October 30, 2023

The Honorable Shira Perlmutter
Register of Copyrights and Director
U.S. Copyright Office
101 Independence Ave., S.E.
Washington, District of Columbia 20559

RE: Response of ACT | The App Association to the Notice of Inquiry (Docket No. 2023-6) on Artificial Intelligence and Copyright

Dear Register Perlmutter:

ACT | The App Association (the App Association) provides response to the United States Copyright Office (USCO or the Office) Notice of Inquiry (NOI) on artificial intelligence (AI) and copyright.[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 $1.8 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 small business community that the App Association represents relies on IP to grow and create jobs, and the App Association urges the USCO to recognize that its approach to AI should prioritize both providing reasonable and technology-neutral protections and enabling AI tools to prevent and address IP infringement. App Association members are at the forefront of the development of AI across consumer and enterprise use cases and have a strong interest in the policies that impact the development of AI solutions, including those in the context of IP. We recognize that the rise of AI holds great promise, yet also generates many legal and policy questions, and those around IP are no exception.

II. General Questions

A. Generative AI systems have the ability to produce material that would be copyrightable if it were created by a human author. What are your views on the

[1] 88 FR 59942.
[2] ACT | The App Association, State of the App Economy (2022), https://actonline.org/wp-content/uploads/APP-Economy-Report-FINAL.pdf.

potential benefits and risks of this technology? How is the use of this technology currently affecting or likely to affect creators, copyright owners, technology developers, researchers, and the public? (Question #1)

For software developers, including App Association members, generative AI platforms are advanced technical tools that are invaluable to creative and innovative processes by reducing wasted resources (i.e., cost and time), streamlining repeatable tasks, and optimizing solutions. Software developers have been using AI tools that heavily rely on human cognition to deliver a desired output for years, but generative AI tools reduce the need for human instruction. AI tools generally improve the software coding process and further help train a new generation of strong software developers. Machine learning (ML) AI systems can complete repeatable tasks and detect common mistakes, issues, and risks in the software development process that would otherwise require manual interventions. Software developers use AI to run quality assurance checks that reduce the chance of human bias and error and the potential for disrupting production timelines because a critical mistake was not diagnosed early enough.

Generative AI tools are unique from traditional AI tools in that they have an independent process that mimics human cognition to develop new outputs. For software developers, generative AI platforms not only seamlessly predict and complete lines of code, but they produce outcomes by training on public-facing data that was not initially provided by the platform owner. While generative AI platforms bring new efficiencies to software development, the use of such technology comes with growing pains. This area of law and policy is being contemplated and litigated and has invoked fear around how AI might infringe IP-protected data and expose proprietary information. The potential for generative AI platforms to train on and output data that is covered by IP protections has become more than theoretical.

While the United States Constitution does not explicitly state who can be an "author" for purposes of copyright law, this Office and various courts have maintained that an author must be human;[3] therefore, any work developed entirely by a generative AI system is not copyrightable. In the alternative, original works of authorship are still protectable when communicated either directly by the author or "with the aid of a machine."[4] Where the work produced through generative AI is the product of "original intellectual conceptions of the author,"[5] the whole work may still be copyrightable expression. Some courts have provided justification for instances where the use of IP-protected information is considered "fair use," including where training an algorithm involves necessary reverse engineering of a copyrighted computer program to yield a transformative work.[6] While the fair use doctrine is a good place to start, carve outs based on the unique nuances of generative AI platforms have yet to be defined. However, it is overwhelmingly the case that when training generative AI on copyrighted works is found to be a transformative use, courts often find that this is fair use.[7] Still, a proper analysis of fair use should never lean towards any one factor.

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[3] *See* U.S. Const., art. I, §8, cl. 8; *see* United States Copyright Office, Copyrightable Authorship: What Can Be Registered, COMPENDIUML Chapter 300, 7, (January 20, 2021), available at: https://www.copyright.gov/comp3/chap300/ch300-copyrightable-authorship.pdf; *see Naruto v. Slater*, No. 16-15469 (9th Cir. 2018); *see Thaler v. Perlmutter*, No. 22-cv-1564, 2023 WL 5333236 (D.D.C. Aug. 18, 2023).

[4] 17 U.S.C. § 102(a).

[5] United States Copyright Office, Copyrightable Authorship: What Can Be Registered, COMPENDIUM Chapter 300, 7, (January 20, 2021) (citing *Burrow-Giles Lithographic Co. v. Sarony*, 111 U.S. 53, 58 (1884)).

[6] See *MAI Systems Corp. v. Peak Computer Inc.*, 991 F.2d 511 (9th Cir. 1993).

[7] *See* https://copyrightalliance.org/copyrighted-works-training-ai-fair-use/. ("While findings of transformative uses have often disproportionately led to decisions that the use qualifies as a fair use, courts should still recognize that even if training AI is found to be a transformative use, that does not automatically mean that it qualifies as a fair use").

Much like a human brain, AI systems train on data to understand patterns and create rules that help them make decisions. However, like a human brain, generative AI might output, in part or in whole, an image, writing, wordmark, or other IP protectable work that it was trained on. Where a generative AI system does produce an infringing work, App Association members are concerned about the liability of a platform user that unintentionally incorporates the infringing output in their final product. The law is still developing on this issue, and the outcome of current proceedings can impact the speed of innovation and liability of platform users, including software developers, that were unaware that they were using IP-protected, or otherwise proprietary information. For example, if it is revealed that generative AI platforms are, in some cases, effectively copy-and-pasting data, the impact can be catastrophic because of the amount of code that has already been written, and continues to be written, using AI co-pilots. In practice, it is also nearly impossible to discern each line of code developed through generative AI.

App Association members operate with minimal resources and most acutely harmed by unpredictable copyright outcomes related to liability. The interdependent relationship between a generative AI platform and its users is important. Generative AI platforms are essential for software developers to compete because it provides significant efficiencies in the coding process. As this type of relationship grows, standards of practice implemented by the generative AI platforms and its users will be imperative to protecting against IP and proprietary data theft.

We appreciate the USCO's initiative to examine the copyright law and policy issues raised by AI technology, including issues related to generative AI tools. Since the law is developing, we urge the USCO to take a fact-finding and informative roll for its stakeholders. Policy changes should not be driven by edge use cases or hypotheticals that exemplify possible uses and capabilities of AI outside what we presently understand. As the courts and Congress assess and define the boundaries of using AI, we urge USCO to seek industry input on an ongoing basis to inform the development of detailed and robust guidance on copyright implications of using generative AI platforms.

B. Does the increasing use or distribution of AI-generated material raise any unique issues for your sector or industry as compared to other copyright stakeholders? (Question #2)

The ability for generative AI platforms to train on copyright protected data creates concerns for all IP rights holders and platform users that are developing new works that might include IP-protected data. As a prime example, a platform's use of open-source software and the use of open-source AI platforms has copyright implications. While copyright law generally provides an author the exclusive rights to make, sell, or otherwise use their work, unless contractually assigned to another entity, the creator of open-source software dedicates their work to the public under licensing terms, that, when not complied with, constitutes as copyright infringement.[8] A tenant of open-source licensing is that the source code is available to the public. This collaborative approach to software innovation has accelerated efficiencies in developing secure, cost-efficient, and advanced solutions for businesses and their consumers. Notably, the Open Software Initiative (OSI) has developed the Open-Source Definition (OSD), which contains rules defining the boundaries of open-source licensing.

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[8] *See Jacobsen v. Katzer*, 535 F.3d 1373 (Fed. Cir. 2008).

While some companies are developing open-source large language models (LLMs), there are widely used platforms, like OpenAI and GitHub, that use closed-source LLMs. These closed-source LLMs have been accused of scraping and training on open-source software without adhering to licensing terms, implicating their owners in copyright and contract law.[9] This issue around closed-source LLMs using open-source software raises issues about liability for platform users as well as the erosion of the open-source model.

C. Are there any statutory or regulatory approaches that have been adopted or are under consideration in other countries that relate to copyright and AI that should be considered or avoided in the United States? How important a factor is international consistency in this area across borders? (Question #4)

The App Association appreciates the Office's consideration of approaches to copyright and AI by other countries. It is important that the United States aligns common approaches with other jurisdictions, while carefully developing U.S.-specific approaches to support innovation and competition while avoiding international tensions. App Association members rely on consistent international rules that are easily applied. Where rules on copyright and AI are fragmented across different jurisdictions, small developers may be hesitant to engage for fear of costly barriers, including litigation.

The United States should first assess how other countries view authorship on works that are produced in whole or in part by generative AI systems. Many countries are still interpreting the authorship of works that are created with generative AI assistance. For example, the UK Intellectual Property Office (UKIPO) has an ongoing effort to develop a code of practice on copyright and AI.[10] The Office should keep up with this effort, and others like it, and consider a similar ongoing effort with U.S. stakeholders; the App Association would be happy to assist the Office on formulating a code of practice for U.S. stakeholders.

Further, the Office should monitor the development of the European Commission's (EC) proposed Artificial Intelligence Act (AI Act) for the European Union (EU). While this comprehensive proposed regulation does not make specific mention of copyright implications of generative AI platforms, the European Parliament has proposed two relevant provisions that would require transparency and protect AI-generated content moderation. Proposed Article 28(4)(b) requires a "provider" of a foundation model to train and develop the model with "adequate safeguards" that prevent generative AI systems from outputting data in violation of EU laws, including IP protections.[11] Proposed Article 28b(4)(c) would obligate a "provider" of a foundation model to document and publicly disclose a "sufficiently detailed summary" of the use of training data protected under copyright law before being put on the market.[12] These proposed articles, as written, require more clarity on their scope and definition to protect the interests of U.S. firms. Since the EU AI Act seems to suggest that its governance would cover all entities engaging with the EU economy, the regulation, if implemented would affect U.S.-based companies.[13]

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[9] *See J. Doe 1, et al. v. GitHub, Inc., et al.,* No. 22-cv-06823-JST (N.D. Cal. 2023); *J.L. et. al. v. Alphabet Inc. et. al.*, No. 3:23-cv-3440 (N.D. Cal. 2023).
[10] *See* https://www.gov.uk/guidance/the-governments-code-of-practice-on-copyright-and-ai.
[11] *See* https://www.europarl.europa.eu/doceo/document/TA-9-2023-0236_EN.html.
[12] *Id.*
[13] *Id.* at Article 3.

D. Is new legislation warranted to address copyright or related issues with generative AI? If so, what should it entail? Specific proposals and legislative text are not necessary, but the Office welcomes any proposals or text for review. (Question #5)

The App Association does not believe that legislation is warranted before the conclusion of significant and ongoing legal proceedings contemplating copyright implications of using generative AI systems would be beneficial to U.S. stakeholders. We encourage the Office to continue monitoring legal and policy developments and working with stakeholders in different industries to provide guidance on how to view copyright protections and liability as it relates to generative AI platforms.

Once the courts have made decisions on current disputes, and an evidence base has been established, it might be proper for the United States to contemplate legislation to address copyright-related issues with generative AI. Such a legislative effort must be tackled in tandem with guidance on other issue areas implicated by generative AI systems, including privacy, competition, and consumer protection laws and policies. New legislation should also not alter foundational and agreed upon understandings of the U.S. intellectual property system – namely, that AI systems in any form are advanced technical tools that cannot amount to an author of a copyrighted work. Our current legal framework supports the notion of human authorship, and the Office should make sure new advancements do not manipulate this understanding.

III. Training

A. Under what circumstances would the unauthorized use of copyrighted works to train AI models constitute fair use? Please discuss any case law you believe relevant to this question. (Question # 8)

The App Association does not view "fair use" as a bright line affirmative defense and does not believe that current interpretations by courts fully contemplate the capabilities of generative AI. We also recognize that implications of generative AI may differ based on industry and the way they are trained. We do not have enough information to assess whether, nor are there disclosure requirements to tell us how, generative AI platforms are trained, what they are trained on, and what restrictions they might have. "Fair use" must be assessed on a case-by-case basis and is a heavily fact-dependent analysis, which the courts are currently contemplating for a variety of copyright protected works that are alleged to be infringed. Until we have more information through these court proceedings, we are unable to definitively say in what ways training on copyrighted data would be considered "fair use." For small innovators, like App Association members, the outcome of these cases is particularly important for them as they seek to understand when such training would be treated as copyright infringement and how that might implicate a software developer using the infringing generative AI platform.

The case law that we raise above should be considered in a fair use analysis along with equal consideration for each statutory factor provided in in 17 U.S.C. § 107. In applying this analysis to generative AI platforms, we note that consideration about the societal benefits of LLMs training on large data sets should not be lost. When LLMs train on data sets that are large and diverse, there is a reduced risk of bias outputs. If generative AI platforms are to be used in the creation of copyrightable works, and we believe they should, a "fair use" analysis should not consider this fact.

IV. Copyrightability

A. Under copyright law, are there circumstances when a human using a generative AI system should be considered the "author" of material produced by the system? If so, what factors are relevant to that determination? For example, is selecting what material an AI model is trained on and/or providing an iterative series of text commands or prompts sufficient to claim authorship of the resulting output? (Question #18)

For reasons stated above, while works entirely produced by generative AI cannot be protected by copyright law, an individual or entity using a generative AI system may own copyright in the yielded output. The ability for copyright to vest in a generative AI platform's user will depend on the amount of human authorship contributed to the work. Copyright extended to a work that generative AI helped create would not extend to the AI system's internal algorithm or data that it was trained on. It is important that the Office continues to recognize that generative AI systems, when used as a tool to output its user's "original intellectual conception," should not diminish the ability to secure copyright protection over the conceived output outside a proper analysis for copyright protection. As technology evolves, it is important for copyright law to continue to balance the incentive for intellectual and creative expression in humans with the efficiency provided by tools that can perform tasks more autonomously.

B. Are any revisions to the Copyright Act necessary to clarify the human authorship requirement or to provide additional standards to determine when content including AI-generated material is subject to copyright protection? (Question #19)

The United States Copyright Act sufficiently defines human authorship, and this provision does not need to be amended. Through ongoing proceedings, the courts may uncover more copyright implications than we currently understand with using generative AI platforms. Any changes to law would be premature at this point.

C. Is legal protection for AI-generated material desirable as a policy matter? Is legal protection for AI-generated material necessary to encourage development of generative AI technologies and systems? Does existing copyright protection for computer code that operates a generative AI system provide sufficient incentives? (Question #20)

When AI-generated material meets the elements of copyrightability, including having sufficient human authorship, it should be given copyright protection. While there are fears around the use of generative AI platforms, they provide significant efficiencies to industries, including software development. While the Office considers implementing guidance on the use of generative AI platforms, it should consider how burdensome laws, policies, and licensing requirements would dissuade people from using advanced AI technologies. Today, many small business software developers cannot compete without the use of AI systems. While well-resourced businesses may be able to remain competitive without generative AI platforms, small businesses and startups rely on its efficiencies.

D. If you believe protection is desirable, should it be a form of copyright or a separate *sui generis* right? If the latter, in what respects should protection for AI-generated material differ from copyright? (Question #20.1)

We strongly urge the Office to avoid taking extreme measures as to assign AI-generated material *sui generis* right apart from copyright protections. U.S. copyright laws and policies are sufficient to address these types of works**.**

E. Does the Copyright Clause in the U.S. Constitution permit copyright protection for AI-generated material? Would such protection "promote the progress of science and useful arts"? If so, how? (Question #21)

When a work generated by AI meets the elements of copyright protection, the Copyright Clause should permit legal protection. As noted in the above comments, where generative AI systems are used as tools to enhance human authorship, such resulting works are the kind that the U.S. Constitution seeks to incent to "promote the progress of science and useful arts."[14]

V. Infringement

For all questions related to infringement, we reiterate that the courts are in the best position to determine these issues on a case-by-case basis. The App Association and its members believe that there are too many unanswered questions, and that developing case law may reveal more issues that impact our community. We are happy to continue to work with the Office to balance copyright liability with access to generative AI platforms for good faith creation and innovation.

VI. Labeling or Identification

For all questions related to labeling or identification, once the courts have provided more information on the use and development of generative AI, it would be proper for the Office to consider labeling and/or identification requirements. In the event such requirements are imposed, we strongly encourage consultation with impacted stakeholders to ensure that requirements are technically feasible and accomplish their intended goal.

VII. Conclusion

The App Association appreciates the opportunity to provide our community's perspective on the copyright implications of artificial intelligence. We look forward to continuing to work with the Office to develop a workable best practices guidance and legal and policy framework for using generative AI to enhance creative and innovative expression.

Sincerely,

[14] U.S. Const., art. I, §8, cl. 8.

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