UNITED STATES QUESTIONNAIRE ANSWERS

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ALAI 2023

Artificial intelligence, copyright and related rights

To National Reporters:

The questionnaire uses the neutral term AI "<u>production</u>" to refer to content generated by an artificial intelligence system. As opposed to the term "work (of the mind)" which is the one that describes the classical object of copyright protection. This means that the content we are interested in is content produced by the artificial intelligence machine (or "system"), itself fed upstream by works of the mind, reproduced in a training data base. The margin of intervention of the final user is thus a priori very limited, but not always non-existent. The hypothesis concerned by this Congress is thus closer to what the ALAI once studied as "computer-generated creations" than to "computer-assisted creations" (see the 1989 Quebec City Congress).

In the mind of the editors of this questionnaire, an "artificial intelligence system" is defined as a computer system that allows, with a certain autonomy, automated decision making or predictions influencing real or virtual environments[2].

The questions raised are numerous because of the disruptive nature of the phenomenon, the multitude of issues and the theoretical, economic and social importance of the stakes.

Some of the questions will undoubtedly be accompanied by brief negative answers, which is already a useful answer for the General Reporters. Simply indicate these ("no", "none").

In other cases, the answers may be uncertain. In these cases, it is easiest to follow the classic pattern: "1) What do statutes and regulations say? 2) What does the caselaw say? 3) What does the national group think? To questions 1 and 2 above, the answer will often be "Nothing specific about AI but the relevant reference text/principle might be ...". Regarding 3), the national group is not obliged to have taken a position.

It is of this uncertainty and diversity that we will try to draw together, in June, a clear picture.

The team of the Scientific Committee (Alexandra Bensamoun, Jane Ginsburg, Silke von Lewinski, Pierre Sirinelli) is of course at your disposal to explain a question that might not seem, because of the particular context, immediately clear.

Thank you all and we look forward to seeing you in Paris.

Note: the questionnaires must be returned by the national groups no later than May 8, 2023. They will be sent to Pierre Sirinelli (pierre.sirinelli@univ-paris1.fr) and Sarah Dormont (sarah.dormont@u-pec.fr).

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[1] Executive Director, Kernochan Center for Law, Media and the Arts, Columbia Law School
[2] *This definition is comparable to the one retained by the European Union in the discussion on the AI Act (proposed regulation COM(2021) 206 final, March 2023 position), itself inspired by the 2019 OECD Recommendation on AI.*

1. Understanding

1.1 - Has your national or regional law adopted a legal definition of AI?

The United States has not adopted a definition of artificial intelligence (AI). It is unlikely that there would be a nationwide definition of the term that was universally adopted and applicable to all uses of artificial intelligence across all areas of the law.

1.2 - Can you provide some examples of current uses of AI and its productions in the cultural sector of your country?

Artificial intelligence has been present in the daily lives of US citizens for years. For example, music services such as Spotify, Pandora and Apple Music assemble playlists for subscribers based on their listening history. Amazon, the country's largest provider of home smart speakers, sold 65 million Echo Smart speaker devices in 2021 alone.[3] Social media platforms such as Facebook and LinkedIn use AI to determine the order in which to present posts, or to suggest potential contacts. Film companies use AI to generate faces and bodies in the background of crowd scenes. Financial institutions use AI to determine if a customer's purchase does not fit a customer's normal shopping expenditures and therefore to trigger a fraud investigation. Facial recognition technology is based on artificial intelligence. Artists use AI to generate works of visual arts (see e.g. the art of Mimi Onuoha and Mike Tyka). Stanford University has just announced an AI algorithm for choreography (although British choreographer Wayne McGregor has been using AI in his compositions for some time). These are but a few examples of the multitude of ways AI is changing American, and world, culture.

Chat GPT is a program developed by Open AI that mimics human conversation and can generate text.[4] It was first introduced in a beta version on November 30, 2022, and the fully-stable version was released on March 23, 2023. In many ways, the program's potential uses are infinite. It has been used to write term papers, computer code and many other text-based works. At the moment, it is trained only on the English language. Other programs, such as Stability AI's image-generation program Stable Diffusion, are equally controversial. Stable Diffusion is a text to image converter that can generate images based on a user's verbal description ("I would like a picture of a squirrel on a surfboard"). The application is currently involved in a number of lawsuits regarding its alleged appropriation of copyrighted works in compiling its training data. In one class action suit, three artists are suing Stability AI, Mid-Journey, and another AI art application called DreamUp created by DeviantArt, for violating their copyrights, rights of publicity and for unfair competition.[5] They argue that these programs copied their works as part of the programs' collection of training data. In doing so, the programs not only allegedly reproduced the works without permission but also removed identifying data from the image files. The artists also allege unfair competition (a state court claim) stating that the programs allow users to purposefully create works in each artist's style thereby hampering

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[3] https://www.bloomberg.com/opinion/articles/2022-11-22/amazon-s-alexa-is-very-popular-so-why-can-t-it-make-money#xj4y7vzkg

[4] https://openai.com/blog/chatgpt.

[5] Complaint, Andersen et. al. v. Stability AI Ltd., et. al., No. 3:23-cv-00201 (N.D.Cal., January 13, 2023), *available at https://stablediffusionlitigation.com/pdf/00201/1-1-stable-diffusion-complaint.pdf.*

the artists' ability to make a living from their work. Getty Images, a photography licensing agency, is also suing Stability AI on the basis of its reproduction of images in Getty's database in the creation of Stable Diffusion's training dataset.[6]

1.3 - (Optional) What are the issues that have been exposed in your country on this subject: stakes, difficulties, orientations, proposals...?

1.4 - Are there any initiatives in your country or region aimed at regulating the use of AI in the cultural sectors?

There is no current legislation pending in the United States. This does not mean that government organizations have not proposed measures to regulate the use of AI. Many of these measures do not focus on cultural sector but are likely to impact it.

For instance, in October of 2022, the Biden Administration proposed an "AI Bill of Rights" with the role of "Making Automated Systems Work for the American People." The proposed rules, if adopted, would apply to all areas of the economy including the cultural sectors. The proposal is divided into five sections addressing some of the largest issues surrounding AI: Safe and Effective Systems; Algorithmic Discrimination Protections (regulating algorithms so they do not discriminate against certain individuals based on race, gender, sexual identification or similar criteria); Data Privacy; Notice and Expansion (mandating that users be notified when AI is being used and how it contributes to outcomes that might impact users); Human Alternatives, Consideration and Fall Back (forcing companies that use AI to make human employees available to customers who ask for such interaction).

Individual states have also introduced legislation (as of the time of this writing, none has been officially adopted). In California, Assembly Bill 331 attempts to (like the AI Bill of Rights) force companies to disclose the use of AI and the decisions it is used to make and ensure any algorithms used do not discriminate against users in violation of their civil rights. Private law firm Alston & Bird has compiled an interactive map which allows users to see states which have either enacted or proposed AI-related legislation.

California, Connecticut, Colorado, and Virginia recently passed general data privacy legislation that will become effective this year. These laws contain provisions governing "automated decision-making," which includes technology that facilitates AI-powered decisions.

While the Federal Trade Commission has not issued any rules regulating AI, the Commission has issued two papers that foreshadow an increased focus on AI legislation.   They are called "Using Artificial Intelligence and Algorithms" and "Aiming for Truth, Fairness and Equity in Your Company's Use of AI."

On October 27, 2022, Senators Thom Tillis (R-NC) and Chris Coons (D-DE) asked Kathi Vidal, Under Secretary of Commerce and Director of the United States Patent and Trademark Office ("USPTO" or "PTO") and Shira Perlmutter, Register of Copyrights at the United States Copyright Office ("USCO") to establish a joint commission on AI no later than October 17, 2023 and that the commission submit a report on potential changes to existing law or new legal frameworks to balance AI-related innovations and creations with existing business models no

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[6] Complaint, Getty Images (US) Inc., v. Stabiity AI, Inc., No. 1:23-cv-00135 (D. Del., Feb. 3, 2023) *available at*, https://aboutblaw.com/6DW.

later than December 31, 2024. In response, the two offices, noting the expense of such a joint commission, began their own AI initiatives. [The House Judiciary Subcommittee on Courts, Intellectual Property, and the Internet](#) held a hearing on May 17 to discuss the interoperability of AI and copyright law.

The USCO and the PTO have not yet issued regulations on the intellectual property aspects of AI, but have provided guidance on the issues. In March 2023, the USCO issued guidance on the registration of materials which included content generated by AI (attached hereto).[7] The guidance states that AI-generated works are not copyrightable as they are not the product of human authorship.[8] The USCO goes on to say that the copyrightability of material "generated by or with the assistance of technology" will be determined on a case-by-case basis.[9] "In the case of works containing AI-generated material, the Office will consider whether the AI contributions are a result of 'mechanical reproduction' or instead of an author's 'own original mental conception, to which [the author] gave visible form."[10] Even if the AI-generated portions of a work are deemed uncopyrightable, the rest of the work may be copyrightable if it meets the requirements set forth under 17 U.S.C. 102. Applicants for registration must, however, disclose any AI-generated component of their work. Failure to do so may jeopardize registration.[11] It is important to note that those who have filed copyright registrations in the past for works which contain any AI-generated material must amend those registrations or risk having them invalidated.[12]

On the same day that this guidance was published, the USCO also announced the launch of a new initiative to examine the relationship between copyright law and AI. The first step in this initiative is the hosting of four listening sessions where the Office will give members of various industries the opportunity to voice their concerns in response to questions posed by Office staff.[13] Following these meetings, the Office will issue a Notice of Inquiry allowing the public the opportunity to offer their thoughts and concerns about the intersection of copyright and artificial intelligence.[14] The Office also launched a new [website](#) dedicated to the USCO's AI initiatives.

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[7] "Copyright Registration Guidance: Works Containing Material Generated by Artificial Intelligence" 88 Fed. Reg. 16190 (March 16, 2023).

[8] The USCO has long held that copyrightability of a work is dependent on there being a human author. See e.g *Naruto v. Slater* (888 F. 3d. 418 (9th Cir. 2018)), *Urantia Found. v. Kristen Maaherra* (114 F.3d. 955 (9th Cir. 1997). *Also see* U.S. COPYRIGHT OFFICE, COMPENDIUM OF U.S. COPYRIGHT OFFICE PRACTICES § 202.02(b) (2d. ed. 1984)., stating that materials produced solely by plants or by animals are not copyrightable because "a work must be the product of human authorship." That edition of The Compendium also states that works "produced by mechanical processes or random selection without any contribution by a human author are not registrable." (§ 503.03(a)). The 2021 Edition of The Compendium (Third) states that the USCO "will not register 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." U.S. COPYRIGHT OFFICE, COMPENDIUM OF U.S. COPYRIGHT OFFICE PRACTICES § 313.2 (3d. ed. 2021).

[9] See n. 3 at 16192.

[10] Id., partially quoting *Burrow-Giles Lithographic Co. v. Sarony* (111 U.S. 53, 60 (1884).

[11] See n. 3 at 16193.

[12] Id. This is of particular concern to artists and members of the audiovisual community who have been using AI in various forms for many years. The Office gave no further guidance as to how far in the past creators needed to go.

[13] The areas represented will be Literary Works, Visual Works, Audiovisual Works and Music and Sound Recordings. More information is available at https://www.copyright.gov/newsnet/2023/1004.html.

[14] Id.

To date, the Office has publicly responded to two registration applications involving a work partially generated by AI. In October, 2022, artist Kris Kashtanova attempted to register their copyright in a graphic novel *Zarya of the Dawn* which combined the artist's written words and pictures generated through the AI app Mid-Journey. In the initial application, Kashtanova did not disclose that any of the work was AI-generated, and registration was approved. Subsequently, the Office learned that the images were produced through Mid-Journey and wrote to Kashtanova's attorneys seeking clarification of the process used to produce the images. Upon receiving that explanation, the Office revoked the registration of the graphic novel, allowing only the registration of the literary work that accompanied the pictures (which was written solely by Kashtanova) and the selection and arrangement of the pictures. On February 14, 2022, the Office affirmed a denial of registration for a two-dimensional artwork created by an algorithm called Creativity Machine.[15] The registration had been filed by an individual, Steven Thaler, for a visual work called "A Recent Entrance to Paradise." He claimed the work was entirely computer-generated and sought to register the work as a work for hire to the owner of Creativity Machine. The Office maintained that Thaler failed to show sufficient evidence of human authorship and that the work did not qualify as a work-made-for-hire as "Congress's use of personal pronouns to refer to the employee's relationship to the employer indicate that Congress intended such employees to be human."   Thaler sued in the District Court of the District of Washington, D.C. alleging that the Office's denial was an arbitrary and capricious agency action. The case has not yet been adjudicated.

The United States Patent and Trademark Office has also begun studying intellectual property issues raised by the increased presence of artificial intelligence in society. The PTO's measures include several opportunities for dialog between the public and the PTO[16]; statements by Kathi Vidal[17]; and PTO reports[18].

2.   *Understanding the upstream*

2.1 - Are the AI system or its components likely to be protected by intellectual property rights (copyright and/or industrial property – patents, trade secrets . . .) ?

The human-authored computer codes used by AI systems are likely protected by America's intellectual property regimes. The programs themselves are copyrightable under 17 U.S.C. 102.[19] Although computer programs are not explicitly mentioned in § 102 (subject matter of copyright), they are defined in section 101, and are the subject of specific exceptions

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[15] *Available at* https://www.copyright.gov/rulings-filings/review-board/docs/a-recent-entrance-to-paradise.pdf.
[16] For example, in February 2023, the PTO issued a Request for Comment that sought public input on the current state of AI technologies and inventorship issues that may arise with the advancement of AI technologies. In April 2023, the PTO has hosted East Coast and West Coast public listening sessions with the same stated goals.
[17] See e.g. "Incentivizing and Protecting Innovation in Artificial Intelligence and Emerging Technologies, » *available at* https://www.uspto.gov/blog/director/entry/incentivizing-and-protecting-innovation-in*.*
[18] See e.g. "Inventing AI: Tracing the Diffusion of Artificial Intelligence with US Patents," OFFICE OF THE CHIEF ECONOMIST   IP   DATA   HIGHLIGHTS   Number   5,   October   2020,   *available   at* https://www.uspto.gov/sites/default/files/documents/OCE-DH-AI.pdf.
[19] For more information on the copyrightability of computer programs, see Circular 61, Copyright Registration of Computer   Programs   (UNITED   STATES   COPYRIGHT   OFFICE,   March   2021)   ,   *available   at* https://www.copyright.gov/circs/circ61.pdf.

in section 117. US courts have ruled that computer code is copyrightable.[20] The systems themselves may be patentable. For an invention to receive a utility patent[21] it has to be nonobvious, novel invention that is either a process, machine, manufacture[22], composition of matter[23], or an improvement of an existing idea.[24] An AI system would be considered a process, which is defined as a process, art or method.[25]

The outputs from AI programs may be copyrightable if they are deemed to have enough human authorship (see answer to Question 1.4 above). The question of whether the data sets that train the machines are copyrightable is unanswered. Whether the training data is copyrightable depends on how it is compiled (i.e. is there sufficient human participation in the selection and arrangement of the data). The data sets however, may infringe the compiled contents and therefore be disqualified from copyright protection (see 17 U.S.C §103(a)).

2.2 - Can rights under copyright be enforced against the use of protected contents by AI training?

Does the insertion of a pre-existing work into the computer system implicate rights under copyright?

By "insertion of a pre-existing work into the computer system," we assume the question refers to training data. And yes, the use of copyrighted works in training data would implicate the right of reproduction[26] if the image or data on the internet was replicated into the program's training data.

There is currently no specific exception for the copying of images, text or other data for use in training an AI program. Assuming the source works are copied in some form, the AI system would be committing a prima facie infringement of the reproduction right, and perhaps other rights as well. There is, however, considerable uncertainty over the extent to which AI systems copy the source materials in order to create training data. Any copying could, of course, be covered by existing exceptions and limitations (such as fair use) should a court deem all predicate conditions met for such an exception or limitation. To date, there have been no judicial decisions about this issue. The cases referred to in our answer to Question 1.2 may be the first cases on this issue to be adjudicated.

2.3 - In your country, are there any proposals to change the law and in which direction?

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[20] See e.g. *Computer Assocs. Int'l v. Altai* (982 F.2d 693 (2d Cir. 1992) and *Google LLC v. Oracle America, Inc.,* 141 S.Ct. 1183 (2021).

[21] There are three different types of US patents: utility patents, design patents and plant patents. Design patents cover new and original designs that decorate a manufactured article (such as a new shape for a bottle) that doesn't change the functionality of the underlying item. Plant patents cover novel and nonobvious reproducible plants. Design patents filed after May 13, 2015 have a term of 15 years. The statutory term for utility and plant patents is 20 years from the application date.

[22] A manufacture is an object without working or moving parts (but can contain electronic circuits). Some examples are chairs or containers.

[23] A composition of matter is a category of patentable items that includes chemical compositions, drugs, and fuels, among other things.

[24] 35 U.S.C. § 101.

[25] 35 U.S.C. § 100.

[26] 17 U.S.C. § 106.

> **For example, by deeming that the incorporation of preexisting works into AI systems does not create an actionable "reproduction" of the works? Or by creating a new exception? Or by implementing a compulsory licensing system? Other solutions?**

As mentioned above, the US has not adopted any legislation that would add new exceptions and limitations nor have lawmakers proposed or adopted a compulsory licensing system.

Some government organizations have projects aimed at stabilizing the public's trust in AI. The National Institute for Standards and Technology (NIST) published an AI Risk Management Framework (AI RMF) which aims to assist those organizations designing and implementing AI systems manage risk and promote trustworthy and responsible development. Some of these goals involve intellectual property rights. For instance, the AI RMF aims to maintain the provenance of training data and ensure platforms follow any applicable IP laws.[27] On March 30 the AI RMF launched the Trusted and Responsible AI Research Center, an online site which aims to develop and employ responsible and trusted AI protocols.

2.4 - Do the "terms of service" of the platforms available in your country authorize the copying and storage for the purpose of constituting "training data" and the creation of "AI outputs" of the works posted by the users of the platform? If so, give examples of the relevant Terms of Service.

Platform Terms of Service grant very broad non-exclusive rights to the platforms. These licenses may well be broad enough to authorize the platform to offer user-posted content as training data. For one example of terms broad enough to authorize AI inputs, see the Twitter TOS:

Twitter

By submitting, posting or displaying Content on or through the Services, you grant us a worldwide, non-exclusive, royalty-free license (with the right to sublicense) to use, copy, reproduce, process, adapt, modify, publish, transmit, display and distribute such Content in any and all media or distribution methods now known or later developed (for clarity, these rights include, for example, curating, transforming, and translating). This license authorizes us to make your Content available to the rest of the world and to let others do the same. You agree that this license includes the right for Twitter to provide, promote, and improve the Services and to make Content submitted to or through the Services available to other companies, organizations or individuals for the syndication, broadcast, distribution, Retweet, promotion or publication of such Content on other media and services, subject to our terms and conditions for such Content use. Such additional uses by Twitter, or other companies, organizations or individuals, is made with no compensation paid to you with respect to the Content that you submit, post, transmit or otherwise make available through the Services as the use of the Services by you is hereby agreed as being sufficient compensation for the Content and grant of rights herein.

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[27] AI RMF at 16.

2.5 - Are you aware of the conclusion of individual or collective licenses on this point? If yes, in which fields of creation? Under what conditions? If so, give examples.

As of now, collective licensing agencies such as Copyright Clearance Center and the American Society of Composers, Authors and Publishers (ASCAP) have not adopted policies regarding the licensing of material containing AI.

3. Using AI as a tool for rights management and administration

3.1 - To what extent is AI used to locate or identify protected content, to moderate it, or even to fight against infringement?

AI is used by every search engine in processing user inquiries. It is used by music services such as Pandora and Spotify to suggest songs which reflect customers' previous choices. Both these examples will often lead to content protected by intellectual property regimes.

The only initiative that we know that fights against infringement is Glaze which attempts to use AI technology to protect works of visual art posted on the internet from being used as training data by visual arts AI platforms.

3.2 - If computer tools are used for this identification, are there rules to allow the evaluation of the tools used in order to verify the relevance of the results produced by the AI system? (For example, in the framework of the European Digital Services Act, platforms have an obligation of transparency, notably on the tools used and the results they produce - art. 15).

To our knowledge, there is no such federal legislation in the United States, although it is widely known that these programs utilize AI. California's proposed law (mentioned in Question 1.4) does mandate platforms disclose the use of AI.[28]

> **If the answer is yes, are these rules derived from practice (usages, contracts, softlaw...) or imposed by legislation or regulation, or by case law?**
>
> Since there is currently no legislation or regulation addressing using AI to locate protected content, any such uses of AI are governed by industry standard. This could, however, change very quickly as the legal landscape in the US involving AI is evolving rapidly.

3.3 - To what extent is AI used as a tool to recommend protected content? For example, the proposal of "playlists" by Pandora or any other online communication service making recommendations of works.

Please see our answer to Question 3.1 above.

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[28] « An Act to Add Chapter 25 (commencing with Section 22756) to Division 8 of the Business and Professions Code, relating to artificial intelligence , » (A.B. 331, CA 2023) *available at https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=202320240AB331* .

3.4 - Should we fear, through this recommendation, a risk of dilution of contents and revenues due to a possible opacity of the system?

We are somewhat unclear as to what this question is asking. We do know that revenues are potentially impacted by the use of AI. For instance, if images are scraped online for use in training data and then those images are used to generate new works which may look similar to the original work, the market for the original work may suffer.

3.5 **- Does your national or regional law contain transparency obligations on the use of an AI system for rights management in your national or regional law (e.g. the European Digital Services Act)? What are they?**

We are somewhat unsure of how to differentiate this from Question 2.4 where we have either quoted or linked to the Terms of Service for the major social media platforms used in the United States.

3.6 - In general, do these tools have to comply with rules in terms of product safety or conformity? Are there procedures for certification of these tools by an authority or by professional associations? Are suppliers subject to specific due diligence obligations?

We do not understand what you mean by these questions, but we can say that there are no laws regarding the certification of AI technologies in the United States.

Artificial intelligence and literary and artistic property

The contours of protection

The status of AI Outputs

1.   Access to protection

- *Characterization of the AI output as a "Work" of authorship*

Note: If an AI output has all the external aspects of a work of authorship, is it possible to consider it as a work of authorship protected by copyright?

4.1 - Does a "Work" always imply the presence of a physical person?

We do not have a legal definition of the word "work." Furthermore, we are unsure what is meant by "the presence of a physical person." To the best of our knowledge, there is not yet any form of Artificial Intelligence that operates without any human guidance. Therefore, all work product involves some human interaction, although that may be tenuous. For instance, an AI program can generate work product after being told the general parameters of the work product through human input. We are unsure if that counts, for purposes of this survey, as the presence of a physical person.

According to the guidance issued by the USCO, a work is not eligible for copyright protection if there is inadequate evidence of human authorship. Please see our answer to Question 1.4, especially Footnote 7.

4.2 - From what threshold is it possible to consider that there is a human intervention giving rise to an original work in the realization of an AI output? What types of intervention would allow to know if this threshold has been crossed?

How much human intervention is "enough" for copyright purposes is now evaluated on a case-by-case basis. The artist Kris Kashtanova has submitted another registration application for a work called "Enigma Rose." In a letter accompanying their application, they noted all the aspects of human intervention that occurred in the production of this work. These include the initial drawing; uploading the image to an AI platform and providing the platform including guidance on lighting and shading, design and coloring; a textual prompt ("a young cyborg woman (((roses))) flowers coming out of her head, photorealism, cinematic lighting, hyper realism, 8 k, hyper detailed"); instructions on how closely to hew to the artist's intent; and the number of times the program (Stability AI) should check its generative product against all the criteria listed above before actually generating the work. This application was submitted in March, 2023, and is attached (see Appendix). By emphasizing the myriad measures the applicant employed to constrain the output of the AI program, the application endeavors to cross the unspecified threshold of human contribution requisite to deeming the output a work of authorship. The USCO has not yet issued a decision.

4.3 - How can we distinguish between AI-assisted outputs and outputs generated by an AI?

The USCO is revising its guidance on registration to ascertain whether the work was made with the use of AI tools and, if it was, the extent of the human author's contribution relative to the machine-generated outputs). As of now, there are few ways other than author declaration to determine whether or how much AI was used in the creation of an alleged work. Adobe, Stability AI and many other companies are jointly working on an initiative called C2PA which they say is an effort to "address the misleading information online through the development of technical standards for certifying the source and provenance of media content."[29] This software would identify when a work has AI-generated components. There are, potentially, other such initiatives under way about which we are not aware.

4.4 - In some countries, it is asserted that there can only be a work of authorship if the form obtained is the result of creative work by the author in the sense that the latter is aware of the result (work) he wants to achieve even if this result is a little different from his hope/expectations. This requirement, for example, would exclude the quality of author of a person deprived of discernment (for example, an insane person, a very young child, a somnambulist...) or would entail the refusal of protection of a production which would be only the fruit of random forces.

> *Does this condition exist in your country?*
>
> *If so, is it a statutory or administrative requirement? Does it derive from caselaw? From secondary authorities (e.g. academic writings)?*

The Copyright Act does not mandate that an author of a creative work have intended a particular result from his effort in order for the work to be eligible for copyright protection. Many photographers take a series of photos at a live performance hoping to catch an important or unique event, but unsure of what they have in fact captured until they look at their images. It

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[29] https://c2pa.org

is not necessary that the author know in advance exactly what images the camera will capture. See e.g. *Time v Geis*[30] (concerning Abraham Zapruder's film of the John F. Kennedy assassination; Zapruder intended to film the parade and could not have anticipated that the assassination would take place just as the parade filed past his camera). That said, courts have ruled that if the role of random forces in the work's generation supersedes any control by the putative author, the result is not a protectable "work of authorship."[31]

4.5 - Are the criteria traditionally considered to be irrelevant (such as merit, or purpose) taken into account in the framework of protecting an AI output?

As of now, these criteria have not been considered when determining the copyrightability of an AI output.

Characterization of a performer's performance

4.6 - In order to be vested with a neighboring right, does the performer necessarily have to be a natural person?

> **In other words, is an "interpretation" from an artificial intelligence protectable under neighbouring rights?**

We do not have neighboring rights in the United States, but, as discussed above, in order for a work to be eligible for copyright protection, the author (in this case, the performer) must be human.

4.7 - In order to be vested with a neighbouring right, must the performer necessarily interpret a work created by a natural person?

> **In other words, is the interpretation, by a human being, of a production of artificial intelligence protectable under neighboring rights? (Suppose an AI-generated musical composition: if performed by a human being, would the performance be protectable?)**

The US does not have a separate regime of neighboring rights. A human actor's performance in an audiovisual work may make her a co-author of the work (though, as a practical matter, the performances are likely to be works for hire). There is no apparent reason for excluding the performance of an AI-generated output any more than the law would exclude protection for the recorded performance of any other public domain work.

If the AI output does not qualify for copyright protection

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[30] Time, Inc. v. Bernard Geis Associates, 293 F. Supp. 130 (5th Cir., 1968).

[31] See, e.g. *Kelley v Chicago Parks*, 635 F.3d 290 (7th Cir. 2011); *see* U.S. COPYRIGHT OFFICE, COMPENDIUM OF U.S. COPYRIGHT OFFICE PRACTICES § 313.2 (3d ed. 2021).

4.8 - Are the productions generated by AI, that are not covered by copyright, in the public domain?

Any works that are not copyrightable are in the public domain.

4.9 - In your country, could the productions generated by AI be qualified as "commons" (it being understood that, in some countries, the notion of "commons" has a different meaning than "public domain")? Under what conditions or according to what criteria?

This question is not applicable to the United States.

4.10 - How can we be sure that the creation presented as realized by an author is not an artificial production?

See response to question 4.3

4.11 - Usually, a collective management organization (CMO) manages a catalog attached to an author without making distinctions between "works" / "productions". How to manage the case of an author whose usual works belong to his repertoire but who would also use an AI system to generate other "productions"?

To our knowledge, American CMOs have no policies regarding authors using AI in the creation of their works. All have said it is too early in the development of AI to make such policies, but they are researching developing technologies and their impact on the creative industries.

2. The rights regime

- The choice of the right (nature, ownership, regime, limitations)

* As your legislation currently stands:

5.1 - Is the output generated by an artificial intelligence system likely to be protected by copyright in your country?

As discussed above, any outputs[32] determined to be sufficiently authored by a human are eligible for copyright protection.

5.2 - If applicable, does the production generated by an artificial intelligence system benefit from a full copyright, in particular as regards the duration and scope of the rights, or from a modified or special right?

According to US law, all copyrighted works enjoy the same rights and term of protection. It is possible that some outputs initially generated by AI systems, but reworked by a human being could be considered protectable derivative works, assuming sufficient human participation. If, by contrast, the AI system's outputs are based on recognizable copyrightable inputs, the output will not be considered a protectable derivative work for two reasons. First, if the output is AI-generated, it will lack human authorship. Second, the underlying work must have been lawfully used in the creation of the derivative work: 17 U.S.C. § 203(a) states that copyright protection

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[32] Outputs of the type currently known. As AI changes, it is possible that there may be types of outputs not eligible for copyright for other reasons.

"for a work employing preexisting material in which copyright subsists does not extend to any part of the work in which such material has been used unlawfully." Thus, were US courts to determine that it is not fair use to scan copyrighted works for use as training data, and the copyright owner of the inputs did not grant permission to the AI platform, then it is possible that outputs incorporating recognizable portions of the unauthorized inputs would not be copyrightable even were humans to participate in their production. There has not been any US case law regarding protection for works derived from works with no human author, although, as explained above, the USCO's statements regarding "Zarya of the Dawn" allow protection for productions incorporating AI outputs, but only as to the new matter contributed to the work by a human author.

5.3 - If there is a protection by an adapted or special copyright (as it exists sometimes for certain works, as for example, in Europe, concerning computer programs), what are the modifications or adaptations?

This question is inapplicable to US law.

5.4 - Who is the author? Who would be the owner of the rights? Could the output be considered a joint work? If so, between whom and in what cases?

AI cannot be considered an author under US law (see answer to Question 1.4 above). Since AI cannot be an author of a work in the US, there would be no opportunity for joint authorship between a human author and an AI platform. Were there actual collaboration between the human creators of the AI system and the downstream user, a joint work might result (e.g. "The Next Rembrandt"). But no joint work arises when the downstream user issues commands to which the machine automatically responds without upstream human intervention. Furthermore, a human can be considered the author of a work generated by AI if she has contributed sufficient creativity to the work. What suffices is a question that will be developed over time through USCO regulation, court determination and, perhaps, legislation. To qualify as a joint work under US law, a work must be "prepared by two or more authors with the intention that their contributions be merged into inseparable or interdependent parts of a unitary whole."[33] If two or more authors (by definition, humans) agreed to create a work through the use of AI (and met the requirements of 17 U.S.C. § 101) and if that generated work had enough human input to be considered eligible for copyright, then there could be joint-authors of an AI-assisted work. If the USCO determined that the work in question did not have the requisite level of human authorship, there would be no copyright in the work.

5.5 - Is there a special ownership rule (presumption, or even fiction, as it exists in some countries for computer-generated creations; see for example, art. 9 (3) Copyright, Designs and Patents Act (CDPA) in England)?

There is no such law in the US.

> *In the event of a possible legislative change:*

Are there any concrete proposals in your country related to the items listed below? If so, answer questions 5.6 and following.

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[33] 17 U.S.C. § 101.

If not :

> *i) the national rapporteurs can give their personal opinion while making it clear that these are mere proposals of secondary authorities (e.g., academics) and not positive law;*

> *ii) or they can go directly to the questions numbered 6 and following.*

5.6 - What would be the criteria to be retained to allow access to copyright protection for AI outputs?

5.7 - Should a specific copyright be created for these productions?

5.8 - With what particularities (e.g., duration and content of the rights)?

5.9 - Can there still be a moral right?

5.10 - Should there be a special ownership rule (presumption, or even fiction, as it exists in some countries for computer-generated creations)?

5.11 - Should a deposit be required? / A declaration of "origin"?

5.12 - Should a kind of neighbouring right or a sui generis right be created?

5.13 - What would be its characteristics?

5.14 - The rights covered?

5.15 - Generally speaking, what would be the limitations on or exceptions to this new right?

5.16 - How should this protection be articulated with other existing protections?

5.17 - In the absence of protection by a property right, are there any compromise solutions?

> *For example, a kind of paying public domain for them: collection of royalties paid to a collective management organization for distribution among authors continuing to create works in the traditional way? What else?*

> ***- AI and violation of rights: the choice of remedy***

6.1 - Can an AI output infringe, and to what extent? Who would be liable?

For an answer to the first part of this question, please see our answer in response to Question 5.2 above.

It is unclear at this point who would be liable for infringement caused by an AI platform's generative output, and liability might change depending on the AI system model. For nongenerative-AI platforms like those that choose songs users of Spotify might like to listen to next, liability would partly depend on contract law and ownership. If the client of the AI platform (in the hypothetical of the previous sentence, Spotify) has instructed the AI platform on how to select songs and has not instructed the platform to avoid copyrighted content to which

Spotify does not have a license, then Spotify would most likely be directly liable for any infringing content it loaded into the platform.

6.2 - Are there other legal means (e.g. unfair competition, parasitism) to engage the liability of the person responsible for the AI output? (Who would that person be?)

"Parasitism" does not exist as a claim in US law. If the user instructs the system to generate content that includes third party trademarks, and the result could confuse consumers as to the source or approval of the output, an action for trademark infringement might lie.

6.3 - Beyond copyright, can personality rights prevent the realization by an AI of a production using the voice or physical aspect of another person?

If AI-generated works impersonate or use others' identities to produce a work (for example, in the recent mashup of two artists singing) there may be liability under state-based right of publicity laws, just as there would be anytime a person's right of publicity was infringed.

> *- Question of transparency and remuneration*

7.1 - In your country, is there a requirement (legal, administrative, jurisprudential, arising from practice) that AI-generated content in general be declared as such (see for example in Europe, the AI Act of April 21, 2021[32] and the more nuanced position of the Council of the European Union of November 2022[33])?

There is currently no such requirement on the federal level. California is the first, and currently only, state to have proposed such a law. (See answer to Question 1.4).

> *(Optional) If not, do you think that such a solution should be adopted?*

7.2 - If applicable, how is the sharing and payment of remuneration carried out when AI is involved in the creative process?

We have found no evidence that remuneration would not be governed by contract as it most often is in the US. There is no requirement that any specific party be remunerated, but it is unlikely that the creator of the AI system would be, just as a computer manufacturer is not considered part of the creative process when an author uses her laptop to write a novel. Even though AI systems may have more of a role in the creation of a work than a computer chip does, at this point, the system is not perceived as a participant in the creative process worthy of compensation greater than that paid by the user to utilize the system.

> *(Optional) If there is no existing solution, what solution do you think should be adopted?*

7.3 - If applicable, how is the sum linked to the AI allocated (cultural action? payment to other rights holders...)

> *(Optional) If there is no existing solution, what solution do you think should be adopted?*

Appendix [links]

1. Complaint, Andersen et. al. v. Stability AI Ltd., et. al., No. 3:23-cv-00201 (N.D.Cal., January 13, 2023), *available at https://stablediffusionlitigation.com/pdf/00201/1-1-stable-diffusion-complaint.pdf.*

2. Complaint, Getty Images (US) Inc., v. Stabiity AI, Inc., No. 1:23-cv-00135 (D. Del., Feb. 3, 2023) *available at*, https://aboutblaw.com/6DW.

3. Denial of Registration, "Creativity Machine" by Stephen Thaler, United States Copyright Office, February 14, 2022, *available at* https://www.copyright.gov/rulings-filings/review-board/docs/a-recent-entrance-to-paradise.pdf .

4. "Copyright Registration Guidance: Works Containing Material Generated by Artificial Intelligence" 88 Fed. Reg. 16190 (March 16, 2023) *available at* https://www.copyright.gov/ai/ai_policy_guidance.pdf .

March 21, 2023

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Robert J. Kasunic
Library of Congress
Copyright Office-VA
101 Independence Ave. S.E.
Washington, DC 20559-6000

Dear Mr. Kasunic:

We are pleased to submit this cover letter in connection with Kristina Kashtanova's registration application for their[1] two-dimensional visual artwork, *Rose Enigma* (the "Work"). (See Figure 1) Kashtanova used several tools to create the Work, including pen and paper and their local ControlNet Depth and Stable Diffusion 1.5 models.

Figure 1: The Work

The image Kashtanova created is not random. If someone with access to the same ControlNet Depth and Stable Diffusion 1.5 models used by Kashtanova were to input Kashtanova's exact textual prompt, image input, and other settings, along with the same seed,[2] that person would generate the Work. Kashtanova's exercises of control and creative choices gave visible form to the Work, thus making them the author of it.

I. Human Authored Aspects of the Work

While the Work, like a photograph, was created using a tool—here, a generative artificial intelligence (AI) tool—the Work visually expresses Kashtanova's original mental conception for it. As described in more detail below, Kashtanova chose the Work's subject and how to render that subject, and exercised control over Stable Diffusion to ensure that the executed Work realized their mental conception. The chart below outlines both the various

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[1] Kashtanova uses they/them pronouns and does not generally use an honorific, though they use "Mx." where an honorific is necessary. We request the Copyright Office to use the same in any correspondence.

[2] A "seed" determines the starting point of the process by which Stable Diffusion generates an image. By fixing the seed, a user can instruct Stable Diffusion to generate the same image every time.

mechanisms Kashtanova used to control Stable Diffusion and the creative contributions they made to the Work through their exercise of control over each of those mechanisms.

Mechanism of Control	Kashtanova's Selection for Each Mechanism of Control	Kashtanova's Creative Contribution to the Work by Their Selection
ControlNet Model	Depth	Rendition of Subject Matter (*e.g.*, distance of the subject from the viewer)
Textual Prompt	"a young cyborg woman (((roses))) flowers coming out of her head, photorealism, cinematic lighting, hyper realism, 8 k, hyper detailed."	Selection of Subject Matter and Rendition of Subject Matter (*e.g.*, design, lighting, and style)
Image Input		Rendition of Subject Matter (*e.g.*, linear contours and design)
CFG Scale Number	7	Rendition of Subject Matter (by choosing how closely Stable Diffusion must adhere to the image input and textual prompt)
Sampling Steps	40	Rendition of Subject Matter (by choosing the

		number of times Stable Diffusion must refine the generated image and check it against the image input and textual prompt)
Sampling Method	Euler a	Rendition of Subject Matter (*e.g.*, design and coloring)
Seed	565147876	Rendition of Subject Matter (selection among particular renditions, as a photographer would choose among different images)

1. <u>Kashtanova Exercised Control over Stable Diffusion and Contributed Creative Expression to the Work Through Their Textual Prompt</u>

Subject. Kashtanova chose as the subject of *Rose Enigma* a cyborg. Kashtanova ensured that the Work realized their chosen subject by controlling Stable Diffusion's generation of the Work through, among other things, Kashtanova's textual prompt, which included "cyborg."

Rendition of Subject. A cyborg can be depicted in any number of ways—contrast the look of Cylons living on a Basestar to the Borg of the Delta Quadrant—and Kashtanova had their own particular conception in mind. Specifically, Kashtanova wanted the cyborg to be depicted as a young human-looking woman. To ensure Stable Diffusion created a young woman cyborg, Kashtanova added "young" and "woman" to their textual prompt. Kashtanova also wanted the young cyborg woman to have flowers emerging from the top of her head. Therefore, Kashtanova added "flowers coming out of her head" to their textual prompt.

Kashtanova did not want Stable Diffusion inputting just any type of flowers into the Work— Kashtanova wanted roses. To ensure roses, Kashtanova added "(((roses)))" to their textual prompt. Parentheses around words instruct Stable Diffusion that the words within the parentheses are of particular importance. Each pair of parentheses increases the weight given to the term within the parentheses by a multiplier of 1.1. Kashtanova determined that three sets of parentheses around "roses," which increased the weight Stable Diffusion gave to

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"roses" by a multiplier of 1.331, sufficiently constrained Stable Diffusion so as to provide the desired effect.

Kashtanova wanted the young cyborg woman and roses to be depicted in a style that combined photorealism and hyperrealism. That is, Kashtanova wanted the Work to look like a painting designed to look highly realistic (as opposed to looking like a photograph), while also wanting to evoke the more emotive and dreamy quality that can be found in hyperrealist works. Based on their experience,[3] Kashtanova instructed Stable Diffusion to execute the Work in Kashtanova's desired style by adding "photorealism," "hyper realism," "8 k,"[4] and "hyper detailed" to their prompt.

Kashtanova's vision for the Work also included dramatic lighting, with harsh shadows. (As a professional photographer, Kashtanova tended to include harsh shadows in their headshots.) Based on Kashtanova's experience, they knew that by including "cinematic lighting" in their textual prompt they could better control Stable Diffusion such as to achieve their desired lighting effects.

2. <u>Kashtanova Exercised Control over Stable Diffusion and Contributed Creative Expression to the Work Through Their Image Input</u>

Kashtanova included as one of their inputs a hand-drawn picture, depicting part of a face with flowers emerging from the top. (See Figure 2)

Figure 2: Kashtanova's image input

Rendition of Subject. Kashtanova did not intend to create an image of the entire body of a cyborg woman with roses coming out from the top of the woman's head. Nor did Kashtanova want an image that included an entire face with eyes and a forehead, or a small face that appeared far away from the viewer. Kashtanova wanted to create a Work depicting part of a young cyborg woman's face, with roses

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[3] Kashtanova has significant experience using generative AI tools. As the Head of AI Product at an AI company, Kashtanova regularly spends over 10 hours a day working with generative AI tools. In their previous position, they were an AI researcher and consultant at another AI company. Kashtanova recently collaborated with Adobe on its release of Adobe Firefly and, before that, on Adobe's generative AI guidelines for Adobe Stock. From 2015 to 2022, Kashtanova was a professional photographer, with work published in, among other publications, *The Guardian*, *Telegraph, New York Post*, and *Yoga Journal*.

[4] Stable Diffusion was trained on a large dataset that included some images with 8k resolution. For reference, today's high-definition TVs are generally 4k. 4k is ¼ of 8k resolution. By including "8 k," Kashtanova directed Stable Diffusion to prioritize its high resolution, highly detailed images.

emerging from it, that was centered in the resulting image and that appeared relatively close to, and level with the eyeline of, the viewer. Kashtanova also wanted there to be three roses emerging from the cyborg woman's partial head, with the middle rose bloom more tightly closed than the rose to its right.

By including an image that expressed Kashtanova's creative choices, along with choosing additional settings that constrained Stable Diffusion's ability to deviate from those creative choices, Kashtanova was able to force Stable Diffusion to generate an image that visually realized Kashtanova's mental conception.

3. <u>Kashtanova Exercised Control over Stable Diffusion and Contributed Creative Expression to the Work Through Their Choice of CFG Scale Number</u>

Rendition of Subject. When inputting both an image input and textual prompt, the Classifier Free Guidance (CFG) scale number dictates to Stable Diffusion how closely the output will adhere to the image input versus the textual prompt, and how much freedom Stable Diffusion is given to drift from either.

Kashtanova chose a CFG scale number of 7 because doing so was a means by which Kashtanova could instruct Stable Diffusion to execute Kashtanova's own creative vision for the Work—a vision that involved giving their image input and textual prompt a certain relative weighting in the Work.

4. <u>Kashtanova Exercised Control over Stable Diffusion and Contributed Creative Expression to the Work Through Their Use of a ControlNet Depth Model</u>

Rendition of Subject. There are times when artists find that they do not have enough control over the images generated by Stable Diffusion 1.5. ControlNet is an answer to that problem. Stanford University researchers Lvmin Zhang and Maneesh Agrawala, in their 2023 paper "Adding Conditional Control to Text-to-Image Diffusion Models,"[5] presented ControlNet as capable of controlling the behavior of pretrained large diffusion models, like Stable Diffusion, by adding and manipulating the inputs to that model. To do this, the researchers created different models, each of which helps artists achieve different artistic aims by providing artists the power to control different aspects of the outputs they generate using Stable Diffusion.

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[5] https://arxiv.org/pdf/2302.05543.pdf.

Kashtanova chose to use the ControlNet Depth model because their design of the Work involved it having not only a particular arrangement but a particular perspective as well, and the ControlNet Depth model allowed them to ensure that creative design vision was realized.

The ControlNet Depth model creates depth maps of image inputs, which are grayscale images that represent the depth information in a scene. The intensity of each pixel in a depth map represents the distance from the viewer—the darker the pixel, the further away it appears from the viewer.

Figure 3 illustrates how depth maps constrain Stable Diffusion. In this example, Zhang input the red robot at the podium image (seen at the top left of Figure 3) into the ControlNet Depth model (which, again, can be understood as Stable Diffusion 1.5 with a ControlNet Depth model extension). Immediately to the right of the original image we see the depth map generated by the ControlNet Depth model. Zhang's original image input instructs Stable Diffusion to generate an output with a particular composition, while the depth map further constrains Stable Diffusion by forcing the generated image to keep the podium in front of the person, with one of the person's hands slightly closer to the viewer than the other. The five stormtrooper images are the product of the combination of the depth map, original robot image, textual prompt "Stormtrooper's lecture," and settings that instruct Stable Diffusion to create an output that maintains the composition and perspective in the original image.
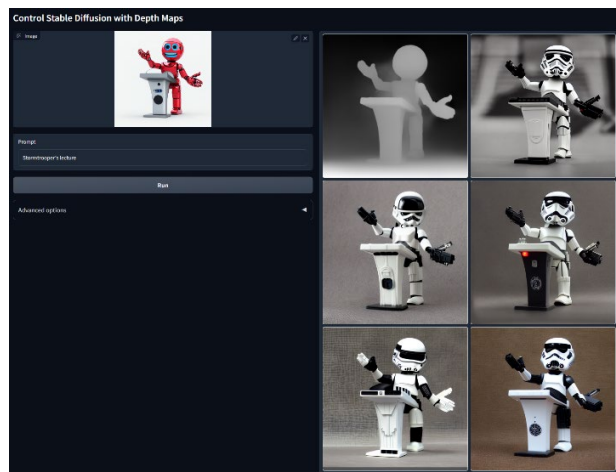

Figure 3: ControlNet depth maps example (source: Lvmin Zhang's GitHub page)

Just as a photographer may change their lens aperture setting to instruct the camera to create an image with a certain depth of field, Kashtanova instructed Stable Diffusion to include a certain perspective through their use of the ControlNet Depth model. In so doing, Kashtanova controlled Stable Diffusion to execute their vision for the Work.

5. Kashtanova Exercised Control over Stable Diffusion and Contributed Creative Expression to the Work Through Their Choice of Sampling Steps and Sampling Method

Rendition of Subject. Diffusion models involve an iterative process. The cycle of image generation begins with random noise, which is then refined to generate an image that reflects

the user's instructions. Sampling *steps* are the number of iterative steps Stable Diffusion goes through to refine the image. The sampling *method* is an algorithm that tells Stable Diffusion how to refine the image at each sampling step. Different sampling methods have different artistic effects.

Kashtanova had complete control over the number of sampling steps and the choice of sampling method used by Stable Diffusion to generate the Work. Kashtanova required Stable Diffusion to take 40 sampling steps. Kashtanova also instructed Stable Diffusion to use the "Euler a" sampling method to refine the image at each of those 40 steps. Based on Kashtanova's experience, "Euler a" produces smooth colors with less defined edges, which contributed to the hyperrealist and dreamy style Kashtanova wanted in the Work.

II. Conclusion

Kashtanova conceived of the traditional elements of authorship in the Work. Through use of the ControlNet Depth model, along with their textual prompt, image input, and choices around other settings, Kashtanova used Stable Diffusion as an assisting instrument to give visible form to their original mental conception.

Sincerely,

Heather M. Whitney
Associate

Joseph C. Gratz
Partner