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Written Testimony to the U.S. Senate Judiciary Subcommittee on Intellectual Property
Regarding PERA

Good afternoon Chairman Coons, Ranking Member Tillis, and members of the Subcommittee on Intellectual Property. Thank you for offering me an opportunity to provide my views on the Patent Eligibility Restoration Act of 2023 (PERA). I am testifying today solely on my own behalf, and no one is compensating me in connection with my testimony today.

Patent eligibility law in the United States is in a state of disarray that has led to inconsistent court decisions, deep concern for the availability and reliability of patent protection in the innovative, investment and legal communities, and innovation-killing outcomes in patent prosecution and litigation. These facts have been extensively documented in numerous sources, including: the statements of all 12 active judges (as of 2021) of the nation’s only patent court, the U.S. Court of Appeals for the Federal Circuit; the findings and reports of the Executive branch across all recent Administrations; the bi-partisan conclusions of Congressional committees; a robust body of academic studies; and at least forty separate witness statements at the 2019 hearings on this issue before this Subcommittee, including statements from advocates that oppose Section 101 reforms.

Even a lone recent article¹ downplaying the dismal state of affairs acknowledged that “[t]oo many critics to count—including academics, practitioners, legislators, and judges—have lambasted the patent eligibility framework as an unpredictable morass of confusion.” That same article relied on a single point to counter the overwhelming consensus—evidence of a high

¹ <https://patentlyo.com/patent/2023/11/predictability-framework-perspective.html>.

affirmance rate on Section 101 decisions. What that evidence actually shows, however, is that due to the uncertainty, innovators are avoiding investment in costly eligibility disputes in all but the most clear-cut cases, that lower courts are erring on the side of ineligibility in line with the signals coming out of the higher courts, and that the higher courts do not have clear standards to rely on to overturn ineligibility decisions of the lower courts. If anything, this is further evidence that nothing is working with Section 101—nothing.

That is precisely where PERA comes in. Senators Tillis and Coons have proposed sensible and practical legislation that fixes the problems with 101 in a calibrated way, moving away from the unduly constrictive, un-administrable test we have been struggling with based on highly subjective concepts like “abstractness”, to much more definable, specific and objective tests. Under PERA, there are no nebulous, constrictive judicial exceptions. Any invention or discovery that can be claimed as a useful process, machine, manufacture or composition of matter, or any useful improvement thereof, is eligible for patent protection, except as provided explicitly in the statute. These are the four categories that have served us well for over 200 years, until the Supreme Court began adding “judicial exceptions” to modify Congress’ legislation.

PERA’s exclusions from eligibility, moreover, are clearly defined and easy to apply. Excluded categories include pure mathematical formulas and mental processes, unmodified genes in the human body and unmodified natural material existing in nature. PERA also excludes substantially economic, financial, business, social, cultural or artistic processes, even when followed by language like “do it on a computer”, as long as such processes can be practically performed without the use of a machine or manufacture.

The result is legislation that balances ensuring IP protection for those innovations that deserve it, while providing reasonable, tailored, administrable, exceptions to safeguard from inappropriate claims, including claims that attempt to game the system.

I'll illustrate with an example. While a claim like the one found ineligible in *Interactive Wearables*² (directed to “wearable content players”) should clearly be eligible, and would be under PERA, a claim like the following “method of pricing a product for sale”³ should not be eligible, and indeed would not be under PERA. For although one or more steps refer to a computer, it is substantially a business process that is practical to perform without the computer:

A method of pricing a product for sale, the method comprising:

testing each price of a plurality of prices by sending a first set of electronic messages over a network to devices;

wherein said electronic messages include offers of said product;

wherein said offers are to be presented to potential customers of said product to allow said potential customers to purchase said product for the prices included in said offers;

wherein the devices are programmed to communicate offer terms, including the prices contained in the messages received by the devices;

wherein the devices are programmed to receive offers for the product based on the offer terms;

wherein the devices are not configured to fulfill orders by providing the product;

wherein each price of said plurality of prices is used in the offer associated with at least one electronic message in said first set of electronic messages;

gathering, within a machine-readable medium, statistics generated during said testing about how the potential customers responded to the offers, wherein the statistics include number of sales of the product made at each of the plurality of prices;

² *Interactive Wearables, LLC v. Polar Electro Oy*, No. 2021-1491, 2021 WL 4783803 (Fed. Cir. Oct. 14, 2021).

³ Held ineligible in *OIP Technologies, Inc. v. Amazon.com*, 788 F.3d 1359 (Fed. Cir. 2015).

using a computerized system to read said statistics from said machine-readable medium and to automatically determine, based on said statistics, an estimated outcome of using each of the plurality of prices for the product;

selecting a price at which to sell said product based on the estimated outcome determined by said computerized system; and

sending a second set of electronic messages over the network, wherein the second set of electronic messages include offers, to be presented to potential customers, of said product at said selected price.

PERA fixes a broken Section 101. But it is also important to step back and look at the broader context. Section 101 is but one of several requirements for patent protection. PERA is about stopping the conflation between 101 and the other, more objective and useful tests for patentability—Sections 102, 103 and 112. Those tests have deep, well-established law behind them, and have all been strengthened in the last generation to help protect against overbroad patents in the tech area. Moreover, Section 101 is intended to serve as the gatekeeper to the patent system, and to exclude only those ideas that are clearly unsuitable, irrespective of merit, for any access to the patent system—all others should pass 101 and be tested against the more refined, tougher tests of 102, 103 and 112. The current state of 101 jurisprudence eliminates whole swaths of the technological universe before they even get a chance to be tested against 102, 103, and 112. And ironically, it is the most cutting-edge fields like advanced software and medical technologies, areas most in need of patent protection to support their development, that get left out—entirely excluded from the patent system.

PERA will let 102, 103 and 112 return to doing their jobs, and stop the confusion that has resulted in a jumble of all tests for an award of patent protection into one hairball that cannot sensibly be applied. If a claim is obvious or not novel, it will be denied under 102 and 103. If it is not well described or does not enable a person of ordinary skill in the art to practice the invention, it will be rejected under 112. But if the claim is none of the above, and does not fall within the few well-defined and robust exceptions under PERA's new clarification of 101, it

deserves to be granted patent protection. It really is that simple. A flowchart depicting the clean and effective scheme provided by PERA follows:



Getting Section 101 right, as PERA does, is critical. The current state of the law has profoundly and negatively impacted sectors of the American innovation economy that rely on patents and clear, reliable patent laws to incentivize their work. The deeply negative impact is well-documented through a robust body of data, empirical studies and testimonial evidence. Among other effects, the impact includes reduced investment and reduced innovation in key fields of technology like medical diagnostics, biotechnology, software, blockchain and artificial intelligence (AI). If not addressed, the result will be further harm to the health and wellbeing of Americans and broader humanity, U.S. national security, and American jobs and competitiveness. As Senator Coons stated in 2019, “Today, U.S. patent law discourages innovation in some of the most critical areas of technology.”⁴ And as Senator Tillis further

⁴ <https://www.coons.senate.gov/news/press-releases/sens-coons-and-tillis-and-reps-collins-johnson-and-stivers-release-section-101-patent-reform-framework>.

stated in a 2019 hearing of this Subcommittee, “What we do on this subject will have major implications for every aspect of America’s innovation economy and it will determine if the United States remains the world’s leading innovator in the 21st century.”⁵ Many others have echoed these sentiments.

Unsurprisingly, numerous studies have shown that the Supreme Court’s changes to subject matter eligibility law through *Myriad*, *Mayo* and *Alice* have decreased confidence in the U.S. patent system, decreased private investment in key areas of technology that rely on patents, decreased commercialization of innovations in these areas, and created threats to America’s economic, social and national security interests. One 2022 empirical study concluded that in the four years following *Mayo*, venture capital investment in disease-diagnostic technologies was nearly \$9.3 billion lower than it would have been without that verdict.⁶ A 2020 study similarly concluded that almost one-third of venture capital and private equity investors who knew about at least one of the Supreme Court’s eligibility decisions indicated that these cases caused their firms to either invest less in affected areas, or shift investments out of biotechnology, medical device, pharmaceutical and software and internet industries into other areas. Meanwhile, 62% of investors “agreed that their firms are less likely to invest” in companies developing patent-ineligible technologies “given the unavailability of patents.”⁷

⁵ <https://www.judiciary.senate.gov/committee-activity/hearings/the-state-of-patent-eligibility-in-america-part-i>.

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). Available at: <https://scholarlycommons.law.wlu.edu/wlulr/vol79/iss1/8>.

⁷ Taylor, David O., Patent Eligibility and Investment (February 24, 2019), 41 Cardozo Law Review 2019 (2020), SMU Dedman School of Law Legal Studies Research Paper No. 414. Available at SSRN: <https://ssrn.com/abstract=3340937>.

The vagueness and randomness of the *Alice/Mayo* framework have also enabled patent infringers to exploit Section 101 as a litigation weapon exacting unnecessary burdens and costs on good-faith patent holders and the courts, further disincentivizing investment and innovation. Patent infringers now routinely raise Section 101 as a defense, often merely as a strategy to complicate and prolong litigation, rather than as a good-faith defense. One analysis found that from 2012 to 2014 (when *Alice* was decided), Section 101 was raised in just *two* Rule 12(b)(6) motions across the country each year. In the year after *Alice*, that number rose to 36 motions, and by 2019, accused infringers were filing nearly 100 such motions each year.⁸

These and other similar studies and articles demonstrate that: (1) unreliable patent protection depresses investment in R&D in key areas, including those that generate economic growth, lead to important innovations, and enable the U.S. to compete with China; (2) those investments have declined in the U.S. due to constricted and unreliable patent protection; and (3) patent filings in areas affected by Section 101 have dropped in the U.S. while increasing in China. Together, these points demonstrate that Section 101 is causing the U.S. to lose ground, decreasing R&D investment incentives in industries critical to America's strategic and public interests.

China, meanwhile, is following an opposite trajectory. With a historically weak IP system for biopharmaceuticals and software, no foreign innovators in these fields placed major R&D operations or invested in significant R&D activity in China. That changed when the Chinese government began strengthening its biopharmaceutical and software IP laws over the last decade. Today, as China's patent laws begin to rival—and, in the case of patent eligibility, surpass—U.S. patent laws, we have seen an explosion of R&D investment and innovation in

⁸ <https://www.law360.com/articles/1310545>.

China, including massive investments by foreign investors and foreign innovative companies. Since the U.S. upended its law governing patent eligibility, many patent applications are approved as patents in China but rejected as ineligible in the United States—all due to Section 101.

Given past U.S. leadership relative to other world economies in providing patent protection for new innovations, the disparate outcomes now commonplace represent a worrisome trend for the future of the U.S. innovation economy. Three years ago, for example, the National Security Commission on Artificial Intelligence issued its report on, among other things, the preparedness of our country to compete on a global basis with our most important competitor nations. The report includes the following cautionary observation: “China is both leveraging and exploiting intellectual property (IP) policies as a critical tool within its national strategies for emerging technologies ... The United States has failed to similarly recognize the importance of IP in securing its own national security, economic interests, and technology competitiveness. ... China is poised to ‘fill the void’ left by weakened U.S. IP protections, particularly for patents, as the U.S. has lost its comparative advantage in securing stable and effective property rights in new technological innovation.”⁹

Strong and predictable patent protection is vital for America’s success. The current Section 101 regime is broken and the courts have been running unguided for too long. This issue cannot be ignored any longer. It is time for Congress to fix America’s law of patent subject matter eligibility.

Chairman Coons, Ranking Member Tillis, and members of the Subcommittee, thank you again for the opportunity to share my thoughts today. I appreciate your consideration of PERA

⁹ Final Report of NSCAI, published March 1, 2021, p. 201.

and your efforts to ensure a clear, objective and administrable patent eligibility scheme. To the extent you find it helpful, I would be pleased to assist the Subcommittee as it further considers this topic. I look forward to addressing your questions.