

Issue 4: Disclosure

10. A fundamental goal of the patent system is to disclose technology so that, in the course of time, the public domain may be enriched and a systematic record of humanity's technology is available and accessible. Patent laws require that the disclosure of an invention be sufficient to enable a person skilled in the relevant art to reproduce the invention.

(i) What are the issues that AI-assisted or AI-generated inventions present for the disclosure requirement?

- How do the incentives of the disclosure requirement interact with the transparency principle required for ethically aligned autonomous systems under [OECD Council Recommendation on Artificial Intelligence](#) and the [Guidelines for trustworthy AI](#) from the European Commission's High-Level Expert Group on AI?
- Would an extensive or overbroad interpretation of the disclosure requirement create incentives to protect algorithmic inventions through trade secrets, against transparency and public policy concerns?
- In the case of deep neural networks, with inscrutable architectures that obscure access and traceability of the decision making process in its training iterations and deployment, how should the disclosure requirement be construed?
- Should discarded models in the training process be included in the disclosure requirement?

Issue 6: Authorship and Ownership

12. AI applications are capable of producing literary and artistic works autonomously. This capacity raises major policy questions for the copyright system, which has always been intimately associated with the human creative spirit and with respect and reward for, and the encouragement of, the expression of human creativity. The policy positions adopted in relation to the attribution of copyright to AI-generated works will go to the heart of the social purpose for which the copyright system exists. If AI-generated works were excluded from eligibility for copyright protection, the copyright system would be seen as an instrument for encouraging and favoring the dignity of human creativity over machine creativity. If copyright protection were accorded to AI-generated works, the copyright system would tend to be seen as an instrument favoring the availability for the consumer of the largest number of creative works and of placing an equal value on human and machine creativity. Specifically,

- (i) Should copyright be attributed to original literary and artistic works that are autonomously generated by AI or should a human creator be required?

Infringement.

The test of substantial similarity has provided an objective standard for a subjective question: how to determine when a work is original, when is just derivative, or plainly an infringement. Human creativity can not be traced beyond identifying more than the influences of a work, so instead other factors are considered to demonstrate plagiarism, like access to the work or a striking similarity that allows to presume copying. In the case of AI-generated works, generative algorithms are trained on data to produce a new statistically representative content.

- Therefore, are these new works really original? How should the legal construct of infringement typified?

Copyright protects the expression of an idea, and not the idea itself, meaning that does not encompass protection for a whole genre. Style transfer technology allows to extract salient characteristics of an author, and apply them to other work.

- Would this new work considered an infringement or style transfer would be considered akin to a “genre”?

Authorship

In the case of human AI collaborations, should joint authorship be considered?

Moral Rights

AI autorship also raises questions regarding moral rights, especially about integrity of the work, as an AI-generated work could potentially be used in multiple ways that diverge in context and message conveyed from the original publication, which can be referred to as “intention”. The concept of intention is intertwined with originality , and could be seen as separating a protectable work from randomness or aleatory choices that do not amount to the level of creativity required for protection. Nevertheless, intention is ontologically considered to be a human attribute, as is related to agency.

In this context, if ownership of an AI-generated work is assigned to a corporation, and the work is afterwards used in a manner that could potentially discredit the brand or tarnish its value, should some right similar to integrity be considered for AI authors to control these unwanted associations? Could it be transferable with ownership of the work?

- If copyright is attributed to an AI, should it be entitled to moral rights or a concept akin to them? How would the right of integrity be protected?
- Should the modicum of creativity to consider a work original be measured differently on AI- generated works?

- Algorithms proficiency and performance is based on the amount and quality of the data used in its training, the model selection and the fine tuning in each iteration of the parameters considered. With less data, or inappropriate data to represent the problem that is trying to be solved, AI model will underperform, which can potentially lead to biased and inaccurate results. Should compulsory licensing models need to be explored to ensure unbiased AI?
- The use of data that is also protected by copyright to train an algorithm should be considered a fair use? Are the results transformative enough to escape liability? Should exceptions be made considering that less amounts of data could lead to sub-par algorithms that underperform and that do not constitute an accurate representation of the original population used for training? Considering the potential adverse effects on society and inclusion and as a matter of public policy, should unbiased, fair and accurate algorithms have preeminence over copyright regulations?

Escale

AI authorship is also a problem of scale, as it raises questions regarding the massive volume and speed in which new original works can be produced, that can not be contended by human capacity. Due to the different scale and volume in which automated works can be produced, it challenges traditional assumptions of copyright policy, that place protection and confers rights as an incentive for the ultimate goal of promoting arts and sciences.

Nevertheless, automation creates an imbalance that disrupts this ecosystem, as AI could potentially create a huge volume of works fastly and relatively inexpensively, pushing for a privatization of areas opened to human expression and detracting from the commons.

With these considerations in mind,

- should the concept of originality be interpreted more strictly for AI autonomous authors due to the copious amounts of works that they are able to produce?

Term of protection

Copyright terms of protection are mostly tied to the life of the author. Should AI-generated works be under a different regime?