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Submitted via Email: AIPartnerships@uspto.gov

Andrei Iancu
Under Secretary of Commerce for Intellectual Property
and Director of the United States Patent and Trademark Office
United States Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450

Re: Request for Comments on Intellectual Property Protection for Artificial Intelligence Innovation, Docket No. PTO-C-2019-0038, 84 Fed. Reg. 58141, pp. 58141-42 (October 30, 2019)

Dear Director Iancu:

The Entertainment Software Association¹ (“ESA”) welcomes the opportunity to respond to the U.S. Patent and Trademark Office’s (“USPTO”) request for comments on what the impact of artificial intelligence (“AI”) technologies on intellectual property law and policy and whether revisions to intellectual property protection are needed. ESA’s comments in response to the Federal Register notice (“FRN”) focus solely on the portion of the document on copyright and support the view that no changes to U.S. copyright law are warranted at this time. We appreciate the USPTO’s thoughtful formulation of complex questions on copyright. However, because AI technologies are still evolving and recognizing that how those technologies are utilized by ESA members also change in tandem, we encourage the USPTO to refrain from making or recommending changes to either law or policy on the interplay between AI and creative works until the technologies mature and surrounding legal and policy issues come further into focus. We also think that this core principle applies equally to trademarks and trade secrets.

¹ ESA is the U.S. trade association for companies that publish interactive entertainment software for video game consoles, handheld devices, personal computers, and the internet. Our members not only create some of the world’s most engaging interactive experiences for consumers, but also develop novel technologies that are at the cutting edge, such as virtual, augmented, and mixed reality hardware and software as well as the latest consoles and handheld video game devices.

About the Industry

The U.S. video game industry has been growing steadily as consumers are presented with an array of choices on how to play and interact with their favorite games. In 2018, the industry generated \$43.4 billion in total revenue, with consumers spending \$35.8 billion on software, downloadable content and subscriptions,² up from \$29.1 billion in 2017.³ Also in 2018, consumers spent a total of \$5.1 billion on video game consoles and \$2.4 billion on accessories and virtual reality hardware,⁴ up from \$4.7 billion and \$2.2 billion in 2017, respectively.⁵ Video game companies added more than \$11.7 billion in value to U.S. GDP in 2017 and employed more than 220,000 workers across all fifty states.

As an industry at the forefront of creativity and innovation, it relies on the strong protection and enforcement of copyright. One prominent example of innovation in interactive entertainment software is the use of AI processes in video games. Neural networks, deep learning, object recognition, image understanding and reinforcement learning are all techniques employed to provide engaging gameplay experience for gamers. In video games, elements of AI are being used to generate responsive adaptive or intelligent behavior such as, for example, demonstrating human-like intelligence in game characters. Deep learning algorithms can also be used to render video content, which can then be combined with a game engine to create a hybrid graphics system for use in a video game or a motion picture. As AI technology matures, our industry will continue to incorporate innovations in computer vision, speech, audio and natural language processing into video games, all of which are important in virtual and augmented reality games, and which are used to improve the gaming experience for disabled gamers.

Comments

Our comments center on broad themes and principles we think stands the U.S. government in good stead when considering whether to take a specific action, such as guidance or recommendations, or next steps. Those principles fall largely into two categories: (1) that current law has demonstrated that it is flexible enough to address the scenarios laid out in the USPTO's questions on copyright and (2) that it is crucial to continue to incentivize creativity and innovation while protecting the legitimate interests of rights holders. We expand, briefly, on those principles below.

²Entertainment Software Association, 2019 ESSENTIAL FACTS ABOUT THE COMPUTER AND VIDEO GAME INDUSTRY, p. 20 available at <https://www.theesa.com/wp-content/uploads/2019/05/2019-Essential-Facts-About-the-Computer-and-Video-Game-Industry.pdf>.

³ Entertainment Software Association, SALES, DEMOGRAPHIC AND USAGE DATA: 2018 ESSENTIAL FACTS ABOUT THE COMPUTER AND VIDEO GAME INDUSTRY, p. 10 available at http://www.theesa.com/wp-content/uploads/2018/05/EF2018_FINAL.pdf.

⁴ Entertainment Software Association, 2019 ESSENTIAL FACTS at p. 20.

⁵ Entertainment Software Association, 2018 ESSENTIAL FACTS at p. 10.

The Law So Far Remains Adequate Given the State of AI Technology

ESA members broadly agree that current U.S. copyright law has thus far proven sufficiently robust and flexible to address novel questions involving nascent technologies, in part because the provisions of Title 17, in our opinion, are elastic enough to address the questions of authorship, ownership, and liability for infringement contemplated in the FRN. Existing statutory and common law doctrines that are based on fact-intensive inquiry are sufficient to address complex questions of access to content/training data, protection and ownership of the resulting output and use. For example, the current law on authorship requires a degree of human intervention in machine-generated works and we foresee that remaining the legal requirement. However, even where creative output is machine-generated, it should not necessarily mean that protection by copyright should be denied; the inquiry, conducted within present statutory frameworks, should be fact-intensive and performed on a case-by-case basis.

Generally, AI technologies are still in their infancy and there is no known instance of a machine-generated creative output without some human intervention and/or direction, and so it is difficult to answer, in a useful way, some of the USPTO's inquiries, which contemplate circumstances that have not yet come to pass. Therefore, it is important that the U.S. government not legislate or regulate ahead of the technology and in anticipation of theoretical (at the moment) scenarios. Imposing legal frameworks in a prescriptive manner that do not accommodate evolving technologies or uses of those technologies before the issues or ramifications are well-understood may instead chill innovation and dis-incentivize creativity.

Maintain the Balance between Protection and Innovation

Video game companies are creators and innovators, who both utilize data and content as input used to train algorithms and machine-learning processes and who develop output, including creative output, as a result of those same AI processes. Creative output may take the form of video games and interactive software experiences that are more dynamic, interactive, and that adapt to gamers' preferences and actions or reactions within the game. As companies that utilize input data and that themselves are the source of such training data,⁶ our members believe that when assessing which policies are most beneficial to the broadest range of content creators and data innovators, it is important that the U.S. government strives to maintain a continuous balance between innovation and protection. With respect to inputs, content and data used to train algorithms and other machine processes, ESA members are satisfied with reliance on licenses and other comparable mechanisms for authorized access to such content and data, with emphasis on contractual freedom to design the terms of access that work best for the parties. With respect

⁶ For example, there are games that provide a virtual environment used to train self-driving or autonomous vehicles.

to creative output, because most machine-generated output still requires human intervention, as mentioned earlier, we think that as long as it meets all the requirements of copyrightability under the law, it should be eligible for copyright protection. If eligible for copyright protection, then creative output should also be protected from unauthorized copying and infringement. We believe that protecting the investments creators have made in producing content using emerging technologies helps maintain that necessary balance thereby incentivizing the creation of more innovative content.

Conclusion

In sum, we thank the USPTO for conducting this inquiry on AI and intellectual property protection but recommend that the USPTO continue careful study and analysis of the responses from stakeholders, the state of emerging technologies and of the law. We also advise that no changes to the law or policy governing copyright are necessary at this time and applaud the U.S. government taking a cautious approach before seeking to reorder the balance of legitimate expectations between stakeholders. Lastly, we would like to express our appreciation and encouragement of the USPTO's sustained collaboration with industry stakeholders as it determines whether any changes are needed with respect to intellectual property law and policy and emerging technologies.

Should the USPTO have any questions or comments concerning ESA's submission, please contact Bijou Mgbojikwe at (202) 223-2400.

Respectfully submitted,

A handwritten signature in blue ink, appearing to read 'Bijou Mgbojikwe', with a stylized flourish at the end.

Bijou Mgbojikwe
Senior Counsel, Intellectual Property and Trade Policy