

Testimony of Mike Lemon
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Chairman Tillis, Ranking Member Schiff, and Members of the Subcommittee:

Thank you for the opportunity to testify today on behalf of the National Retail Federation and, more broadly, as co-chair of United for Patent Reform (UFPR), a coalition that includes businesses of every size and sector across the country. Collectively, we represent America's Main Street businesses—the retail stores, restaurants, banks, realtors, hotels, homebuilders, and service providers that employ more than 90 million Americans and serve communities of every size and in every state.

Retailers have benefited enormously from innovation, and we recognize the essential role of a strong patent system in supporting that progress. When patents reflect true technological advances, they properly reward inventors and give businesses confidence to invest in new tools. Retailers routinely license and pay for the use of valid patents and for patented technology. We are committed to respecting those rights. What we cannot sustain is a return to the era of vague, abstract patents that reward litigation instead of invention.

We all benefit from a patent system that fosters real innovation. But that system must also protect against abuse. My testimony today explains why the Supreme Court's *Alice v. CLS Bank* decision was so essential, how it corrected a system that had veered badly off course, and why the Patent Eligibility Restoration Act (PERA) would undo that progress, driving up costs for Main Street businesses and, ultimately, for consumers.

I. The Burden on Retailers Before *Alice*

Retail is one of the most competitive sectors of the American economy. We succeed by keeping prices low, serving customers well, and constantly adapting to new technologies. But in the years leading up to the *Alice* decision, patent abuse made it much harder for retailers to do business.

Patent assertion entities (PAEs), sometimes called patent trolls, built a business model around vague, overly broad patents that never should have been granted. Retailers were sued not for creating new technologies but for employing common business practices: using online shopping carts, providing a menu, emailing receipts, or posting store maps on

websites. These are not new ideas. Retailers have been using shopping carts, menus, receipts, and maps for decades. These patents merely applied well-known business practices using existing technologies that others had invented.

For small and mid-sized retailers in particular, the costs were crushing. Defending a single case often requires millions of dollars. Even when the patent was clearly invalid, uncertainty in the law forced businesses to settle rather than risk bankruptcy. These lawsuits were effectively a tax on doing business, siphoning money away from investment in employees, stores, and customers.

The *Alice* decision, along with the enactment of the America Invents Act (AIA), helped to address the most egregious abuses of our patent system and the courts by PAEs. But they have not been a panacea. Retailers are still regularly sued by PAEs on invalid patents. And the PAE business model of extracting settlements from retailers by leveraging aggressive litigation tactics is, unfortunately, alive and well.

A current litigation campaign by an entity named Cascades Branding Innovation LLC (CBI) is illustrative. CBI owns three related patents that stem from a single patent application filed in June of 2007. All three claim nearly identical “inventions.” In one of its embodiments, the supposed invention is a method that is made up of five steps:

1. the logo of a company or store is displayed on a device;
2. the device’s user selects that logo;
3. the device determines the user’s location;
4. the device identifies nearby stores that are operated by or sell the products of the company that uses the selected logo; and
5. the device displays a map on which these locations are marked.

In essence, the supposed invention does nothing more than display a map of stores when a user selects the store’s logo. That is the entirety of the invention. If you would like to read it for yourself, it is found in claim 1 of U.S. Patent Number 7,768,395.

Two decades later, this patent has been asserted in more than 30 lawsuits against a host of Main Street businesses including Lowe's, Chipotle, Starwood Hotels, Jo-Ann Stores, PNC Financial Services, Walgreens, Staples, Marriott International, True Value, Gamestop, Michelin, Ace Hardware, Kohl's, Best Buy, ALDI, Five Guys, Hallmark Cards, Allstate, Target, Capital One, Abercrombie & Fitch, and a number of others. And these are just the ones that we know about because they were actually sued. It would not be unusual if there were other businesses that chose to pay a licensing fee to avoid a lawsuit.

The first of these lawsuits that I am aware of was filed in 2011. The patent was eventually invalidated by a district court under the *Alice* decision, and just last month that decision was affirmed by the Court of Appeals for the Federal Circuit. CBI's expansive and decades-long assertions of an invalid patent may finally be over, but only after fourteen years of litigation and a monumental waste of the time and resources of dozens of businesses.

II. The Recurring Pattern of Abusive Patents

This is a recurring problem. It has followed a predictable pattern. Whenever a new technology platform emerges, there's a rush to apply old ideas using that platform and repackage them as supposed inventions. Before the *Alice* decision, patentees were often successful in obtaining and enforcing patents on this type of "invention," even though they had not contributed anything to the "progress of science and useful arts," which is the purpose that the U.S. Constitution mandates for the patent system.

The first wave in modern times came with computers. Routine tasks like processing an order or tracking inventory were claimed as inventions simply because they were done on a computer. Nothing about the underlying practice was new, but patents were granted and then asserted against businesses of every size all over the country. Often, these patents did not even describe how the old idea was applied on a computer but instead merely recited the idea and then added "on a computer" or equivalent words.

The second wave arrived with the internet. Ordinary commercial activities such as sending a receipt, offering a catalog, or providing directions were patented because they were being done on the internet. Again, there was no real invention, but lawsuits multiplied. Retailers found themselves paying settlements simply for using technology that they had lawfully acquired from third parties to provide consumers the convenience they had come to expect in modern commerce.

A third wave followed shortly thereafter, driven by the introduction of the smartphone. Because the smartphone combined communications, computer, and internet technologies and rapidly reached the point of mass adoption, it was susceptible to patents from the previous two waves as well as a new flood of smartphone-specific patents like the CBI patent described above.

Now we are on the cusp of a fourth wave – one that can be avoided if we maintain the course under *Alice*. This fourth wave would involve patents that apply an abstract idea using artificial intelligence. Many standard business practices can be rebranded as a supposedly-new use of AI, but as in the prior waves, they would not reflect any advance in technology. Instead, they would represent attempts to profit off technology that others have invented by taking well-known practices and attaching the latest label. With the rapid

adoption of AI tools by retailers and other businesses to support all aspects of their operations, this fourth wave has the potential to be the most harmful yet.

But it doesn't have to happen. The lesson from computers, the internet, and smartphones are clear. Abstract patents are not about innovation, they are about exploitation. *Alice* finally gave courts the tools to stop the cycle. PERA would restart it.

III. The *Alice* Decision: Restoring Balance

In 2014, the Supreme Court issued its decision in *Alice v. CLS Bank*. The Court held that abstract ideas implemented using a well-known, generic technology are not patent-eligible. That ruling reaffirmed a simple principle: patents should protect genuine technological inventions, not abstract ideas dressed up in technical jargon. In the words of the Court:

Stating an abstract idea while adding the words “apply it with a computer” simply combines those two steps, with the same deficient result. Thus, if a patent’s recitation of a computer amounts to a mere instruction to implement an abstract idea on a computer, that addition cannot impart patent eligibility.

Alice Corp. v. CLS Bank Int'l, 573 U.S. 208, ___ (2014) (internal quotation marks, citations, and alterations omitted).

This rule is necessary to ensure that the patent system fulfills its constitutionally mandated purpose of promoting the progress of the useful arts. Historically, the term “useful arts” was used to refer to what would today be called technology. Allowing patents on an abstract idea that is dressed up with a reference to generic technology does nothing to advance the useful arts. In fact, it does the opposite. When asserted, these patents can impose massive legal costs and business uncertainty on the users of existing technology. This additional cost and risk makes businesses less willing to adopt a new technology, harming the ability of those who developed it—inventors who *have* contributed to the useful arts—to profit from their innovation.

For retailers, the impact of the *Alice* decision was transformative.

- Courts could now throw out bad patents at the outset, saving years of litigation.
- Businesses saved millions of dollars that had previously gone to settlements and legal fees.
- Retailers could better serve their customers by adopting new technologies without fear that emailing receipts or posting maps would trigger a lawsuit.

- Many patent assertion entities scaled back their investment in litigation campaigns once courts had a clear standard.

The benefits were measurable. The number of suits brought by patent trolls fell sharply. Hundreds of bad patents were invalidated. And importantly, legitimate innovation was not harmed. Investment in software, e-commerce, and digital technologies has only grown since *Alice*.

IV. What PERA Would Do

The Patent Eligibility Restoration Act threatens to undo this hard-won progress, imposing enormous costs on American industry while doing nothing to advance innovation. To put it bluntly, this bill is a solution in search of a problem.

The argument I have heard most frequently from proponents of the bill is that *Alice* has caused massive uncertainty for patent applicants and owners that has destroyed the value of patents and incentives to innovate. But the Patent and Trademark Office’s own studies and internal data show that is not true. A USPTO study entitled “Adjusting to *Alice*” found that by 2020 rejections by examiners under Section 101 were both less frequent and *more predictable* than they had been before the *Alice* decision. Other studies show the same predictability in courts. For example, in their 2025 empirical study of the application of Section 101 by courts, professors Nikola Datzov and Jason Rantanen found that “under one of the most well-established metrics for measuring the predictability in the law, § 101 proved to be more predictable than other areas of patent law over the past decade.”

The truth is that PERA would massively increase rather than decrease uncertainty for Main Street businesses. By abrogating the current legal precedents, which are well-understood and lead to predictable outcomes, and replacing them with a new statute that imposes a set of completely new and untested standards, PERA would guarantee years—perhaps decades—of uncertainty and extremely expensive litigation. And, by overturning *Alice* and allowing the patenting of abstract ideas once again, PERA would recreate the conditions that enabled abuse in the first place.

But the damage from PERA would go even deeper. PERA would not simply reverse a decade of precedent following *Alice*, it would overturn more than a century of case law. As far back as *O’Reilly v. Morse* in 1854, the Supreme Court held that abstract ideas are not patentable, striking down Samuel Morse’s attempt to claim the use of electromagnetism for all forms of communication. That principle has guided patent law ever since: patents protect inventions, not ideas.

The Court reaffirmed this doctrine in *Gottschalk v. Benson* in 1972 and *Parker v. Flook* in 1978, where it rejected patents on mathematical formulas and basic methods of

calculation. It clarified in *Diamond v. Diehr* in 1981 that while inventions applying an abstract idea in a technological process can be patentable, the underlying ideas themselves cannot. More recently, *Mayo v. Prometheus* in 2012 and *Alice v. CLS Bank* in 2014 confirmed that adding “do it on a computer” or “apply it with routine steps” is not enough to transform an abstract concept into a patent-eligible invention.

PERA would sweep away these guardrails. It would discard generations of legal doctrine that encouraged innovation with protection from abuse, opening the door to a new wave of abstract claims, this time centered on AI, that would expose Main Street businesses to what could be the most harmful flood yet of wasteful litigation.

V. Impact on Main Street and Consumers

Although I speak here on behalf of retailers, I should emphasize that we are not alone in our concerns. This issue touches every part of Main Street and affects every sector of U.S. industry. United for Patent Reform includes restaurants, banks, real estate firms, and service providers. What unites us is that we are technology users. UFPR’s Main Street members rely on tools created by others to serve our customers, and—when the patent system fails to properly balance the interests of technology users with those of patent owners—that reliance makes us vulnerable to opportunistic litigation. Most of the businesses represented by UFPR do not own patents, but they employ more than 90 million Americans and are the backbone of the U.S. economy. We believe that our interests are just as legitimate as those of patent owners and deserve to be considered in this debate.

In the early 2000s, Main Street businesses were regularly being threatened with low-quality patents. *Alice* and the AIA didn’t solve our problems entirely, but they did at least provide effective tools to fight back against PAEs. The USPTO has effectively taken away one of those tools by making it almost impossible to challenge invalid patents before the Patent Trial and Appeal Board. And, now, members of this subcommittee are proposing to take away the other.

Alice has saved Main Street businesses many millions of dollars in unnecessary costs. Thousands of stores and restaurants have gone out of business during the difficult economic times caused by COVID, and it is not unlikely that thousands more would have done so without the protections provided by the AIA and *Alice*. Here are just a few examples of the many litigation campaigns in which Main Street businesses were saved by *Alice*:

- Restaurants like Whataburger and Dairy Queen were sued for posting nutritional information and picture menus online in 66 cases;

- Over two hundred retailers like Sees Candy Shop, 1-800-FLOWERS.com and Men's Wearhouse were sued for using online shopping carts;
- Realtors and home builders were sued for the use of online maps to identify available properties; and
- Airlines were sued based on their frequent flier programs.

Before *Alice*, even the smallest business using an off-the-shelf reservation system or e-commerce platform could be threatened with a patent suit. *Alice* swept away many of those claims, giving businesses some breathing room. With patent challenges before the Patent Trial and Appeal Board having been effectively dismantled, if PERA is enacted, the breathing room that has allowed businesses to survive recent economic challenges will disappear entirely.

And the costs do not stop with Main Street. They reach consumers directly. Retailers already work hard to keep prices low in the face of inflation, supply chain pressures, labor shortages, and global competition. Every dollar spent fighting a frivolous patent lawsuit is a dollar that cannot go toward lowering prices, hiring staff, or improving service.

In short, PERA would function as a hidden tax on consumers. It would force Main Street businesses to divert scarce resources into litigation, and households would feel it in higher prices and fewer choices. At a time when affordability is top of mind for American families, Congress should be reducing costs for businesses and consumers, not adding new ones.

VI. Conclusion

The U.S. patent system is strongest when it rewards true invention. Retailers have long benefited from innovations protected by strong patents, and we are committed to licensing and paying for the use of valid patents that reflect real technological advances. What harms Main Street is not legitimate intellectual property, but opportunistic attempts to monopolize abstract ideas.

The creation of the Patent Trial and Appeal Board and the *Alice* decision made great strides in shoring up the health of the patent system. Recent weakening of the *inter partes* review, combined with increased investment in third-party litigation funding, has increased patent trolling activity and costs to Main Street and consumers.

On behalf of retailers, United for Patent Reform, and Main Street businesses nationwide, I urge this Subcommittee to preserve the clarity and fairness that *Alice* established and to reject legislation that would restart the cycle of abusive patents.

We have asked our outside counsel to provide a legal analysis of PERA. Joseph Matal is a former acting director and former acting solicitor of the Patent and Trademark Office. His

analysis concludes that the bill would allow the return of the business method patents we are concerned about. Please find his analysis attached.

Thank you for your attention, and I look forward to your questions.

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Dear Mr. Lemon:

You have asked me to analyze how the Patent Eligibility Restoration Act of 2025 (PERA), S. 1546 (119th Cong.), would change patent eligibility law, particularly with respect to the types of patents that have been asserted against retailers and other service businesses and that are ineligible for patenting under the U.S. Supreme Court's decision in *Alice Corp. v. CLS Bank Int'l*, 573 U.S. 208 (2014).

PERA has three principal effects that should be of concern to retailers:

- PERA would allow virtually any business method or other non-technological invention to be patented. PERA's only requirement is that "performing" the claimed invention must "practically" require the use a "machine or manufacture"—*i.e.*, an item that is made by a person. This can be computers, electronic communications, or even a pen and paper—and includes items that were already known and were invented by others. Any competent patent attorney could draft claims to any business method that would satisfy this requirement.
- PERA, by prohibiting any consideration of whether a claim element was "known" or "conventional," prevents courts from identifying a patent's claimed advance—what courts refer to as the "focus of the claims." This would make it impossible to enforce *any* limits on the types of subject matter than can be patented.
- It is unclear whether PERA would abrogate the rule of *O'Reilly v. Morse*, 56 U.S.C. 62 (1853), that a patent cannot claim a mere result or objective (and thus all ways of achieving the result). While PERA is intended to broadly authorize the patenting of inventions that use computers and

other technology, it does not expand § 101's categories of eligibility beyond a "process, machine, manufacture, or composition of matter." Courts in the past have concluded that claims to mere results or objectives are outside these four categories.

Business methods and other non-technological inventions

Alice Corp. held that patent eligibility does not extend to "economic practice[s]" and other "method[s] of organizing human activity." 573 U.S. at 220. The Supreme Court did not "delimit the precise contours" of "human activities," *id.* at 121, but the U.S. Court of Appeals for the Federal Circuit has substantially filled out the meaning of this term.

Thus in addition to the financial transactions at issue in *Alice*, the Court of Appeals has made clear that "economic practices" include entrepreneurial ideas¹ and methods of setting a price or valuing property.² The Federal Circuit has also applied the "human activities" exception to patents that claim information for its content—*i.e.*, inventions that seek to teach information to a person³ or curate information for an audience or consumers.⁴ Ineligible subject matter also includes methods of predicting and stopping malicious human behavior, such as fraud⁵ or gaining improper access to a system.⁶ And

¹ See, e.g., *Mortgage Grader, Inc. v. First Choice Loan Servs. Inc.*, 811 F.3d 1314 (Fed. Cir. 2016) (providing loans anonymously based on credit history); *Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709 (Fed. Cir. 2014) (providing access to copyrighted content in exchange for viewing an advertisement).

² See, e.g., *In re Healy*, No. 2024-2311 (Fed. Cir. Aug. 7, 2025) (setting prices for commodities through an exchange market); *SAP Am., Inc. v. InvestPic, LLC*, 898 F.3d 1161 (Fed. Cir. 2018) (predicting financial markets).

³ See, e.g., *Brumfield, Trustee for Ascent Trust v. IBG LLC*, 97 F.4th 854 (Fed. Cir. 2024) (presenting data in a way that helps a stock trader to more quickly make decisions to purchase or sell stock); *International Business Machines Corp. v. Zillow Grp., Inc.*, 50 F.4th 1371 (Fed. Cir. 2022) (displaying classes of object in visually distinct layers so that they can be more readily perceived).

⁴ See, e.g., *Broadband iTV, Inc. v. Amazon.com, Inc.*, 113 F.4th 1359 (Fed. Cir. 2024) (using a person's video viewing history to recommend videos); *Intellectual Ventures I LLC v. Capital One Bank (USA)*, 792 F.3d 1363 (Fed. Cir. 2015) (tailoring web pages presented to a user based on website navigation data and personal characteristics).

⁵ See, e.g., *Universal Secure Registry LLC v. Apple Inc.*, 10 F.4th 1342 (Fed. Cir. 2021) (using a third-party intermediary to authenticate a person's identity); *Bozeman Financial LLC v. Federal Reserve Bank of Atlanta*, 955 F.3d 971 (Fed. Cir. 2020) (detecting fraud in financial transactions by checking identifying parameters stored at a third-party site).

⁶ See, e.g., *FairWarning IP, LLC v. Iatric Sys., Inc.*, 839 F.3d 1089, 1092, 1094-95 (Fed. Cir. 2016) (detecting improper access to medical records by identifying "accesses in excess of a specific volume, accesses during a pre-determined time interval," or "accesses by a specific user"); *Intellectual Ventures I LLC v. Symantec Corp.*, 838 F.3d 1307, 1313-14 (Fed. Cir. 2016) (identifying email as spam or potentially carrying a virus by determining if the same

Alice has been applied to invalidate claims to games⁷ and aesthetic creations⁸—inventions that are “fun” or that make something “pretty.”

Collectively, these judicial decisions restrict patent subject matter eligibility to innovations that reflect a *technical* advance—inventions that are grounded in science and engineering. *Alice* prohibits claiming inventions that belong to the social sciences or humanities—*i.e.*, inventions whose operation is dependent on a human mental response.

PERA would replace the Patent Act’s focus on *improving* technology with a de minimis requirement that an invention simply require the *use* of some technology. PERA provides that a “process that is substantially economic, financial, business, social, cultural, or artistic” is patent eligible if “the invention cannot practically be performed without the use of a machine or manufacture.” 35 U.S.C. § 102(b)(1)(B), (b)(2)(A) (as proposed to be amended by PERA).

“Machine” and “manufacture” are broad terms—they include any tangible item that has been modified for human use. The Supreme Court has defined § 101’s “manufacture” to mean any article that is produced “for use from raw or prepared materials by giving these materials new forms, qualities, or properties.” *Diamond v. Chakrabarty*, 447 U.S. 303, 308 (1980).⁹ The term “machine” includes “every mechanical device or combination of mechanical powers and devices to perform some function and produce a certain effect or result.”¹⁰ Any tool that has been modified by a person—that was not simply picked up off the ground or plucked from a tree—is a machine or manufacture.

“Machine and manufacture” obviously includes all computerized devices and any form of electronic communication. The term includes telephones and typewriters. It even encompasses pens and paper.¹¹

email is seen by multiple users in a short time period and does not come from a reputable source).

⁷ See, e.g., *Savvy Dog Sys., LLC v. Pennsylvania Coin, LLC*, No. 2023-1073 (Fed. Cir. Mar. 21, 2024) (new version of Tic-Tac-Fruit); *In re Guldenaar Holdings B.V.*, 911 F.3d 1157, 1159 (Fed. Cir. 2018) (game of dice using a specially marked die).

⁸ See, e.g., *In re Sturgeon*, 839 F.App’x 517 (Fed. Cir. Jan. 12, 2021) (method of creating a floral arrangement); *In re Brown*, 645 F.App’x 1014 (Fed. Cir. 2016) (giving a haircut that is balanced to head shape).

⁹ See also *Digitech Image Techs. v. Elecs. for Imaging*, 758 F.3d 1344, 1349 (Fed. Cir. 2014) (a manufacture is any “tangible article that is given a new form, quality, property, or combination through man-made or artificial means”).

¹⁰ *In re Nuijten*, 500 F.3d 1346, 1355 (Fed. Cir. 2007).

¹¹ Pens, pencils, and paper are within the established classes of patentable subject matter. See Cooperative Patent Classification Class B43K (“Writing or drawing implements,” including “pens, pencils, crayons, and chalk”); Class D21H (“Pulp compositions; preparation thereof not covered by subclasses D21C or D21D; impregnating or coating of

One is hard pressed to conceive of any business activity today that can be carried out without the use of a machine or manufacture. Business conducted over any substantial distance will require the use of electronic communications, and business conducted at any substantial scale will require computers to store information about inventory, customers, and sales. Virtually all advertising and payment methods today use electronic communications. Even an old-school business that records information on ledgers and accepts only cash would still be using “machines and manufactures” (pens, paper, and coins).

Thus under PERA, any business practice—methods of advertising or selling to customers, plans to operate a type of business, or investment schemes or financial instruments—could be claimed in a patent. Although success in these fields depends on insights into human motivations, desires, and tastes, under PERA, they all become patent eligible subject matter because they “cannot practically be performed” without the use of a machine or manufacture.¹²

Again, PERA does not require that a patent make an *improvement* to the machine or manufacture; it simply requires a business method to be claimed in a way that makes it necessary to *use* the machine or manufacture.

It is difficult to think of a business that can be operated today using only face-to-face communication and by recording information only in one’s mind. Even a children’s lemonade stand would be ensnared by PERA because of the need for containers for the lemonade and to exchange currency. And again, if the claimed invention specifies that it is to be performed over substantial distances and at any substantial scale, it will require the use of electronic communications and computers.

PERA would be a radical departure from long-established principles of patent law. The U.S. patent system is based on England’s Statute of Monopolies of 1624,¹³ which limited patenting to the “working or making of any manner of *new manufactures* within the realm.” This industrial, technological restriction also appears in the U.S. Constitution’s intellectual property clause, which

paper; treatment of finished paper not covered by class B31 or subclass D21g; paper not otherwise provided for”).

¹² At the Senate Judiciary Committee’s 2024 hearing on PERA, advocates for the bill appeared to embrace its opening of the patent system to business methods, arguing (against the great weight of the evidence) that “business methods have long been recognized as patentable processes from the first years of the U.S. patent system.” *The Patent Eligibility Restoration Act—Restoring Clarity, Certainty, and Predictability to the U.S. Patent System*, Hearing on S. 2140 Before the Subcommittee on Intellectual Property of the S. Comm. on the Judiciary, 118th Cong. 136 (2024) (statement of Prof. Adam Mossoff).

¹³ 21 Jas. 1. c. 3.

authorizes the issuance of patents “to promote the Progress of Science and useful Arts”—the latter term being the 18th century’s word for “technology.” The same technical limitation was carried over into the Patent Act of 1793,¹⁴ which restricted patents to “any new and useful *art, machine, manufacture or composition of matter*.” This language is codified today without substantial modification at 35 U.S.C § 101.

As you are well aware, business method patents have little utility but create many burdens for service industries such as retail. Unlike scientific discoveries and technological inventions, which are controlled by laws of nature and therefore reproducible, the effectiveness of any method of persuading or influencing a person depends on the person. Success in sales and advertising requires knowledge of people and their motivations and desires—things that vary across cultures and time and that cannot be captured in patent claims. PERA’s authorization of business method patenting would likely lead to a substantial increase in lawsuits against retailers that would claim credit for retailers’ success without contributing to the knowledge of customers that accounts for that success.

“Known, conventional, or routine”

PERA would also require that patent eligibility be determined without considering “whether a claim element is known, conventional, [or] routine.” 35 U.S.C. § 101(c)(1)(B)(ii) (as proposed to be amended by PERA).

This restriction would effectively make it impossible to enforce any limits on the classes of patent eligible subject matter. In an eligibility analysis, courts begin by identifying the patent’s claimed advance. This has been described as an inquiry into what the claim is “directed to,” *Alice*, 573 U.S. at 217, or “looking to the focus of the claimed advance over the prior art.”¹⁵ For example, courts may study the patent’s specification “to understand the problem facing the inventor and, ultimately, what the patent describes as the invention”¹⁶—as opposed to those features of the claims that consist of “well-understood, routine, conventional activities previously known to the industry.” *Alice*, 573 U.S. at 225 (citations omitted).

If courts and the Patent Office are prohibited from considering whether a claim element is known, conventional, or routine, they cannot identify the patent’s claimed advance over the prior art. Under current law, when a patent claims a novel business transaction that requires the use of routine computer processing or electronic communications in a predictable way, a court will identify the computer or communications elements as “routine or

¹⁴ Chapter 11, 1 Stat. 318-323 (February 21, 1793).

¹⁵ *Free Stream Media Corp. v. Alphonso Inc.*, 996 F.3d 1355, 1361 (Fed. Cir. 2021).

¹⁶ *ChargePoint v. SemaConnect, Inc.*, 920 F.3d 759, 767 (Fed. Cir. 2019).

conventional,” and will identify the novel business method as the “claimed advance”—and will hold that the patent is directed to ineligible subject matter. But if the court is barred from recognizing that the technology recited in the claims is routine and conventional, the process of assessing eligibility is arrested at the first step. PERA in effect requires the decisionmaker to assume that *any* element in a patent’s claims is an advance over the prior art, even if it is undisputed that the recited technology was routine and conventional—*e.g.*, that the patentee did not invent computers or the internet.

PERA’s subsection (b) of § 101 already broadly authorizes the patenting of any business method that “cannot practically be performed” without the use of some technology. PERA’s subsection (c) makes even this limit unenforceable.

Results, effects, and other inventions outside the ‘four categories’

“The Supreme Court has long held that [patent] claims that state a goal without a solution are patent ineligible.”¹⁷ “[When] claims are drafted using largely (if not entirely) result-focused functional language, containing no specificity about how the purported invention achieves those results,” the claims “are almost always found to be ineligible for patenting under Section 101.”¹⁸ Thus “at the eligibility phase,” a “claim itself must identify ‘how’ [a] functional result is achieved by limiting the claim scope to structures specified at some level of concreteness, in the case of a product claim, or to concrete action, in the case of a method claim.”¹⁹

The rule against claiming mere results or effects derives from section 101’s confinement of patentable subject matter to a “process, machine, manufacture, or composition of matter.” All these words have identifiable and limited meanings—none encompasses mere aspirations or goals that are untethered to specific steps or tangible means.

This rule originates from a pair of Supreme Court cases that were decided over 170 years ago. *Corning v. Burden*, 56 U.S. 252 (1853), addressed the meaning of the word “process,” which it regarded as “included under the general term ‘useful art.’”²⁰ The Court concluded that “[i]t is for the discovery or invention of some practicable method or means of producing a beneficial result or effect

¹⁷ *American Axle & Manufacturing, Inc. v. Neapco Holdings LLC*, 967 F.3d 1285, 1295 (Fed. Cir. 2020).

¹⁸ *Beteiro, LLC v. DraftKings Inc.*, 104 F.4th 1350, 1356 (Fed. Cir. 2024). A facially results-oriented claim can, of course, avoid eligibility problems by confining itself to specific structure via 35 U.S.C. § 112(f). See *PowerBlock Holdings, Inc. v. iFit, Inc.*, 146 F.4th 1366 (Fed. Cir. 2025).

¹⁹ *Free Stream Media Corp. v. Alphonso Inc.*, 996 F.3d 1355, 1363-64 (Fed. Cir. 2021) (citations omitted).

²⁰ *Id.* at 267.

that a patent is granted, and not for the result or effect itself.”²¹ In the same year, *O’Reilly v. Morse*, 56 U.S.C. 62 (1853), addressed Samuel Morse’s infamous eighth claim, in which he attempted to claim the telegraph without “limit[ing] myself to the specific machinery or parts of machinery described in the foregoing specification and claims.”²² The Court held that the claim would improperly preempt a “future inventor” who “may discover a [better] mode of writing or printing at a distance.”²³

For all the changes that PERA proposes to make to eligibility law, it would not expand the four categories of patent eligible subject matter; PERA’s proposed § 101(a) continues to confine patenting to a “useful process, machine, manufacture, or composition of matter, or any useful improvement thereof.” These words would not encompass mere objectives or results any more than they did when *Corning v. Burden* was decided.

On the one hand, PERA broadly authorizes the patenting of anything that uses computers. If a patent claim recites “a computer configured to achieve result X,” a court applying PERA may hold that this is a claim to the computer, and thus eligible. On the other hand, the court may hold that this is a claim to a result, and that claiming results (and all ways of achieving them) is still prohibited by *O’Reilly*, a decision whose statutory foundation is not altered by PERA.

This ambiguity in PERA is somewhat surprising, given that the rule against claiming results or fields of use is a frequent target of critics of modern patent eligibility jurisprudence.²⁴ Nevertheless, I have reviewed the statements of the witnesses who testified in favor of PERA at the Senate IP Subcommittee’s 2024 hearing on the bill; none of them characterized PERA as overruling *O’Reilly v. Morse* or the many Federal Circuit decisions that apply the eligibility bar on claiming results.

The *O’Reilly* rule is frequently applied to invalidate so-called “black box” software claims—those that purport to solve “problem X” but recite only generic components and steps and conclude with “a module that solves for

²¹ *Id.* at 268.

²² *Id.* at 112.

²³ *Id.* at 113. For additional information about the history of the application of this rule by the Supreme Court and Courts of Appeals, see Joseph Matal, “The Three Types of Abstract Ideas,” 30 Fed. Cir. B.J. 87, 135-141 (2021).

²⁴ See, e.g., Russell Slifer, *The Federal Circuit Must Revisit Its Imprudent Decision in ChargePoint v. SemaConnect*, IP Watchdog (Jul. 14, 2019); Gene Quinn, *A Strange Evolution: The Federal Circuit Has Entered the Theater of the Absurd*, IP Watchdog (Sep. 26, 2019); Eileen McDeermott, *American Axle Denied: Patent Stakeholders Sound Off on SCOTUS’ Refusal to Deal with Eligibility*, IP Watchdog (Jul. 4, 2025).

problem X.”²⁵ As you know, such claims are frequently asserted against retailers engaged in electronic commerce. Because such patents claim “an effect, or the result of certain process,” they effectively “prohibit all other persons from making the same thing by any means whatsoever” and are ineligible under § 101. *Le Roy v. Tatham*, 55 U.S. 156, 175 (1852).

Some critics of the current jurisprudence contend that functional, results-oriented claims should instead be addressed under 35 U.S.C. § 112(a).²⁶ Under this view, a court confronted with a claim to a goal or result should review the patent’s specification and, once it concludes that the specification does not disclose all ways of solving the problem that are presently conceivable or that might be developed in the future, it should hold the claim invalid for lack of enablement.

Whether or not such an approach would always be effective, it is at best an indirect way of addressing the problem of results-oriented claims. Section 112(a) polices the adequacy of a patent’s *specification*: it is the appropriate tool in cases in which the specification provides some written description support that *may* enable the claimed invention, but there is a factual dispute as to whether it actually does so. But when a patent claims all ways of solving a problem (including those invented in the future), the claim is *per se* improper and nothing in the specification can save it.

Section 101 governs *claims*: it applies a categorical and legal judgment that claims to a result or objective are outside the four categories and thus ineligible. When confronted with such claims, there is no need for a court to

²⁵ See, e.g., *Bot M8 LLC v. Sony Corp. of Am.*, 4 F.4th 1342 (Fed. Cir. 2021) (claim to increasing the difficulty of a video game based on previous aggregate results found ineligible because “the claim leaves open *how* to accomplish this”—it “merely recites result-oriented uses of conventional computer devices”); *Free Stream Media Corp. v. Alphonso Inc.*, 996 F.3d 1355, 1363-64 (Fed. Cir. 2021) (“[Although the claimed invention purports to] allows devices on the same network to communicate where such devices were previously unable to do so,” “the asserted claims do not at all describe how that result is achieved.”); *University of Florida Rsch. Found., Inc. v. General Electric Co.*, 916 F.3d 1363, 1368 (Fed. Cir. 2019) (claims to converting medical-treatment data into a machine-independent format; “the claims do not “explain[] how the drivers do the conversion”); *Intellectual Ventures I LLC v. Capital One Fin. Corp.*, 850 F.3d 1332, 1342 (Fed. Cir. 2017) (claimed result of automatic editing between incompatible custom XML formats); *Intellectual Ventures I LLC v. Erie Indemnity Co.*, 850 F.3d 1315, 1332 (Fed. Cir. 2017) (system for remotely accessing incompatible data files; “[n]owhere do the claims recite *how* the invention overcomes these incompatibility issues.”); *Internet Patents Corp. v. Active Network, Inc.*, 790 F.3d 1343, 1348 (Fed. Cir. 2015) (system of retaining the state of data in online forms while navigating between forms; the claims “contain[] no restriction on how the result is accomplished. The mechanism for maintaining the state is not described.”).

²⁶ See, e.g., David O. Taylor, *Confusing Patent Eligibility*, 84 Tenn. L. Rev. 157, 202 (2017); Adam Mossoff, *O’Reilly v. Morse* (Geo. Mason Univ. L. & Econ. Rsch. Paper Series No. 14–22, 2014).

engage in a § 112 *Wands* factual inquiry²⁷—to evaluate, for example, the state of the prior art, the amount of direction provided by the inventor, and the existence of working examples in the specification—to determine that a patent cannot claim ways of solving a problem that will only be invented in the future.

PERA’s life sciences provisions would not affect retailers

Much of PERA addresses issues in the life sciences. These provisions of the bill would clarify that a patent-eligible process includes the use or application of a “naturally occurring process,” 35 U.S.C. § 100(b) (as proposed to be amended by PERA), and that natural materials may be claimed in an isolated, purified, or enriched state. See PERA’s proposed § 101(b)(2)(C)(i). These parts of PERA would abrogate caselaw holding that claims to methods of diagnosing a medical condition are ineligible subject matter.

The exclusion of diagnostics from patenting flows from a Supreme Court decision from 1948. *Funk Brothers Seed Co. v. Kalo Inoculant Co.*, 333 U.S. 127 (1948), held that if a patent exploits a new scientific discovery, § 101 requires the discovery to be treated as if it were already known in the art—and that the claims are ineligible if the invention is obvious once the discovery is assumed to be known.²⁸ *Funk Brothers* has made infrequent appearances in the caselaw over the decades.²⁹ Its only current application is via *Mayo Collaborative Services v. Prometheus Laboratories, Inc.*, 566 U.S. 66 (2012), to medical diagnostics.³⁰

These life sciences issues are independent of the provisions of PERA that affect retailers. Section 101’s restriction of eligibility to technical advances is not a barrier to the patenting of medical diagnostics, which involve the application of scientific discoveries and are thus technical in nature. Nor does consideration of whether particular claim elements are routine or conventional prevent the patenting of *new* and *nonobvious* diagnostic methods.

²⁷ See *In re Wands*, 858 F.2d 731 (Fed. Cir. 1988).

²⁸ See *Funk Bros.*, 333 U.S. at 132 (holding that a patent’s inventive contribution cannot be “borrowed . . . from the discovery of the natural principle itself.”).

²⁹ *Funk Brothers* was applied by Courts of Appeals in the 1950s and 60s to invalidate claims to chemical processes and products. See *Davison Chemical Corp. v. Joliet Chemicals, Inc.*, 179 F.2d 793 (7th Cir. 1950); *National Lead Co. v. Western Lead Prods. Co.*, 324 F.2d 539 (9th Cir. 1963). Once the scientific discovery that a chemical reaction occurs at a particular temperature range is assumed to be known, claiming that range becomes obvious—and is thus ineligible per *Funk Brothers*.

³⁰ I have elsewhere expressed the view that *Funk Brothers* and *Mayo* are legally unsound. See Joseph Matal, Vincent Shier, and Angela Grant, *How Mayo v. Prometheus Strays from Patent Precedent*, Law360, Nov. 16, 2022.

Conclusion

PERA would broadly authorize the patenting of business methods: virtually any business activity today requires the use of “machines or manufactures” and thus would be eligible under PERA. The bill also would make it impossible to enforce *any* limits on the classes of eligible subject matter because it prohibits identification of a patent’s claimed advance. And PERA has the potential to undermine the long-standing rule against claiming mere results or objectives.

If PERA were enacted into law, retailers and other service industries could expect to see a substantial increase in business risk and litigation as a result of the assertion of business method patents and patents with functional software claims.

Kind regards,

/s/ Joseph Matal