



October 15, 2022

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VIA ONLINE SUBMISSION

Re: Response of Engine Advocacy Regarding *Patent Subject Matter Eligibility Guidance*,  
Docket No. PTO-P-2022-0026

Dear Mr. Tamayo,

Engine is a non-profit technology policy, research, and advocacy organization that bridges the gap between policymakers and startups. Engine works with government and a community of thousands of high-technology, growth-oriented startups across the nation to support the development of technology entrepreneurship through economic research, policy analysis, and advocacy on local and national issues. Engine seeks to support the growth and success of nascent companies and future startups, including those that are current or potential patent owners, those that are (wrongfully) accused of patent infringement, and those that have not yet intersected directly with the patent system but may in the future—as each depend on innovation- and startup-friendly patent policies.

We appreciate the opportunity to submit these comments<sup>1</sup> regarding the Patent and Trademark Office's (PTO's) patent subject matter eligibility guidance and applaud the agency for undertaking revisions to the current guidance. This area of the law can be particularly important to high-tech, high-growth startups. As detailed below, current PTO guidance is out of step with the governing case law, which puts the PTO in the position of granting ineligible claims that would not hold up if challenged in court, and that can create problems for startup innovation. In

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<sup>1</sup> These comments focus on the way the subject matter eligibility guidance addresses abstract ideas, as that is most relevant to the high-tech, high-growth startups Engine works with. The portions of the guidance that address, e.g., laws of nature or products of nature are outside the scope of these comments.

addition, information the agency shares on patent eligibility can be difficult to parse without a legal background, so the PTO should also update other public materials so they can be more accessible to startups and small business innovators. At the same time, the PTO should ensure that any ongoing updates to patent subject matter eligibility guidance continue to resolve gaps between the PTO guidance and case law and keep the PTO's approach in line with governing law.

### **I. PTO guidance has practical impacts on the startup ecosystem and should be clear and accessible.**

High-tech, high-growth startups play an important role in economic growth, job creation, and innovation.<sup>2</sup> With this comes a growing need for clarity, predictability, and transparency from the PTO. For one, inaccurate assessments by the PTO can create problems for startups if the agency issues them low-quality patents that are easily invalidated. This results in wasted resources for the startups that carefully decided which patent applications to pursue. With the limited resources available to them, startups rely on the PTO to issue eligible, high-quality patents. In addition, startups—like other small businesses in the country—are too often targeted with unfounded patent assertions. Developments in the patent system have helped startups combat or avoid those costly accusations,<sup>3</sup> but startups continue to be exposed to the risk that established competitors or assertion entities will assert ineligible claims against them, thereby resulting in potentially costly litigation that could divert valuable resources or even put them out of business.<sup>4</sup>

#### **A. Startups rely on accurate assessments by the PTO.**

Because startups have limited resources, they rely on the PTO to get patent issuance decisions right. If the patent system were bogged down with too many low-quality or ineligible patents, it could ultimately lead startups to lose confidence in the patent system.

First, while large companies have the financial resources to accumulate large patent portfolios,<sup>5</sup> startups have to be more thoughtful in how they spend their limited time and money.<sup>6</sup> When deciding whether to apply for a patent, startups have to balance the time and effort involved

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<sup>2</sup> See Ben Casselman, *Start-up Boom in the Pandemic is Growing Stronger*, N.Y. Times (Aug. 19, 2021), <https://www.nytimes.com/2021/08/19/business/startup-business-creation-pandemic.html>.

<sup>3</sup> E.g., *Startups & the U.S. Patent System: Prioritizing Quality & Balance to Promote Innovation*, Engine 17-18 (July 22, 2022), available at <https://www.engine.is/news/category/prioritizing-quality-and-balance-to-promote-innovation>.

<sup>4</sup> *Id.* at 6-10.

<sup>5</sup> Nat Watkins, *Inside Big Tech's Race to Patent Everything* Wired (Mar. 15, 2022, 8:00 AM), <https://www.wired.com/story/big-tech-patent-intellectual-property/>.

<sup>6</sup> Imani Webb, *#StartupsEverywhere: Overland Park, Kans.*, Engine (Feb. 4, 2022), <https://www.engine.is/news/startupseverywhere-overlandpark-ks-bryghtlabs> (profiling Jeff Wigh, Founder and CEO of startup Bryght Labs: “[a]s a startup, we have to be really selective about our filings, and strategic about [what] we choose to patent. We cannot predict what is going to be a commercial hit. But we also cannot afford to seed 12 different patents, like a big company does, and then wait and see which of them end up working out....”).

against all competing priorities—like hiring, product development, fundraising, and customer acquisition—and they are often limited by patent application fees, attorney or patent agent costs, and employee time invested in patenting.<sup>7</sup> While big companies have experienced patent counsel to research case law and draft eligible claims, startups are more reliant on the PTO to issue them *eligible* patents. It would be a waste of time and resources for both the PTO and startups if the PTO issued an *ineligible* patent. For example, if a startup applies for a patent that the PTO deems “eligible” under its current guidance, but it is ineligible under governing law<sup>8</sup> the startup will have spent money on an asset that lacks value and invested resources it could have used developing another product, patenting another technology, or growing another line of its business. And when the PTO applies the law correctly, and rejects ineligible claims during prosecution, startup applicants get valuable information to direct their patenting activity, for example amending claims.

Low-quality patents also decrease confidence in the patent system, and that can deter would-be startup applicants from undertaking the investment if there is a higher risk it results in a potentially invalid or ineligible patent.<sup>9</sup> And for startups that already own patents, this creates uncertainty about the validity of their patents.<sup>10</sup>

Second, when the PTO issues ineligible claims, startups are the ones who are most vulnerable when those claims get asserted in frivolous, costly lawsuits. Instead of risking financially burdensome litigation, many startups are coerced into settling with an entity asserting meritless claims.<sup>11</sup> Even the specter of such assertions can hinder investors from financially backing a

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<sup>7</sup> See Abby Rives, *How the Patent Office’s Fees are Structured and How – That Can Impact Startups*, Engine (Apr. 26, 2022), <https://engineadvocacyfoundation.medium.com/how-the-patent-offices-fees-are-structured-and-how-that-can-impact-startups-4328884f338d>.

<sup>8</sup> See *infra* section II.

<sup>9</sup> See, e.g., Jason Wiens & Chris Jackson, *How Intellectual Property Can Help or Hinder Innovation*, Kauffman Foundation (Apr. 6, 2015), <https://www.kauffman.org/resources/entrepreneurship-policy-digest/how-intellectual-property-can-help-or-hinder-innovation/> (summarizing how IP “can increase productivity and firm valuations,” but also “be inefficient and hinder innovation if they are too weak or too strong,” and calling for a “Goldilocks” approach to IP frameworks).

<sup>10</sup> *The Impact of Bad Patents on American Businesses: Hearing Before the Subcomm. on Courts, Intellectual Property, and the Internet of the H. Comm. on the Judiciary*, 115<sup>th</sup> Cong. (2018) (quoting Representative Nadler) (“[Issuing an invalid patent] injects uncertainty into the market and imposes potentially huge costs on businesses and small inventors by requiring legal action to resolve claims of ownership.”).

<sup>11</sup> Robin Feldman, *Patent Demands & Startup Companies: The View from the Venture Capital Community*, 16 Yale J.L. & Tech. 236, 239 (2014) (“A rational company... may choose the less expensive option of settlement – still a bitter pill to swallow, but one that tastes far better than the costs and risks of litigation.”).

startup.<sup>12</sup> Patent assertion entities (PAEs) and other more established competitors can broadly assert claims that put startup valuations, and even their existence, in jeopardy.<sup>13</sup>

Current case law has reduced some of the cost of patent litigation and has helped weed out low-quality patents,<sup>14</sup> but startups continue to be easy targets for PAEs and more established competitors. And when the PTO issues ineligible patents it increases the chance startups will find themselves in the crosshairs of entities willing to assert those patent claims.<sup>15</sup> Therefore, the PTO should ensure patent examiners have the resources to evaluate patent quality—including guidance that is aligned with the governing law. In the absence of thorough and accurate evaluation, ineligible patents may be issued and put startups in a vulnerable position.

**B. As the PTO reflects on the guidance examiners and counsel use, it should also think about making information accessible to startups.**

As the agency revisits its formal eligibility guidance, the PTO should also consider where its other materials can promote clarity and accessibility for startups. The PTO could significantly improve information in its public materials about patent eligibility tailored to inventors and small businesses.

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<sup>12</sup> See e.g., *id.* at 280; Robbie Richards, *What Investors Look for in a Startup*, MassChallenge (July 20, 2021), <https://masschallenge.org/article/what-investors-look-for-in-startups>; Alejandro Cremades, *Here is What Startup Investors Look for in Entrepreneurs Before Investing*, Forbes (Jan. 31, 2019), <https://www.forbes.com/sites/alejandrocremades/2019/01/31/here-is-what-startup-investors-look-for-in-entrepreneurs-before-investing/?sh=b21e3a77eb85>; Arie Abecassis, *5 Things Startup Investors Look for Before Investing*, Entrepreneur (Sept. 13, 2016), <https://www.entrepreneur.com/article/281173>; Richard Harroch, *What Angel Investors Want to Know Before Investing in Your Startup*, Forbes (Dec. 13, 2020), <https://www.forbes.com/sites/allbusiness/2020/12/13/what-angel-investors-want-to-know-before-investing-in-your-startup/?sh=4c31dea51a11>; Jamie Novoa, *What are Investors Looking for in Startups? 4 Unmissable Startup Investors Criteria*, Startup Explore, <https://startupxplore.com/en/blog/startup-investors-criteria/> (last visited Oct. 14, 2022).

<sup>13</sup> See, e.g., Joe Mullin, *New Study Suggests Patent Trolls Really Are Killing Startups*, Ars Technica (June 11, 2014), <https://arstechnica.com/tech-policy/2014/06/new-study-suggests-patent-trolls-really-are-killing-startups/> (startup's valuation dropped by \$4 million during a patent suit that was ultimately dismissed); Amy L. Landers, *The Antipatent: A Proposal for Startup Immunity*, 93 Neb. L. Rev. 950, 979-80 (2015) (recounting examples of two former startups who won patent cases but lost market opportunities); Engine, *Startups Need Comprehensive Patent Reform Now* 7-14, <https://static1.squarespace.com/static/571681753c44d835a440c8b5/57323e0ad9fd5607a3d9f66b/57323e14d9fd5607a3d9faec/1462910484459/Startup-Patent-Troll-Stories1.d.pdf?format=original> (recounting additional stories of startups harmed by assertion of wrongly-issued patents).

<sup>14</sup> See generally Response of Engine Advocacy Regarding Patent Eligibility Jurisprudence Study, Docket No. PTO-P-2021-0032, Engine (Oct. 15, 2021), [https://static1.squarespace.com/static/571681753c44d835a440c8b5/t/6169e0c4bad1714c70899988/1634328772919/2021.10.15\\_Engine+Response+to+101+Study+RFI+\(1\).pdf](https://static1.squarespace.com/static/571681753c44d835a440c8b5/t/6169e0c4bad1714c70899988/1634328772919/2021.10.15_Engine+Response+to+101+Study+RFI+(1).pdf) (discussing the valuable role current eligibility jurisprudence has played in the startup ecosystem).

<sup>15</sup> E.g., Brian T. Yeh, *Cong. Research Serv.*, R42668, *An Overview of the “Patent Trolls” Debate* 12 (2013); Steven Levy, *The Patent Problem*, Wired (Nov. 13, 2012), <https://www.wired.com/2012/11/ff-steven-levy-the-patent-problem/> (describing PAE litigation in particular as “asymmetric warfare”).

Startups look to the PTO's public materials when learning about the patent application process. The PTO has created helpful pages on its website that, e.g., guide inventors through the process and various patentability standards,<sup>16</sup> but these materials do less to explain *eligibility*. The Manual of Patent Examining Procedure's (MPEP) section on eligibility<sup>17</sup> is very dense and lengthy—and while it is out of step with governing law,<sup>18</sup> it also requires a legal training and knowledge of case law to understand. We could not find equivalent information on eligibility written for inventors who do not have a legal background. For instance, the PTO describes, in simple terms, on its website what it means for a patent to be novel<sup>19</sup> but we did not see a similar explanation for eligibility. This lack of clarity contributes to additional costs for startups because they either might not get to learn about eligibility or they have to resort to legal counsel to interpret the PTO's guidance.

On its website, the PTO recommends that businesses use a patent attorney or agent to file patent applications, but it also acknowledges the practical reality that the cost of this assistance may be prohibitive for many applicant.<sup>20</sup> Consequently, the PTO provides pro se applicant materials.<sup>21</sup> This is a step in the right direction; however those materials do little to explain what an eligible claim is.<sup>22</sup> Instead, it points the individuals to the dense MPEP for eligibility guidance.

Ultimately, the absence of clear, accurate guidance for examiners, applicants, and small businesses poses accessibility barriers for startup growth.

### **C. Recommendations: Making PTO Guidance more accessible.**

There is a lot of information on the PTO's website, which is important and valuable but it can also become difficult to navigate, and in preparing these comments we struggled to find accessible descriptions of eligibility. There are a number of ways and places the PTO could, and should, modify or augment existing materials to provide startups digestible information about eligibility. This would be useful to both prospective applicants and other startups looking to learn more about the patent system—for example, because they received a demand letter. Here are a few specific places the PTO could consider:

- (1) ***Supplement the subject matter eligibility page.***<sup>23</sup> As it stands, the page dedicated to explaining subject matter eligibility points the reader to the MPEP and other lengthy

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<sup>16</sup> United States Patent and Trademark Office, *Patent FAQs* [https://www.uspto.gov/help/patent-help#type-browse-faqs\\_1903](https://www.uspto.gov/help/patent-help#type-browse-faqs_1903).

<sup>17</sup> U.S. Patent & Trademark Office, Manual of Patent Examining Procedure §2106 (9th ed. Rev. 9, June 2019), available at <https://www.uspto.gov/web/offices/pac/mpep/s2106.html>.

<sup>18</sup> See *infra* section II.

<sup>19</sup> See *infra* section I.C.3.

<sup>20</sup> U.S. Patent & Trademark Office, Filing a patent application on your own, <https://www.uspto.gov/patents/basics/using-legal-services/pro-se-assistance-program>.

<sup>21</sup> *Id.*

<sup>22</sup> *Id.*

<sup>23</sup> U.S. Patent & Trademark Office, *Subject matter eligibility*, <https://www.uspto.gov/patents/laws/examination-policy/subject-matter-eligibility?MURL=PatentEligibility>.

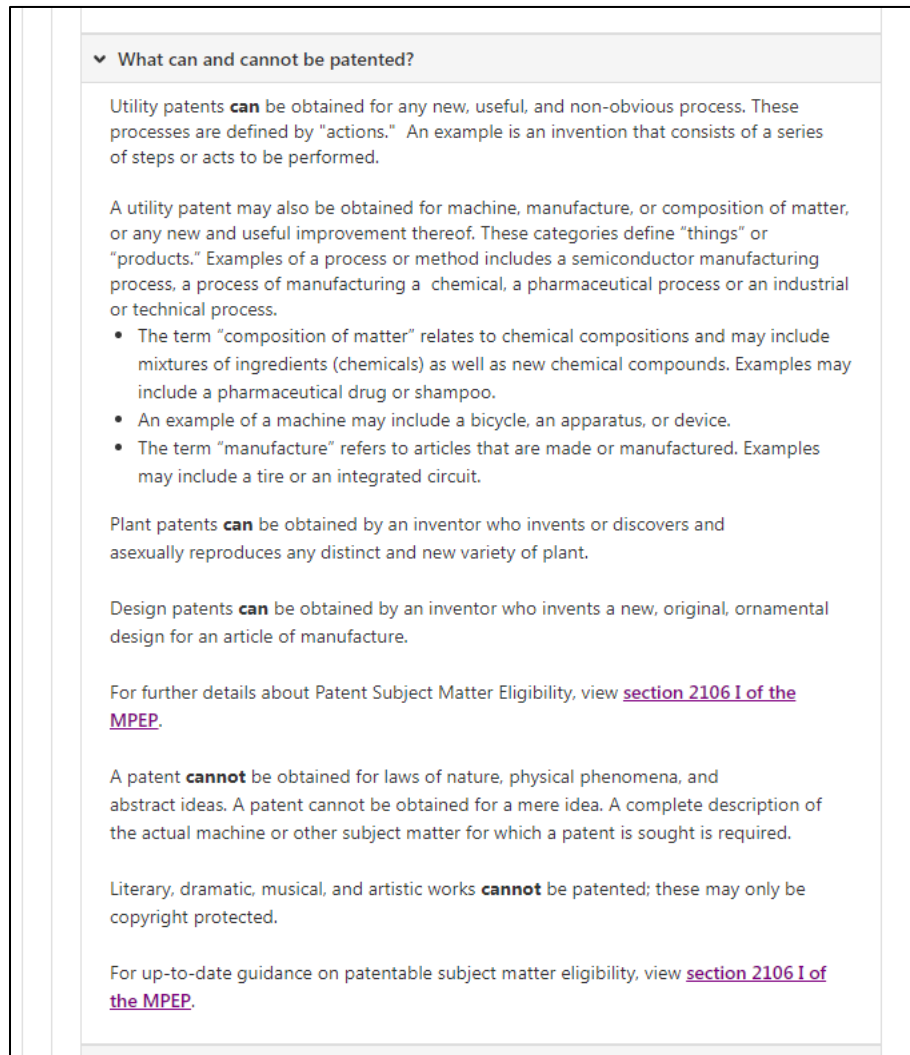
materials without even a high-level summary of the meaning of eligibility. Additionally, the listed examples of eligibility analyses are helpful for practitioners,<sup>24</sup> but if the aim is to “assist examiners *and the public* in understanding how the Office applies its eligibility guidance in certain fact-specific situations,” a few of the more prominent or most-cited examples could be summarized more succinctly on the subject matter eligibility page, in addition to being recited in detail throughout the examples documents.<sup>25</sup>

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<sup>24</sup> See *id.*, where an index of examples 1-46 illustrate subject matter eligibility analyses.

<sup>25</sup> See e.g., U.S. Patent & Trademark Office, *Appendix 1 to the October 2019 Update: Subject Matter Eligibility - Life Sciences and Data Processing Examples*, [https://www.uspto.gov/sites/default/files/documents/peg\\_oct\\_2019\\_app1.pdf](https://www.uspto.gov/sites/default/files/documents/peg_oct_2019_app1.pdf) (emphasis added).

(2) ***Include eligibility in resources for pro se applicants.*** Startups and small businesses who are newer to the patent system may rely on the PTO’s pro se assistance guidance.<sup>26</sup> That guidance effectively just directs readers to the MPEP for an explanation of eligibility. Therefore, we recommend adding a high-level summary along with a few brief examples of eligible (or ineligible) ideas. This would also mirror the description the PTO offers for other standards, like novelty and obviousness.



▼ What can and cannot be patented?

Utility patents **can** be obtained for any new, useful, and non-obvious process. These processes are defined by "actions." An example is an invention that consists of a series of steps or acts to be performed.

A utility patent may also be obtained for machine, manufacture, or composition of matter, or any new and useful improvement thereof. These categories define "things" or "products." Examples of a process or method includes a semiconductor manufacturing process, a process of manufacturing a chemical, a pharmaceutical process or an industrial or technical process.

- The term "composition of matter" relates to chemical compositions and may include mixtures of ingredients (chemicals) as well as new chemical compounds. Examples may include a pharmaceutical drug or shampoo.
- An example of a machine may include a bicycle, an apparatus, or device.
- The term "manufacture" refers to articles that are made or manufactured. Examples may include a tire or an integrated circuit.

Plant patents **can** be obtained by an inventor who invents or discovers and asexually reproduces any distinct and new variety of plant.

Design patents **can** be obtained by an inventor who invents a new, original, ornamental design for an article of manufacture.

For further details about Patent Subject Matter Eligibility, view [section 2106 I of the MPEP](#).

A patent **cannot** be obtained for laws of nature, physical phenomena, and abstract ideas. A patent cannot be obtained for a mere idea. A complete description of the actual machine or other subject matter for which a patent is sought is required.

Literary, dramatic, musical, and artistic works **cannot** be patented; these may only be copyright protected.

For up-to-date guidance on patentable subject matter eligibility, view [section 2106 I of the MPEP](#).

<sup>26</sup> U.S. Patent & Trademark Office, Filing a patent application on your own, <https://www.uspto.gov/patents/basics/using-legal-services/pro-se-assistance-program>.



(3) **Add an explanation of patent eligibility to the individual inventor toolkit.**<sup>27</sup> Currently, the PTO offers a toolkit for individual inventors on “demystifying the patent system.” It has one cursory slide on eligibility that simply poses the question “[i]s your idea eligible for protection?” By contrast, the toolkit includes more detailed definitions and context for other patentability standards like novelty, obviousness, written description, and enablement.<sup>28</sup> The PTO should tailor its guidance to help outsiders understand all relevant features of the patent process. A more thorough explanation of eligibility in the toolkit would be helpful.

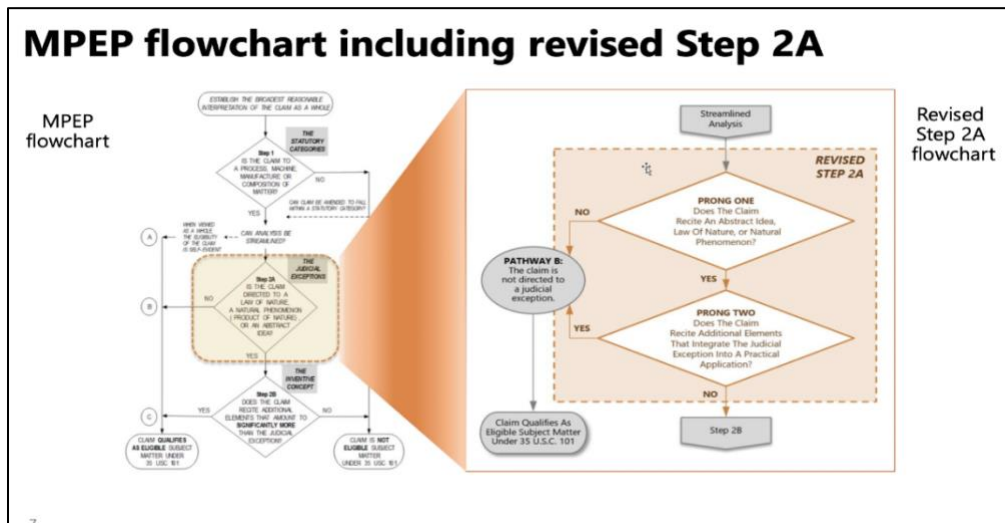
| <i>Compare description of eligibility</i>   | <i>With intro to novelty and obviousness</i>   |
|---|--|
| <p data-bbox="217 590 740 625"><b>Is your idea eligible for protection?</b></p> <p data-bbox="217 905 318 926">35 U.S.C. § 101</p> <p data-bbox="695 898 781 932">uspto</p> | <p data-bbox="850 606 1203 680"><b>Is your idea novel and non-obvious?</b></p> <ul data-bbox="850 695 1192 848" style="list-style-type: none"> <li>• “Novel”: e.g., your invention is new, was not described in the prior art</li> <li>• “Non-obvious”: e.g., the differences between your invention and prior art would not have been obvious to someone in that field</li> </ul> <p data-bbox="850 911 1013 932">35 U.S.C. §§ 102 and 103</p> <p data-bbox="1312 905 1398 938">uspto</p> |

<sup>27</sup> U.S. Patent & Trademark Office, *Demystifying the patent system*, <https://www.uspto.gov/initiatives/equity/demystifying-patent-system>.

<sup>28</sup> *E.g.*, *id.* at slides 19-20, 24-26.



- (4) *Create a simplified eligibility flowchart.*<sup>29</sup> The current MPEP flowchart is convoluted and inconsistent with the governing law.<sup>30</sup> While a startup may not necessarily need to know the legal reasoning or tests behind eligibility, there should still be a way to craft a single, accurate flow chart that depicts the agency’s approach to eligibility.



**II. The PTO Guidance is inconsistent, and should be aligned, with governing case law.**

We commend the PTO for revisiting its subject matter eligibility guidance because it is out of step with federal case law, resulting in the agency issuing ineligible claims. Thus, the PTO should amend the current guidance so that it is aligned with governing case law and provides accurate information to applicants, examiners, and the public.

As the Federal Circuit has stated on several occasions, it is reviewing (and rejecting) claims that comply with the guidance but are ineligible under the law. This has been made clear when the court has explained it is not “bound by the Office Guidance, which cannot modify or supplant the Supreme Court’s law regarding patent eligibility, or our interpretation and application thereof. . . . To the extent the Office Guidance contradicts or does not fully accord with our case law, it is our case law, and the Supreme Court precedent it is based upon, that must control.”<sup>31</sup> There is a widening gap between the PTO’s *2019 Revised Patent Subject Matter Eligibility Guidance*, 84 Fed. Reg. 50 (*2019 Guidance*) and governing Supreme Court and Federal Circuit case law. This, in part, may be explained by the difference in analytical approaches between the *2019 Guidance* and the federal courts, creating confusion both structurally and substantively. We

<sup>29</sup> See, e.g., U.S. Patent & Trademark Office, *35 U.S.C. §101 - Subject Matter Eligibility USPTO Guidance and Policy*, [https://www.uspto.gov/sites/default/files/documents/MWRO\\_101\\_Eligibility\\_OPLA.pdf](https://www.uspto.gov/sites/default/files/documents/MWRO_101_Eligibility_OPLA.pdf). This flow chart is also in other materials, including the MPEP, and should be revised there too.

<sup>30</sup> Moreover, this is actually two flowcharts on one slide and it would be easier to follow if the PTO made a single flowchart.

<sup>31</sup> *In re Rudy*, 956 F.3d 1379, 1383 (Fed. Cir. 2020).

therefore commend the PTO for undertaking this exercise, as it presents an opportunity to bring the PTO’s guidance back in accordance with federal case law.

**A. The PTO has incorrectly applied governing case law via the current guidance.**

First, whereas the law provides the two-step analysis for eligibility in the *Alice/Mayo* test, the *2019 Guidance* has labeled Step 1 of the *Alice/Mayo* test Step 2A, and Step 2 of the *Alice/Mayo* test Step 2B. This discrepancy in naming conventions can spark confusion, especially for outsiders like startups and other entrepreneurs, when attempting to understand how the two authorities align.

Importantly, the *2019 Guidance* further divides Step 1 of the *Alice/Mayo* test into a two-prong inquiry, introducing the idea of a “practical application” that is not in the case law and should be corrected.<sup>32</sup> In Prong 1, “examiners evaluate whether the claim recites a judicial exception, i.e., whether a law of nature, natural phenomenon, or abstract idea is set forth or described in the claim,” and in Prong 2, “examiners evaluate whether the claim as a whole integrates the exception into a practical application of that exception. If the additional elements in the claim integrates the recited exception into a practical application of the exception, then the claim is not directed to the judicial exception.”<sup>33</sup> This is in stark contrast to the case law, which defines Step 1 of the *Alice/Mayo* test as “determin[ing] whether the claims at issue are *directed to* a patent-ineligible concept.”<sup>34</sup> This includes “looking at the ‘focus’ of the claims”<sup>35</sup> and considering “the claims ‘in their entirety to ascertain whether their character as a whole is directed to excluded subject matter.”<sup>36</sup>

The case law does not break this down into multiple steps and, critically, it does not say that an ineligible claim becomes eligible if there is a practical application. Instead, federal courts have focused their analysis of Step 1 of the *Alice/Mayo* test on a single question: “whether the asserted claims are directed to a patent ineligible concept.”<sup>37</sup> Recognizing that “all inventions at some level embody, use, reflect, rest upon, or apply laws of nature, natural phenomena, or abstract ideas,”<sup>38</sup> the court distinguishes between “merely identify[ing] the patent-ineligible concept underlying the claim”—which is not enough—and determining “whether the patent-ineligible concept is what the claim is ‘directed to.’”<sup>39</sup> If the claim is not directed at a patent-ineligible concept, then it is eligible. But if the claim is, then the court continues its analysis to *Alice/Mayo* test Step 2. And, again, “practical application” is not the standard.

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<sup>32</sup> U.S. Patent & Trademark Office, Manual of Patent Examining Procedure §2106 (9th ed. Rev. 9, June 2019), available at [https://mpep.uspto.gov/RDMS/MPEP/current#/current/ch2100\\_d29a1b\\_139db\\_e0.html](https://mpep.uspto.gov/RDMS/MPEP/current#/current/ch2100_d29a1b_139db_e0.html)

<sup>33</sup> *Id.*

<sup>34</sup> *ChargePoint, Inc. v. SemaConnect, Inc.*, 920 F.3d 759, 765 (Fed. Cir. 2019) (quoting *Alice Corp. v. CLS Bank Int’l*, 573 U.S. 208, 218 (2014)) (emphasis added).

<sup>35</sup> *Id.* at 765 (quoting *Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1353 (Fed. Cir. 2016)).

<sup>36</sup> *Id.* (quoting *Internet Patents Corp. v. Active Network, Inc.*, 790 F.3d 1343, 1346 (Fed. Cir. 2015)).

<sup>37</sup> *Citrix Sys., Inc. v. Avi Networks, Inc.*, 363 F. Supp. 3d 511, 521 (D. Del. 2019).

<sup>38</sup> *Mayo Collaborative Services v. Prometheus Laboratories, Inc.*, 566 U.S. 66, 71 (2012).

<sup>39</sup> *Citrix Sys.*, 363 F.Supp.3d at 521.

Table 1: Structural differences between the governing *Alice/Mayo* test and the *2019 Guidance*

| <i>Alice / Mayo</i> step | Governing case law   | <i>2019 Guidance</i> |   |   |
|--------------------------|--|----------------------|---|---|
| <b>Step 1</b>            | Are the claims “directed to” a patent-ineligible concept (i.e., law of nature, natural phenomenon, or abstract idea)   | <b>Step 2A</b>       | <b>Prong 1</b>  | Evaluate whether the claim recites a judicial exception (i.e., law of nature, natural phenomenon, or abstract idea) |
|                          |  |                      | <b>Prong 2</b>  | Evaluate whether the claim as a whole integrates the exception into a practical application of that exception       |
| <b>Step 2</b>            | Ask if the claim recites additional elements sufficient to ensure it is more than a patent on the ineligible concept itself, i.e., search for an inventive concept | <b>Step 2B</b>       | Ask if the claim recites additional elements to make it significantly more than the exception |   |

**B. This guidance has led to divergent outcomes and ineligible claims.**

The difference between the *2019 Guidance* and governing case law has led to divergent outcomes in a number of cases, where the agency is issuing ineligible claims. That is evidence of a problem with the guidance but also instructive in this area of the law where reasoning by analogy can be so useful.

Most notably, in *Cleveland Clinic Foundation v. True Health Diagnostics LLC*,<sup>40</sup> the PTO issued claims, concluding that they were eligible. The Federal Circuit disagreed, holding that “diagnostic test[s] which can be used to determine whether an individual . . . is at a lower risk or high risk of developing or having cardiovascular disease,”<sup>41</sup> were “directed to the patent-ineligible natural law” under *Alice/Mayo* Step 1 and “contain no additional inventive concept.”<sup>42</sup> In so holding, the Federal Circuit explicitly rejected the PTO guidance provided by Example 29-Claim 1 of the subject matter eligibility examples, stating: “We have considered Example 29 and the arguments relating to it, but to the extent that Example 29-Claim 1 is analogous to the claims at issue, *Ariosa* must control.”<sup>43</sup> As such, Example 29 presents a stark example of the existing legal gap between the PTO’s approach to eligibility and governing law.

<sup>40</sup> 760 Fed. App’x 1013 (Fed. Cir. 2019).

<sup>41</sup> *Id.* at 1015.

<sup>42</sup> *Id.* at 1018-19.

<sup>43</sup> *Id.* at 1021.

And in *cxLoyalty, Inc v. Maritz Holdings Inc.*,<sup>44</sup> the Federal Circuit again reached a different conclusion from the Patent Trial and Appeal Board (Board) on claim eligibility. At issue was a customer loyalty program that allowed customers to redeem loyalty points for rewards offered by vendors.<sup>45</sup> The Board, relying on the *2019 Guidance*, concluded that while the claims focused on an abstract idea per *Alice / Mayo* Step 1, they passed *Alice / Mayo* Step 2 because they contained an “inventive concept.”<sup>46</sup> Specifically, the Board primarily relied on expert testimony submitted by the patent owner (Maritz Holdings) and found that *cxLoyalty* (the challenger) did not make enough of a showing before the Board that the claim lacked an inventive concept.<sup>47</sup> The Federal Circuit disagreed, emphasizing that the claims were nothing more than generic, conventional, functional components for carrying out an abstract idea and pointing out how “*the claims [did] not recite a solution to the*” purported problem being solved.<sup>48</sup> In reaching its decision, the court noted that the Board “repeatedly referred to [*the 2019 Guidance*]” in determining § 101 eligibility but reaffirmed that “to the extent the guidance ‘contradicts or does not fully accord with our case law, it is our case law, and the Supreme Court precedent it is based upon, that must control.’”<sup>49</sup>

These examples of divergent outcomes highlight the need for consistency in analytical approach and decision-making between the PTO and the Federal Circuit; updating the subject matter eligibility guidance to accurately reflect governing case law will help to close this gap.

### **C. Recommendations: Aligning the PTO’s Guidance to governing case law.**

Given the legal gap explained above, we recommend the following to align the guidance to the case law.

- (1) ***Delete or correct Step 2A, Prong 2 so it aligns with governing law.*** Step 2A, Prong 2 of the current guidance is one that is not found in federal case law and its creation of the “practical application” test is not either. We recommend the PTO to either remove this prong or amend each mention of Prong 2 so it is a correct description of what it means to be “directed to” an abstract idea. The PTO could delete Step 2A, Prong 2 from the guidance. At a minimum, the PTO must amend the MPEP’s discussion of Step 2A, Prong 2 so that it is a correct statement of the law (and remove the “practical application” standard). Such edits should also be reflected in other portions of the MPEP where Prong 2 is currently discussed, e.g., in MPEP §2106.05.
  
- (2) ***Update the PTO’s Subject Matter Eligibility Examples to be (and stay) consistent with the law.*** The PTO should fix its current eligibility examples to remove those it knows are inconsistent with the case law, and the PTO should revisit its guidance whenever the Federal Circuit or Supreme Court issues new rulings that affect the relevance and

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<sup>44</sup> 986 F. 3d 1367 (Fed. Cir. 2021).

<sup>45</sup> *Id.* at 1371.

<sup>46</sup> *Id.* at 1375.

<sup>47</sup> *Id.*

<sup>48</sup> *Id.* at 1377-78 (emphasis added).

<sup>49</sup> *Id.* at 1381 n. 1 (quoting *In re Rudy*, 956 F.3d 1379, 1382 (Fed. Cir. 2020)).

accuracy of examples.<sup>50</sup>

For instance, Example 40 of the *2019 Guidance* should be updated to reflect the federal court’s holding in *Citrix Sys., Inc. v. Avi Networks, Inc.*<sup>51</sup> In *Citrix Sys., Inc.*, the court held that the claims at issue—methods of identifying whether computer network service was available through analysis of service response time—were directed to a patent-ineligible abstract idea and also lacked an inventive concept, and were therefore patent-ineligible.<sup>52</sup> In reaching its conclusion, the court acknowledged the similarity of the challenged claims to Example 40 of the *2019 Guidance*<sup>53</sup> but it also expressly noted how “the PTO Guidance . . . is not binding on the Court.”<sup>54</sup> Ultimately the court held that “the claims at issue here are directed to nonpatentable subject matter.”<sup>55</sup> This very strongly suggests something about the (in)eligibility of Example 40 as well. Notably, Example 40 relies on the “practical application” test in Step 2A, Prong 2 of the *2019 Guidance* to conclude the (likely ineligible) claims are eligible, further confirming the practical problem with that standard.

This kind of direct commentary on the Guidance should prompt the PTO to delete or edit the examples that courts identify as inconsistent with the law, so that examiners and new applicants do not mistakenly rely on them.

- (3) **Remove or streamline references to old case law.** MPEP § 2106 includes a lot of case citations to old (and in some cases abrogated or outdated) case law which can bog down what should be a more straightforward and accurate description of the eligibility analysis. Instead of citing cases that have now been overruled or tests that have since been superseded, the guidance should focus on cases that are still controlling, and cases that are cited for their holding. This will increase clarity for both examiners and startups determining whether claims are patent-eligible. We encourage PTO to review the guidance for references to old case law and either remove or amend that language. For an example of recommended changes to the MPEP, see Exhibit A.

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<sup>50</sup> See, e.g., *Federal Circuit’s Decision in University of Florida Research Foundation v. General Electric Raises Questions with Subject Matter Eligibility Guidance*, Foley (Mar. 4, 2019), <https://www.foley.com/en/insights/publications/2019/03/federal-circuits-decision-in-university-of-florida> (discussing inconsistency between Example 42, which suggests a claim about collecting and analyzing data is eligible, and a Federal Circuit case holding a similar claim—characterized as a “quintessential ‘do it on a computer’ patent”—ineligible) (citing *Univ. of Fla. Res. Found. V. Gen. Elec. Co.*, 916 F.3d 1363 (Fed. Cir. 2019)).

<sup>51</sup> *Citrix Sys., Inc. v. Avi Networks, Inc.*, 363 F. Supp. 3d 511, n.2 (D. Del. 2019).

<sup>52</sup> *Id.*

<sup>53</sup> U.S. Patent & Trademark Office, *Subject Matter Eligibility Examples: Abstract Ideas* (Jan. 7, 2019), <https://www.uspto.gov/patents/laws/examination-policy/subject-matter-eligibility?MURL=PatentEligibility>.

<sup>54</sup> *Id.*

### III. Other recommendations to update the MPEP.

In addition to the suggested updates related to the PTO's subject matter eligibility guidance, we also recommend the following solutions to further align the guidance to governing case law. These recommendations touch on the PTO's discussion of claim scope, claim language, and abstract idea categorization.

#### *(1) Amend MPEP § 2106, Part II to address claim scope and eligibility requirements.*

MPEP § 2106, Part II is out of place. The agency should replace these instructions about broadest reasonable interpretation (BRI) with a brief discussion of claim construction and it should instruct examiners to write about claim scope when assessing eligibility. First, the MPEP does not separately address BRI every time it comes up—for example, there is no subsection on the claim construction standard in other sections on patentability.<sup>56</sup> Instead, MPEP § 2111 covers BRI in detail. Examiners know what standard to use during prosecution and do not need a separate subsection here to establish it.

Second, most of MPEP § 2106, Part II is unrelated to BRI—instead, this subsection touches on the role claim construction and claim scope play in eligibility. While cases like *Amdocs*, *Enfish*, and *McRO* never even mention BRI, they may still be helpful examples in certain instances. But the cases are really about how specific constructions that limit claims to, e.g., technical solutions influence eligibility.

Third, the MPEP should also encourage examiners to write about these issues in the prosecution history. If, for example, a patent applicant overcomes a § 101 rejection by explaining how her claims offer a technical solution to a technical problem—say she claims a specific algorithm that is further detailed in the specification—that should be spelled out in an Office Action so a third party could tell those technical details are part of the claim. This would also encourage patent applicants to take clearer positions during examination—which would help put the public on notice of claim scope and provide greater clarity and certainty for everyone.<sup>57</sup>

Finally, this additional attention to claim scope would also be useful given how eligibility can come up in litigation—something examiners may also benefit from seeing. Sometimes patent owners will argue for narrow claim constructions early in a case to survive eligibility challenges, but then later reverse course and seek more expansive scope when they have to prove infringement. For example, in *Data Engine Technologies LLC v. Google LLC*,<sup>58</sup> the Federal Circuit rejected the patent owner's argument that a preamble was not limiting, because earlier in

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<sup>56</sup> See, e.g., MPEP § 2131 (section on anticipation only makes one brief mention of BRI, and does not have a separate subsection instructing examiners on the claim construction standard); MPEP § 2141 (similar for obviousness); MPEP §§ 2163, 2164 (similar for written description and enablement).

<sup>57</sup> See, e.g., R. Polk Wagner, *Understanding Patent-Quality Mechanisms*, 157 U. Penn. L. Rev. 2135, 2165-68 (2009) (suggesting that examiners could write short statements about claim terms or courts could impose penalties when patent owners try to alter claim scope during litigation).

<sup>58</sup> 10 F.4th 1375 (Fed. Cir. 2021).

the case it urged the court to emphasize preamble language in finding eligibility. The court explained how the patent owner was “effectively seek[ing] to obtain a different claim construction for purposes of infringement than [the court] applied, at [the owner’s] insistence, in holding the asserted claims [] eligible.”<sup>59</sup> If there is more explanation in the prosecution history about what the relevant terms mean, courts and parties could avoid these inconsistencies.<sup>60</sup>

To this end, the agency could consider amendments to MPEP § 2106, Part II along these lines reflected in Exhibit B.

***(2) Amend MPEP §§ 2106.05(a) and 2106.04(d)(1) to emphasize that eligibility is based on claim language and clarify how examiners can look to (but not rely on) language in the specification.***

MPEP §§ 2106.05(a) and 2106.04(d)(1) should be clarified to more accurately state the guidelines around the use of language in the specification to assess eligibility. Case law has firmly held that while the specification can offer useful information about what claim terms mean and, e.g., what the purported improvement of a given invention is, such statements are not enough to make a claim eligible. Indeed, it is an error to rely “on technological details set forth in the patent’s specification and not set forth in the claims” to conclude a claim is eligible.<sup>61</sup> Instead, courts must always root the eligibility analysis in the claim language.

For example, in *Accenture Global Services*,<sup>62</sup> the court held that despite the specification’s detailed software implementation guidelines, the claim itself did not recite a purported improvement, stating: “the complexity of the implementing software or the level of detail in the specification does not transform a claim reciting only an abstract concept into a patent-eligible system or method.” The court further elaborated that while the specification did contain “very detailed software implementation guidelines, the system claims themselves only contain generalized software components arranged to implement an abstract concept on a computer”—so the details in the specification did not have bearing on claim eligibility. Thus, the claim at issue was patent ineligible.

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<sup>59</sup> *Id.* at 1381.

<sup>60</sup> See also, e.g., *CardioNet, LLC v. InfoBionic, Inc.*, No. 2020-2123, 2021 WL 5024388, at \*4 (Fed. Cir. Oct. 29, 2021) (The district court had observed that “when making its infringement argument, CardioNet had emphasized the operator’s role in activating the T wave filter, but that, problematically, when making its eligibility argument (at an earlier stage in the proceedings), it had downplayed that aspect of the claim. The court strongly hinted that, had it been aware of the significance of the operator’s mental process to the claimed invention at the pleadings stage, it would have considered holding the claims ineligible under § 101.” And that analysis supported the Federal Circuit’s conclusion that the claims in question were ineligible.) (citations omitted).

<sup>61</sup> *Intellectual Ventures v. Symantec*, 838 F.3d 1307 (Fed. Cir. 2016). See also, e.g., *ChargePoint*, 920 F.3d at 766 (“But while the specification may help illuminate the true focus of a claim, when analyzing patent eligibility, reliance on the specification must always yield to the claim language in identifying that focus.”)

<sup>62</sup> *Accenture Glob. Servs. v. Guidewire Software, Inc.*, 728 F.3d 1336 (Fed. Cir. 2013). See also *IV. v. Symantec*, 838 F.3d 1307 (Fed. Cir. 2016) (“The district court erred in relying on technological details set forth in the patent’s specification and not set forth in the claims reciting only an abstract concept into a patent-eligible system or method.”).



The PTO should accordingly adjust portions of the guidance which discuss language found in the specification to ensure it is always clear that claim language controls. For example, under Part II of MPEP § 2106.05(a), the agency could edit its synopsis of *McRO* to reflect the case law more accurately, along the lines of: “*The court relied on the claim which incorporated the specification’s accompanying explanation of how the claimed rules enabled the automation of specific animation tasks that previously could not be automated.*”

**(3) Ensure examples listed in the MPEP itself reflect case law, not assumptions or dicta.**

Where the PTO cites examples from the case law, it should make sure those examples reflect a case’s holding and it should avoid making assumptions about how cases would have been decided on different facts. Several portions of the MPEP list brief examples from the case law to aid the eligibility analysis. For example, case cites in MPEP § 2106.05(a) illustrate what courts have indicated may be enough—or not enough—to show an improvement to computer functionality. Importantly, though, the lists in that section discuss *indications* from courts, not *holdings*. And, as such, the MPEP could easily be read to suggest that, e.g., in *TLI* the Federal Circuit concluded that specific “[t]echnical details as to how to transmit images over a cellular network” rendered a claim eligible. In fact, in *TLI* the court held claims were ineligible and the absence of “technical details for the tangible components” was part of its conclusion. While the absence of those technical details was part of finding ineligibility, it does not necessarily follow that the presence of certain (unknown, undefined) “technical details” would change the outcome. The PTO should remove those sorts of examples from the MPEP, and only present examples that are consistent with the holding of cited cases. For examples of specific changes, see Exhibit C.

**(4) Clarify that MPEP § 2106.04 language around abstract idea categorization is not an exhaustive list.**

MPEP § 2106.04(a) currently reads as though it offers an all-inclusive and exhaustive categorization of abstract ideas. It incorrectly suggests that there are only three categories of ineligible abstract ideas: mathematical concepts, certain methods of organizing human activity, and mental processes.<sup>63</sup> The MPEP should clearly acknowledge that this listing of abstract ideas, via enumerated groupings, is not exhaustive.

\* \* \*

Thank you again for the opportunity to provide these comments. We appreciate PTO’s interest in and efforts to promote technology and innovation in the U.S. High-growth, high-tech startups are an essential component of our innovation economy, and we encourage the agency to continue to weigh their interests as it updates its eligibility guidance. Engine remains committed to engaging with PTO on these and other important issues.

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<sup>63</sup> See, e.g., *Alice Corp. Pty. V. CLS Bank Int’l*, 573 U.S. 208, 221 (2014) (declining to delineate boundaries between abstract ideas).

Respectfully submitted on behalf of Engine,

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## Exhibit A

*Remove or streamline references to old case law.*

For example:

- (1) Likewise, ~~merely eligibility should not be evaluated based on whether the claim recites a "useful, concrete, and tangible result;" does not make an ineligible concept patentable. State Street Bank, 149 F.3d 1368, 1374, 47 USPQ2d 1596, 1602 (Fed. Cir. 1998) (quoting In re Alappat, 33 F.3d 1526, 1544, 31 USPQ2d 1545, 1557 (Fed. Cir. 1994)), as this test has been superseded. In re Bilski, 545 F.3d 943, 959-60, 88 USPQ2d 1385, 1394-95 (Fed. Cir. 2008) (en banc), aff'd by Bilski v. Kappos, 561 U.S. 593, 95 USPQ2d 1001 (2010) (superseding State Street, In re Alappat). See also TLI Communications LLC v. AV Automotive LLC, 823 F.3d 607, 613, 118 USPQ2d 1744, 1748 (Fed. Cir. 2016) ("It is well-settled that mere recitation of concrete, tangible components is insufficient to confer patent eligibility to an otherwise abstract idea"). And an otherwise ineligible idea does not become eligible because the claim adds a generic, The programmed computer. or "special purpose computer" test of In re Alappat, 33 F.3d 1526, 31 USPQ2d 1545 (Fed. Cir. 1994) (i.e., the rationale that an otherwise ineligible algorithm or software could be made patent-eligible by merely adding a generic computer to the claim for the "special purpose" of executing the algorithm or software) was also superseded by the Supreme Court's Bilski and Alice Corp. decisions. Eon Corp. IP Holdings LLC v. AT&T Mobility LLC, 785 F.3d 616, 623, 114 USPQ2d 1711, 1715 (Fed. Cir. 2015) ("We note that Alappat's "special purpose computer" test has been superseded by Bilski, 561 U.S. at 605-06, and Alice Corp. v. CLS Bank Int'l, 573 U.S. 208, 110 USPQ2d 1976 (2014)"); Intellectual Ventures I LLC v. Capital One Bank (USA), N.A., 792 F.3d 1363, 1366, 115 USPQ2d 1636, 1639 (Fed. Cir. 2015) ("An abstract idea does not become nonabstract by limiting the invention to a particular field of use or technological environment, such as the Internet [or] a computer"). Lastly, eligibility should not be evaluated based on whether the claimed invention has utility, because "[u]tility is not the test for patent-eligible subject matter." Genetic Techs. Ltd. v. Merial LLC, 818 F.3d 1369, 1380, 118 USPQ2d 1541, 1548 (Fed. Cir. 2016).~~

## Exhibit B

*Amend MPEP § 2106, Part II to address claim scope and eligibility requirements.*

For example:

### ~~II. ESTABLISH BROADEST REASONABLE INTERPRETATION OF CLAIM AS A WHOLE CLAIM SCOPE AND ELIGIBILITY~~

~~It is essential that the broadest reasonable interpretation (BRI) of the claim be established prior to examining a claim for eligibility. The BRI sets the boundaries of the coverage sought by the claim and will influence whether the claim seeks to cover subject matter that is beyond the four statutory categories or encompasses subject matter that falls within the exceptions. See *MyMail, Ltd. v. ooVoo, LLC*, 934 F.3d 1373, 1379, 2019 USPQ2d 305789 (Fed. Cir. 2019) ("Determining patent eligibility requires a full understanding of the basic character of the claimed subject matter"), citing *Bancorp Servs., LLC v. Sun Life Assurance Co. of Can. (U.S.)*, 687 F.3d 1266, 1273-74, 103 USPQ2d 1425, 1430 (Fed. Cir. 2012); *In re Bilski*, 545 F.3d 943, 951, 88 USPQ2d 1385, 1388 (Fed. Cir. 2008) (en banc), *aff'd by Bilski v. Kappos*, 561 U.S. 593, 95 USPQ2d 1001 (2010) ("claim construction ... is an important first step in a § 101 analysis"). Evaluating eligibility based on the BRI also ensures that patent eligibility under 35 U.S.C. 101 does not depend simply on the draftsman's art. *Alice*, 573 U.S. 208, 224, 110 USPQ2d at 1984, 1985 (citing *Parker v. Flook*, 437 U.S. 584, 593, 198 USPQ 193, 198 (1978) and *Mayo*, 566 U.S. at 72, 101 USPQ2d at 1966). See MPEP § 2111 for more information about determining the BRI.~~

Claim interpretation affects the evaluation of ~~both criteria for~~ eligibility. For example, in *Mentor Graphics v. EVE-USA, Inc.*, 851 F.3d 1275, 112 USPQ2d 1120 (Fed. Cir. 2017), claim interpretation was crucial to the court's determination that claims to a "machine-readable medium" were not to a statutory category. In *Mentor Graphics*, the court interpreted the claims in light of the specification, which expressly defined the medium as encompassing "any data storage device" including random-access memory and carrier waves. Although random-access memory and magnetic tape are statutory media, carrier waves are not because they are signals similar to the transitory, propagating signals held to be non-statutory in *Nuijten*. 851 F.3d at 1294, 112 USPQ2d at 1133 (citing *In re Nuijten*, 500 F.3d 1346, 84 USPQ2d 1495 (Fed. Cir. 2007)). Accordingly, because the ~~BRI of the~~ claims covered both subject matter that falls within a statutory category (the random-access memory), as well as subject matter that does not (the carrier waves), the claims as a whole were not to a statutory category and thus failed the first criterion for eligibility.

With regard to ~~the second criterion for eligibility~~, the *Alice/Mayo* test, claim interpretation ~~can affect the first part of the test (whether the claims are directed to a judicial exception)~~ is also pertinent to eligibility. For example, the patentee in *Synopsys*

*argued that the claimed methods of logic circuit design were intended to be used in conjunction with computer-based design tools, and were thus not mental processes. Synopsys, Inc. v. Mentor Graphics Corp., 839 F.3d 1138, 1147-49, 120 USPQ2d 1473, 1480-81 (Fed. Cir. 2016). The court disagreed, because it interpreted the claims as encompassing nothing other than pure mental steps (and thus falling within an abstract idea grouping) because the claims did not include any limitations requiring computer implementation. In contrast, the patentee in Enfish argued that its claimed self-referential table for a computer database was an improvement in an existing technology and thus not directed to an abstract idea. Enfish, LLC v. Microsoft Corp., 822 F.3d 1327, 1336-37, 118 USPQ2d 1684, 1689-90 (Fed. Cir. 2016). The court agreed with the patentee, based on its interpretation of the claimed “means for configuring” under 35 U.S.C. 112(f) as requiring a four-step algorithm that achieved the improvements, as opposed to merely any form of storing tabular data. See also McRO, Inc. v. Bandai Namco Games America, Inc., 837 F.3d 1299, 1314, 120 USPQ2d 1091, 1102 (Fed. Cir. 2016) (the claim’s construction incorporated rules of a particular type that improved an existing technological process). Claim interpretation can also affect the second part of the Alice/Mayo test (whether the claim recites additional elements that amount to significantly more than the judicial exception). For example, in Amdocs (Israel) Ltd. v. Openet Telecom, Inc., where the court relied on the construction of the term “enhance” (to require application of a number of field enhancements in a distributed fashion) to determine that the claim entails an unconventional technical solution to a technological problem. 841 F.3d 1288, 1300-01, 120 USPQ2d 1527, 1537 (Fed. Cir. 2016).*

*When allowing a claim or finding that an applicant overcame a rejection, examiners should discuss these issues and explain why the claim is meaningfully limited to an eligible invention—and if any claim constructions or interpretations are key to that conclusion. Courts have identified tensions between the claim scope arguments parties make when arguing (in)eligibility on the one hand and arguing (non)infringement on the other. For example, in Data Engine Technologies LLC v. Google LLC, 10 F.4th 1375 (Fed. Cir. 2021), the Federal Circuit had held a claim eligible because it solved a problem particular to three-dimensional spreadsheets. That claim only ever mentioned three-dimensional spreadsheets in the preamble. Later, when addressing infringement, the patentee tried to argue that the preamble was not limiting, but the court rejected it, noting that the patentee had relied on the preamble to establish eligibility and was now effectively seeking a different claim construction. Thus, greater clarity in the record about what makes certain claims eligible would assist parties, patent owners, courts, and the public in understanding and predicting what those claims cover.*

## Exhibit C

*Ensure examples listed in the MPEP itself reflect case law, not assumptions or dicta.*

For example, the agency could edit its case cites in MPEP § 2106.05(a) to include only those cases where the court found an improvement in computer functionality.

- *i. A modification of conventional Internet hyperlink protocol to dynamically produce a dual-source hybrid webpage, DDR Holdings, 773 F.3d at 1258-59, 113 USPQ2d at 1106-07;*
- *ii. Inventive distribution of functionality within a network to filter Internet content, BASCOM Global Internet v. AT&T Mobility LLC, 827 F.3d 1341, 1350-51, 119 USPQ2d 1236, 1243 (Fed. Cir. 2016);*
- *iii. A method of rendering a halftone digital image, Research Corp. Techs. v. Microsoft Corp., 627 F.3d 859, 868-69, 97 USPQ2d 1274, 1380 (Fed. Cir. 2010);*
- *iv. A distributed network architecture operating in an unconventional fashion to reduce network congestion while generating networking accounting data records, Amdocs (Israel), Ltd. v. Openet Telecom, Inc., 841 F.3d 1288, 1300-01, 120 USPQ2d 1527, 1536-37 (Fed. Cir. 2016);*
- *v. A memory system having programmable operational characteristics that are configurable based on the type of processor, which can be used with different types of processors without a tradeoff in processor performance, Visual Memory, LLC v. NVIDIA Corp., 867 F.3d 1253, 1259-60, 123 USPQ2d 1712, 1717 (Fed. Cir. 2017);*
- ~~*vi. Technical details as to how to transmit images over a cellular network or append classification information to digital image data, TLI Communications LLC v. AV Auto, LLC, 823 F.3d 607, 614-15, 118 USPQ2d 1744, 1749-50 (Fed. Cir. 2016) (holding the claims ineligible because they fail to provide requisite technical details necessary to carry out the function);*~~
- ~~*vii. Particular structure of a server that stores organized digital images, TLI Communications, 823 F.3d at 612, 118 USPQ2d at 1747 (finding the use of a generic server insufficient to add inventive concepts to an abstract idea);*~~
- ~~*viii. A particular way of programming or designing software to create menus, Apple, Inc. v. Ameranth, Inc., 842 F.3d 1229, 1241, 120 USPQ2d 1844, 1854 (Fed. Cir. 2016);*~~
- *ix. A method that generates a security profile that identifies both hostile and potentially hostile operations, and can protect the user against both previously unknown viruses and "obfuscated code," which is an improvement over traditional virus scanning. Finjan Inc. v. Blue Coat Systems, 879 F.3d 1299, 1304, 125 USPQ2d 1282, 1286 (Fed. Cir. 2018);*

- *x. An improved user interface for electronic devices that displays an application summary of unlaunched applications, where the particular data in the summary is selectable by a user to launch the respective application. Core Wireless Licensing S.A.R.L., v. LG Electronics, Inc., 880 F.3d 1356, 1362-63, 125 USPQ2d 1436, 1440-41 (Fed. Cir. 2018);*
- *xi. Specific interface and implementation for navigating complex three-dimensional spreadsheets using techniques unique to computers; Data Engine Techs., LLC v. Google LLC, 906 F.3d 999, 1009, 128 USPQ2d 1381, 1387 (Fed. Cir. 2018); and*
- *xii. A specific method of restricting software operation within a license, Ancora Tech., Inc. v. HTC America, Inc., 908 F.3d 1343, 1345-46, 128 USPQ2d 1565, 1567 (Fed. Cir. 2018).*