

The background of the slide is a photograph of a modern building, identified by the signage as the Tsinghua University Law School. The building features a mix of light-colored panels and large windows. A white rectangular box is superimposed over the center of the image, containing the title text. The title is written in a black, serif font. Below the title, the name of the speaker and the event details are listed in a smaller, black, serif font. The date is also in a smaller, black, serif font. The page number '1' is located in the bottom right corner.

How Much Contribution Is Necessary for User to Claim Copyright in AIGC

Ge Jiang, Tsinghua Law School

For The 6th Berkeley-Tsinghua Transnational IP Conference

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Whose contribution matters

- User’s contribution matters, not AI’s contribution. What matters is how much a user has contributed, not how much a user has not contributed. — Jiang, *AIGC as User’s Work*, Intellectual Property, Volume 1, 2024 (in Chinese)

Re: Second Request for Reconsideration for Refusal to Register Théâtre D’opéra Spatial (SR # 1-11743923581; Correspondence ID: 1-5T5320R)

Dear Ms. Pester:

The Review Board of the United States Copyright Office (“Board”) has considered Jason M. Allen’s (“Mr. Allen”) second request for reconsideration of the Office’s refusal to register a two-dimensional artwork claim in the work titled “Théâtre D’opéra Spatial” (“Work”). After reviewing the application, deposit copy, and relevant correspondence, along with the arguments in the second request for reconsideration, the Board affirms the Registration Program’s denial of registration. The Board finds that the Work contains more than a *de minimis* amount of content generated by artificial intelligence (“AI”), and this content must therefore be disclaimed in an application for registration. Because Mr. Allen is unwilling to disclaim the AI-generated material, the Work cannot be registered as submitted.

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Federal Register /

issuing inventorship guidance for inventions assisted by artificial intelligence (AI). The guidance provides clarity for USPTO stakeholders and personnel, including the Central Reexamination Unit and the Patent Trial and Appeal Board (PTAB or Board), on how the USPTO will analyze inventorship issues as AI systems, including generative AI, play a greater role in the innovation process. This guidance explains that while AI-assisted inventions are not categorically unpatentable, the inventorship analysis should focus on human contributions, as patents function to incentivize and reward human ingenuity. Patent protection may be sought for inventions for which a natural person provided a significant contribution to the invention, and the guidance provides procedures for determining the same.

How much user's contribution is necessary?

- It depends
 - Scenario 1: Thin contribution, thin protection
 - Scenario 2: Thick contribution, thick protection

How much user's contribution is necessary?

- How much benefit to the society is required to cover the cost of delineation of an exclusive right?
 - Demsetz
 - When the delineation cost is low, the required benefit for the society is low
 - When the delineation cost is high, the required benefit for the society also becomes high
 - Granting patentee right to exclude independent invention
 - Granting copyright holder to exclude derivative works

How much user's contribution is necessary?

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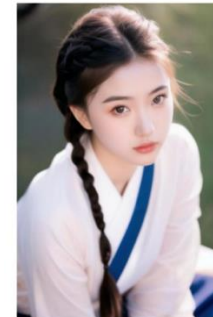
- Scenario 1

- Thin contribution

- AIGC looks like original expression, but user's prompt does not

- Thin protection

- Right to exclude literal copy of AIGC
 - Li v. Liu (2024) by Beijing Internet Court



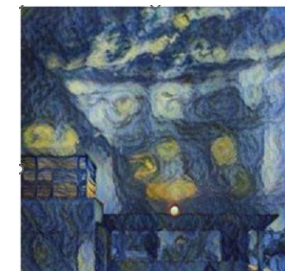
- Scenario 2

- Thick contribution

- Prompt constitutes a work (Zarya, Suryast)
 - User's editing amounts to original expression

- Thick protection

- Right to exclude non-literal copy of user's contribution



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- Scenario 2

- Thick contribution

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Not very controversial

- Thick protection

- Right to exclude non-literal copy of user's contribution

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Today's focus



- Scenario 2

- Thick contribution

- Prompt constitutes a work (Zarya, Suryast)
 - User's editing amounts to original expression

- Thick protection

- Right to exclude non-literal copy of user's contribution

Thin contribution, thin protection

- Why is user entitled to claim even thin copyright, when his contribution is so thin that it does not amount to original expression?

Thin contribution, thin protection

- What is “user’s contribution” ?
 - The obvious part
 - Prompt, choice of LLM, choice of extensions.....
 - The less obvious part
 - To combine the obvious part of user’s contribution with AI at a specific time, activating a random seed, and thus transforms AI’s creative potential into concrete visual information

Thin contribution, thin protection

- Why is user entitled to claim thin copyright?
 - Reason 1: “AI-generated content” is also user’s contribution
 - “AI-generated content” is a mixture
 - Without use of AI at a specific time, “AI-generated content” cannot come into being
 - Labelling the mixture of labor and part of common resource is not a simple task. Depending on various factors, the mixture is sometimes labelled as “laborer’s contribution”, sometimes not
 - *Cf.* the difficult distinction between “discovery” and “invention” in patent law. It’s much more complicated than determining the absolute and relative contribution made by nature and human
 - Labelling the mixture as “human contribution” is not unthinkable

Thin contribution, thin protection

- Why is user entitled to claim copyright?
 - Reason 2: There is no competing interest in the concrete form of AIGC
 - “Commissioner-visual artist” analogy is misleading
 - Visual artist
 - has competing interest in the specific drawing
 - has competing interest in similar content of his contribution
 - stands for potential contributors of “traditional elements of authorship” who needs to be incentivized, and whose freedom of action needs to be preserved
 - AI
 - has no competing interest in the specific AIGC
 - its potential in generating similar content will not be hindered by the thin protection
 - does not promote any meaningful public interest

Not comparable

Thin contribution, thin protection

- Why is user entitled to claim copyright?
 - Reason 2: There is no competing interest in the concrete form of AIGC
 - Taking photo is a more proper metaphor than commissioning an visual artist
 - Without photographer's action, the beauty of the world will not be embodied in a photo
 - Without user's trigger, the potential of AI will not be embodied in AIGC

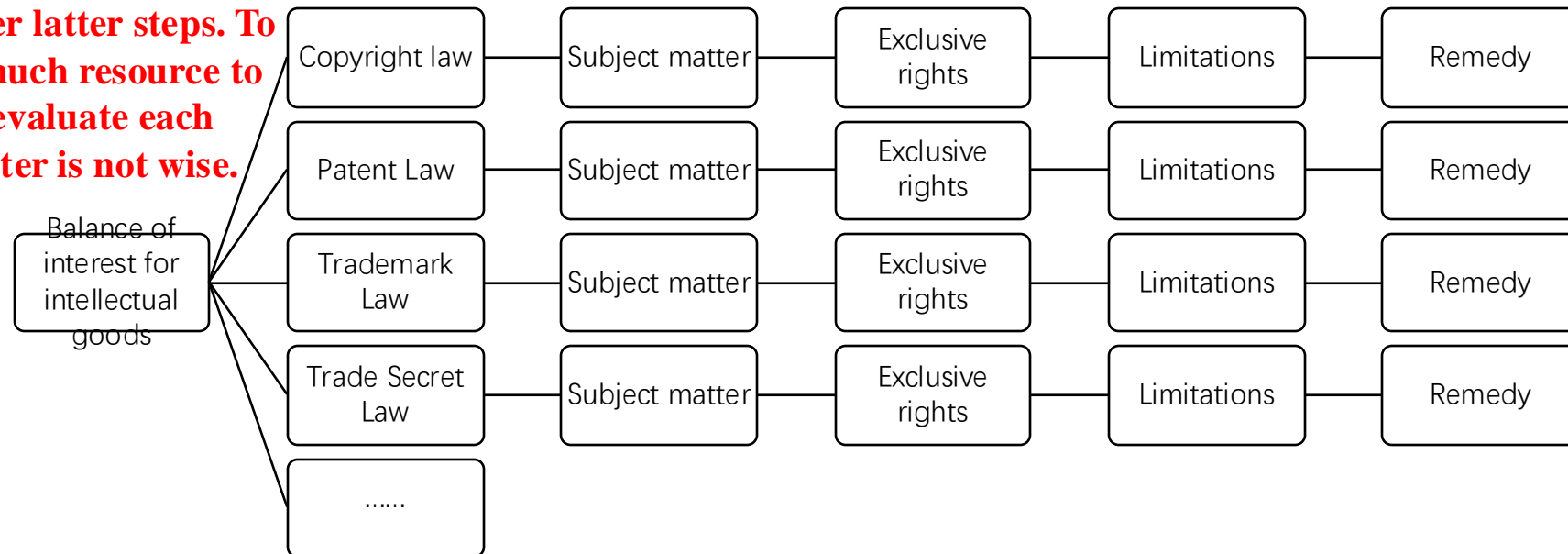
Thin contribution, thin protection

- What role does randomness play?
 - Randomness used to hinder copyright claim, since random information was normally not valuable
 - Certain randomness in AIGC does not eliminate value of the AIGC
 - The lower the probability is that AI will generate identical content, the less preempting risk of user's thin copyright is
 - Randomness shall not bar copyright

An additional perspective: a cognitive economic analysis

- Even if one does not believe that low contribution AIGC is user's work, it is not worth to exclude them in the first step of copyright analytical framework. Better to strike balance of interest in latter steps.

The vast majority works never trigger latter steps. To spend too much resource to accurately evaluate each subject matter is not wise.



An additional perspective: a cognitive economic analysis

- Some AIGC is inevitably user's works
- The cognitive cost to distinguish high contribution AIGC from low contribution AIGC is too high
 - US Copyright Office “receives roughly half a million applications for registration each year”
- The benefit for the distinction is limited
 - Allowing user to exclude others from making literal copy is not simply unfair

Conclusion

- Most copyright will neither bring profit to its owner, nor hinder the public in any meaningful sense.
- A small fraction of AIGC is socially and economically valuable. There's no better analytical framework to strike the balance of interest for their creators and users than that of copyright.
- Threshold for user to establish copyright is “more than *de minimis*” originality in AIGC