Mr. Andrei Iancu
Director
U.S. Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313–1450
Sent via email to *AIPartnership@uspto.gov*

Re: Intellectual Property Protection for Artificial Intelligence Innovation
        Docket No. PTO–C–2019–0038

Dear Mr. Iancu:

The Recording Industry Association of America ("RIAA") and the National Music Publishers'
Association ("NMPA") welcome the opportunity to share these comments with the United
States Patent and Trademark Office ("USPTO") concerning the impact of artificial intelligence
("AI") technologies on intellectual property law and policy.

The RIAA is the trade association that supports and promotes the vitality of the major record
companies. Its members comprise the most vibrant record industry in the world. Nearly 85%
of all legitimate recorded music produced and sold in the United States is created,
manufactured or distributed by RIAA members. In support of its mission, the RIAA works to
protect the intellectual property and First Amendment rights of artists and music labels;
conducts consumer, industry and technical research; and monitors and reviews state and
federal laws, regulations and policies.

NMPA is the principal trade association representing the U.S. music publishing and songwriting
industry. NMPA represents publishers and songwriters of all catalog and revenue sizes, from
large international corporations to small businesses and individuals. Taken together,
compositions owned or controlled by NMPA members account for the vast majority of the
market for musical composition licensing in the United States. NMPA protects and advances
the interests of music publishers and songwriters in matters relating to both the domestic and
global protection of music copyrights before the legislative, judicial and executive branches of
the U.S. government.

I. Introduction

Human creative expression is at the core of our members' businesses and is vital to our nation's
culture and economy. The United States boasts over one million revenue-generating
songwriters and sound recording artists.[1] Overall, the music industry contributes $143 billion to

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[1] Source: http://50statesofmusic.com/?USimpact.

the nation's economy, supports 1.9 million jobs and accounts for over 157,000 businesses in the United States.[2] At the core of all this activity is the creativity of songwriters, musicians, producers, recording engineers and countless other participants in the music industry that bring music to life.

Our members are also constantly innovating, working with our artists to develop and use new tools and techniques to spark creativity, produce great music and better engage with music fans. It is in this light, and in consideration of how the questions posed relate to the creation, use and exploitation of music, that we offer the following comments.

II. Overview

We believe that our existing copyright law framework is sufficiently robust and flexible to adequately address issues raised by artificial intelligence (AI). We recognize, however, that the AI landscape is so complex and dynamic that a course correction may be required in the future.

In considering the intellectual property implications posed by artificial intelligence (AI) systems, policy makers should bear in mind the diversity, complexity and continuing advancement of the AI technologies, the Constitutional goals of copyright law and the fundamental values of fairness and transparency.

As a starting point, there is no set definition of AI, and its commercial applications can vary widely. For example, in the music space, the term AI could refer to machine learning used to analyze and predict the audiences for an artist's music; assisted intelligence applications that apply mastering tools (such as compression or equalization, etc.) automatically to a human-mixed recording; or systems that use algorithms to remix stems to output music, based on their ingestion of thousands of human created recordings. Each of these AI applications poses different intellectual property considerations. Because there are so many existing and potential future uses of various AI technologies, and because the field is diverse, complex and continuing to evolve, the creation of new and fixed rules for AI—at least at this stage of AI's development—seems premature. Indeed, as a practical matter, many questions surrounding ownership of works created using AI tools will likely be resolved by contract, so the market should be given time and freedom to create the appropriate contractual arrangements.

Instead, we suggest that policy makers bear in mind the fundamental constitutional goals of U.S. intellectual property law when analyzing how intellectual property applies to any particular AI system or application. The U.S. Constitution states that Congress has the power "[t]o promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries."[3] Thus, a clear goal is

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[2] Source: http://50statesofmusic.com/?USimpact.
[3] U.S. Constitution, Art. I, Section 8, Clause 8.

to protect authors' rights in their expressive works in order to promote progress in the arts. As explained by the Supreme Court, "the Framers intended copyright itself to be the engine of free expression. By establishing a marketable right to the use of one's expression, copyright supplies the economic incentive to create and disseminate ideas."[4] AI applications should thus not be given a "free pass" simply because a given application is novel, popular or has exciting, positive uses. Policymakers should be wary of attempts to use the development of AI as an opportunity to weaken copyright protections.

III. Responses to Specific Questions

Questions 1 & 2: Should a work produced by an AI algorithm or process, without the involvement of a natural person contributing expression to the resulting work, qualify as a work of authorship protectable under U.S. copyright law? Why or why not? Assuming involvement by a natural person is or should be required, what kind of involvement would or should be sufficient so that the work qualifies for copyright protection?

Under U.S. law, only expressive works made with human contribution should be entitled to copyright protection. This, in essence, is what copyright law already provides.[5]

A fundamental purpose of copyright is to provide economic incentives to authors of expressive works in order to promote progress in the arts and sciences and the dissemination of ideas. To this end, copyright protection subsists "in original works of authorship fixed in any tangible medium of expression, now known or later developed, from which they can be perceived, reproduced, or otherwise communicated, either directly or with the aid of a machine or device."[6] To be an "original work of authorship," there must be some originality on the part of the author.[7] The amount of originality necessary is merely a "minimal degree of creativity."[8]

Congress has thus already considered the question and determined that involvement of a natural person is necessary for copyright protection to attach to a work, irrespective of the tools used to fix or perceive the work.[9] This policy has served the nation well in assigning

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[4] Harper & Row, Publrs. v. Nation Enters, 471 U.S. 539, 558 (1985).

[5] *See, e.g.*, Jane C. Ginsburg & Luke Ali Budiardjo, *Authors and Machines*, 34 BERKELEY TECH. L.J. No. 2 (2019), available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3233885##, at 7, n.26 (noting that "[m]any authorities concur that 'authorship' in copyright law implies human creativity.").

[6] 17 USC § 102.

[7] *Feist Publications, Inc. v. Rural Telephone Service Co., Inc*., 499 U.S. 340, 345 (1991) ("To qualify for copyright protection, a work must be original to the author," which means that the work must be "independently created by the author" and it must possess "at least some minimal degree of creativity.").

[8] *Feist*, 499 U.S. at 358, 362.

[9] Case law, limited though it may be, also suggests that human authorship is necessary for copyrightability. *See, e.g., Naruto v. Slater*, 888 F.3d 418, 426 (9th Cir. 2018) (holding that a monkey lacked statutory standing to sue for copyright infringement because the Copyright Act does not authorize non-human animals to sue); *Urantia Foundation v. Maaherra*, 114 F.3d 955, 958 (9th Cir. 1997) (holding that "in this case some element of human

copyright rights and liabilities as technology has advanced. At least in its current state, AI is appropriately viewed as a tool that facilitates human expression.

Because the potential AI applications and associated human contributions are so wide-ranging and are still evolving, the degree of human involvement necessary to be considered original authorship for the copyrightability of any AI output will be highly fact-dependent and must be determined on a case-by-case basis. To that end, it would be helpful if developers and users of AI applications maintained adequate records to track the human choices made in order to allow for an assessment of the copyrightability of the AI output. In any event, it is premature to suggest any firm rules on what human involvement is necessary in any AI-generated output for that output to be copyrightable.

Question 3: To the extent an AI algorithm or process learns its function(s) by ingesting large volumes of copyrighted material, does the existing statutory language (e.g., the fair use doctrine) and related case law adequately address the legality of making such use? Should authors be recognized for this type of use of their works? If so, how?

Existing copyright law, including the general rules for liability and their traditional exceptions and limitations, should be sufficient for determining copyright liability for ingestion of large volumes of copyrighted materials for a specified purpose or use case. Assuming the ingestion involves any of the rights granted to copyright owners under 17 USC § 106 (such as the reproduction of all or a portion of the copyrighted material) and such use is not authorized by the copyright owner, such unauthorized use is prima facie infringement under existing law, unless a proper defense or exception applies.

In these circumstances, the most likely claimed defense to infringement would be fair use. As codified, fair use is a fact-intensive inquiry that includes consideration of the following four factors: (1) the purpose and character of the use, including whether such use is of a commercial nature or is for nonprofit educational purposes; (2) the nature of the copyrighted work; (3) the amount and substantiality of the portion used in relation to the copyrighted work as a whole; and (4) the effect of the use upon the potential market for or value of the copyrighted work.[10] It is important that the all four factors be properly analyzed and considered in any fair use determination.

When considering the relevance of any exceptions, limitations or defenses, policy makers should recognize the potential market for licensing copyrighted works for AI learning, and

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creativity must have occurred in order for the [work] to be copyrightable.”). Copyright Office practice is also in accord. *See* U.S. Copyright Office, Compendium of U.S. Copyright Office Practices § 306 (“The U.S. Copyright Office will register an original work of authorship, provided that the work was created by a human being.”) and § 313.2 (“the Office will not register works produced by a machine or mere mechanical process that operates randomly or automatically without any creative input or intervention from a human author.”).

[10] 17 USC § 107.

should protect copyright owners' ability to control the exploitation of their works in that market. Wholesale copying of sound recordings merely for the purpose of "training" an AI system, without more, is an insufficient basis for a finding of fair use, much like wholesale copying for the training of human students is not fair use.[11] As one court intimated, where a use would not constitute fair use when done in print, it does not constitute fair use on the Internet.[12] Similarly, where wholesale copying would not be considered fair use for teaching humans when performed with older technologies, it should not be considered fair use later when done to "teach" an algorithm with newer technologies.

Moreover, policymakers should be wary of arguments to weaken copyright protections in the context of AI. For example, some contend that virtually any copying of copyrighted works for AI ingestion/training is fair use because such use should be considered transformative.[13] Policymakers should strongly reject such a flawed contention. First, the fact that the ingestion is for some intelligence-gathering purpose is not by itself transformative. Second and more fundamentally, even if the nature and character of the use of the copyrighted works for the AI system were considered transformative, that would not end the inquiry. The three other fair use factors must also be analyzed and all four considered holistically to determine whether the use qualifies as fair use. While some courts have placed undue weight on the question of whether a use is "transformative" under the first factor (purpose and character of the use),[14] better reasoned decisions consider all of the factors holistically in the fair use analysis.[15]

To promote the transparency and accountability principles noted above, AI developers should develop best practices for maintaining adequate records of what works are being ingested and

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[11] *See e.g. Blackwell Publ'g, Inc. v. Excel Research Grp*., LLC, 661 F. Supp. 2d 786 (E.D. Mich. 2009) (third party copying copyrighted content in course packs without authorization to sell them to students not fair use); *Am. Geophysical Union v. Texaco, Inc*., 60 F.3d 913 (2d Cir. 1995) (copying of articles by researchers beyond what was permitted in the license for the articles was not fair use); *Weissmann v. Freeman*, 868 F.2d 1313 (2d Cir. 1989) (professor's unauthorized copying and distribution of a copyrighted article to his students not fair use); *Educ. Testing Serv. v. Katzman*, 793 F.2d 533 (3d Cir. 1986), abrogated on other grounds by *eBay, Inc. v. MercExchange, LLC*, 547 U.S. 388 (2006) (copying of a copyrighted test for test preparation education not fair use).

[12] Brammer v. Violent Hues Prods., LLC, 922 F.3d 255, 269 (4th Cir. 2019).

[13] *See* Daryl Lim, *Article: AI & IP: Innovation & Creativity in an Age of Accelerated Change*, 52 Akron L. Rev. 813, 874 (2018) ("The training data [AI] draws upon, both for expressive and non-expressive uses, are merely grist for AI's mill. Consequently, fair use must be liberally applied to prevent holdup by copyright owners and stifling transformative uses enabled by AI," Benjamin Sobel, *Article: Artificial Intelligence's Fair Use Crisis*, 41 Colum. J.L & Arts 45, 49 (Fall 2017) ("Transformative fair use protects some of machine learning's precursor technologies, and many people doubtless assume it will shield machine learning, too.").

[14] *See e.g. Cariou v. Prince,* 714 F.3d 694 (2nd Cir. 2013) (relying primarily on its analysis of the transformative nature of the use to find fair use).

[15] *See Kienitz v. Sconnie Nation LLC*, 766 F.3d 756, 758 (7th Cir. 2014) (criticizing Second Circuit in *Cariou* for "asking exclusively whether something is 'transformative,'" whereas the fourth factor (market effect) is usually the "most important" factor; *see also Fox News Network, LLC v. TVEyes, Inc*. 883 F.3d 169 (2d Cir. 2018) (finding that the use was not fair use even though it found the use somewhat transformative); *Brammer v. Violent Hues Prods., LLC*, 922 F.3d 255 (4th Cir. 2019) (fair use not found based on a consideration of all of the factors); *Cambridge Univ. Press v. Albert*, 906 F.3d 1290 (11th Cir. 2018) (calling for a holistic review of the use based on all four factors).

for what purposes/outputs, and if the developer has obtained any licenses or clearances to use the works for such purposes/outputs. Because training will typically not happen in the public eye, it will be difficult if not impossible for copyright owners to monitor the unauthorized use of their IP. Proper record keeping should help guard against rampant infringement and the failure to maintain such records could be viewed as a factor weighing against a finding of fair use.[16]

Question 4: Are current laws for assigning liability for copyright infringement adequate to address a situation in which an AI process creates a work that infringes a copyrighted work?

It is important to preserve copyright owners' ability to seek redress for copyright infringement. AI should not be allowed to serve as a shield for infringers to hide behind to avoid liability. That being said, existing principles of copyright law should be sufficient to properly assign liability for copyright infringement in a situation where an AI process creates a work that infringes a copyrighted work. Copyright law is a strict liability regime and, depending on the facts of the case, liability may be assigned on direct or indirect theories. Where an AI process results in an infringing work, the AI process owner, developer, trainer and/or AI process implementer may be liable for the infringement (whether directly or indirectly), depending on the nature of the AI process and the activities of those actors that relate to the creation of the infringing work. These determinations will be highly fact-dependent and will require adjudication on a case-by-case basis, in light of the fundamental goals of copyright law noted above**.** In making these determinations, care should be taken to ensure that mere automation or willful blindness do not act as shields against liability. And, as a practical matter (as noted above), adequate record keeping would go a long way to helping with liability determinations, and failure to maintain adequate records could be viewed as a factor in assigning liability.

Question 5: Should an entity or entities other than a natural person, or company to which a natural person assigns a copyrighted work, be able to own the copyright on the AI work? For example: Should a company who trains the artificial intelligence process that creates the work be able to be an owner?

Absent a work made for hire arrangement, only the human author of a work is vested with initial ownership of that work under U.S. law. Because authorship requires some human creative contribution to the AI work, the human/s who provided the requisite creative contribution to the work is/are the authors, and therefore initial owners of the work, unless the work for hire doctrine applies. If one of those human authors has a work made for hire arrangement with a company or assigns a work to a company, those arrangements should be honored.

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[16] At the same time, the keeping of records should not weigh in favor of fair use. *Cf. e.g., Brammer v. Violent Hues Prods., LLC*, 922 F.3d 255, 265 (4th Cir. 2019) (while copyist's bad faith weighs against finding of fair use, copyist's good faith does not weigh in favor of fair use).

Question 6: Are there other copyright issues that need to be addressed to promote the goals of copyright in connection with the use of AI?

At their core, the questions of AI output copyrightability and the assignment of liability for infringing AI outputs involve the manner and degree to which human involvement is required to justify granting copyright in the AI output and the degree to which a putative defendant's role and purpose in bringing about an infringing AI output merits the assignment of liability. There will be a continuum of human contribution associated with various AI outputs, and the difficult issue will be determining where on that continuum of human involvement is sufficient to justify copyright protection or liability. Again, this will necessarily be a highly fact-dependent inquiry that can only be resolved on a case-by-case basis.

As a general matter, however, policy makers should assume that the AI processes will evolve quickly, and that they have—or will soon have—the capability to ingest massive amounts of copyrighted works and create a dizzying variety of AI outputs at a pace that far exceeds the pace of human creative output. The fact that the ingestion of creative output can be done quickly, cheaply and at scale by an AI process should not by itself excuse the copying of existing works or justify granting copyright in the output.

Finally, and as noted previously, because there may be unintended consequences associated with AI creation, owners and operators of AI systems should develop best practices for maintaining adequate records for both AI training material and system output. This would help prevent unauthorized use of copyrighted material as training material and help track potentially problematic output (e.g., "deep fakes" or infringing works), as well as establish provenance when use of an AI results in a valid copyright.

Questions 8 and 12: How, if at all, does AI impact trademark law? Is the existing statutory language of the Lanham Act adequate to address the use of AI in the marketplace? Are there any other AI-related issues pertinent to intellectual property rights (other than those related to patent rights) that the USPTO should examine?

To the extent AI processes are used to create works that are "sound alike," "similar to," "in the style of," or "reminiscent of" existing works of a well-known copyright creator, such as a popular sound recording artist, songwriter or visual artist, care should be taken to ensure that the marketer of such works is not passing off such works as those of the well-known creator, or otherwise misappropriating the goodwill associated with the well-known creator or her goods or services. The USPTO may wish to examine whether the Lanham Act, or general unfair competition or right of publicity laws are adequate to guard against such passing off or misappropriation.

Question 13: Are there any relevant policies or practices from intellectual property agencies or legal systems in other countries that may help inform USPTO's policies and practices regarding intellectual property rights (other than those related to patent rights)?

The USPTO should keep in mind that certain aspects of U.S. copyright law are unique to the U.S., and references to other countries' laws may not be appropriate at this time. For example, post-1972 sound recordings are protected in the U.S. under our general copyright regime that requires some originality or creativity for copyright to subsist in the work. However, some other countries treat sound recordings under a neighboring rights regime that often does not require human authorship or originality to grant some protection to the sound recording. At least with respect to sound recordings, this difference in the basic requirements for copyrightability could lead to differences in how AI-generated sound recordings are protected. Moreover, as other countries are also currently engaging in policy discussions relating to AI and intellectual property in their own legal systems, it seems premature to consider incorporation of foreign practices at this time, especially with respect to exceptions or limitations to copyright.

IV. Conclusion

We thank the USPTO for the opportunity to share these preliminary views on this important subject. We look forward to continuing this conversation with the USPTO and other policymakers as AI technology and its impact on the marketplace evolves.

Sincerely,

/ Victoria Sheckler /

Victoria Sheckler
Senior Vice President, Deputy General Counsel
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On behalf of the Recording Industry Association of America
and the National Music Publishers' Association