September 16, 2024

Via Electronic Submission
The Honorable Katherine K. Vidal
Under Secretary of Commerce for Intellectual Property and Director
of the United States Patent and Trademark Office
600 Dulany Street
Alexandria, VA 22314

Re: Docket No. PTO-P-2024-0026, 2024 Guidance Update on Patent Subject Matter Eligibility, Including on Artificial Intelligence

Dear Director Vidal,

The Council for Innovation Promotion (C4IP) welcomes the opportunity to submit comments in response to the U.S. Patent and Trademark Office's issuance, on July 17, 2024, of updated examiner guidance on subject matter eligibility, including new examples 47-49 (Docket No. PTO-P-2024-0026) (the "July 2024 Guidance").

C4IP is a bipartisan coalition dedicated to promoting strong and effective intellectual property rights that drive innovation, boost economic competitiveness, and improve lives everywhere. Founded and chaired by former directors of the U.S. Patent and Trademark Office (USPTO) from previous Democratic and Republican administrations, whose board also includes two retired judges from the Court of Appeals for the Federal Circuit, our nonprofit organization hopes to be a valued partner to those considering policies impacting America's intellectual property system.

C4IP welcomes the USPTO's attention to keeping its subject matter eligibility guidance for the Office current. The July 2024 Guidance helpfully makes clear that there is a path to patentability for some AI in the United States — at least from the Office's perspective. Yet, in some critical aspects, the Office's guidance discounts the revolutionary ways that artificial intelligence (AI) allows machines to accomplish tasks that only humans have been capable of performing until now.

C4IP urges the USPTO to reconsider aspects of the guidance that directs AI limitations to be ignored — essentially as nothing more than a general-purpose computer — when it

is clear from the context (the claim or the specification if it effectively limits specific claim language) that the advance in AI is what allows for the automation of tasks that previously could only be accomplished by humans. In addition, while the analysis and output of AI machines may seem like human "reasoning" (and thus susceptible to categorized as an abstract mental process), they are not. AI represents separate, machine-based processes that analyze data in new ways, producing unique, non-human outputs. The innovation and effort required to develop such automation lies at the heart of AI technology, yet it is not consistently treated as such by this guidance.

Concerns about the July 2024 Guidance and Examples. For instance, the new examples accompanying the guidance ignore limitations reciting the use of AI by characterizing the claimed step of the process-in-question as being capable of being performed in the human mind. This is the case for steps (d) and (e) of Example 47, Claim 2. Those limitations recite the use of a trained AI (an artificial neural network, or ANN) to detect anomalies, analyze them, and generate anomaly data. The direction given to examiners is that the limitation to a trained ANN "provide[s] nothing more than mere instructions to implement an abstract idea on a generic computer." When these elements are ignored, these steps are left with only "detecting" and "analyzing," so the guidance explains these steps could be performed by the human mind. But, this analytical approach overlooks the value of AI, which is that training AI on data will lead it to perform "detecting" and "analyzing" differently than a human would, involving pattern detection and inferences a human would not make. Moreover, the Office cites no source for the proposition that trained AI should automatically be treated like a generic computer for purposes of this analysis, and it does not seem appropriate that this inference be made.

The July 2024 Guidance's new bullet-point examples of "mental steps" based on recent Federal Circuit case law are also problematic. (These examples are based on *Trinity Info Media, LLC* v. *Covalent, Inc.*, 72 F.4th 1355 (Fed. Cir. 2023), *In re Killian*, 45 F.4th 1373 (Fed. Cir. 2022), and *PersonalWeb Techs. LLC* v. *Google LLC*, 8 F.4th 1310 (Fed. Cir. 2021)). Given the way that the holdings of these cases are described, examiners are invited to ignore concrete claim limitations and summarily conclude that claims amount to nothing more than collecting, analyzing, and outputting data. There is no guidance given in these examples on when it is proper to ignore specific claim elements that limit the process to machines, especially when there are clear advantages to having machines perform the claimed steps. This is especially problematic coming in the context of guidance meant to help with AI inventions, where data gathering, analysis, and output are key elements of this new technology, but which turn on meaningful advances in how these functions are achieved by machines, not by humans. The

guidance, therefore, unfortunately, may serve to make obtaining patents on AI inventions unnecessarily difficult, with patents being issued according to the idiosyncrasies of how the guidance's gaps are filled in by individual examiners.

While C4IP has concerns with how the USPTO is discounting AI limitations, C4IP agrees with the Office's approach of treating AI the same as it would any other invention. As the USPTO wrote previously, "the USPTO has been examining and issuing patents claiming AI inventions for years"[1] using the same eligibility guidance that applies to all patent applications. No case law that we are aware of would dictate a different tact. C4IP continues to believe that this is also the correct approach for questions of AI and inventorship, in contrast to the Office's current approach, which we do not believe is required by case law.[2] Instead, AI should be treated the same as any other tool that human inventors might use in developing an invention. The Office's current approach unnecessarily elevates AI's current capabilities and threatens to make inventions developed using AI vulnerable to this side-show question during patent examination and court proceedings.

Legislative Reform of Patent Eligibility Is Needed. Putting specific concerns about the July 2024 Guidance aside, there are larger systemic problems with our nation's approach to patent-eligible subject matter. For example, the Office's guidance is not binding on the courts, which have the ultimate say in how binding case law is applied to potentially invalidate AI patents when they are enforced.[3] Having a legal system where there may be discrepancies between the flow-chart approach of the Office and the case law approach employed by the courts presents real harm to the innovation economy. Arguably, these discrepancies are forced on the Office, which is trying to ensure consistency among 9,000 examiners (including many without a legal degree) in light of constantly evolving and unpredictable case law.[4] Nonetheless, the current setup gives a false sense of certainty to patent recipients, particularly those lacking access to legal expertise that can advise them on how likely a court is to enforce a *granted* patent.

[1] USPTO, *Public Views on Artificial Intelligence and Intellectual Property Policy* 8 (Oct. 2020), https://www.uspto.gov/sites/default/files/documents/USPTO_AI-Report_2020-10-07.pdf.

[2] C4IP, *Re: Docket No. PTO-P-2023-0043, Inventorship Guidance for AI-Assisted Inventions* (May 13, 2024), https://c4ip.org/wp-content/uploads/2024/05/C4IP-Public-Comment-RE-PTO-P-2023-0043.pdf; *see also* Andrei Iancu & David Kappos, *New Patent Guidance on AI Could Quash Innovation*, Wall Street Journal (July 11, 2024), https://www.wsj.com/articles/new-patent-guidance-on-ai-could-quash-innovation-dd848ea4.

[3] In re Rudy, 956 F.3d 1379, 1383 (Fed. Cir. 2020) ("We are 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."),

[4] *See id.* (Fed. Cir. 2020) ("To the extent the Office Guidance contradicts or does not fully accord with our caselaw, it is our caselaw, and the Supreme Court precedent it is based upon, that must control.").

The same sort of whiplash affects investors, who might see their patent-backed investments evaporate, leading them to hesitate before investing in similar areas of technology in the future, as research has borne out: in a survey of 475 venture capital and private equity investors, 74% agreed that patent eligibility is an important consideration in whether to invest in companies developing technology.[5] Other research has shown a decline in investment of $9.3 billion in life science diagnostics in the years following the *Mayo* decision.[6] Some of the nation's premier research institutes have written to Congress about how this case law has forced them to abandon commercialization of promising discoveries.[7] The impact of the change in law in this area accordingly threatens the national competitiveness of the United States in innovation, as we compete with countries whose patent systems are not similarly constrained.[8]

For these reasons and others, C4IP believes that legislative reform to § 101 is needed and urges the Office to take a more proactive role in advocating for such reform. In particular, C4IP supports the Patent Eligibility Restoration Act (PERA) — bipartisan, bicameral legislation that is the product of years of Congressionally-led discussion and negotiation.[9] This bill would address the problems set forth in this submission by providing a single framework for courts and the Office to employ, promising the increase in predictability and certainty that the Office has seen since it adopted a more streamlined approach with its Patent Eligibility Guidance in 2019. This bill would also align our patent system with that of our major economic competitors (namely, Europe, China, South Korea and Japan) to ensure that we do not lose innovative individuals and startups to these other jurisdictions.

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Ensuring that the United States remains the leader in artificial intelligence is a vital objective for our country, and the primary incentive system that drives this progress is the

[5] David Taylor, *Patent Eligibility and Investment*, 41 Cardozo L. Rev. 2019, 2054 (2020), http://cardozolawreview.com/wp-content/uploads/2020/10/6.-Taylor.41.5.3.FINAL-1.pdf.

[6] A. Sasha Hoyt, *The Impact of Uncertainty Regarding Patent Eligible Subject Matter for Investment in U.S. Medical Diagnostic Technologies*, 79 Wash. & Lee L. Rev. 397 (2022), https://scholarlycommons.law.wlu.edu/wlulr/vol79/iss1/8.

[7] Letter from D. Geoffrey Vince, Ph.D., Chair, Biomed. Engineering, Lerner Rsch. Inst., Executive Director, Innovations, Cleveland Clinic, to Sen. Chris Coons, Senate Judiciary IP Subcommittee Chairman and Sen. Thom Tillis, Senate Judiciary IP Subcommittee Ranking Member (May 3, 2024); Letter from Laurie H. Glimcher, MD, President and Chief Executive Officer of the Dana-Farber Cancer Instit., to Sen. Chris Coons, Senate Judiciary IP Subcomm. Chairman and Sen. Thom Tillis, Senate Judiciary IP Subcomm. Ranking Member.

[8] *See* Kevin Madigan & Adam Mossoff, *Five Years Later, the U.S. Patent System is Still Turning Gold to Lead*, IPWatchdog (Dec. 15, 2019), https://www.ipwatchdog.com/2019/12/15/five-years-later-the-us-patent-system-is-still-turning-gold-to-lead/id=116984/; Kevin Madigan & Adam Mossoff, *Turning Gold to Lead: How Patent Eligibility Doctrine is Undermining U.S. Leadership in Innovation*, 24 Geo. Mason L. Rev. 939 (2017).

[9] S. 2140, https://www.congress.gov/bill/118th-congress/senate-bill/2140; H.R. 9474, https://www.congress.gov/bill/118th-congress/house-bill/9474.

patent system administered by the USPTO. The Office's attention to developing specific guidance on this important area of technology is commendable, but the particulars of the guidance may have an unintended deterrent effect on innovation in this field and others. C4IP urges the Office to revisit the July 2024 Guidance and accompanying examples to ensure that examiners are not improperly incentivized to ignore meaningful claim limitations, which would help to guard against over-characterization of AI inventions (and others) as nothing more than mental processes, when they reflect advances being performed by machines, and claimed only as such.

Given the state of the case law in this area, C4IP continues to believe that legislation is needed to ensure a proper scope of patent protection on critical areas of technology and to ensure that the Office and federal courts do not unduly diverge in their analysis of this issue. C4IP accordingly urges the Office to publicly support the Patent Eligibility Restoration Act, legislation that would do precisely this.

C4IP thanks the USPTO for its work on this critical issue, and stands ready to provide any further input that may be requested.

Sincerely,

Frank Cullen
Executive Director
Council for Innovation Promotion (C4IP)