

**Before the  
United States Patent and Trademark Office  
Alexandria, VA 22313**

In re: )  
Request for Comments on ) Docket No. PTO-P-2015-0034  
July 2015 Update on )  
Subject Matter Eligibility )

**COMMENTS OF GOOGLE INC.**

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October 28, 2015

## TABLE OF CONTENTS

INTRODUCTION .....	1
PART I: Examiners Must Not Lose Sight of the Supreme Court’s Inventive-Concept Requirement.....	1
PART II: Example 23 Errs in Failing To Recognize the Abstract Idea to Which the Claims Are Drawn and in Failing To Apply the Inventive-Concept Requirement.....	5
A. Example 23 mistakenly concludes that Claim 1 is not directed to an abstract idea.....	6
B. Example 23 does not adequately explain why Claim 4 satisfies the inventive-concept requirement.....	8

## INTRODUCTION

The Patent and Trademark Office’s (PTO’s) July 2015 Update on Subject Matter Eligibility is a helpful addition to the PTO’s previous guidance on this topic. We thank the PTO for its continuing efforts to clarify this developing area of the law. In particular, we commend the PTO for affirming that abstract ideas “need not be old or long-prevalent” and that “even newly discovered” abstract ideas cannot be patented. Update 3; *cf. Ass’n for Molecular Pathology v. Myriad Genetics, Inc.*, 133 S. Ct. 2107, 2117 (2013); *Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709, 714–16 (Fed. Cir. 2014).

We have submitted comments on the PTO’s earlier patent-eligibility guidance. *See* Comments of Google Inc. and Twitter, Inc. (July 31, 2014); Comments of Google Inc. (Mar. 16, 2015). We are grateful for the PTO’s invitation of further comment. We are concerned that the July 2015 Update places too much importance on whether such claims contain an “ordered combination” of elements and too little on whether those elements, alone or in combination, amount to an “inventive concept.” The inventive-concept requirement is central to the *Alice* Step Two inquiry prescribed by the Supreme Court, yet the recent Update surprisingly does not even mention that fundamental requirement. We have particular concerns with Example 23.

### **PART I: Examiners Must Not Lose Sight of the Supreme Court’s Inventive-Concept Requirement.**

The Update correctly states that at Step Two of the *Alice* framework, after it has been determined that a claim is directed to an abstract idea, one must “consider all additional elements both individually *and* in combination to determine whether the claim amounts to significantly more than” that abstract idea. Update 1–2. But regardless of whether the claim elements are viewed individually or as an “ordered combination,” the Step Two inquiry must focus on whether those elements amount to “an *inventive concept* sufficient to transform the claimed

abstract idea into a patent-eligible application.” *Alice Corp. Pty. Ltd. v. CLS Bank Int’l*, 134 S. Ct. 2347, 2357 (2014) (emphasis added; internal quotation marks omitted). The July 2015 Update should be revised to (i) state clearly that a claim directed to an abstract idea is unpatentable unless the claim contains additional elements that provide an inventive concept; and (ii) explain what is required for a claim to contain an inventive concept.

Most if not all method claims could be said to contain an “ordered combination” of steps or elements, but that characterization alone sheds little light on the essential question. The courts have confirmed that multiplication of conventional or generic claim elements as part of an “ordered combination” does not necessarily transform an abstract idea into patentable subject matter. *See Alice*, 134 S. Ct. at 2357 (“[A]ppending conventional steps, specified at a high level of generality,” is “not enough to supply an inventive concept.” (internal quotation marks omitted)). That is why in *Ultramercial*, the Federal Circuit held that a claimed sequence of “eleven individual steps” did not result in patentability. All of the steps were either abstract ideas or conventional activities, and so they did not contain an inventive concept—even when viewed as an “ordered combination.” 772 F.3d at 715–16.

Decisions of the Supreme Court and the Federal Circuit leave no doubt that the requirement of an inventive concept is the touchstone of the Step Two inquiry. *See, e.g.*, 134 S. Ct. at 2355; *Intellectual Ventures I LLC v. Capital One Bank (USA)*, 792 F.3d 1363, 1367–71 (Fed. Cir. 2015); *Internet Patents Corp. v. Active Network, Inc.*, 790 F.3d 1343, 1346 (Fed. Cir. 2015); *Content Extraction & Transmission LLC v. Wells Fargo Bank, Nat’l Ass’n*, 776 F.3d 1343, 1348–49 (Fed. Cir. 2014); *Ultramercial*, 772 F.3d at 715–16; *buySAFE, Inc. v. Google, Inc.*, 765 F.3d 1350, 1354–55 (Fed. Cir. 2014). While the presence of an inventive concept may be a close question in some cases, many claims will fall clearly on one or the other side of the

line drawn by precedent—so long as the examiner is consciously applying the proper inventive-concept standard.

Whether a claim that is directed to an abstract idea contains an inventive concept depends on the nature of the additional elements recited in the claim. The additional elements—considered individually or in combination—may provide an inventive concept if they set forth a technical solution to a technical problem. *See Alice*, 134 S. Ct. at 2359–60 (claim elements that “solve a technological problem” or “effect an improvement in [a] technology or technical field” may amount to an inventive concept). The additional elements do not provide an inventive concept if they add nothing to the abstract idea but “well-understood, routine, conventional activities” or if they merely call for the idea to be implemented in a “particular technological environment” or “in some specific fashion,” such as by using a computer or other physical machine already in existence. *Id.* at 2357–59 (internal quotation marks and alteration omitted); *see, e.g., Ultramercial*, 772 F.3d at 715–16. Thus, implementing a business method or other abstract idea with conventional computer equipment, used to perform generic functions that computers typically perform, is not patent-eligible. Likewise, a claim that recites using a generic computer to perform a function or achieve a result, but lacks technical specificity about how the function is performed or the result achieved, is not patent-eligible.

While the inventive-concept inquiry is “facilitated by considerations analogous to those of §§ 102 and 103,” *Internet Patents Corp.*, 790 F.3d at 1347, it does not duplicate the novelty and non-obviousness requirements of those sections. *See, e.g., Ultramercial*, 772 F.3d at 714; *see also Myriad Genetics*, 133 S. Ct. at 2117; *Parker v. Flook*, 437 U.S. 584, 588 (1978). The inventive-concept inquiry focuses instead on the nature of the claimed invention—such as whether it purports to describe a technical solution to a technical problem—and in doing so,

seeks to ensure that § 101 does not become a mere drafting requirement. When a claim is drawn to an abstract idea but also sets forth a specific, technical solution to a problem rooted in technology, there is little reason to worry that the claim is a “drafting effort designed to monopolize” an abstract idea. *Alice*, 134 S. Ct. at 2358 (quoting *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 132 S. Ct. 1289, 1297 (2012)). But describing the purported invention in conventional or functional terms is akin to simply setting forth an abstract idea and “adding the words ‘apply it.’” *Id.* at 2357 (quoting *Mayo*, 132 S. Ct. at 1294).

The inventive-concept inquiry also incorporates concerns about preemption, *i.e.*, the danger that a patent will “t[ie] up the future use” of the abstract idea. *Alice*, 134 S. Ct. at 2355 (quoting *Mayo*, 132 S. Ct. at 1301); *see* Update 8 (recognizing that the *Alice* framework reflects preemption concerns). Google agrees that preemption can be an important consideration. A patent’s claims need not preempt every application of an abstract idea to be patent-ineligible. *See, e.g., Bilski v. Kappos*, 561 U.S. 593, 612 (2010) (abstract concept of hedging risk could not be made patentable by limiting its use to energy markets); *Content Extraction*, 776 F.3d at 1349 (a “narrower scope” for patent claims does not equal an “inventive concept”); *buySAFE*, 765 F.3d at 1353 (an abstract idea cannot be patented “even if the particular . . . abstract idea at issue is narrow”). But broad preemption may indicate that the claim is unpatentable. *See, e.g., Alice*, 134 S. Ct. at 2358 (stressing the “pre-emption concern that undergirds our § 101 jurisprudence”); *Digitech Image Techs., LLC v. Elecs. for Imaging, Inc.*, 758 F.3d 1344, 1351 (Fed. Cir. 2014) (rejecting patent-eligibility where claimed method was “so abstract and sweeping’ as to cover any and all uses of a device profile” (quoting *Gottschalk v. Benson*, 409 U.S. 63, 68 (1972))); *see also Ariosa Diagnostics, Inc. v. Sequenom, Inc.*, 788 F.3d 1371, 1379 (Fed. Cir. 2015) (“[P]reemption may signal patent ineligible subject matter . . .”). Therefore, while we agree

that preemption is not a “stand-alone test for eligibility,” Update 8, the inventive-concept requirement should be enforced with special rigor where a claim would broadly preempt future use of an abstract idea.

The July 2015 Update should be revised to recognize and explain the inventive-concept requirement, consistent with the principles outlined above. Despite its prevalence in the case law, the phrase “inventive concept” is entirely absent from the Update. Rather than stressing (or even mentioning) the inventive-concept requirement, the Update repeatedly describes *Alice* Step Two as “the significantly more inquiry,” *e.g.*, *id.* at 1–2, and instructs examiners that they must determine whether “the additional elements in the claim . . . amount to significantly more than” the abstract idea to which the claim is directed, *id.* at 6. We submit that this language fails to accurately reflect the case law or provide meaningful guidance for examiners. By telling examiners that they must determine whether the additional elements amount to an inventive concept, and explaining that an inventive concept generally requires a technical solution to a technical problem rather than recitation of conventional or generic claim elements, the PTO can hew more closely to precedent and increase consistency and predictability in examinations.

**PART II: Example 23 Errs in Failing To Recognize the Abstract Idea to Which the Claims Are Drawn and in Failing To Apply the Inventive-Concept Requirement.**

Our concerns are exemplified by new Example 23, “Graphical User Interface For Relocating Obscured Textual Information.” Update App’x 1, at 7. The example is flawed in two ways. First, it takes too cramped a view of what constitutes an abstract idea at Step One. Second, it fails to apply the inventive-concept requirement at Step Two.

**A. Example 23 mistakenly concludes that Claim 1 is not directed to an abstract idea.**

Example 23 states that Claim 1 is patent-eligible because it is not directed to an abstract idea. That is not correct. The claim is directed to the abstract idea of keeping overlapping information visible. The example states that this idea is not abstract because it does not recite a “mathematical concept” or a “mental process,” but rather “is necessarily rooted in computer technology to overcome a problem specifically arising in graphical user interfaces.” *Id.* at 9. But the field of abstract ideas is not limited to mathematical concepts and mental processes, and the fact that an idea is related to computers and the Internet does not mean it is not abstract.

The Federal Circuit recently confirmed that ideas about computers and the Internet can be unpatentably abstract. In *Internet Patents Corp.*, the court invalidated a patent that claimed a method for enabling an Internet user to “us[e] the Back and Forward buttons [in a web browser] without losing data previously entered.” 790 F.3d at 1345. The court held the claim was directed to “an abstract idea,” namely, “the idea of retaining information in the navigation of online forms.” *Id.* at 1348. The court further held that the claim did not contain an inventive concept because it did not describe a specific mechanism for retaining the information, but was instead “directed to the idea itself.” *Id.* That decision makes clear that being “rooted in computer technology,” Update App’x 1, at 9, does not make an idea concrete. Rather, any “effect or result”—even a technological effect or result—can be an abstract idea. *Internet Patents Corp.*, 790 F.3d at 1348; *see Alice Corp.*, 134 S. Ct. at 2360 (an idea is not less abstract because it is relevant only in a “particular technological environment”) (internal quotation marks omitted). The analysis in *Internet Patents Corp.* applies equally to Claim 1 in Example 23. The idea of maintaining visibility of overlapping information is no less abstract than the idea in



*Internet Patents Corp.* of maintaining information on a webpage when the user clicks the Back or Forward button.

The earlier opinion in *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245 (Fed. Cir. 2014), is not to the contrary. As we have previously explained, *DDR Holdings* addressed *Alice* Step Two. The court did *not* hold that the patent claims at issue in that case were not directed to an abstract idea at Step One. In fact, the majority recited several possible formulations of an abstract idea to which the claims might have been directed—including the dissenting judge’s view that the claims described the basic concept “that an online merchant’s sales can be increased if two web pages have the same ‘look and feel,’” 773 F.3d at 1257—and chose not to reject any of them. Instead, the court held that, assuming *arguendo* that the patent’s claims were directed to an abstract idea, the claims nonetheless “satisf[ied] *Mayo/Alice* step two.” *Id.*<sup>1</sup>

Claim 1, read broadly, does not contain an inventive concept. The claim merely describes, at a high level of generality, the steps of displaying two windows, monitoring for an “overlap condition,” and (when such a condition is detected) “automatically relocating” the obscured content. Update App’x 1, at 8. Like the claim invalidated in *Internet Patents Corp.*, this claim “describes the effect or result dissociated from any method by which [that effect or result] is accomplished.” 790 F.3d at 1348. It would therefore apply to *any* later-developed method of relocating obscured graphical information, even one whose technical mechanisms had

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<sup>1</sup> Google’s prior comments pointed out that the PTO had erred in its treatment of *DDR Holdings*. One of the abstract-idea examples issued in conjunction with the 2014 Interim Guidance on Patent Subject Matter Eligibility was expressly based on *DDR Holdings* but differed from that decision in a critical respect. The example stated that the claim at issue was not directed to an abstract idea at all for purposes of *Alice* Step One, whereas the Federal Circuit in *DDR Holdings* assumed the claim was directed to an abstract idea and held that it passed muster at *Alice* Step Two. *See* Google Inc. Comments at 4–5 (Mar. 16, 2015). The example in question is referenced as Example 2 in the July 2015 index of eligibility examples; it has not been corrected.

not been conceived at the time the patent issued. That is not sufficient to confer patent-eligibility. *See also O'Reilly v. Morse*, 56 U.S. 62, 112–20 (1853) (rejecting a claim that covered “an effect produced by the use of electro-magnetism distinct from the process or machinery necessary to produce it”). In this respect, § 101 overlaps with the longstanding prohibition on purely functional claims. *See* Comments of Google Inc. and Twitter, Inc. at 9 n.1 (July 31, 2014).

But even if the PTO disagrees with our analysis of this claim at Step Two, it should at least modify the example to make clear that the claim is directed to an abstract idea at Step One. The proposition that this claim is not drawn to any abstract idea, besides being contrary to *Internet Patents Corp.*, produces the anomalous result that Claim 4 in Example 23 is directed to an abstract idea and Claim 1 is not, even though Claim 4 *adds* technical detail to the method disclosed in Claim 1. It does not make sense to say that a patent applicant can render a concrete idea abstract by providing additional detail about how the result is accomplished, and Google is not aware of any case law supporting that rather startling proposition.

**B. Example 23 does not adequately explain why Claim 4 satisfies the inventive-concept requirement.**

Example 23 states that while Claim 4 is directed to the abstract idea of using a mathematical algorithm to perform the relevant functions, the claim nonetheless contains “additional limitations” that render it patent-eligible. Update App’x 1, at 11. The example, however, does not adequately explain why that is so, and it fails to discuss or even apply the Supreme Court’s requirement that the additional limitations amount to an inventive concept.

The example begins by correctly acknowledging that “the additional limitations of a computer screen and [a] processor” are “generic computer components” that do not render the claim patent-eligible. *Id.* It goes awry, however, when it declares that “viewing these computer

limitations as an ordered combination with the remaining limitations” renders the claim patent-eligible. *Id.* It appears that the “remaining limitations” are simply the steps of displaying windows, detecting an overlap condition, and automatically scaling and relocating the obscured information. Interpreted broadly, those steps do not amount to substantially more than “the idea itself,” *i.e.*, the abstract idea of maintaining the visibility of obscured graphical information. *Internet Patents Corp.*, 790 F.3d at 1348; *see also Versata Dev. Grp. v. SAP Am., Inc.*, 793 F.3d 1306, 1334 (Fed. Cir. 2015) (claim limitations that are “inherent in the abstract idea” do not provide an inventive concept). They certainly do not impose any meaningful “restriction on how the result [required by the idea] is accomplished.” *Internet Patents Corp.*, 790 F.3d at 1348; *see O’Reilly*, 56 U.S. at 120.

Significantly, the example does not explain how those steps, even when viewed as an “ordered combination,” provide an inventive concept. Google takes no view on whether, in this example, the claim might be construed to be narrower than it initially appears—*e.g.*, whether it might be limited to a particular algorithm or method of performing the stated function—and whether such a narrowing construction might supply an inventive concept. In some instances, courts have narrowed the ordinary meaning of a claim term because (i) the term has a specific meaning to those skilled in the art; (ii) the specification defines the term narrowly; (iii) the specification or prosecution history otherwise disclaims an ordinary, broad meaning; or (iv) the claim is a functional claim under 35 U.S.C. § 112(f) and is therefore limited to the embodiment disclosed in the specification. It is possible that Claim 4, so narrowed, might contain an inventive concept.

If so, however, the examiner should state the relevant claim interpretation on the record. Doing so is necessary both to provide fair notice to the public of the patent’s scope and to

prevent the applicant from later seeking a broader construction in court. The PTO has a strong interest in ensuring that applicants cannot “avoid the PTO’s gatekeeping role and seek to recapture in an infringement action the very subject matter surrendered as a condition of receiving the patent.” *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.*, 535 U.S. 722, 734 (2002); *see also* Greg Reilly, *Judicial Capacities and Patent Claim Construction: An Ordinary Reader Standard*, 20 Mich. Telecomm. Tech. L. Rev. 243, 246 (2014) (explaining how patentees at times “exploit vagueness or ambiguities in claim language to broadly assert patents that were understood narrowly when issued”). Moved by these concerns, the PTO has undertaken substantial efforts in recent years to improve claim clarity by, among other things, holding roundtable discussions with stakeholders and developing new training programs for examiners. For the same reasons, it is vital for examiners to create a record of any narrowing construction they deem necessary to ensure that a claim directed to an abstract idea contains an inventive concept.

The bottom line is that the critical question at *Alice* Step Two is the presence or absence of an inventive concept, and Example 23 does not address the inventive-concept requirement at all in its discussion of Claim 4. Instead, the example puts too much weight on the notion that an “ordered combination” of claim elements can overcome abstractness, without regard to whether the combination supplies an inventive concept. The unfortunate result is that this example, like some of the other examples Google discussed in its comments on the Interim Guidance, may foster the notion that applicants can circumvent the Supreme Court’s inventive concept requirement simply by reciting a lengthy, technical-sounding list of equipment and activities, even when that equipment and those activities are already well known in the art. As discussed above, the Supreme Court and Federal Circuit have rejected exactly that. *See, e.g., Alice*, 134 S.

Ct. at 2359; *Ultramercial*, 772 F.3d at 715–16; *see also* Google Inc. Comments at 13 (Mar. 16, 2015).