	6%	2%	2%
3600	29%	17%	27%	42%	-2%	26%
3700	27%	6%	28%	11%	1%	5%
Grand Total	30%	12%	32%	17%	2%	5%

Only TC 1600 and TC 3600 showed noticeable increases in § 101 rejection rates. Importantly, most TCs showed an *increase* in the rate of notices of allowances, suggesting that *Alice* clarified that subject matter commonly examined in such TCs was generally patent eligible.

Three work groups in TC 3600, work groups 3620, 3680, and 3620 handle the majority of “business methods” applications; the USPTO calls these the “Electronic Commerce” work groups, though they handle all types of commercial technologies. The Ecommerce work groups have not only the highest § 101 rejection rates post-*Alice*, but also the *greatest increase* in the percentage of § 101 rejections, as shown here:

¹The § 101 rejection rates discussed here are the percentage of final actions and non-final actions on the merits that included a § 101 rejection within a cohort (i.e., time period and TC, work group, art unit, etc.); restriction requirements, advisory actions, and other administrative actions are not counted. The percentage of allowances is the number of allowances divided by the total number of allowances, final rejections and non-final rejections for the cohort. The data set included 846,738 office actions issued in published applications between January 1, 2012 and August 30, 2015. It is assumed that there is no statistical difference in the rejection or allowance rates of published applications versus unpublished applications.

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Work Group	Work Group Technology Area	Before Alice		After Alice		Allow Diff.	101 Rej. Diff
		Allow	101 Rejs.	Allow	101 Rejs.		
3690	Finance & Banking	25%	40%	3%	96%	-22%	56%
3620	Business Administration	16%	43%	5%	94%	-11%	51%
3680	Business Administration	19%	42%	6%	89%	-13%	47%
3710	Amusement & Education Devices	28%	19%	25%	50%	-3%	31%
1630	Molecular Biology	27%	24%	20%	42%	-7%	18%
2430	Cryptography	34%	34%	40%	33%	6%	-1%
2860	Measuring & Testing	32%	19%	32%	33%	1%	14%
2490	Cryptography	24%	30%	33%	30%	10%	0%
2190	Software Development	29%	41%	34%	29%	5%	-12%
2120	Computer Applications	33%	31%	31%	29%	-2%	-2%
2160	Databases	23%	33%	28%	29%	5%	-4%
1650	Microbiology	29%	14%	27%	28%	-2%	14%
2450	Computer Networks	29%	23%	28%	28%	-1%	5%
1660	Plants	5%	20%	36%	26%	31%	6%
2440	Computer Networks	28%	28%	28%	26%	1%	-2%
1640	Immunology	28%	17%	27%	25%	-1%	8%
3660	Computerized Vehicles and Robotics	33%	22%	41%	25%	8%	3%

Because multiple different art units and work groups examine the same types of technology, a clearer picture emerges of the significant shift in § 101 rejection rates post-Alice when the work groups are aggregated by technology type:

Technology	Before Alice		After Alice		% Change Allowances	% Change 101 Rejs.
	Allowances	101 Rejs.	Allowances	101 Rejs.		
Biotech						
Animals, Animal Cloning	16.5%	13.49%	22.3%	19.1%	7.5%	5.0%
Antibody Engineering and Cancer Immunology	26.2%	27.59%	25.7%	34.1%	1.9%	6.9%
Bacterial & Parasitic Immunology and Specific Binding Assays	29.3%	20.72%	34.1%	29.5%	5.6%	5.1%
Bioinformatics	20.6%	51.18%	11.0%	87.5%	-8.9%	38.2%
Cellular Immunology	23.8%	10.67%	27.9%	17.5%	3.2%	6.2%
Gene Expression & Combinatorial/Computational Chemistry	19.1%	23.16%	22.4%	38.6%	4.6%	16.0%
Immunology, Antibodies, Neurobio	28.6%	14.71%	24.7%	22.8%	-3.4%	8.2%
Mol. Bio., BiolInfo. Recom. Genetics.	32.9%	23.35%	20.7%	40.5%	-11.0%	18.0%
Ecommerce						
Business Crypto	14.3%	46.87%	9.7%	74.2%	-3.8%	29.2%
Business Processing	6.9%	49.32%	1.6%	96.4%	-4.8%	46.8%
Cost/Price, Reservations	15.0%	42.93%	3.6%	86.2%	-10.7%	47.0%
E-Shopping	33.9%	46.39%	8.1%	97.7%	-23.8%	51.1%
Finance & Banking	24.9%	39.84%	2.9%	96.1%	-22.3%	57.2%
Health Care	20.5%	35.76%	3.9%	93.5%	-16.4%	57.8%
Incentive Programs	11.4%	45.16%	4.0%	95.8%	-6.9%	50.9%
Operations Research	19.7%	49.13%	3.2%	97.9%	-16.0%	48.9%
POS, Inventory, Accounting	20.3%	26.39%	11.7%	81.8%	-6.7%	53.2%
Other						
Amusement & Education	28.1%	19.07%	24.2%	52.2%	-3.8%	34.9%
Antisense-related Nucleic Acid Compositions and Methods	11.7%	9.38%	38.0%	17.4%	27.2%	9.3%
Bio-acting plant, Fungus, Algal, Microbial Extracts	27.3%	16.13%	25.4%	47.8%	0.5%	24.5%
Carbohydrates	17.0%	6.16%	31.3%	16.7%	16.3%	9.1%
Immunoassays and other specific binding assay methods	8.9%	21.43%	26.2%	36.8%	17.7%	16.7%
Measuring and Testing	31.5%	18.99%	31.2%	34.7%	-0.7%	17.3%
Medical and Surgical Devices and Supplies	22.6%	8.40%	24.6%	13.0%	2.2%	5.4%
Plants	4.8%	20.22%	36.3%	26.5%	31.3%	8.5%

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Here we see the specific categories of technology organized by work groups in Biotech,² Ecommerce, and Other (all remaining work groups). The table lists all those technology areas which showed a 5% or greater increase the rates of § 101 rejections post-*Alice*.

Notable is the significant increases in § 101 rejections rates in the various technologies handled by the Biotech work groups, in particular the Bioinformatics work groups which have a post-*Alice* § 101 rejection rate of 87.5%. These groups examine critical, life-saving technologies developed by IPO members, particularly in the field of personalized medicine.

The Ecommerce work groups as noted show the highest rates of § 101 rejections, all over 90%. They also have the largest post-*Alice* declines in rates of allowances.

In the remaining work groups, the 34.9% increase in § 101 rejections in Amusement & Education is also noteworthy because there has never been a *precedential* Supreme Court or Federal Circuit decision indicating that subject matter in these fields is generally patent ineligible.

Many examiners in the Ecommerce art units have unusually high § 101 rejection rates:

Percent 101 Rejections	Ecommerce Art Units			Other Art Units			Biotech Art Units		
	No. of Examiners	Cum. %	No. of Rejs.	No. of Examiners	Cum. %	No. of Rejs.	No. of Examiners	Cum. %	No. of Rejs.
100%	112	22%	4794	20	0.2%	71	5	1.74%	54
90%	187	59%	12852	4	0.2%	134	1	2.09%	89
80%	52	69%	3150	14	0.4%	360	6	4.18%	425
70%	33	75%	2198	27	0.6%	475	9	7.32%	593
60%	19	79%	744	35	0.9%	660	8	10.10%	436
50%	17	83%	506	85	1.7%	1539	3	11.15%	127
40%	5	83%	199	113	2.8%	2109	10	14.63%	404
30%	4	84%	77	264	5.3%	4549	19	21.25%	508
20%		84%		622	11.1%	8678	40	35.19%	906
10%	1	84%	20	1290	23.3%	11889	71	59.93%	913
0%	79	100%		8163	100.0%	11472	115	100.00%	176

This table shows that 112 examiners in the Ecommerce art units, fully 22% of all the examiners in these units, have issued § 101 rejections in 100% of their applications after *Alice*, some 4,794 rejections in total.³ It is difficult to square this data with statements by the Supreme Court and the USPTO that there is no *per se* exception for business method claims, and that rejections under § 101 should be the exception, not the rule. There is evidence suggesting that even after the July 2015 Update, the Ecommerce art units continue to reject applications under § 101 at high rates.

²Biotech work groups are Work Groups 1630 and 1640.

³By comparison, only a tiny fraction, 0.2% of examiners in the rest of the examining corps have 100% rate—almost entirely a result of these examiners having examined between 1 and 5 applications. Similarly, in the Biotech art units: of the 5 examiners indicated with a 100% rejection rate, three of them have examined only 1 application, and the remaining *two* examiners account for 51 of the 54 rejections noted here.

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	Ecommerce		Other	
	Final 101 Rejection	Non-Final 101 Rejection	Final 101 Rejection	Non-Final 101 Rejection
⊕ Before Alice	37%	46%	8%	12%
⊖ After Alice				
6/14 Preliminary	58%	96%	7%	13%
12/14 Interim	93%	93%	11%	15%
July Update	94%	95%	9%	13%

This table shows the § 101 rejections rates for final and non-final rejections during different periods: before *Alice* (pre-June, 2014), between the June 2014 Preliminary Guidance and the December 2014 IEG, between the IEG and the July 2015 Update, and for the month of August 2015 after the July 2015 Update. First, it is important to note that a final rejection on § 101 necessarily implies that there was a previous non-final rejection that the applicant was unable to overcome by amendment or argument. Before *Alice*, the Ecommerce art units issued such final rejections only 37% of the time, and this increased to 58% before the IEG was issued. After the IEG was issued, this final rejection rate increased dramatically to 93%, and then held steady at 94% after the July 2015 Update. The data suggest that these examiners aggressively used the IEG and the July 2015 Update to initiate and maintain § 101 rejections. By contrast, examiners in other art units only marginally increased their final rejections on § 101 grounds.

One may attempt to explain the differential rejection rates on the grounds that Ecommerce art units by their nature have a larger share of inventions that the courts have held are directed to abstract ideas. However, the evidence suggests otherwise. Although the majority of applications examined by the Ecommerce art units are in Class 705, the traditional business methods classification, these art units also examine applications in other classes, such as Class 706 (Artificial Intelligence), Class 707 (Databases), Class 345 (Computer Graphics). Likewise, not all applications in Class 705 are examined in the Ecommerce groups; some are examined in art units in TCs 2100, 2400, and 2600.

If the examiners in different arts units are applying the *Mayo* test in essentially the same manner regardless of art unit, then one would expect to find approximately similar § 101 rejection rates between the Ecommerce art units and other art units on similarly classified applications. Instead, one finds significant differences:

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Technology (Class Number)	Ecommerce Art Units			Other Art Units		
	Allowance	101 Rejs	% of Actions	Allowance	101 Rejs	% of Actions
ARTIFICIAL INTELLIGENCE (706)	4%	96%	44%	36%	27%	56%
BUSINESS METHODS (705)	4%	94%	73%	41%	25%	27%
COMMUNICATIONS (340)	10%	93%	4%	32%	13%	96%
COMPUTER GRAPHICS (345)	0%	91%	1%	27%	18%	99%
CONTROL SYSTEMS (700)	11%	91%	6%	31%	26%	94%
DATA PROCESSING (709)	1%	95%	5%	28%	35%	95%
DATA PROCESSING (713)	4%	92%	3%	35%	29%	97%
DATABASES (707)	5%	95%	32%	31%	31%	68%
IMAGE ANALYSIS (382)	2%	83%	5%	42%	34%	95%
INFORMATION SECURITY (726)	7%	88%	10%	34%	37%	90%
INTERACTIVE VIDEO (725)	0%	92%	3%	23%	25%	97%
PRESSES (100)	7%	93%	45%	36%	4%	55%
REGISTERS (235)	5%	94%	19%	41%	12%	81%
SOFTWARE DEVELOPMENT (717)	10%	95%	4%	37%	32%	96%
SPEECH AND LANGUAGE (704)	0%	97%	57%	18%	17%	43%
TELECOMMUNICATIONS (455)	10%	92%	3%	36%	21%	97%
USER INTERFACES (715)	5%	93%	4%	17%	28%	96%
VEHICLE NAVIGATION (701)	14%	76%	5%	43%	30%	95%

Consistent with their treatment of business method applications in Class 705, the Ecommerce art units issue § 101 rejections for *all types* of technologies at extraordinarily high rates, and grant allowances at much lower rates, as compared to other art units examining the same types of applications. Interestingly, examiners in other art units reject business method applications in Class 705 as patent ineligible in only 25% of rejections, and issue allowances 41% of the time, as compared to the Ecommerce groups. These data, more than any other, demonstrate that applications in the Ecommerce units are treated significantly differently than applications in other art units, regardless of the technology. This puts applicants in the Ecommerce technology areas at a competitive disadvantage to their peers who file applications examined by other art units.

Appendix B

More Detailed Comments and Suggestions Regarding Examples in July 2015 Update

Example 21: Transmission of Stock Quote Data

This example relates to the *Google, Inc. v. SimpleAir, Inc.* covered business method review proceeding, although it engages with a newly devised set of claims that is different from the claims evaluated in the PTAB decision.¹ In Appendix 1, claim 1 is found ineligible and claim 2 is found to be eligible. However, there are procedural deficiencies in the analysis of both claims.

Turning to the evaluation of claim 1 (which is essentially repeated in the evaluation of claim 2), the analysis under Step 2A is provided as follows:

Next, the claim is analyzed to determine whether it is directed to a judicial exception. The claim recites the steps of receiving, filtering, formatting, and transmitting stock quote information. In other words, the claim recites comparing and formatting information for transmission. This is simply the organization and comparison of data which can be performed mentally and is an idea of itself. It is similar to other concepts that have been identified as abstract by the courts, such as using categories to organize, store, and transmit information in *Cyberfone*, or comparing new and stored information and using rules to identify options in *SmartGene*. Therefore, the claim is directed to an abstract idea (Step 2A: YES).

This analysis relies on a descriptive evolution between *three* different summarizations of claim 1 that produces, at best, an incomplete analysis under § 101. More than simply affecting the procedural sufficiency of the analysis, the use of multiple different claim summarizations in this fashion introduces the possibility that examiners will not consider some claim elements in *either* step of a § 101 analysis.

First, the analysis states that “[t]he claim recites the steps of receiving, filtering, formatting and transmitting stock quote information.” Second, the analysis states that “[i]n other words, the claim recites comparing and formatting information for transmission.” This latter concept is broader than the former, because it replaces the concept of filtering information with the concept of comparing information, and further because it replaces the specific type of information “stock quote” with entirely generic “information.” To the extent that filtration has been re-characterized as “comparing” in the evolution from the first characterization of the claim to the second, no explanation for this change in terminology is provided.

¹Case CBM2014-00170, for which the PTAB decision was mailed January 21, 2015.

While the “filtering” step recited in claim 1 includes comparing “received stock quotes” with “stock price values,” the contemplated filtration necessarily does more than *just* compare the two. Because the claim also recites “generating a stock quote alert from the *filtered* stock quotes,” and not from the “*received* stock quotes,” the broadest reasonable interpretation of the “filtering” step necessarily contemplates some winnowing of the set of stocks within the received stock quotes. Otherwise, the “filtering” step recited in the claim would be meaningless, and the claim would have simply recited “generating a stock quote alert from the *received* stock quotes.” The necessity of this interpretation is bolstered by the description of the invention provided in the background section of example 21.²

In a similar vein, to the extent that the “stock quote information” has been reformulated as “information,” the analysis also provides no basis for this change. The reader is left to assume why this might have occurred. The best guess here is that this shift is due to a conclusion that the content of the information is non-functional descriptive information. If this reasoning forms the basis for the shift, then the analysis should, if nothing else, proactively explain this reasoning in the analysis. IPO notes, however, that the content of the information is *not* non-functional descriptive material, because the “stock quote information” is central to the entire purpose of the invention, and thus to both the filtering step and the subsequent generation of a stock quote alert. Thus, the omission of the fact that the “information” is actually “stock quote information” is inappropriate.

Next, the USPTO states that “[t]his is simply the organization and comparison of data.” This third characterization of claim 1 has newly omitted an element from even the broad second characterization quoted above: the third characterization no longer requires “formatting.” Again, the analysis does not provide a reason, but this omission, coupled with the others noted above, is relevant to the abstractness determination produced by the analysis. Without much basis, the example is compared to the *SmartGene* decision: “It is similar to other concepts that have been identified as abstract by the courts, such as ... comparing new and stored information and using rules to identify options in *SmartGene*.” As noted above, *SmartGene* is a non-precedential case and as such it did not establish any particular rule or general holding that can be applied to other cases. Further, the decision there was not based on consideration of the claims as being directed to the abstract idea of comparing new and stored information using rules.

More particularly, the analysis states that “[the organization and comparison of data] can be performed mentally and is an idea of itself.” As to the former, this statement is only true once a sufficient number of claim elements have been removed from the Step 2A analysis, such as those omissions noted above. In other words, a human mind cannot, for example, “format[] the stock quote alert into data blocks.” As to the latter—“an idea of itself”—which idea? The idea of organizing data? The idea of comparing data? These are separate ideas, but lumped together here.

The progression to ultimately arrive at this third claim characterization has shifted the ostensible concept to which this claim is “directed to.” If repeated by examiners, this mechanism of serially broadening the “concept” to which a claim is directed to risks misuse, because it opens the door to

²See Appendix 1 at 2 (“The server filters the stock quote information based upon the subscriber preference information that is stored in memory on the server. That is, the server compares the received stock quote information to the stored stocks of interest and stock price threshold preferences *to determine which stock quotes to drop and which to further process.*”) (emphasis added).

broadening a claim’s “concept” to a degree that it is no longer a legally appropriate vehicle for adjudicating Step 2A.

Another problem with this analysis is that it overlooks the IEG instructions that the analysis of a claim start by identifying what the applicant has invented, and what the claim is “*directed to*.”³ Thus, it is necessary for the examiner to consider the claim in light of what the applicant identifies and describes as their invention—and not whatever generalization the examiner formulates.

In this example, the USPTO states that “The invention *is directed* to a stock quote alert subscription service where subscribers receive customizable stock quotes on their local computers from a remote data source.” (emphasis added). Yet, all of the relevant aspects of this statement—that this is a service, it provides customized stock quotes, and it transmits them from a remote data source to a local computer—are completely eliminated from the subsequent analysis. Thus, the analysis concludes that the claim is abstract by the progressive generalization from the specific claim elements—one that ignores the specific instruction of the 2014 IEG to determine what the inventor considers his invention and to which the claim is *directed to*.

When claim elements are contemplated in an initial characterization of a claim, but are removed without comment from a final characterization used in the adjudicating abstractness, examiners may, improperly, believe that they have actually considered the removed claim elements in the Step 2A inquiry (prompting their failure to treat those features in Step 2B). To the extent that claim features are mentioned, but not used, in the Step 2A analysis, they should be expressly addressed in the analysis under Step 2B. To do otherwise suggests that it is acceptable for examiners to avoid addressing inconvenient claim features in *either* part of the analysis. Even the 2014 IEG suggests that when a claim feature is not included in a claim characterization forming the basis of a finding of abstractness under Step 2A, that claim feature *must* be considered in the Step 2B analysis.⁴

The impact of this sort of silent omission of claim elements from the Step 2A inquiry is clear because it occurs in example 21 itself. As noted above, the Step 2A analysis of claim 1 initially appears to account for the fact that claim 1 recites filtering received stock quotes, recites “stock quote information” rather than mere “information, and recites formatting a stock quote alert.”

Although it is entirely conceivable that the USPTO would arrive at the same conclusion of ineligibility under Step 2B after considering these elements, these elements have not been considered in the Step 2B analysis actually provided. Accordingly, at best the analysis is incomplete, but at worst, these elements, when considered in the Step 2B analysis, may arguably

³See 2014 IEG which states, in relevant part: “After determining what applicant has invented by reviewing the entire application disclosure and construing the claims in accordance with their broadest reasonable interpretation (MPEP § 2103), determine whether the claim as a whole is directed to a judicial exception.” “To properly interpret the claim, it is important to understand what the applicant has invented *and is seeking to patent*.” (emphasis added).

⁴In this regard, the 2014 IEG states that “if the claim includes additional elements,” examiners are to “identify the elements in the rejection and explain why they do not add significantly more to the exception.” See 79 Fed. Reg. 74624 at col. 3. Moreover, this statement is immediately followed by a citation to MPEP § 2106(III), which references the well-known requirement from *In re Oetiker* that examiners bear the initial burden of presenting a *prima facie* case. 977 F.2d 1443, 1445 (Fed. Cir. 1992). The natural reading of this portion of the 2014 IEG is that both the identification of the “additional elements” in a claim and the treatment of those additional elements are integral parts of a *prima facie* case of ineligibility.

amount to significantly more than the concept identified in Step 2A. Because the template analysis does not treat the features, however, the hypothetical applicant would have no way to evaluate the merits of the rejection.

Claim 2 of example 21 recites a series of steps for distributing stock quotes to selected remote devices and states that claim 2 would be eligible.⁵ Claim 2 differs from Claim 1 as follows. First, it adds a limitation of providing a “stock viewer application”; second, it limits the transmission of the stock quote alert to a “wireless communication channel”; and third it adds a wherein clause stating that the action that causes the stock viewer application to perform by using the URL included in the transmission to access the stock alert.

The example states that this method is still abstract under Step 2A—but provides no explanation why the additional claim limitations are ignored in Step 2A. Failing to address these—and provide a coherent explanation why they do not save the claim from being abstract, can only result in examiners likewise ignoring similar limitations in future claims, even when such limitations are central to an applicant’s invention.

With regard to Step 2B of claim 2, the USPTO states that although “some of the limitations when viewed individually do not amount to significantly more than the abstract idea (such as storing subscriber preferences or transmitting an alert) ... when *looking at the ordered combination of the elements, the invention as a whole amounts to significantly more* than simply organizing and comparing data [i.e., the abstract idea].”

Example 22: Graphical User Interface for Meal Planning

This example relates to the *DietGoal Innovations, L.L.C. v. Bravo Media L.L.C., No. 1:2013-cv-08391 (S.D.N.Y. 2014)*, which found all analyzed claims ineligible in a decision that did not generate much controversy. The Federal Circuit issued a mere *per curiam* decision, despite the high-profile nature of § 101. The value of this example to examiners will thus be found in the process by which claim 2 is analyzed, and not in the ultimate finding of ineligibility. As with the rejection of example 21, the template analysis provided in example 22 offers an example that provides an unnecessary opportunity for examiners to inject additional subjectivity into the Step 2A analysis set forth by the Supreme Court.

The Step 2A analysis provided by the USPTO is as follows:

The claim is then analyzed to determine if the claim is directed to a judicial exception. The claim recites [(1)] *a system for selecting and modifying meals based upon dietary goals*. In other words, the claim describes [(2)] *a process of meal planning*. Meal planning is the [(3)] *organization and comparison of information to develop a guideline for eating*. It is [(4)] *a mental process of managing behavior* that could be performed in the human mind, or by a human using a pen and paper. Such a basic concept is similar to other mental processes found abstract by the courts such as comparing new and stored information and using rules to identify options in *SmartGene*, and

⁵Although the evaluation of claim 2 finds that claim eligible under Step 2B, the same deficiencies in the analysis of claim 1 are present in the Step 2A analysis of claim 2.

obtaining and comparing intangible data in *Cybersource*. Therefore, claim 2 is directed to an abstract idea (Step 2A: YES).

The first problem with this example is that it also relies on the non-precedential *SmartGene* decision, and the incorrect characterization of the claim at issue there.

Second, it is immediately apparent that the Step 2A analysis here uses not one, or even three, but *four* different summarizations of claim 2. More specifically, the analysis states that “[t]he claim recites a system for selecting and modifying meals based upon dietary goals.” Second, it states that “[i]n other words, the claim describes a process of meal planning.” A “process of meal planning” is a slightly broader concept than “selecting and modifying meals based upon dietary goals,” because a claim drawn to a “process of meal planning” no longer requires steps “based upon dietary goals.” As it relates to the claim language at issue, shifting from the first characterization to the second produces a subtle omission of the feature of the claimed system that lets the user “view the result meals’ [sic] impact on customized eating goals.”

Next, the USPTO states that “[m]eal planning is the organization and comparison of information to develop a guideline for eating.” This third characterization of claim 2 is even broader than the first two, because “develop[ing] a guideline for eating” does not even require the display of any particular meal or require the ability to change the contents of a meal (consider that a “guideline for eating” could refer to a plan to eat three meals in a day, as opposed to two meals or four). Thus, this third characterization now requires even fewer features of the claim. Finally, the USPTO suggests that meal planning “is a mental process of managing behavior that could be performed in the human mind.” However, this statement is only true once a sufficient number of claim elements have been removed from the Step 2A analysis. This practice of multiple characterizations should be discouraged for clarity of the record and, as noted above because this practice opens the door for an unnecessary and likely counterproductive style of analysis. Further, it makes it exceedingly difficult for the applicant to rebut the examiner’s analysis: if the applicant refutes one characterization, the examiner can simply turn to another. The argument becomes one about the characterization of the claim, rather than about the claim itself. This is completely at odds with examination practice in regards to definiteness, novelty, and non-obviousness, where the claim, not a characterization of it, matters.

As noted in the discussion of example 21, if repeated by examiners, this process of serially broadening the “concept” to which a claim is directed risks misuse, because it opens the door to broadening a claim’s “concept” to a degree that it is no longer a legally appropriate vehicle for evaluating Step 2A. Similarly, this style of reasoning in a Step 2A analysis may cause examiners to – improperly – believe that they have actually considered the removed claim elements in the Step 2A inquiry (and then ignore those features in the Step 2B inquiry).

For both of the above reasons, to the extent characterization of claims is utilized, a single characterization should be used for all aspects of the analysis under § 101. To the extent that a template example utilizes a characterization of a claim in the Step 2A analysis, that characterization should be recognizable from the original claim itself, and intermediate claim characterizations that “bridge the gap” should be avoided.

Beyond this procedural issue, the USPTO’s analysis in Step 2A rests on a false analogy: claim 2 of the U.S. Patent No. 6,585,516 was not determined to be abstract by virtue of any *factual*

similarities to the claims at issue in *SmartGene* or *Cybersource*. As it relates to the USPTO’s finding of abstractness, the relevant reason (among other unrelated reasons) for the district court’s finding was that “the claims of the ’516 Patent recite steps that, although computer-implemented by virtue of the patent application, could ‘be performed in the human mind, or by a human using a pen and paper,’ and that ‘a method that can be performed by human thought alone is merely an abstract idea and is not patent-eligible under § 101.’”⁶ Claim 2 is not abstract because its “basic concept is similar to other mental processes found abstract,” as the USPTO characterizes in its template rejection. Rather, claim 2 is abstract because the concept to which the claim is directed “can be performed by human thought alone.”

This distinction illustrates three meaningful problems with the style of reasoning set forth in this template rejection. First, although the improper reliance on factual analogy for this claim does not affect the ultimate finding of ineligibility, examiners copying this example in the future may be led to an incorrect result (such as when analyzing a claim directed to a concept that cannot be performed in the human mind, even if it has some factual similarities to *SmartGene* or *Cybersource*). Second, even if the basis for abstractness used in example 22 mirrored the basis set forth by the district court, the factual analogy provided in this template analysis fails to articulate any elements of the claim at issue that are similar to elements of the invalid claims from *SmartGene* or *Cybersource*, and the reasoning instead rests on summary captions of those cases, provided without any context or rationale for applicability. This analysis is likely to cause examiners to rely on non-precedential cases to reject claims beyond what the facts of those cases can legally support. If nothing else, this style of analysis is likely to cause confusion regarding the factual similarity prompting the rejection (thus diminishing the likelihood that an applicant can meaningfully address the perceived defects in the claims).

Example 23: Graphical User Interface for Relocating Obscured Textual Information

Four claims relating to graphical user interfaces (GUIs) are found in example 23. Of the four claims, two are eligible under § 101, and two are ineligible.

The analysis states:

The claim does not recite a basic concept that is similar to any abstract idea previously identified by the courts. For example, the claim does not recite any mathematical concept or a mental process such as comparing or categorizing information that can be performed in the human mind, or by a human using a pen and paper.

The first sentence implies that examiners should restrict their identification of abstract ideas to those “previously identified by the courts.” IPO strongly agrees with this interpretation, but notes that many examiners in practice ignore this admonition.

The operative claim limitation here is “to detect an overlap condition where the second window overlaps the first window such that the textual information in the first window is obscured from a user’s view.” This detection necessarily relies on comparing new information (the current boundary of the window that has moved) with old information (the existing boundary of a window

⁶*Cybersource*, 654 F.3d at 1372-73.

that has not moved) and then identifying “options” based on the comparison (“automatically relocating the textual information, by a processor, to an unobscured portion of the first window in a second format during an overlap condition”). Under the USPTO’s interpretation of *SmartGene*, this claim should be found to be abstract under Step 2A. Further, because the “displaying” and “automatically monitoring” steps are (arguably) nothing more than the generic functions of a computer, they do not add significantly more under Step 2B. Hence, the claim is ineligible according to the USPTO’s earlier examples. The very fact that this eligible claim can easily be found ineligible under the USPTO’s characterization of *SmartGene* decision demonstrates that the latter must be incorrect.

The analysis of Claims 2 and 3 is incomplete. Here, claim 2 recites a more general method of comparing the areas of two graphical elements, and then calculating a scaling factor for textual information included in the second graphical element, based on the differences between the areas. The analysis states that claim 2 is ineligible, noting that the limitations of being computer implemented and that the textual information is in a window in a graphical user interface are simply in the preamble, and therefore do not limit the claim to “significantly more” than the abstract idea. The USPTO should clarify that if these limitations were expressly recited in the body of the claim, then the claim would have recited significantly more and thus been eligible.

Claim 3 is almost identical to claim 2, but adds that the last step is performed “by a computer.” The analysis concludes that this single addition is insufficient to render the claim eligible. This further suggests that had *all* of the limitations from the preamble been claimed, and then the claim would have been eligible. Clarification is needed.

The final problem with example 23 is that the USPTO finds that broader claim 1 does not implicate an abstract idea, and is, therefore, eligible under Step 2A, but the USPTO finds that claim 4, which includes all of the recitations of claim 1 and additional limitations, is directed to an abstract idea. This obvious contradiction can only serve to confuse both examiners and the public: how is a narrower claim abstract when it has the very same limitations as a broader claim that is not?

The problem appears to stem from which aspects of the claim were the focus of the abstract idea analysis. The analysis simply states without explanation that claim 4 is similar to claim 2: “The claim recites similar steps to those recited in claim 2.” This is incorrect. The steps of claim 4 are all of the steps of claim 1, plus four additional steps, only one of which bears any direct similarity to claim 2:

Claim 4	Claim 2
<i>determining the textual information would not be completely viewable if relocated to an unobstructed portion of the first window;</i>	<i>generating first data for describing the area of a first graphical element;</i>
<i>calculating a first measure of the area of the first window and a second measure of the area of the unobstructed portion of the first window;</i>	<i>generating second data for describing the area of a second graphical element containing textual information; and</i>

<i>calculating a scaling factor which is proportional to the difference between the first measure and the second measure;</i>	<i>calculating a scaling factor for the textual information which is proportional to the difference between the first data and second data.</i>
<i>scaling the textual information based upon the scaling factor;</i>	<none>

Nor is any explanation given why the matching limitations from claim 1 are entirely ignored and not relevant here. Although the USPTO subsequently determines that claim 4 adds significantly more, the analysis of this narrower claim will have the odd result of requiring applicants to clear a higher § 101 hurdle for dependent claims than independent claims.

Moreover, taken together, both example 23 and example 25 (discussing *Diehr* and discussed further below) may lead examiners to believe that the mere recitation of “calculating” forecloses a claim from passing muster under Step 2A. Accordingly, examiners may wrongly assume that the “significantly more” analysis of Step 2B is needed for all claims that recite a calculation or an equation.

To guard against this result, the USPTO should conclude that claim 4 of example 23 is not directed to an abstract idea because the recited GUI-focused calculations are not analogous to the mathematical algorithms that courts have previously found abstract (e.g., *Diehr’s* Arrhenius equation). In fact, the USPTO appears to acknowledge such a distinction in example 25 (*Diehr*) when it states “the Arrhenius equation is a mathematical relationship that the courts have held is representative of a law of nature.” Because these GUI-focused calculations are not representative of a law of nature, the recited calculating steps are not abstract.

Example 25: Rubber Manufacturing

Example 25 is based on *Diamond v. Diehr*. Although the USPTO’s analysis correctly concludes that the claim is eligible, there are several statements that could lead examiners to incorrectly apply the analysis to existing claims.

First, the analysis states:

Additionally, the claim limitations of performing repetitive calculations and comparisons between the calculated time and the elapsed time could be performed by a human using mental steps or basic critical thinking, which are types of activities that have also been found by the courts to represent abstract ideas.

This is at odds with the Supreme Court’s analysis in *Diehr*. The Court made no mention at all of the mental steps doctrine—a point expressly brought out by the dissent.⁷ Thus, to suggest here that the mental steps doctrine is applicable is inappropriate.

⁷*Diamond v. Diehr*, 450 U.S. 175, 201 (1981) (Stevens, J., dissenting) (“Justice Douglas’ opinion for a unanimous Court made no reference to the lower court’s rejection of the mental-steps doctrine or to the new technological-arts standard.”).

This statement leads to the next error with the example stating, “Since there are multiple abstract ideas recited in the claim, the Step 2B analysis needs to be conducted for each abstract idea individually, until the analysis shows ineligibility for one or eligibility for all.” Again, there is no such analysis in *Diehr*. To the extent that the Court considered the Arrhenius equation in the claim an abstract idea, there is no discussion by the court, or even the dissent, suggesting that there were “multiple abstract ideas” present (the alleged “critical thinking steps of calculating and comparing”). This approach—dissecting the claim into multiple abstract ideas—is entirely inconsistent with the *Diehr* Court’s instruction to avoid claim dissection: “It is inappropriate to dissect the claims into old and new elements and then to ignore the presence of the old elements in the analysis.”⁸ The *Diehr* Court explained why dissection is inappropriate:

It is argued that the procedure of dissecting a claim into old and new elements is mandated by our decision in *Flook* which noted that a mathematical algorithm must be assumed to be within the “prior art.” It is from this language that the petitioner premises his argument that if everything other than the algorithm is determined to be old in the art, then the claim cannot recite statutory subject matter. The fallacy in this argument is that we did not hold in *Flook* that the mathematical algorithm could not be considered at all when making the § 101 determination. To accept the analysis proffered by the petitioner would, if carried to its extreme, make all inventions unpatentable because all inventions can be reduced to underlying principles of nature which, once known, make their implementation obvious. The analysis suggested by the petitioner would also undermine our earlier decisions regarding the criteria to consider in determining the eligibility of a process for patent protection.”⁹

For precisely the same reason, it is inappropriate to dissect claims into as many different abstract ideas as can be found in example 25, because every claim limitation can be reduced to a mere abstract idea.

Example 26: Internal Combustion Engine, and Example 27: System Software - BIOS

The USPTO correctly determines that hypothetical example 26 is eligible for the streamlined eligibility analysis. In particular, this exemplary claim recites an internal combustion engine with various mechanical parts. While the example recites a control system that “calculate[s] a position of the exhaust gas recirculation valve,” the USPTO states that there is no need to perform the full eligibility analysis. This is correct.

It is also correct that “computers and computer operations are not automatically subjected to an eligibility analysis” and that hypothetical example 27 should result in a streamlined eligibility analysis. Specifically, example 27 recites a series of steps for loading Basic Input/Output System (BIOS) on a local computer system from a remote storage location. Here, the USPTO correctly finds that transferring control of the processor operations to that BIOS code would “clearly amount to significantly more than any potential recited exception.”

⁸*Id.* at 188.

⁹*Id.* at 189 n.12

Appendix C

Analysis of Non-Precedential Federal Circuit Decisions Cited in the IEG and July 2015 Update

Planet Bingo

The USPTO suggests that the Federal Court found the abstract idea at issue in this case was “managing a bingo game.” A close reading shows that the court’s holding was much more precise. It was the district court, not the Federal Circuit, that characterized the claims this way: “the district court determined that ‘each method claim encompasses the abstract idea of managing/playing the game of Bingo.’” However, although the Federal Circuit noted that the claims *recited* managing a bingo game, the court specifically found the abstract idea to be more narrow: “although the ’646 and ’045 patents are not drawn to the same subject matter at issue in *Bilski* and *Alice*, these *claims are directed to the abstract idea of ‘solv[ing a] tampering problem and also minimiz[ing] other security risks’ during bingo ticket purchases.*” This is the court’s (non-precedential) holding, and if the USPTO continues to incorporate *Planet Bingo* into the guidance, then its explanation of the case should be revised accordingly.

SmartGene

Both the 2014 IEG and the July 2015 Update make extensive use of the *SmartGene* decision. The claims at issue in *SmartGene* were directed to a method of evaluating a medical condition. The court stated that “[w]hatever the boundaries of the ‘abstract ideas’ category, the claim at issue here involves a *mental process* excluded from section 101: *the mental steps* of comparing new and stored information and using rules to identify medical options.” (emphasis added). The court itself unambiguously limited the scope of its decision: “[o]ur ruling is limited to the circumstances presented here, in which every step is a familiar part of the conscious process that doctors can and do perform in their heads.”

However, the USPTO has overlooked this express statement limiting the holding, as well as the express qualifications of “the mental steps of” and “to identify medical options” and improperly generalized the abstract idea as simply “comparing new and stored information and using rules to identify options. This broad characterization misses the underlying rationale of the court: that the decision making here was specifically *mental* and *medical* in nature, because it was precisely the kind of decision making about medical options that is made *mentally* by doctors. The court made no suggestion that comparison of information or the use of rules in general or in any other context was *per se* abstract. By so generalizing the court’s holding, the USPTO has created a category of abstract ideas that is beyond what the Federal Circuit (non-precedentially) held.

Further, it is hard to imagine a data processing method that cannot be characterized as “comparing new and stored information and using rules to identify options.” This broad generalization covers from the simplest case of storing a single number value X and comparing that number with a new value Y (“If $Y > X$ then $X=Y$ ”) to the most complex data operations using hundreds, or even

millions of input values, and any number of computations. If taken literally—as examiners might do—this statement can be used to find any and every claim to data processing an abstract idea. That is not the intent of the Supreme Court or the Federal Circuit.

The USPTO should remove discussion of *SmartGene* from the guidance, or in the very least properly characterize it as limited to medical decision making as exactly performed by doctors.

DietGoal

The USPTO uses the *DietGoal* case as the basis for example 22, “Graphical User Interface for Meal Planning.” However, this case is not merely non-precedential, it is a *per curiam* decision. As such, there is no specific explanation offered by the Federal Circuit, and thus the only thing that can be concluded is that the Federal Circuit agreed with the outcome of the case, but not necessarily the district court’s reasoning. Even if one can infer that the Federal Circuit approved of the specific reasoning of the lower court, the USPTO’s analysis again goes beyond the specific holding and analysis offered by the district court. In particular, the USPTO’s explanation relies on the aforementioned *SmartGene* case but does so in a way different from the district court. In its analysis of the claim, the USPTO states:

Meal planning is the organization and comparison of information to develop a guideline for eating. It is a mental process of managing behavior that could be performed in the human mind, or by a human using a pen and paper. Such a basic concept is similar to other mental processes found abstract by the courts such as comparing new and stored information and using rules to identify options in *SmartGene*, and obtaining and comparing intangible data in *Cybersource*. Therefore, claim 2 is directed to an abstract idea (*Step 2A: YES*).

However, the district court in *DietGoal* did not rely on *SmartGene* in this fashion: *SmartGene* is not mentioned in the court’s discussion of Step 2A. Instead, *SmartGene* is only mentioned in the context of Step 2B. *DietGoal* should be removed from the guidance or the analysis should be revised to properly reflect the court’s discussion.