

May 14, 2024

The Honorable Katherine Vidal
Under Secretary of Commerce for Intellectual Property and Director of the U.S. Patent and Trademark Office
600 Dulany Street
Alexandria, Virginia 22314

RE: Comments of ACT | The App Association on the U.S. Patent and Trademark Office's Request for Comments on Unlocking the Full Potential of Intellectual Property by Translating More Innovation to the Marketplace¹

I. Statement of Interest

ACT | The App Association is a global policy trade association for the small business technology developer community. Our members are entrepreneurs, innovators, and independent developers within the global app ecosystem that engage with verticals across every industry. We work with and for our members to promote a policy environment that rewards and inspires innovation while providing resources that help them raise capital, create jobs, and continue to build incredible technology. App developers like our members also play a critical role in developing entertainment products such as streaming video platforms, video games, and other content portals that rely on intellectual property (IP) protections. The value of the ecosystem the App Association represents—which we call the app economy—is approximately \$1.8 trillion and is responsible for 6.1 million American jobs, while serving as a key driver of the \$8 trillion internet of things (IoT) revolution.²

The app ecosystem's success, reliant on continued innovation and investment in connected devices and interfaces, hinges on the sufficiency of key legal and regulatory frameworks, including those enacted and enforced by the United States Patent Office (USPTO). Patents allow small business innovators to protect their investments in innovation, attract venture capital, and establish and maintain a competitive position in the marketplace. As more devices throughout the consumer and enterprise spheres become connected to the internet—often referred to as IoT—App Association members' innovations will remain the interface for communicating with these devices.

II. General Comments

Technology developers, like App Association members, are incented by a patent system that is transparent, reliable, and accessible to all businesses, including small and medium-sized businesses. We appreciate the USPTO's efforts in evaluating the following issue, but urge the agency to take defined actions:

¹ 89 FR 18907.

² ACT | The App Association, State of the App Economy (2022), <https://actonline.org/wp-content/uploads/APP-Economy-Report-FINAL.pdf>.

A. Strengthening USPTO Procedures and Resources

The App Association encourages any modifications to the patent prosecution process that will contribute to the issuance of high-quality patents, including:

- Eliminating the Request for Continued Examination (RCE) practice from the patent prosecution process and, instead, encouraging higher scrutiny of patent applications by examiners to improve the quality of issued patents. RCE practice provides applicants with the ability to amend their patent claim after a final rejection has been made, which threatens the patent system's goal in streamlining the examination process and issuing strong patents.
- Restricting terminal disclaimers under 37 CFR 1.321(d), which allows applicants to hold obvious adaptations of the same patent. Terminal disclaimers allowed in instances where applicants can simultaneously hold patents that are obvious variations of each other provide applicants with a way to go around the double patenting rule.³ In instances where terminal disclaimers are not restricted, they should be viewed as an admission of obviousness and if one of the patents are invalidated so too should all variations of that patent.
- Arranging a system or engagement between Patent Trial and Appeal Board (PTAB) administrative law judges (ALJs) and examiners in order to continuously educate examiners on the post-issuance harms that can be prevented on the backend during patent prosecution. For example, a focus on issuing clear and narrowly defined patents will reduce the ability for damaging precedent from entering the PTAB or federal courts.⁴ Attempts to game the U.S. patent system are preventable when low-quality patent applications are properly rejected.

The above-proposed modifications will allow applicants and examiners to understand the expectations and boundaries of the patent prosecution process. These modifications will further decrease competition asymmetries, reduce application costs, and promote innovation by removing abused practice and focusing on detailed examination of patent applications. While we have proposed significant changes to the examination process, we remind the USPTO that such modification should be publicly clarified to improve transparency so as to not negatively affect small business innovators. Small innovators, who cannot waste the time, labor, and cost of prolonged patent examination are less likely to engage in RCE practice or seek terminal disclaimers. It is more likely that such practices enable abuse from non-practicing entities (NPEs) that operate to assert acquired patent portfolios in order to monetize patents are enabled to assert broad claims against alleged infringers by these practices. Specifically, such practices insulate NPEs from AIA post-grant proceedings, IPR. Similarly, NPEs initiate a

³ See <https://www.uspto.gov/web/offices/pac/mpep/s804.html> ("If two or more independent and distinct inventions are claimed in one application, the Director may require the application to be restricted to one of the inventions.")

⁴ See *NHK Spring Co., Ltd. v. Intri-Plex Techs., Inc.*, Case IPR2018-00752, Paper 8 (Sept. 12, 2018) (designated precedential May 7, 2019); see *Apple Inc. v. Fintiv, Inc.*, IPR2020-00019, Paper 11 (PTAB Mar. 20, 2020) (designated precedential May 5, 2020). These cases (known together as "*NHK-Fintiv*") enabled PTAB judges to deny institution of *inter partes review* (IPR) based on how close a parallel district court proceeding was to completion and provided a non-exclusive list of factors for the PTAB to consider when determining whether to deny institution of IPR proceedings in light of parallel district court litigation. None of these factors included assessing the validity of the patent claim itself.

majority of the abusive and frivolous patent infringement suits in the United States,⁵ and it has recently been revealed that many NPE suits are financially backed by unnamed investors hidden through shell corporations or wealth funds that may have a real interest in the outcome of litigation.⁶ Small businesses that endure NPE abuse often lack the resources to continuously defend themselves against infringement suits and are likely to see financial setbacks or an end-of-life scenario as a result.

From a startup costs perspective, the ability for applicants to receive patents on potentially over-broad claims discourages innovation for fear of being harassed by abusers who frivolously and routinely assert infringement claims in litigation in order to monetize their patents and control entry to critical technology and science-based markets. The App Association encourages the USPTO to make updates to the patent system that expands access to the system, safeguards against the issuance or enforcement of low-quality patents, and prevents abusive patent litigation and behavior, reducing risks for all entrepreneurs. The efficiency of the U.S. patent system largely hinges on the reliable and equitable guidance and procedures implemented by USPTO.

The App Association also calls on the USPTO to consider ways to improve its technical training of patent examiners. Today, the Patent Examiner Technical Training Program (PETTP) remains the USPTO's effort to train patent examiners on technical (as opposed to legal) matters. While we commend the USPTO for building a successful training program utilizing skilled volunteers that work to provide the technical training necessary for examiners to do their jobs, the App Association urges for a more formalized and curriculum-based approach to examiner training, akin to the proven legal training programs the USPTO provides to all its examiners. Further, the PETTP's subject matter should be constantly updated to keep pace with technological advances (e.g., today's PETTP omits key emerging technologies such as artificial intelligence).

An examination process that enables the issuance of quality patents requires high scrutiny by a well-trained examiner for all parts of the examination process. Therefore, we believe better training and guidance is needed to help examiners appropriately grant patents and trademarks, consistent with the law. The App Association calls on the USPTO to consider ways to improve its technical training of patent and trademark examiners. While we commend the USPTO for building a successful training program utilizing skilled volunteers that work to provide the technical training necessary for examiners to do their jobs, we urge for a more formalized and curriculum-based approach to examiner training, akin to the proven legal training programs the USPTO provides to all its examiners. Further, the subject matter of such technical training programs should be constantly updated to keep pace with technological advances (e.g., today's Patent Examiner Technical Training Program (PETTP) omits key emerging technologies such as artificial intelligence).

Patent and trademark applicants should have the opportunity to request a second look from a panel after the examiner has made a final decision on issuance. An examiner who is thoroughly trained and acquires the skills and knowledge to rigorously investigate an application should not be interrupted by a panel review until the examiner makes a final rejection. Once a decision is made, it would be in the interest of the IP system to permit the applicant to request a second

⁵ Love, Brian J. and Lefouili, Yassine and Helmers, Christian, *Do Standard-Essential Patent Owners Behave Opportunistically? Evidence from U.S. District Court Dockets* (November 8, 2020), 17, https://www.tse-fr.eu/sites/default/files/TSE/documents/doc/wp/2020/wp_tse_1160.pdf/.

⁶ See *In re Nimitz Technologies LLC*, No. 23-103 (Fed. Cir. 2022).

look to assess patent quality, which should include assessing if the patent claim satisfies any and all specification requirements. If a panel review is implemented in the examination process, we implore the USPTO to define a clear and predictable framework from which the panel must operate within the trademark and patent prosecution process, including its abilities and limitations.

Small business innovators rely on the clarity, predictability, and reliability of USPTO processes and resources. App Association members are among the many small business innovators that operate with limited resources and experiences, and therefore are unduly impacted by the complexities of the IP system. Innovators, including App Association members, need predictable costs in order to efficiently allocate resources for acquiring protection for their inventions. The USPTO should ensure that represented costs for securing and obtaining IP reflects the total cost. Ensuring that registration and application fees are clearly conveyed will greatly improve the ability for potential innovators to anticipate their investment in IP protection and strongly consider their likelihood in securing IP for their invention. We recommend that the USPTO refrain from imposing fees increased above initial filing fees during the registration or application process to deter bad behavior. While heightened fees may discourage excessive continuation applications in the patent prosecution process, for example, it is unfairly burdensome to small businesses. A better solution would be higher scrutiny throughout the examination process.

The USPTO should ensure that innovators are properly educated and equipped to engage in examination and post-issuance processes. For example, there should be ample resources to guide innovators of all sizes to efficiently utilize the PTAB and the Trademark Trial and Appeal Board (TTAB) processes.

B. Removing Significant Barriers to Innovation

i. Maintaining A Strong Patent Trial and Appeal Board (PTAB)

Small businesses, the main drivers of the U.S. economy, were at the core of Congress' decision to enact the America Invents Act (AIA), especially the *inter partes* review (IPR) process, administered by the PTAB. IPR provides a more affordable and efficient recourse for businesses of all sizes to exercise their rights – whether defending the validity of their granted patent or challenging a granted patent. The IPR process allows App Association members to have a fair and dispassionate tribunal to first assess whether the patent used against them was properly reviewed and issued. Our members have limited resources for litigation, and the IPR process successfully provides a much-needed alternative for these small businesses that do not have the ability to withstand years of expensive federal court patent litigation that can easily cost millions of dollars. Patent litigants often rely on the fact that many of these small businesses do not have the capital to fight a case and use that to their advantage to force them into licensing arrangements accompanied with terms greatly benefiting the litigant. IPRs protect our members from some of the financial and temporal burdens associated with proceedings in front of Article III tribunals. We encourage the agency to review the following documents that we have provided over the years that address our perspective on strengthening the PTAB process for good faith innovators:

- Comments of ACT | The App Association on the U.S. Patent and Trademark Office’s Director Review, Precedential Opinion Panel Review, and Internal Circulation and Review of Patent Trial and Appeal Board Decisions.⁷
- Comments of ACT | The App Association on the U.S. Patent and Trademark Office’s *Changes Under Consideration to Discretionary Institution Practices, Petition Word-Count Limits, and Settlement Practices for America Invents Act Trial Proceedings Before the Patent Trial and Appeal Board*.⁸
- Comments of ACT | The App Association on the U.S. Patent and Trademark Office’s Rules Governing Pre-Issuance Internal Circulation and Review of Decisions Within the Patent Trial and Appeal Board.⁹
- Comments of ACT | The App Association on the United States Patent and Trademark Office’s *Draft 2022-2026 Strategic Plan*. (attached)
- Brief for Engine Advocacy, ACT | The App Association, and the Developers Alliance, *Patent Quality Assurance, LLC et. al. v. VLSI Technology LLC, IPR2021-01229*.¹⁰

ii. Preventing Standard-Essential Patent Licensing Abuse

Abuse of the technology standardization process through abusive and anticompetitive standard-essential patent (SEP) licensing practices disincentivizes the standardized innovation that has modernized critical industries, including healthcare and sustainability markets. The goal of establishing technical standards is to provide an efficient and interoperable base for technology developers to create new inventions across multiple market sectors. When a patent holder contributes their technology to a technical standard, they understand and agree that they are using their patent to enable reasonable access to the standard and provide standard-setting organizations (SSOs) with a commitment that they will license their SEPs on fair, reasonable, and non-discriminatory (FRAND) terms in order to gain access to a wider pool of licensees. Decades of evidence shows that certain SEP holders systematically leverage their dominant position in controlling the ability to use technical interoperability standards in order to attain unreasonable terms and excessive royalty rates despite voluntary commitments to provide FRAND licenses. These harmful SEP licensing tactics force technology developers to forgo production of patentable inventions that cover standards because the risk outweighs the reward of invention. We recognize and appreciate the USPTO’s joint leadership in evaluating risks to the U.S. patent system as a result of abuse in technical standards. We encourage the agency to review our detailed comments on this matter as well as our comments to the National Institute of Standards and Technology (NIST) on their request for comments on the implementation of the National Standards Strategy on Critical and Emerging Technology (NSSCET, which we have linked below for reference.

- Comments of ACT | The App Association on the Request for Comments on the Joint ITA-NIST-USPTO Collaboration Initiative Regarding Standards¹¹

⁷ <https://www.regulations.gov/comment/PTO-P-2022-0023-4344>.

⁸ <https://www.regulations.gov/comment/PTO-P-2020-0022-0787>.

⁹ <https://www.regulations.gov/comment/PTO-P-2023-0012-0005>.

¹⁰https://static1.squarespace.com/static/571681753c44d835a440c8b5/t/63077dfbc6035204af177aca/1661435388062/2022.08.18_Engine+ACT+and+Developers+Alliance+Brief+in+IPR2021-01064%2C+-+01229.pdf.

¹¹ <https://www.regulations.gov/comment/PTO-C-2023-0034-0057>.

- Response ACT | The App Association on Request for Information on Implementation of the United States Government National Standards Strategy for Critical and Emerging Technology (USG NSSCET)¹²
- Multi-Organization National Standards Strategy for Critical and Emerging Technology Sign-on letter.¹³

C. Addressing Current and Emerging Trademark Protection and Enforcement Concerns

Small business innovators must build and maintain customer trust to succeed and protect the way their goods and services are identified. USPTO should continue to build on its successful implementation of the Lanham Act, focusing on enhancing the ability of small businesses and startups to easily leverage the trademark system to proactively protect their brands and to avoid consumer confusion. Building on the USPTO's successful efforts to date, we urge (1) a review of ways to make trademark protections more accessible and affordable for small businesses, including a review of access to the Trademark Trial and Appeal Board (TTAB); and (2) enhanced training of and support for trademark examiners.

The USPTO should identify the challenges that are faced during the trademark prosecution process amid threats from foreign abusers and the emergence of new spaces for brand protection. We urge the USPTO to identify how foreign entities might seek and secure trademark registration in the United States to anticompetitively harm U.S. businesses. We also caution the USPTO to identify the challenges that innovators may face while registering for or protecting their trademark in emerging spaces, such as Web3. We recommend that the USPTO review our comments to the Notice of Inquiry (NOI) for the *Study of Non-fungible tokens and related intellectual property law issues* to understand our expanded perspective on this topic.¹⁴ The USPTO should assess how the tie between IP-protected assets and non-fungible tokens (NFTs) will affect trademark registrations and transactions. The Office should also analyze how the use of NFTs with trademarked works impact transactions. For example, when an NFT linked to a trademark-protected asset is sold with no licensing terms, the assumption should be that the NFT purchaser has no rights to the trademark, however there may be an implied assumption that the NFT holder has a limited, non-exclusive right to publicly display the underlying IP-protected mark or trade dress for as long as the purchaser owns the NFT. We also recommend that the USPTO acknowledge and approach common IP infringement that might still occur during the sale and transfer of an IP-protected asset through an NFT on the blockchain. Specifically, the Ethereum blockchain does not recognize the creation, sale, and use of an NFT as theft or fraud. This phenomenon allows infringers to abuse IP rights and weaken IP rights on the Web3 platform. Our community depends on clarity and reliability of laws and regulations to securely enter a market. If a small business unknowingly exploits their IP using an NFT, it is likely that they may never recover.

D. Fostering Inventive Process In the Age of New Artificial Intelligence

¹² <https://www.regulations.gov/comment/NIST-2023-0005-0106>.

¹³ <https://www.regulations.gov/comment/NIST-2023-0005-0041>.

¹⁴ See <https://www.regulations.gov/comment/COLC-2022-0005-0026>.

To foster a patent landscape that invites novel and strong U.S. innovation, the USPTO must consider how to align a user-friendly patent prosecution process with the advancement of inventive practices, including those that use artificial intelligence (AI) systems. This includes evaluating examination practices on patent inventorship, subject matter eligibility, and obviousness. We caution the USPTO to equip examiners with the training and tools to mitigate the negative impacts to the patent system brought by perpetual patenting machines. We appreciate the USPTO requesting stakeholder feedback on the strengthening of the patent system against a new technology landscape. Please see the following comments previously provided to the agency on this matter:

- Comments of ACT | The App Association to the United States Patent and Trademark Office's *Request for Comments Regarding Artificial Intelligence and Inventorship*.¹⁵
- Comments of ACT | The App Association on the U.S. Patent and Trademark Office's Request for Comments on Inventorship Guidance for AI-Assisted Inventions. (*attached*)

III. Conclusion

The App Association appreciates the continued opportunity to provide comments to the USPTO regarding enabling the full potential of the U.S. intellectual property system by bringing more innovations to the marketplace.

Sincerely,



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¹⁵ <https://www.regulations.gov/comment/PTO-P-2022-0045-0069>.

February 17, 2023

The Honorable Katherine Vidal
Under Secretary of Commerce for Intellectual Property and Director of the U.S. Patent and Trademark Office
600 Dulany Street
Alexandria, Virginia 22314

RE: Comments of ACT | The App Association on the United States Patent and Trademark Office's *Draft USPTO 2022-2026 Strategic Plan*

Dear Director Vidal:

ACT | The App Association (the App Association) provides comment to the United States Patent and Trademark Office (USPTO) request for comments (RFC) draft 2022-2026 Strategic Plan.¹

I. Introduction and Statement of Interest

The App Association is a policy trade association for the small business technology developer community. Our members are entrepreneurs, innovators, and independent developers within the global app ecosystem that engage with verticals across every industry. We work with and for our members to promote a policy environment that rewards and inspires innovation while providing resources that help them raise capital, create jobs, and continue to build incredible technology. App developers like our members also play a critical role in developing entertainment products such as streaming video platforms, video games, and other content portals that rely on intellectual property protections. The value of the ecosystem the App Association represents—which we call the app ecosystem—is approximately \$1.7 trillion and is responsible for 5.9 million American jobs, while serving as a key driver of the \$8 trillion internet of things (IoT) revolution.²

The app ecosystem's success, reliant on continued innovation and investment in connected devices and interfaces, hinges on the sufficiency of key legal frameworks. Patents allow small business innovators to protect their investments in innovation, attract venture capital, and establish and maintain a competitive position in the marketplace. As more devices throughout the consumer and enterprise spheres become connected to the internet — often referred to as the internet of things — App Association members' innovations will remain the interface for communicating with these devices.³ A thorough, goal-driven plan guided by the USPTO will

¹ United States Patent and Trademark Office 2022-2026 Strategic Plan (accessed January 6, 2023), https://www.uspto.gov/sites/default/files/documents/USPTO_2022-2026_Draft_Strategic_Plan.pdf.

² The App Association, State of the U.S. App Economy 2020, 7th Ed., <https://actonline.org/wp-content/uploads/2020-App-economy-Report.pdf>.

³ Morgan Reed, Comments of ACT | The App Association to the National Telecommunications and Information Administration regarding The Benefits, Challenges, and Potential Roles for the Government in Fostering the Advancement of the Internet of Things, ACT | The App Association (June 2, 2016), <http://actonline.org/wpcontent/uploads/NTIAComments-on-IoT-Regulations.pdf>.

provide the fairness and predictability to the patent system required to promote small business viability and consumer welfare.

II. ACT | The App Association Recommendations for the United States Patent and Trademark Office (USPTO) 2022–2026 Strategic Plan

The App Association urges USPTO to align its final 2022-2026 Strategic Plan with the below recommendations, which will contribute to each USPTO Goal:

- Goal 1: Drive inclusive U.S. innovation and global competitiveness;
- Goal 2: Promote the efficient delivery of reliable intellectual property (IP) rights;
- Goal 3: Promote the protection of IP against new and persistent threats;
- Goal 4: Bring innovation to positive impact; and
- Goal 5: Generate impactful employee and customer experiences by maximizing agency operations.

a. Address Low-Quality Patent and Trademark Applications, Identify Abuses, and Enhance Examiner Training in Order to Promote the Efficient Delivery of Reliable IP Rights

Small business innovators rely on the USPTO to provide the resources, tools, and ultimate protection for their IP. A strong IP system focuses on issuing high-quality patents and trademarks by requiring more detail in applications and more scrutiny during the examination process. A high-quality application is clear, narrow, and non-infringing. We note that while the USPTO should require applicants to submit comprehensive applications, this should not be a substitution for a thorough examination of claims or specifications and their support.

Across its areas of expertise, USPTO should collaborate with stakeholders to promote inclusive innovation through active engagement with widespread, ready access to IP resources and tools. The App Association acknowledges the importance of education for our small business members on how to protect and enforce their IP. As advocates of innovation, we value our role in providing current and future innovators with the resources to succeed in technology-based fields. We also understand that a diverse field of innovators does not happen without a diverse workforce that serves to protect and facilitate IP at the USPTO. Therefore, we have and continue to collaborate with the USPTO to educate, inspire, and promote innovation. For example, the App Association recently collaborated with the Howard University School of Law (HUSL) Intellectual Property Patent Clinic and the USPTO to educate innovators, entrepreneurs, and law students on the role of intellectual property in equity and entrepreneurship. This event featured a fireside chat with USPTO Director Kathi Vidal and Deputy Director Derrick Brent along with industry innovators. We look forward to continuing to foster innovation alongside the USPTO.

i. Trademarks

Small business innovators must build and maintain customer trust to succeed and protecting the way their goods and services are identified is crucial in achieving this goal. USPTO should continue to build on its successful implementation of the Lanham Act, focusing on enhancing the ability of small businesses and startups to easily leverage the trademark system to proactively protect their brands and to avoid consumer confusion. Building on the USPTO's successful efforts to date, we urge (1) a review of ways to make trademark protections more accessible and affordable for small businesses, including a review of access to the Trademark Trial and Appeal Board (TTAB); and (2) enhanced training of and support for trademark examiners.

Further, the USPTO should identify the challenges that are faced during the trademark prosecution process amid threats from foreign abusers and the emergence of new spaces for brand protection. We urge the USPTO to identify how foreign entities might seek and secure trademark registration in the United States to anticompetitively harm U.S. businesses. We also caution the USPTO to identify the challenges that innovators may incur while registering for or protecting their trademark in emerging spaces, such as Web3. We recommend that the USPTO review our comments to the Notice of Inquiry (NOI) for the *Study of Non-fungible tokens and related intellectual property law issues* to understand our expanded perspective on this topic.⁴ The USPTO should assess how the tie between IP-protected assets and non-fungible tokens (NFTs) will affect trademark registrations and transactions. For example, if a seller has a registered trademark for an existing physical good, would they need to apply for a similar trademark under a different classification if they wanted to protect their virtual goods linked to an NFT? The USPTO should assess all potential on-chain assets and define what class they would be registered under within the Nice Classification. The Office should also analyze how the use of NFTs with trademarked works impact transactions. For example, when an NFT linked to a trademark-protected asset is sold with no licensing terms, the assumption should be that the NFT purchaser has no rights to the trademark, however there may be an implied assumption that the NFT holder has a limited, non-exclusive right to publicly display the underlying IP-protected mark or trade dress for as long as the purchaser owns the NFT. We also recommend that the USPTO acknowledge and approach common IP infringement that might still occur during the sale and transfer of an IP-protected asset through an NFT on the blockchain. Specifically, the Ethereum blockchain does not recognize the creation, sale, and use of an NFT as theft or fraud. This phenomenon allows infringers to abuse IP rights and weaken IP rights on the Web3 platform. Our community depends on clarity and reliability of laws and regulations in order to securely enter a market. If a small business unknowingly exploits their IP using an NFT, it is likely that they may never recover.

ii. Patents

The Patent Act allows patents to be granted for any new and useful process, machine, article of manufacture, or composition of matter, as well as for any improvement to such inventions, and a robust body of case law now clarifies the limits on patent eligibility and establishing important protections to promote free access to abstract ideas, laws of nature, and natural phenomenon. Current Supreme Court case law prescribing the subject matter that is eligible for patent protection strikes the correct balance between rewarding innovation and protecting competition

⁴ See <https://www.regulations.gov/comment/COLC-2022-0005-0026>.

and further advancement. Notably, the software industry, also, has continued to thrive in the years following the Supreme Court’s decisions clarifying patent subject matter eligibility limitations, suggesting that the current restrictions do not harm software developers or businesses. Investment in research and development for the software industry doubled in 2018,⁵ four years after *Alice* “clarif[ied] that the addition of a generic computer was not enough” for subject matter eligibility,⁶ and venture capital funding for software startups was the highest it had ever been.⁷

Section 101 also has a critical role to play in weeding out low-quality patents, especially the types of low-quality patents that are routinely asserted against startups and small businesses. Indeed, broad, preemptive patents directed to abstract ideas—those appropriately deemed ineligible under current law—are especially concerning because they can be, and are, asserted against numerous accused infringers based on routine business activities or use of generic technology. Section 101 is valuable, and needed especially now, to focus the U.S. patent system on technological advances, improvements, and solutions, as well as to curb the amount of and expense associated with litigation over low-quality patents.

Yet, better training is needed to help examiners appropriately grant patents, consistent with the law. Overall diminished patent quality and doubt around the validity of a number of existing patents limits the ability of patent owners to make full use of their patents and makes it harder for independent app developers to avoid litigation when making use of abstract ideas. The potential cost of a lawsuit means that even when a patent that is likely found invalid is asserted, a small business innovator’s only option is to accede to the patent owner’s demands. Inconsistency in the application of the *Alice/Mayo* framework has decreased U.S. competitiveness by opening up the U.S. system to frivolous patent litigation and reducing access to means for efficient resolution.

When enacting the America Invents Act (AIA) in 2011, Congress sought “to establish a more efficient and streamlined patent system that will improve patent quality and limit unnecessary and counterproductive litigation costs.”⁸ Congress also recognized “a growing sense that questionable patents [were] too easily obtained and are too difficult to challenge.”⁹ Small businesses, the main drivers of the U.S. economy, were at the core of Congress’ decision to enact the AIA, especially the *inter partes* review (IPR) process. IPR provides a more affordable and efficient recourse for businesses of all sizes to exercise their rights – whether defending the validity of their granted patent or challenging a granted patent. Since its creation, IPR,

⁵ *The State of Patent Eligibility in America: Part II Before the S. Subcomm. on Intellectual Property*, 116th Cong. (2019) (statement of David W. Jones, Exec. Dir., High Tech Innovators All.), <https://www.judiciary.senate.gov/imo/media/doc/Jones%20Testimony1.pdf>; strategy&, *PWC 2018 Global Innovation 1000 & What the Top Innovators Get Right* (Oct. 2018), slide 28, <https://www.strategyand.pwc.com/gx/en/insights/innovation1000/2018-global-innovation-1000-fact-pack.pdf>.

⁶ *Netflix Inc. v. Rovi Corp*, 114 F. Supp. 3d 927, 934 (N.D. Cal. 2015).

⁷ Jones, *supra* note 21; National Venture Capital Association, *Venture Monitor*, 4Q 2018 at 19, https://files.pitchbook.com/website/files/pdf/4Q_2018_PitchBook_NVCA_Venture_Monitor.pdf.

⁸ H. R. Rep. No. 112-98, pt. 1, p. 40 (2011).

⁹ *Id.* at p. 39 (2011).

administered by the Patent Trial and Appeal Board (PTAB), has worked as intended and has reduced unnecessary litigation, saving \$2.3 billion over just five years.¹⁰

The IPR process allows App Association members to have a fair and dispassionate tribunal to first assess whether the patent used against them was properly reviewed and issued. Our members have limited resources for litigation, and the IPR process successfully provides a much-needed alternative for these small businesses that do not have the ability to withstand years of expensive federal court patent litigation that can easily cost millions of dollars. Patent litigants often rely on the fact that many of these small businesses do not have the capital to fight a case and use that to their advantage to force them into licensing arrangements accompanied with terms greatly benefiting the litigant. IPRs protect our members from some of the financial and temporal burdens associated with proceedings in front of Article III tribunals.

Unfortunately, during the previous Administration, the USPTO has taken a series of actions that impose requirements rejected by Congress in the AIA and that serve to reduce IPR's effectiveness. For example, USPTO implemented changes to the rules of practice for instituting review on all challenged claims or none in IPR, post-grant review (PGR), and the transitional program for covered business method patents (CBM) proceedings before the PTAB in accordance with *SAS Institute Inc. v. Iancu*. As part of this change, USPTO amended the rules to eliminate the presumption in favor of the petitioner for a genuine issue of material fact created by testimonial evidence submitted with a patent owner's preliminary response when deciding whether to institute an IPR, PGR, or CBM review. This rule change shifts the PTAB's process to unduly favor patent owners, significantly reducing due process for PTAB petitioners. Further, it appears that the previous Administration's USPTO has failed to meet the requirements of the Administrative Procedure Act in proposing this rule change.

Equally worrisome is the rapidly growing string of "discretionary denials" from the PTAB in which the USPTO has chosen to ignore the statutory deadline allowing an IPR to be brought within one year after service of the complaint upon a petitioner. In conflict with congressional intent, the USPTO has substituted its own policy preference and directed the "discretionary denial" of timely-filed IPR petitions if the district court docketed an early trial date in a parallel infringement suit. This practice results in meritorious petitions being denied on extra-statutory grounds and adds cost, complexity, and uncertainty that Congress specifically sought to avoid by adopting a simple, clear one-year time bar. These discretionary denials under Section 314(a) have grown exponentially over the past three years and are on track to double yet again this year, and routinely deny timely-filed IPR petitions, leaving invalid patents in force to be litigated. Such policy changes most negatively impact minority-founded and operated small businesses that demonstrably experience more difficulties in launching and growing new businesses in the digital economy.

Unsurprisingly, the PTAB's reserved approach to patent scrutiny has not gone unnoticed by patent assertion entities (PAEs). Abusive patent litigation, along with forum shopping, is increasing as a result of changes made to the IPR system. PAE litigation has grown substantially across districts,¹¹ and the Western District of Texas, in particular, has seen an increase in PAE cases since the precedential *NHK Spring Co. v. Intri-Plex Techs., Inc.*

¹⁰ See, e.g., Josh Landau, *Inter Partes Review: Five Years, Over \$2 Billion Saved*, PATENT PROGRESS (Sept. 14, 2017).

¹¹ *Litigation on the Rise: Number of New Cases Filed by Patent Assertion Entities*, ENGINE (Nov. 9, 2020), https://www.engine.is/s/Pae-stats-Diagram_Jan-Oct-2020.pdf.

decision.¹² Defending against frivolous litigation is prohibitively expensive and more costly than an IPR.¹³ The resurgence of behavior that necessitated the creation of IPR in the first place should send a strong signal that the USPTO's policy changes over the last four years have been ineffective and stray from Congress' envisioned role. As such, the App Association applauds Director Vidal's interim guidance on PTAB discretionary denials, limiting the PTAB's *NHK-Fintiv* rule that allowed patent owners to avoid the inter partes review (IPR) process by engaging in parallel district court litigation.¹⁴ We encourage USPTO to similarly issue interim guidance on patent subject matter eligibility where the existing framework does not provide the clarity needed for patent examiners and, similarly, the PTAB, to avoid unnecessary rejections of subject matter eligible patent claims.

PTAB denials of legitimate and proper IPR petitions undermine progress made through the IPR. Increasing procedural burdens on IPR petitioners saddles them with higher costs and additional obstacles by forcing them to bring claims against invalid patent holders in court. The USPTO's actions modifying IPR proceedings can be traced back as a direct contributor to the recent growth in the number of abusive suits brought by non-practicing entities.¹⁵ The USPTO should course correct by returning its attention to patent quality and restoring the IPR system to its former function. We encourage USPTO to unwind its efforts in the previous Administration that have undercut the purpose of the IPR process in contrast to congressional intent. USPTO should undertake a new and reoriented approach that uses all data available to correctly focus on patent quality, and which appropriately makes the IPR process available to identify and eliminate invalid patents that should never have been issued. Making these changes will help spark innovation and remove the financial weight of litigation. Without those burdens, small businesses can focus on their actual business and restoration from the current pandemic. USPTO has the power to re-prioritize patent quality through IPR and we request that it use that power to reinstate the systems as Congress intended.

The App Association further incorporates its recommendations to the USPTO provided in our response to the Request for Comments (RFC) on *USPTO Initiatives to Ensure the Robustness and Reliability of Patent Rights* in order understand our expanded perspective on this topic.¹⁶ The App Association encourages any modifications to the patent prosecution process that will contribute to the issuance of high-quality patents, including:

- Eliminating the Request for Continued Examination (RCE) practice from the patent prosecution process and, instead, encouraging higher scrutiny of patent applications by examiners to improve the quality of issued patents. RCE practice provides applicants with the ability to amend their patent claim after a final rejection has been made, which

¹² See *NHK Spring Co. v. Intri-Plex Techs., Inc.*, IPR2018-00752 (Sept. 12, 2018), see also Scott McKeown, *Texas Plaintiffs More Likely to Side-Step PTAB?*, PATENTS POST-GRANT, (Apr. 7, 2020), <https://www.patentspostgrant.com/texas-plaintiffs-more-likely-to-side-step-ptab/>.

¹³ Britain Eakin, *PTAB Discretionary Denials Harming Patent System, Atty Says*, LAW360, (Dec. 1, 2020), <https://www.law360.com/articles/1332942/ptab-discretionary-denials-harming-patent-system-atty-says>.

¹⁴ See https://www.uspto.gov/sites/default/files/documents/interim_proc_discretionary_denials_aia_parallel_distri ct_court_litigation_memo_20220621 .pdf.

¹⁵ *Q3 2020 Patent Dispute Report*, UNIFIED PATENTS, (Sept. 30, 2020), <https://www.unifiedpatents.com/insights/q3-2020-patent-dispute-report>.

¹⁶ See <https://www.regulations.gov/comment/PTO-P-2022-0025-0123>.

threatens the patent system's goal in streamlining the examination process and issuing strong patents.

- Restricting terminal disclaimers under 37 CFR 1.321(d), which allows applicants to hold obvious adaptations of the same patent. Terminal disclaimers allowed in instances where applicants can simultaneously hold patents that are obvious variations of each other provide applicants with a way to go around the double patenting rule.¹⁷ In instances where terminal disclaimers are not restricted, they should be viewed as an admission of obviousness and if one of the patents are invalidated so too should all variations of that patent.
- Arranging a system or engagement between Patent Trial and Appeal Board (PTAB) administrative law judges (ALJs) and examiners in order to continuously educate examiners on the post-issuance harms that can be prevented on the backend during patent prosecution. For example, a focus on issuing clear and narrowly defined patents will reduce the ability for damaging precedent from entering the PTAB or federal courts.¹⁸ Attempts to game the U.S. patent system are preventable when low-quality patent applications are properly rejected.

The above-proposed modifications will allow applicants and examiners to understand the expectations and boundaries of the patent prosecution process. These modifications will further decrease competition asymmetries, reduce application costs, and promote innovation by removing abused practice and focusing on detailed examination of patent applications. While we have proposed significant changes to the examination process, we remind the USPTO that such modification should be publicly clarified to improve transparency so as to not negatively affect small business innovators. Small innovators, who cannot waste the time, labor, and cost of prolonged patent examination are less likely to engage in RCE practice or seek terminal disclaimers. It is more likely that such practices enable abuse from non-practicing entities (NPEs) that operate to assert acquired patent portfolios in order to monetize patents are enabled to assert broad claims against alleged infringers by these practices. Specifically, such practices insulate NPEs from AIA post-grant proceedings, IPR. Similarly, NPEs initiate a majority of the abusive and frivolous patent infringement suits in the United States,¹⁹ and it has recently been revealed that many NPE suits are financially backed by unnamed investors hidden through shell corporations or wealth funds that may have a real interest in the outcome of litigation.²⁰ Small businesses that endure NPE abuse often lack the resources to continuously

¹⁷ See <https://www.uspto.gov/web/offices/pac/mpep/s804.html> ("If two or more independent and distinct inventions are claimed in one application, the Director may require the application to be restricted to one of the inventions.")

¹⁸ See *NHK Spring Co., Ltd. v. Intri-Plex Techs., Inc.*, Case IPR2018-00752, Paper 8 (Sept. 12, 2018) (designated precedential May 7, 2019); see *Apple Inc. v. Fintiv, Inc.*, IPR2020-00019, Paper 11 (PTAB Mar. 20, 2020) (designated precedential May 5, 2020). These cases (known together as "*NHK-Fintiv*") enabled PTAB judges to deny institution of *inter partes review* (IPR) based on how close a parallel district court proceeding was to completion and provided a non-exclusive list of factors for the PTAB to consider when determining whether to deny institution of IPR proceedings in light of parallel district court litigation. None of these factors included assessing the validity of the patent claim itself.

¹⁹ Love, Brian J. and Lefoulli, Yassine and Helmers, Christian, *Do Standard-Essential Patent Owners Behave Opportunistically? Evidence from U.S. District Court Dockets* (November 8, 2020), 17, https://www.tse-fr.eu/sites/default/files/TSE/documents/doc/wp/2020/wp_tse_1160.pdf/.

²⁰ See *In re Nimitz Technologies LLC*, No. 23-103 (Fed. Cir. 2022).

defend themselves against infringement suits and are likely to see financial setbacks or an end-of-life scenario as a result.

From a startup costs perspective, the ability for applicants to receive patents on potentially over-broad claims discourages innovation for fear of being harassed by abusers who frivolously and routinely assert infringement claims in litigation in order to monetize their patents and control entry to critical technology and science-based markets. The App Association encourages the USPTO to make updates to the patent system that expands access to the system, safeguards against the issuance or enforcement of low-quality patents, and prevents abusive patent litigation and behavior, reducing risks for all entrepreneurs. The efficiency of the U.S. patent system largely hinges on the reliable and equitable guidance and procedures implemented by USPTO.

The App Association further incorporates into this comment its recommendations on ways to improve the USPTO's patent subject matter eligibility guidance specified in the Manual of Patent Examining Procedure (MPEP) Section 2106.²¹

The App Association also calls on the USPTO to consider ways to improve its technical training of patent examiners. Today, the Patent Examiner Technical Training Program (PETTP) remains the USPTO's effort to train patent examiners on technical (as opposed to legal) matters. While we commend the USPTO for building a successful training program utilizing skilled volunteers that work to provide the technical training necessary for examiners to do their jobs, the App Association urges for a more formalized and curriculum-based approach to examiner training, akin to the proven legal training programs the USPTO provides to all its examiners. Further, the PETTP's subject matter should be constantly updated to keep pace with technological advances (e.g., today's PETTP omits key emerging technologies such as artificial intelligence).

An examination process that enables the issuance of quality patents requires high scrutiny by a well-trained examiner for all parts of the examination process. Therefore, we believe better training and guidance is needed to help examiners appropriately grant patents and trademarks, consistent with the law. The App Association calls on the USPTO to consider ways to improve its technical training of patent and trademark examiners. While we commend the USPTO for building a successful training program utilizing skilled volunteers that work to provide the technical training necessary for examiners to do their jobs, we urge for a more formalized and curriculum-based approach to examiner training, akin to the proven legal training programs the USPTO provides to all its examiners. Further, the subject matter of such technical training programs should be constantly updated to keep pace with technological advances (e.g., today's Patent Examiner Technical Training Program (PETTP) omits key emerging technologies such as artificial intelligence).

The USPTO should enable patent examiners to search non-patent literature, such as academic publications, research reports, and independent research databases (i.e., Portal by Unified Patent). Non-patent literature may include standard-setting organization (SSO) documents and databases. For example, examiners should be able to access documentation on technical standards and databases that identify standard-essential patents (SEPs) covering a particular standard. Predominant SSOs include the European Telecom Standards Institute (ETSI), IEEE, and 3rd Generation Partnership Project (3GPP).

²¹ <https://www.regulations.gov/comment/PTO-P-2022-0026-0032>.

Patent and trademark applicants should have the opportunity to request a second look from a panel after the examiner has made a final decision on issuance. An examiner who is thoroughly trained and acquires the skills and knowledge to rigorously investigate an application should not be interrupted by a panel review until the examiner makes a final rejection. Once a decision is made, it would be in the interest of the IP system to permit the applicant to request a second look to assess patent quality, which should include assessing if the patent claim satisfies any and all specification requirements. If a panel review is implemented in the examination process, we implore the USPTO to define a clear and predictable framework from which the panel must operate within the trademark and patent prosecution process, including its abilities and limitations.

b. The App Association Recommends that the USPTO Ensure Narrow and Defined Processes Throughout the USPTO's Operations in Order to Promote the Protection of IP Against New and Persistent Threats

Threats to the U.S. IP system largely come from foreign abusers that utilize U.S. IP protection processes and venues against good faith U.S.-based IP holders. These abusers may come in the form of operating companies or NPEs and largely benefit from the ability to secure low-quality IP and subsequently enforce them against U.S. companies. This process weakens IP protection for U.S. IP holders, provides unavoidable barriers to entry for small businesses, and stunts U.S. competition in critical markets. A recently published article highlights a study that found that 56 percent of U.S. patents granted in 2022 went to non-U.S. based companies and that Chinese companies earned the third-largest amount of patents, and their share compared to 2021 grew by 19 percent--the only country with double-digit growth.²² This statistic is concerning because a majority of issued patents, including low-quality patents, are going to foreign entities that are able to assert such patents against U.S.-based patent holders. We note that SEP abuse is also a persistent and growing foreign threat. Opportunistic SEP holders, including Huawei and other Chinese-headquartered companies, pose a grave risk to current and planned federal government investments in connected emerging technologies such as applications of IoT, advanced manufacturing, precision agriculture, telemedicine, and connected vehicles. The risks of SEP abuse will negatively affect at-scale deployment of these technologies and deadlock the development of resilient supply chains through the development of new suppliers, particularly SMEs whose participation can drive innovation in these technologies and help strengthen supply chains. Given the legal and financial uncertainty resulting from the opportunistic behavior of some SEP holders, many new entrants may opt out of participating in these new technological areas, which will also lead to inadvertently increase dependence on untrusted supply chain actors. Considering the constant attempts for foreign companies to abuse U.S. IP processes, the USPTO should provide proper guidance to limit low-quality patents, restrict opportunistic and abusive tactics with USPTO tribunals, and lead a whole-of-government policy statement of SEPs.

²² See <https://www.iam-media.com/article/non-us-companies-earned-56-of-us-patent-grants-in-2022-ibm-loses-top-spot>.

c. The App Association Recommends that the USPTO Educate, Inform, and Provide Transparent and Predictable Guidance to Innovators in Order to Bring Innovation to Positive Impact

Small business innovators rely on the clarity, predictability, and reliability of USPTO processes and resources. App Association members are among the many small business innovators that operate with limited resources and experiences, and therefore are unduly impacted by the complexities of the IP system. Innovators, including App Association members, need predictable costs in order to efficiently allocate resources for acquiring protection for their inventions. The USPTO should ensure that represented costs for securing and obtaining IP reflects the total cost. Ensuring that registration and application fees are clearly conveyed will greatly improve the ability for potential innovators to anticipate their investment in IP protection and strongly consider their likelihood in securing IP for their invention. We recommend that the USPTO refrain from imposing fees increased above initial filing fees during the registration or application process to deter bad behavior. While heightened fees may discourage excessive continuation applications in the patent prosecution process, for example, it is unfairly burdensome to small businesses. A better solution would be higher scrutiny throughout the examination process.

The USPTO should ensure that innovators are properly educated and equipped to engage in examination and post-issuance processes. For example, there should be ample resources to guide innovators of all sizes to efficiently utilize the PTAB and the Trademark Trial and Appeal Board (TTAB) processes. Specifically, small businesses, the main drivers of the U.S. economy, were at the core of Congress' decision to enact the AIA, especially the IPR process. IPR provides a more affordable and efficient recourse for businesses of all sizes to exercise their rights – whether defending the validity of their granted patent or challenging a granted patent. Since its creation, IPR, administered by PTAB, has largely worked as intended and has reduced unnecessary litigation, saving \$2.3 billion in just the first five years.²³ The IPR process allows small innovators to have a fair and dispassionate tribunal to first assess whether the patent used against them was properly reviewed and issued and successfully provides a much-needed alternative for these small businesses that do not have the ability to withstand years of expensive federal court patent litigation that can easily cost millions of dollars. Patent litigants often rely on the fact that many of these small businesses do not have the capital to fight a case and use that to their advantage to force them into licensing arrangements accompanied with terms greatly benefiting the litigant. IPRs protect our members from some of the financial and temporal burdens associated with proceedings in front of Article III tribunals. Therefore, the resources provided for such a process must be sufficient to carry out its intended purpose.

²³ See, e.g., Josh Landau, *Inter Partes Review: Five Years, Over \$2 Billion Saved*, PATENT PROGRESS (Sept. 14, 2017).

d. The App Association Recommends that the USPTO Focus on Implementing Diversity in the Workforce in Order to Maximize Agency Operations and Generate Impactful Employee and Customer Experiences

Minority innovators disproportionately face barriers to invention development and protection. Such innovators face institutional barriers in the form of restricted access to resources.²⁴ For Black entrepreneurs, access to capital is harder to come by, with banks approving credit for Black-owned firms at rates that are 19 percentage points lower than for White-owned firms²⁵ (particularly for venture capital). It is important to note that these barriers are historically rooted, and therefore require the USPTO to be thoughtful about what elements of the IP application process and IP protection negatively impact minority inventors.²⁶ From a startup perspective, all these factors indicate that the barriers to entry for minority-owned businesses in tech-driven markets are greater. USPTO's efforts to develop resources and implement a diverse workforce will move the equities closer for all innovators.

e. USPTO Should Advance Standard-Essential Patent Policy to Drive American Innovation and Global Competitiveness

The United States should establish itself as a global leader in technology-based markets by developing a national approach to standard-essential patents (SEPs). Access to technical standards is a significant enabler of global competition across critical industries, including healthcare, automotives, and telecommunications. Standard setting organizations (SSOs) that undertake the development, promulgation, and implementation of a technical standard serve as regulators that sustain competition, increase innovation, and support consumer welfare often by requiring SEP holders to license their patents to implementing standards users on fair, reasonable, and non-discriminatory (FRAND) terms. Unfortunately, opportunistic, and abusive tactics deployed by SEP holders to exploit the ambiguities within the meaning of FRAND have been recognized and well-documented.²⁷

²⁴ Such barriers are caused by, for example, an education funding gap between predominantly white and predominantly nonwhite school districts of approximately \$23 billion. Laura Meckler, "Report finds \$23 billion racial funding gap for schools," THE WASHINGTON POST (Feb. 26, 2019), *available at* https://www.washingtonpost.com/local/education/report-finds-23-billion-racial-funding-gap-for-schools/2019/02/25/d562b704-3915-11e9-a06c-3ec8ed509d15_story.html.

²⁵ FED. RESERVE BANK OF CLEVELAND, REPORT ON MINORITY-OWNED FIRMS (Nov. 9, 2017), *available at* <https://www.clevelandfed.org/en/newsroom-and-events/press-releases/2017/pr-20171108-atlanta-and-cleveland-feds.aspx>.

²⁶ See <https://news.bloomberglaw.com/ip-law/for-black-inventors-road-to-owning-patents-paved-with-barriers>.

²⁷ See *E.g.*, Deborah Platt Majoras (Federal Trade Commission Chair), *Recognizing the Pro-Competitive Potential of Royalty Discussions in Standard-Setting* (Sept. 23, 2005), *available at* https://www.ftc.gov/sites/default/files/documents/public_statements/recognizing-procompetitive-potential-royalty-discussions-standard-setting/050923stanford.pdf); Neelie Kroes (European Commissioner for Competition), *Setting the Standards High* (Oct. 15, 2009), *available at* https://ec.europa.eu/commission/presscorner/detail/en/SPEECH_09_475; and Renata Hesse (Deputy Assistant Attorney General for Antitrust, US Department of Justice), *Six (Small) Proposals for SDOs Before Lunch*, Oct. 10, 2012, *available at* <https://www.justice.gov/atr/file/518951/download>; see *E.g.*, Joseph Farrell, John Hayes, Carl Shapiro, & Theresa Sullivan, *Standard Setting, Patents, and Hold-Up*, 74 Antitrust L. J. 603 (2007); Colleen v. Chien & Mark A. Lemley, *Patent Holdup, the ITC, and the Public*

The Biden Administration has already made significant strides towards ensuring U.S. competitiveness in technology-based markets by removing the 2019 Policy Statement on SEPs (“the 2019 Statement”). The 2019 statement provided SEP holders with extensive remedies that ignored the differences between SEPs and non-essential patents and the anticompetitive implications of seeking injunctive relief without exhausting other sufficient remedies first. The Department of Justice (DOJ), the National Institute of Standards and Technology (NIST), and the USPTO’s 2021 draft policy statement on SEPs that provided a balanced licensing negotiation and remedies process for SEPs has not replaced the 2019 Statement, leaving a policy vacuum. The lack of national guidance on SEPs allows foreign abusers to strategically cripple U.S. innovation by utilizing anticompetitive tactics, which we discuss in our comments to the USPTO’s goal 3. Specifically, foreign entities may utilize the United States as a venue to abuse U.S. entities. While the proposed multi-agency statement may not move forward, USPTO can and should lead in the development of a balanced and pro-innovation approach to SEPs that provides guidance on the meaning of the FRAND commitment and clarifies that acting inconsistently with such a commitment constitutes unlawful anticompetitive behavior. USPTO is well-positioned to provide guidance on good faith negotiation behavior in the SEP licensing context in light of the impact of SEP abuses on small businesses, clarifying issues such as:

- The potential for anticompetitive effects arising from a SEP-holder’s breach of FRAND because the FRAND commitment is the source of the SEP-holder’s market power, and how small businesses are particularly vulnerable to SEP licensor abuses.
- That the FRAND commitments follow a SEP in the event of a transfer.
- That the FRAND commitment entails that SEP licenses must be available to all entities, regardless of their role within the product supply chain; and that efforts by SEP holders to collectively dictate at what level of the supply chain to whom licenses should be available—instead of allowing the free market to decide—are transparent attempts to extract royalties on as high of a base as possible which insulates SEP holders from price constraints that would otherwise occur in technology licenses due to the importance courts place on comparable license agreements.
- That the FRAND commitment limits the availability of prohibitive orders (federal court injunctions and ITC exclusion orders) to rare circumstances, and that the systematic threatening to seek, and seeking of, such prohibitive orders raise competition concerns and liabilities.
- That the use of no challenge clauses in SEP licensing agreements (which are likely unenforceable on antitrust grounds independent of the agreement addressing FRAND-committed SEPs) constitute anticompetitive SEP abuse.
- That FRAND valuation of a SEP is confined to the value of the patented technology itself, and not other factors such as its inclusion in a standard, downstream uses by end users (real or hypothetical), etc.
- The importance of SSOs in clarifying the meaning of FRAND, and how such clarifications are pro-innovation and pro-competitive.

Interest, 98 Cornell L. Rev. ____ (2012); Dennis W. Carlton & Allan L. Shampine, *An Economic Interpretation of FRAND*, 9 J. Comp. L. & Econ. 531 (2013).

We urge for USPTO to align its approach to SEPs with detailed views the App Association has developed based on a consensus of the small business technology developer community.²⁸

f. USPTO Should Infuse a Priority for Advancing Equity and Inclusion Across its Strategic Goals

As discussed above, USPTO is well-positioned to help eliminate disparities and inequities through its IP policies that affect startup costs for minority-owned businesses. An IP system that fails to purge poorly defined patents or encourages patent abuse raises costs on entrepreneurs. We therefore urge USPTO to infuse an equity priority throughout each Goal of the Strategic Plan.

g. USPTO Should Coordinate with Other Agencies with Functions Impact Intellectual Property Rights, Including the U.S. International Trade Commission, the U.S. Copyright Office, and Others

Numerous other U.S. federal agencies, through policy decisions and enforcement actions, impact intellectual property rights. All would benefit from the USPTO's expertise as they make these decisions. For example, the ITC regularly conducts investigations under Section 337 of the Tariff Act of 1930 to address allegations of patent infringement and trademark infringement by imported goods and would greatly benefit from enhanced coordination in intellectual property matters. Further, the U.S. Copyright Office's policies on copyrights are increasingly addressing emerging technology issues, including artificial intelligence. We support enhanced collaboration between the USPTO and other federal agencies to advance a coordinated approach to intellectual property rights, particularly to support small business education.

h. USPTO Should Expand International Leadership Through Coordination and Education Activities Through Both Bilateral Interactions and Multilateral Fora

The USPTO does, and should continue to, have a leading role in advancing the rule of law and sound intellectual property rights policy internationally. Notably, USPTO's Global Intellectual Property Academy (GIPA) is a successful program that has done much to advance responsible enforcement, patent, trademark, and copyright policies and enforcement abroad. The App Association supports USPTO's role in advancing pro-innovation intellectual property policies through bilateral and multilateral international discussions. We urge for increased funding to the GIPA and commit to assisting the USPTO in accomplishing its international goals.

²⁸ See <https://actonline.org/wp-content/uploads/ACT-SEP-Gen-Position-Paper-sent-081619.pdf>.

III. Conclusion

The App Association appreciates the opportunity to provide comments to USPTO's 2022-2026 Strategic Plan. We encourage the USPTO align the final draft of the USPTO 2022-2026 Strategic Plan with the points that we have raised above.

Sincerely,



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May 13, 2024

The Honorable Katherine Vidal
Under Secretary of Commerce for Intellectual Property and Director of the U.S. Patent and Trademark Office
600 Dulany Street
Alexandria, Virginia 22314

RE: Comments of ACT | The App Association on the U.S. Patent and Trademark Office's Request for Comments on Inventorship Guidance for AI-Assisted Inventions

I. Statement of Interest

ACT | The App Association is a global policy trade association for the small business technology developer community. Our members are entrepreneurs, innovators, and independent developers within the global app ecosystem that engage with verticals across every industry. We work with and for our members to promote a policy environment that rewards and inspires innovation while providing resources that help them raise capital, create jobs, and continue to build incredible technology. App developers like our members also play a critical role in developing entertainment products such as streaming video platforms, video games, and other content portals that rely on intellectual property protections. The value of the ecosystem the App Association represents—which we call the app economy—is approximately \$1.8 trillion and is responsible for 6.1 million American jobs, while serving as a key driver of the \$8 trillion internet of things (IoT) revolution.¹

The app ecosystem's success, reliant on continued innovation and investment in connected devices and interfaces, hinges on the sufficiency of key legal and regulatory frameworks, including those surrounding the question of patent inventorship for artificial intelligence (AI) assisted inventions. Patents allow small business innovators to protect their investments in innovation, attract venture capital, and establish and maintain a competitive position in the marketplace. As more devices throughout the consumer and enterprise spheres become connected to the internet—often referred to as IoT—App Association members' innovations will remain the interface for communicating with these devices.

II. General Comments

The App Association has been active in providing the United States Patent Office (USPTO or the Office) our membership's perspective on the patentability of inventions developed with the assistance of AI through formal consultations and public listening sessions. Unless and until the Supreme Court of the United States or the United States Congress addresses the question further, the law is clear that only a human being can be the inventor of a patent because

¹ ACT | The App Association, State of the App Economy (2022), <https://actonline.org/wp-content/uploads/APP-Economy-Report-FINAL.pdf>.

innovation requires human intervention.² It is our position that this judicial interpretation preserves the constitutionally grounded incentive-based patent system that continues to advance public good in the United States.³

While human inventorship is required for a U.S. patent, the use of AI as a tool in technology development is increasingly critical to support patentable inventions. The U.S. patent system should encourage the use of AI systems to function primarily as tools for the creation of an invention to sustain an incentive-based IP system. Therefore, we agree with the Office's position that "AI-assisted inventions are not categorically unpatentable" and the inventorship analysis for such inventions must rely on "human contributions."⁴

To analyze human contribution against AI assistance, it is imperative to understand AI's role in the development of an invention. AI systems only differ from other technical tools in that they are self-learning and self-directed. However, these features do not amount to the "conception" needed to satisfy inventorship for purposes of the United States Patent Act.⁵ The advancement of AI systems over time does not change this fact. Since "conception" is defined in relation to the inventor,⁶ and an inventor has been interpreted by courts to be a "natural person," AI cannot be considered an entity that can "conceive" of an invention for purposes of patent inventorship. AI solely remains an efficient tool in the invention process. For example, an AI-powered developer tool may be necessary to reduce wasted resources (i.e., cost and time), streamline repeatable tasks, and optimize solutions, and ultimately build the end product. But if the invention could not be completed without a natural person's "conception," or "the complete performance of the mental part of the inventive act,"⁷ then such AI assistance should not prevent a finding of patentability.

While we are confident that existing laws in coordination with specific guidance integrated into the Manual of Patent Examining Procedures (MPEP) will support the Office's guidance for AI-assisted inventions, we urge the USPTO to refrain from narrow evaluations of broadly defined terms, such as "significant contribution." As it stands, the Office's Guidance for AI-assisted inventions utilizes the factors set forth in *Pannu v. Iolab Corp.*, 155 F.3d 1344, 1351 (Fed. Cir. 1998) (the "*Pannu* factors") to evaluate the "significant contribution" of a human for purposes of joint inventorship. We urge the USPTO omit this stringent requirement and focus on a case-by-case analysis of the "conception" of the invention. The *Pannu* factors are based on competing claims under a post-grant challenge of inventorship and would not be appropriate for initial review of the conception attributed to patentable invention. We urge USPTO to ensure that such an assessment is made with conclusions based on concrete examples as opposed to edge use cases that can form non-exhaustive guiding principles.

² See *Thaler v. Vidal*, No. 21-2347 (Fed. Cir. 2022).

³ U.S. CONST. art. 1, § 8, cl. 8.

⁴ "Inventorship Guidance for AI-Assisted Inventions," 89 Fed. Reg. 10043, 10044 (Feb. 13, 2024).

⁵ The Manual of Patent Examining Procedure, Ninth Edition, Revision 07.2022, Chapter 2100, Section 2138.04, <https://mpep.uspto.gov/RDMS/MPEP/e8r9#/e8r9/d0e207607.html> (February 2023).

⁶ *Supra* note 5 (citing *Townsend v. Smith*, 36 F.2d 292, 295, 4 USPQ 269, 271 (CCPA 1930) ("Conception has been defined as 'the complete performance of the mental part of the inventive act' and it is 'the formation in the mind of the inventor of the definite and permanent idea...").

⁷ *Supra* note 5.

We appreciate the USPTO's guidance on AI-assisted inventions re-iterating specific duties of patent applicants including the duty of disclosure and the duty of reasonable inquiry. Disclosures and reasonable inquiries are helpful so long as they are pertinent to examination and not unduly burdensome on the patent applicant without public benefit. App Association members are small and medium-sized inventors that often operate with minimal resources and go through the patent application process without professional or legal assistance. We do not believe that additional disclosure is a solution to strengthening the examination around inventorship of AI-assisted inventions, as some level of an automated tool is used routinely in most all technology development today (e.g., even basic spreadsheets enable automated calculations, and we question the public benefit of requiring an explanation of such a use as AI contributing to an invention). Rather, we believe that the USPTO should make clear that U.S. jurisprudence only contemplates humans as the inventors of patents. Unless the courts or Congress decide to address this issue by allowing AI systems to be named patent inventors, additional disclosures seem unnecessary and a barrier to small innovators.

III. Examination Procedure

We appreciate the USPTO's commitment to coordinating specific guidance, such as for AI-assisted inventions within the MPEP. As AI-assisted tools become more prevalent, the USPTO should equip patent examiners with specific training and detailed examples of patentable and unpatentable inventions created with the use of AI. The more specificity that examiners have, the less room there is for issuing bad patents that can be used to antagonize the U.S. patent system.

We similarly believe that the USPTO should clarify the Office's treatment of AI-enabled inventions beyond the issue of inventorship to incent such innovations. One area where USPTO could clarify the use of AI systems in the invention creation process is with regards to Section 101 patent subject matter eligibility. Clarifying Section 101 enables innovation and plays a critical role in weeding out low-quality patents that are routinely asserted against accused infringers, including startups and small businesses. The lack of definition on key terms in Section 101 has led to the current judicial framework retaining ambiguity around both the ability to get a valid patent on AI-enabled inventions and the threat of lawsuits from issued but potentially invalid patents on various aspects of AI.

The MPEP must address the unique nature of AI when applying the *Alice/Mayo* framework for improvements to the functioning of a computer, technology, or technical field. A variety of elements should be incorporated into the MPEP when evaluating and determining an AI invention's patent eligibility. Elements that deserve consideration during the patentability process include (1) the database structure that will train the AI; (2) the algorithm; (3) the method of training the algorithm; and (4) the outputs produced from the AI application. USPTO should use the existing requirements for software patentability as a starting point to identify necessary elements of patentable AI inventions and applications. AI patent examiners may face greater obstacles when looking at claim and disclosure requirements. Generally, applicants with complex AI inventions should seek alternative ways of describing their invention to meet relevant patent eligibility requirements. After producing an AI invention there may be multiple applications of the AI within the sector. Inventors may find alternative uses to solve a different problem or to build from the AI to create a different invention. As such, technological advancements using AI applications should be evaluated for their patentable characteristics and purpose as opposed to recognizing a former AI invention claim. When the *Alice/Mayo*

framework is applied to AI inventions, an examiner should evaluate the practical application of AI in a claim by determining if the AI amounts to a “particular machine”⁸ that integrates a judicial exception or adds significantly more. We note our support for the USPTO’s appropriate clarification that an AI machine does not qualify as an inventor under the Patent Act, which has now been reinforced by the U.S. Court of Appeals for the Federal Circuit in *Thaler v. Vidal*.⁹ We encourage USPTO to align its patent eligibility guidance accordingly.

The App Association appreciates USPTO’s efforts to engage with stakeholders on issues that affect AI and IP, and encourages its further developing on all relevant areas, including obviousness, disclosure, and data protection. USPTO should also consider the threat of perpetual patenting machines on the U.S. patent system’s application and examination procedures. Laws, policies, and processes surrounding the use of AI systems are better positioned for purposes of analyzing invention creation than patent prosecution. AI algorithms, including large language models (LLMs) have the capabilities of learning how to efficiently undergo the patent application and examination process. While this process will reduce the friction between invention and receiving a patent for patent applicants, the use of LLMs in the patent application and examination process will surely lead to increased filings of patent applications at USPTO. Perpetual patenting machine-enabled bad actors may use LLMs to provide the Office with patent applications that are seemingly issuable but may include overbroad claims or otherwise provide for low-quality patents. Such low-quality patents can then be asserted against alleged infringers for profit, crippling U.S. innovation. As such, USPTO should be prepared to deal with an increased load of applications due to AI-driven perpetual patenting machines.

IV. Conclusion

The App Association appreciates the continued opportunity to provide comments to the USPTO on the inventorship analysis of AI-assisted inventions. We encourage the Office to continue evaluating how the U.S. patent system can encourage the use of AI to advance U.S.-based innovation while maintaining a human-centric inventorship landscape.

⁸ The Manual of Patent Examining Procedure, Ninth Edition, Revision 10.2019, Chapter 2100, Section 2106.05(b), <https://www.uspto.gov/web/offices/pac/mpep/mpep-2100.html> (June 2020).

⁹ *Supra* note 7.

Sincerely,

A handwritten signature in black ink, appearing to read 'Brian Scarpelli', with a stylized flourish at the end.

Brian Scarpelli
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