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AMERICAN**BAR**ASSOCIATION
Intellectual Property
Law Section

January 9, 2020

The Honorable Andrei Iancu
Under Secretary of Commerce for Intellectual Property &
Director of the United States Patent and Trademark Office
US Patent and Trademark Office
600 Dulany Street, Suite 10D44
Alexandria, Virginia 22314

via email to: AIPartnership@uspto.gov

Re: Comments in Response to *Request for Comments on Intellectual Property Protection for Artificial Intelligence Innovation* (Federal Register / Vol. 84, No. 210 / October 30, 2019)

Dear Director Iancu,

As Chair of the Section of Intellectual Property Law of the American Bar Association (the "Section"), I am writing on behalf of the Section to provide the Section's Comments responding to the Request for Comments ("RFC") on Intellectual Property Protection for Artificial Intelligence Innovation, which was promulgated by the US Patent & Trademark Office (the "USPTO" or the "Office") in Federal Register, Vol. 84, No. 210, October 30, 2019.[1] The views expressed herein are presented on behalf of the Section of Intellectual Property Law. They have not been approved by the House of Delegates or the Board of Governors of the American Bar Association (ABA) and, accordingly, should not be construed as representing the position of the Association.

Since 1894, the ABA-IPL Section has advanced the development and improvement of intellectual property laws and their fair and just administration. As the forum for rich perspectives and balanced insight on the full spectrum of intellectual property law, the Section serves within the ABA as a highly respected voice within the intellectual property profession, before policy makers, and with the public.

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[1] 84 Fed. Reg. at 58141

The Section of Intellectual Property Law of the American Bar Association ("the Section") expresses its strong support for the Office's extension of its ongoing inquiry into the impact of artificial intelligence ("AI") technologies on intellectual property law and policy to encompass copyright. The Section deeply appreciates this opportunity to provide written responses to the Office's RFC and would support any of the Office's future or continuing efforts to further develop the discourse surrounding this important and evolving topic.

Following our request for an extension of the submission deadline to January 30, 2020, the USPTO extended the submission deadline to January 10, 2020. Because we did not receive the requested extension to January 30, 2020, we did not have sufficient time for robust deliberation, discussion and reflection with respect to Question No. 3. Accordingly, we welcome an opportunity to provide further responsive comments for the additional benefit of our Section members. If that is possible, please let us know.

AI Authorship & Copyright Ownership. As a preliminary matter, the Section has recently adopted three relevant resolutions that should be brought to the Office's attention. The Section's resolutions provide that:

(1) the Section opposes, in principle, recognizing an artificial intelligence as an "author" under US copyright law;

(2) the Section opposes, in principle, recognizing an artificial intelligence as an assignee, licensee, or other type of party having an ownership or possessory interest to a copyright recognized under Title 17; and

(3) the Section opposes in principle, a new *sui generis* law to supplement US copyright, patent, trade secrets, data access (*e.g.*, Computer Fraud and Abuse Act, 18 USC § 1030) or contract law to protect artificial intelligence data sets and databases.

Where appropriate, these resolutions inform the Section's responses to the RFC. Like the Office, the Section is dedicated to continually reviewing and refining its discourse and conclusions.

The Section's question-by-question Comments in the RFC are below. The Section refers to the provisional definition of artificial intelligence set forth in its comments in response to *Request for Comments on Patenting Artificial Intelligence Inventions* (Federal Register / Vol. 84, No. 166 / August 27 2019).[2] Again, we appreciate this opportunity to contribute to this important topic.

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[2] American Bar Association Section on Intellectual Property Law, Comments in Response to "Patenting Artificial Intelligence Inventions," *available at* https://www.americanbar.org/content/dam/aba/administrative/intellectual_property_law/advocacy/aba-ipl-response-to-uspto-on-patent-related-issues-regarding-ai-inventions.pdf

"Artificial Intelligence" "Artificial Intelligence" is comprehended within the computer science study of "intelligent agents" – instrumentalities for responding to their environments to act ("optimally") towards achieving certain goals – distinguished from "natural intelligence" and mostly using digital computer technology.[3]

For responding to the USPTO's August 2019 request for comments regarding patenting of AI, "the Section adopt[ed] a working *understanding* of the term "AI" to refer to technologies that are capable of autonomy, human-like intelligence, and/or human-like learning."

That broad understanding was appropriate for the Section's comment on patenting of the many aspects of AI technology and is appropriate for the Section's consideration of trade secret and computer program copyright protection of those technological aspects as part of the Section's response to in responding to the USPTO's October 2019 request addressed to non-patent intellectual property protection. For this report and resolution, although we will use the broad understanding, we are particularly concerned with members of the subset of AI technologies that use and/or generate information that is or should be protected by copyright or new, *sui generis* law.

Among these, rules-based "expert systems" embodying decision-making rules set down or reinforced by human experts have not presented notable intellectual property controversy over decades of deployment under various licensing schemes. More recent artificial neural networks (ANNs), which coarsely simulate human neurons with hard-wired but optimization-adjusted-weighted connections, have been deployed as pairs in "generative adversarial networks" that have generated output not distinguishable from traditional human "expression" but convincingly mimic the style of selected artists.

However, such selection is made at some point by a human even by setting down rules for selection or deploying (turning on) the AI. Rules for harmonious musical accompaniment are set down either according to formal or informal theories of music or by human approbation. Selection of news feeds or searching the web to automatically generate expositions is directed by a human at some point. We do not yet have an AI that is so autonomous as to develop its own goals in "self-awareness."

The generalized components of an ANN system include input of initial training data (possibly labeled by humans), an ANN which connection weights are optimized relative to the training data typically by "gradient descent" (analogous to linear regression in multiple dimensions) resulting in a model to which inputs are provided to be recognized or to generate other output, which may provide further training. Each of these components may be protected by copyright or trade secret law (or both) if it meets the qualifications of that law.

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[3] E.g., DAVID POOLE ET AL., COMPUTATIONAL INTELLIGENCE: A LOGICAL APPROACH 1-2 (1998) ("artificial" has connotations of simulation; human society may have greater intelligence than an individual).

The resolutions advanced here reject the enactment of new law to protect these components beyond existing law, which has not been shown to have failed to protect AI investment or development.

1. **Should a work produced by an AI algorithm or process, without intervention of a natural person contributing expression to the resulting works, qualify as a work of authorship protectable under U.S. copyright law? Why or why not?**

A work produced by an AI algorithm or process, without intervention of a natural person contributing expression to the resulting works, does not and should not qualify as a work of authorship protectable under U.S. copyright law.

U.S. copyright law is derived from the copyright and patent clause in the Constitution (Art. 1, sec. 8, cl. 8) which grants Congress the power to enact patent and copyright laws to "promote progress of science and the useful arts" by providing "authors and inventors" with exclusive rights for a limited time. Although the Framers did not expressly state that authors and inventors were human individuals, there is no doubt that they only considered human authorship and inventorship – as those terms were generally understood at the time. Many legal scholars agree on this principle.[4]

The Copyright Act provides that copyright subsists in original works of authorship fixed in any tangible medium of expression. (17 U.S.C. sec. 102.) Nowhere does the statute state that authors need be human, but it is generally understood that authorship is a product of expression of the human intellect, and this is supported by the case law. In *Burrow-Giles Lithographic Co. v. Sarony*, 111 U.S. 53, 56 (1884), the U.S. Supreme Court defined an author as someone "to whom anything owes its origin; originator; maker; one who completes a work of science or literature" and writing as the process "by which the ideas in the mind of the author are given visible expression." Two decades after *Burrow-Giles,* Justice Holmes expounded on the notion in *Bleistein v. Donaldson Lithographing Co.*, 188 U.S. 239, 250 (1903) by relating it to the innate uniqueness of the human personality, writing that even a "very modest grade of art has in it something irreducible, which is one man's alone. That something he may copyright."

Some argue that the Copyright Act recognizes non-human authorship in the work-made-for-hire doctrine; and it is true in that corporations – legal persons – are deemed "authors" when their employees create works of authorship within the scope of their employment or a contractor

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[4] See e.g., Jane C. Ginsburg & Luke Ali Budiardjo, *Authors and Machines,* 34 BERKELEY TECH. L.J. 343 (forthcoming, pagination in proof), available at https://ssrn.com/abstract=3233885; Annemarie Bridy, *Coding Creativity: Copyright and the Artificially Intelligent Author*, 201 STAN. TECH. L. REV. 5; James Grimmelmann, *There's No Such Thing as a Computer-Authored Work – And It's a Good Thing, Too*, 39 COLUM. J.L. & ARTS 403 (2016)

creates one of nine types of works pursuant to an express agreement that the work is a work made for hire. In both instances however, it is clear from the definition of "work made for hire" that the person creating the authorship is a human employee or contractor. (17 U.S.C. sec. 101.)

The Copyright Office only recognizes and registers human authorship. It states in Compendium III:[5]

> The U.S. Copyright Office will register an original work of authorship, provided that the work was created by a human being.

> The copyright law only protects "the fruits of intellectual labor" that "are founded in the creative powers of the mind." Trade-Mark Cases, 100 U.S. 82, 94 (1879). Because copyright law is limited to "original intellectual conceptions of the author," the Office will refuse to register a claim if it determines that a human being did not create the work. Burrow-Giles Lithographic Co. v. Sarony, 111 U.S. 53, 58 (1884).

In *Naruto v. Slater*,[6] the court held **"**animals other than humans . . . lack statutory standing to sue under the Copyright Act" because "the terms 'children,' 'grandchildren,' 'legitimate,' 'widow,' and 'widower' [as used in the Copyright Act] all imply humanity and necessarily exclude animals that do not marry and do not have heirs entitled to property by law."

AI does not need copyright incentives to create

AI does not need copyright incentives to create. AI systems today are incentivized by the humans that create and use them. There is no reason at this point in time to provide copyright incentives to purported AI authors, other than the incentives already available to the creators and designers of the AI process. As Professor Ginsburg notes:

> "[W]e should not assume that we need copyright-like protection to stimulate the production of authorless outputs. Absent an author, the premise underlying incentive justifications requires substantiation. One must inquire whether these outputs in fact need the impetus of exclusive rights, or if sufficient incentives already exist, for example higher up the chain, through copyright or patent protection of the software programs, patent protection of the specialized machinery to produce different kinds of outputs, and copyright protection of the database the software consults. Trade secrets and contracts may also play a role in securing the outputs."[7]

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[5] U.S. COPYRIGHT OFFICE, COMPENDIUM OF U.S. COPYRIGHT OFFICE PRACTICES § 306 (3d ed. 2017)

[6] No. 16-15469, 2018 WL 1902414 (9th Cir. 2018), at 6-7

[7] Ginsburg, *supra* note 1, at 114-115

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Sui generis protection

Some have suggested creating a sui generis or modified copyright (e.g., limited term) form of protection for AI created works to encourage companies that create AI to do so. Such protection might have a limited term and provide only certain rights. At this point, the examples of truly AI-created expression are few and far between. Most of the original, copyrightable expression in AI today is created by the software that the AI developer builds or by the end users of an AI software/machine that provides tools for further creation. It is not at all clear that special incentives for AI are currently needed to create original expression by providing *sui generis* protection for works that might be the output of AI processes. If in the future, that turns out not to be the case, sui generis protection can be reevaluated.

In sum, the Section does not believe there is a basis under U.S. copyright law to allow AI to be considered "authors" and believe that it is premature to consider a sui generis form of protection for AI created works.

2. **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? For example, should it be sufficient if a person (i) designed the AI algorithm or process that created the work; (ii) contributed to the design of the algorithm or process; (iii) chose data used by the algorithm for training or otherwise; (iv) caused the AI algorithm or process to be used to yield the work; or (v) engaged in some specific combination of the foregoing activities? Are there other contributions a person could make in a potentially copyrightable AI-generated work in order to be considered an "author"?**

Copyright subsists in any "original work of authorship" fixed in tangible medium. (17 U.S.C. § 102.) Works of authorship are copyrightable, not the isolated aspects identified in question No. 2 unless they are self-standing works. See Compendium III, at § 501.3.)

There are two potentially copyrightable types of works at issue: (1) works created in designing, training or implementing AI, and (2) works generated by AI processes. The first will generally include software programs and database compilations – but only to the extent they can be considered separable copyrightable "works."[8] AI includes a broad range of types of systems and the types of works embodied in or generated by AI systems are far-ranging. As such, it is difficult to generalize, and the Section has had insufficient time to respond to this NOI to craft a response that goes into any detail as to the types of works that may be embodied in or implicated

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[8] For an explanation of what constitutes a "work of authorship" see COMPENDIUM (THIRD) § 501.3

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by AI systems. That said, some broad generalizations can be made about the potential range of AI activities and their implications for copyright law.

First the algorithms or processes in #'s (i) and (ii) are not copyrightable as they are processes excluded under Section 102(b) of the Copyright Act. However, there may be software code that enables machine learning models, for example, or otherwise accompanies the processes that is copyrightable. A person that created the code would be an author of that identifiable work and, if original, it would be copyrightable. If another person contributed copyrighted material to the code, they could be a co-author of a joint work.[9]

A person in #3 that "chose data used by the algorithm for training or otherwise" might have created a compilation with original selection and possible arrangement[10] and, if so, would have copyright authorship of the underlying dataset as compilation. 17 U.S.C. §103.

A person who caused AI to yield a new work might be a creator. For instance, a person using AI to create a new song or image, or to enhance or create a mashup of existing images, absent a contract to the contrary, would own copyright in the output. The copyright in the new work would not extend to the code that helped generate the new work or any existing work ingested to train the AI.

In sum, a person could make contributions to AI that would be copyrightable, and authorship would reside in the persons who created an identifiable copyrightable work. If there are multiple contributors that are not all employees of the same work for hire employer, then they will be joint authors. By way of illustrative example, the popular video game MineCraft, which allows its players to create their own worlds, does not vest copyright in the programmers of the game unless re-assignment back to the game owners is stipulated in the licensing.

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?**

It is unclear whether existing fair use framework adequately addresses the legality of using copyrightable material for purposes of training AI algorithm and processes. At the outset, a distinction must be made between 1) "ingestion" of copyrighted material for the purpose of training an AI algorithm or process to perform a task or function that does not result in

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[9] For an explanation of "joint work" see COMPENDIUM (THIRD) § 505.1

[10] The selection and arrangement of the data in this scenario would have to be non-obvious to satisfy *Feist*'s "modicum of creativity" requirement.

expressive activity (for e.g., training an AI algorithm or process on maps or photographs for car navigation and autonomous driving; and 2) "ingestion" of copyrighted material for the purpose of training an AI algorithm or process to emulate expressive activity (for e.g., using contemporary popular music to train an AI algorithm or process to render a song).

In the former, where the AI algorithm or process is not generating expressive output—and to the extent transient copies of copyrighted material are made for the purpose of AI training and/or a transformative use such as a searches, analysis, indexing, and text-mining—the current fair use framework can be used to make that determination. When copyrighted materials are used to train an AI or algorithm or process to produce expressive works, legislative clarity is needed to adequately protect the exclusive rights of copyright owners whose works are ingested by the AI algorithm. This is because AI has the potential to generate large volumes of commercially viable expressive works—such as music, text, and even video content—that will invariably compete with, and quite likely depress the market for human authored works. Strong opinions exist that it is imperative that human authors whose works are ingested by AI algorithms and processes to generate commercial expressive works have the right to deny permission for such uses or receive remuneration for such uses.

The current fair use framework directs courts to consider 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.

While the current fair use framework has enough flexibility to allow courts to determine whether a given use is legal, it has a number of practical limitations. First—and most obviously—copyright litigation is cost-prohibitive for most individual creators. Second, judicial determination can lead to divergent results and outcomes, thereby necessitating even more litigation. With respect to AI specifically, the various ways in which AI can ingest and use copyrighted material are not yet fully apparent. Suppose an AI is trained on images of popular children's cartoon characters (assume no unauthorized reproductions are made in connection with this training and the copyright owners have licensed the display) to generate its own character, which then becomes enormously successful. The AI, in this case, has learned from the original conception, style, and execution of human authors, but it has not appreciably copied any elements; instead, it has learned, for instance, that successful children's cartoon characters have fur and snouts, and rendered its own version of these features. Under the current fair use factors, even if factor four weighs heavily against fair use, the negligibility of any amount or portion used in relation to the whole, might convince a court that the AI generated character is fair use.

Further, if an AI learns the pattern effectively, the pattern could be commercially disseminated to such an extent and at such a high volume that human created cartoon characters are crowded out of the market entirely. This has the potential to discourage human creators and greatly impede the "progress of science and the useful arts" in so far as authors will lose the incentive to create.

Historically, technology has developed at a much rapid pace than the law. It is therefore imperative to consider now the need for adequate safeguards to mitigate future risks. Recognizing the legal uncertainty around data and text-mining uses, the EU Copyright Directive, for instance, states that "In certain instances, text and data mining can involve acts protected by copyright, by the sui generis database right or by both, in particular, the reproduction of works or other subject matter, the extraction of contents from a database or both which occur for example when the data are normalised in the process of text and data mining. Where no exception or limitation applies, an authorisation to undertake such acts is required from rightholders."[11]

The Directive excludes archival, research, educational, and non-commercial uses from the remuneration provisions. Nevertheless, the Directive adds much-needed clarity and definition to the boundaries of use without authorization and permission, something which is currently lacking in the U.S. fair use framework.

Opinions differ on whether current applications of the fair use doctrine, and current theories of infringement (particularly with regard to distinguishing between an author's "ideas" or "style" and the copying the author's expression) is sufficient to address these concerns. Although consensus was not reached on the need for a resolution, greater consideration of these issues, including the need for legislative action, may be warranted.

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 unclear whether current laws for assigning liability for copyright infringement are adequate to address a situation in which an AI process creates a work that infringes a copyrighted work. As noted in response to question 2, AI encompasses a broad swath of existing and to-be-developed systems and tools. If an AI process infringes a third-party work because of the direct acts of the AI developer that person would generally be deemed the infringer; and if the infringement results from acts of the end user of the AI, then the end user would be liable. However, under the doctrine of volition in copyright law, it will not always be clear that there is a user that had sufficient volition to be a direct infringer. Moreover, the case law on secondary liability is sufficiently mixed that is it not clear when the AI creator would be deemed liable as a

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[11] Directive 2019/790/EC of the European Parliament and of the Council of 17 April 2019 Relating to Copyright and related rights in the Digital Single Market and amending Directives 96/9/EC and 2001/29/EC, 2019 O.J. (L 130/92)

contributory infringer for inducing or otherwise causing the infringement or as a vicarious infringer because they benefit financially from the infringement and can control it. The Section does not believe existing case law is prepared to address the types of infringement that AI will be capable of creating and causing. At the same time, the Section believes it is premature to amend the law. We need to first better understand and even see the technologies of the future before we can create new rules.

As the use of AI grows and AI begins to be capable of creating infringing works (aside from the copying used to train AI which is discussed in response to Question 3), it will, however, be extremely important to create clear rules of liability and not allow the AI creators and users to escape liability so that copyright owners have no recourse.

Scenarios at the extreme—where intent and purpose have only one possible interpretation—might be addressed under existing law. For instance, if AI is created to be used solely for infringing purpose, under the *Napster* and *Grokster* decisions[12] the creators of the system could be held liable. But if the AI is capable of other substantial non-infringing uses, then under *Betamax*, the purveyor of the AI technology cannot be held liable for potential infringement by its users, unless inducement is found.[13] Further, the types of volitional act considered under the *Cartoon Network*[14] decisions and its progeny might allow the creators and publishers of AI systems used to infringe to escape direct liability. At the other side of the coin, the human user will not always have the volition required for all acts to be directly liable. This is an area of law rife for abuse if not addressed with a clear policy and legal rules.

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?**

As described in response to Question 2, there is nothing under U.S. law to prevent an entity from being an owner of copyrightable works that are part of AI systems or are created by persons using AI as a tool. Copyrights in AI related works are assignable to entities just as any other copyrights are under Section 201(d) of the Copyright Act.

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[12] *A&M Records, Inc. v. Napster, Inc.,* 239 F.3d 1004 (2001); *Metro-Goldwyn-Mayer Studios Inc., et al.,* 544 US 903 (2005)

[13] *Sony Corp. of America v. Universal City Studios, Inc.,* 464 U.S. 417 (1984)

[14] *Cartoon Network, LP v. CSC Holdings, Inc.,* 536 F.3d 121 (2d Cir. 2008)

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

Please see responses to question 3 and 4.

First, it is crucial to bear in mind that the principal goal of copyright is to incentivize creators to create and disseminate. Our founders understood the fundamental importance of original expression to a democracy and they put copyright in the Constitution to ensure that our economy would promote and protect authorship, recognizing the extreme importance of free expression to a democracy.

AI brings mind-bending alterations to that vision. It is completely possible that, without a clear understanding of the potential of AI, and clear policy and laws based on that understanding, that AI will replace human expression in many creative fields. This is not hypothetical but is just beyond the horizon in the same way that we now know we may wake up one day soon to glacier melt that has raised ocean levels to the point that cities around the world are flooded. One thing that is beyond question is that every human civilization since the beginning of recorded human history and beyond has used artists' expression as a way to understand our world and to cope. In a world as complicated as ours, we need humans trained in the arts to help us translate our experiences.

7: **Would the use of AI in trademark searching impact the registrability of trademarks? If so, how?**

The Section considers that the answer to whether the use of AI in trademark searching would impact the registrability of trademarks must be bifurcated such that we consider the use of AI in trademark searching by potential or actual trademark owners separately and apart from the use of AI in trademark searching by examining attorneys or other USPTO personnel.

With regard to trademark owners, the Section considers that AI could be used to more objectively evaluate the risks of adoption of a mark and in particular the risks of refusal by the USPTO based on a likelihood of confusion with one or more prior registrations. Stakeholders could utilize AI to compile data on refusals issued by the USPTO as well as on decisions by the Trademark Trial and Appeal Board and the courts (as is done for example by Darts-IP) in order to arrive at a more objective assessment of the likelihood that an Examining Attorney would refuse the proposed mark based on one or more prior registrations. Decisions to proceed or not to proceed with filing a U.S. trademark application for a particular mark may be made more quickly and may be better informed if driven by a more objective risk assessment. The Section considers that AI is an appropriate supplement, but not a substitute for the human judgment of in-house attorneys, paralegals, and their outside counsel. One consequence of wide adoption of the use of AI in this manner may be an overall reduction of the number of applications filed, particularly those that are

more likely to receive a §2(d) refusal, and consequently, reduction of the burden on the USPTO examination division and increase in the confidence of applicants. AI may also aid potential trademark owners in identifying marks that are less likely to be refused.

Turning to the use of AI in trademark searching by the USPTO, the Section considers that AI is an appropriate supplement but not a substitute for the human judgment of Examining Attorneys. The Section recognizes that AI could be helpful in achieving greater consistency than currently exists between different Examining Attorneys and possibly reduced workload on the USPTO's human resources. Indeed, AI could likely be employed to identify and address inconsistencies between Examining Attorneys in how they determine whether a likelihood of confusion may exist. For example, the USPTO could utilize AI to look at the frequency in which other Examining Attorneys refused an application, say for a mark comprising 5 letters, based on a prior registration for a mark comprising only the identical first 3 letters and covering identical goods or services. Nonetheless, the Section is concerned that the early use of AI, whether to issue refusals directly or to consider their withdrawal, without human involvement, or to otherwise determine the outcome of an evaluation of a likelihood of confusion may be too rigid and not allow for the subjective relative weights of different factors that play a role in the outcome.

The Section further considers that AI in trademark searching would not have the same impact for all kinds of trademarks. Instead, the Section believes that the impact may be greater in relation to searches for word marks or composite marks having literal elements, for which data may be more readily available and similarities and differences may be more readily discernible, than for device marks, sound or scent or other non-traditional marks, trade dress, or certification marks. With regard to device marks, AI could be used to compare images on a pixel-by-pixel level in order to determine that there is a likelihood of confusion with a prior registered mark.

The Section does, however, recognize that AI could be particularly useful in aiding Examining Attorneys to find potentially fraudulent or digitally altered use specimens through evaluation of meta-data and comparison of images on a pixel-by-pixel basis, which Examining Attorneys may not be readily able to discern with the naked eye or without the benefit of having reviewed other cases in which the same or similar use specimens were submitted. Again, while AI may be helpful in informing human Examining Attorney so that they may take appropriate action, the Section doubts that AI could or should be relied upon as a substitute for subjective judgment.

8. How, if at all, does AI impact trademark law? Is the existing statutory language in the Lanham Act adequate to address the use of AI in the marketplace?

The Section considers that AI has no significant impact on trademark law at present, but that it could be used in ways that do ultimately impact trademark law. The Section considers there to be minimal need, if any, to modify the Lanham Act to address the impact of AI on trademark law.

One possible area in which AI may have an increasing impact is where Applicants provide products or services through AI. The Trademark Trial and Appeal Board in In re Ancor Holdings, 79 USPQ2d 1218, 1221 (TTAB 2006) noted that "blurring between services and products that has occurred with the development and growth of web-based products and services" (see also TMEP 1301.02(f)). The Section considers that the use of AI by Applicants to provide non-software services may increase the frequency of this blurring, making it more difficult for Applicants and Examining Attorneys to readily determine that a trademark has been used in commerce as a source identifier for the underlying services other than for software services. This may warrant amendments to the Lanham Act and/or the Nice Agreement to differentiate between software as a good or service and the underlying service provided by the software. There may also be a need to clarify that AI software, without the involvement of a human actor other than to program and maintain the software, can use a trademark to provide a non-software service, and therefore that AI software can infringe the trademark rights of other parties. Recognizing the possibility that AI software may be used to brainstorm, clear, and adopt a trademark and also provide the underlying service under the selected mark, one can imagine early failures of AI software to identify or consider prior common law uses that would support a claim that the AI software itself (or its programmer) actually infringes on another party's trademark rights.

Some of the Section's members additionally wonder about the use of AI to evaluate translations and transliterations, to identify infringement and dilution online through image searches, and to create, test, or validate surveys. The Section recognizes that AI may have many applications in trademark law, including those mentioned above, but considers that it is premature to comment on these specific uses of AI.

9. How, if at all, does AI impact the need to protect databases and data sets? Are existing laws adequate to protect such data?

Expert system AI often relies on databases and data sets that are protected by non-disclosure agreements and other trade secret protection devices. The same has been true with the databases and data sets used by neural-network AI, which typically are the training data, the labeled training data (for supervised learning), the input data for the resultant model and the output from that model.

However, contractual allocation of "ownership" (control) of databases or data sets exposed in publicly-facing situations (such as on a publicly-accessible web page) is less certain. Although it is arguable that "clickwrap" terms of use (and bot-notices) can be given effect, even such access-control laws as the Computer Fraud and Abuse Act, has been given effect inconsistently by the various regional circuit courts of appeal. The Section does not take a position on the appropriate resolution of these questions.

To comply with privacy, product safety, anti-discrimination laws and the like, it may be that access must be given to the public (or a proxy) for review and possible testing (for example of

training data that is suspected of wrongful bias). However, limitations of reproduction can be contracted for and enforced by courts or agencies with jurisdiction.

There does not appear to be a need for a sui generis database protection law such as provided in Directive 96/9/EC of the European Parliament and the Council of 11 March 1996 on the legal protection of databases, 77 O.J. 20 (March 27, 1996). The United States has taken the position that its Copyright Law complies with TRIP Article 10(2) (Compilations of Data), and Congress has not enacted a database protection law notwithstanding multiple introductions over the decades. The Section had made comments relative to the 1992 proposed EC directive, but has never supported enactment of a law following the 1996 actual directive and resolves at this time to oppose U.S. adoption of a sui generis law for protection of AI data sets and databases.

10. How, if at all, does AI impact trade secret law? Is the Defend Trade Secrets Act (DTSA), 18 U.S.C. 1836 et seq., adequate to address the use of AI in the marketplace?

Use of AI in the marketplace presents a variety of considerations for application of trade secret law as other information technologies but does not by itself warrant change to trade secret law.

The Defend Trade Secrets Act of 2016 (DTSA) amendments to the Economic Espionage Act of 1996 (EEA), applying a Uniform Trade Secrets Act (UTSA) private cause of misappropriation to EEA-defined trade secrets (and ownership), while not a perfect fit, supplemented if necessary by state UTSAs, protect adequately the operative components of AI systems, including rules-based expert systems and neural-network deep learning systems (with the generic training data, labeling, neural-network-building programs, resulting models and inputs to and outputs from resulting models) – so long as rights to the components are properly defined by confidential relationship (for example by contract) between parties having access to the information and the information is reasonably protected against disclosure to other parties.

Application of AI to deconstruct a public-facing (or other legitimately accessed) model or output data would not be actionable under the DTSA or UTSA. However, other laws, such as the Computer Fraud and Abuse Act, have been applied to prevent "scraping" of publicly-facing data through application of terms of use that bar such use. The Section has not embraced a policy supporting or opposing such application.

Nor has the Section adopted a policy supporting or opposing requirements of privacy, product safety or other laws that may mandate third-party or public access to AI data or algorithms.

11. Do any laws, policies, or practices need to change in order to ensure an appropriate balance between maintaining trade secrets on the one hand and obtaining patents, copyrights, or other forms of intellectual property protection related to AI on the other?

The Section has not identified changes necessary for "an appropriate balance" between maintaining trade secrets and other intellectual property protection related to AI, different from continuing questions of balance between trade secrets and other intellectual property protection. The America Invents Act, for example, eliminated the patent enforcement effect of failure to disclose "best mode" in a patent application and protecting it instead as a trade secret. Copyright Office practice for decades has allowed the withholding of source code from deposit and visibility to the public and its maintenance as trade secret. The Section takes no position on changes.

Nor does the Section take a position relative to the anti-scraping laws discussed in response to Question #10 or the accessibility of AI data and algorithms for compliance with privacy or product safety laws.

Nor does the Section take a position here on those aspects of copyright protection for computer programs under review by the Supreme Court in Google LLC v. Oracle America, Inc.

12. Are there any other AI-related issues pertinent to intellectual property rights (other than those related to patent rights) that the USPTO should examine?

Other than the issues identified in the preceding responses, the Section is aware of no such issues.

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)?

In addition to the foreign law described above, there is the U.K. Copyrights, Designs and Patents Act of 1988, ch. 48, section 9(3):

In the case of a literary, dramatic, musical or artistic work which is computer-generated, the author shall be taken to be the person by whom the arrangements necessary for the creation of the work are undertaken.

Some members of the Section's reviewing team expressed a desire to follow Article 18 (Principle of appropriate and proportionate remuneration) of European Union Directive 2019/790 on copyright and related rights in the Digital Single Market (L 130) 92, 121 (April 17, 2019):

1. Member States shall ensure that where authors and performers license or transfer their exclusive rights for the exploitation of their works or other subject matter, they are entitled to receive appropriate and proportionate remuneration.

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The ABA-IPL Section appreciates the opportunity to provide feedback to the Office on the Request. ABA-IPL looks forward to further dialog with the Office with regard to the issues raised above.

Sincerely,

George W. Jordan III
Chair, ABA Section of Intellectual Property Law