Laypeople's Egocentric Perceptions of Copyright For AI-Generated Art

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1. Introduction

The emergence of generative artificial intelligence (GenAI) models poses novel challenges to society. One domain that has received considerable attention in the context of GenAI is copyright law—the branch of the law that regulates who owns works of authorship, such as paintings and novels—and how it should address AI-generated works (Franceschelli & Musolesi, 2022; Choi, 2023; Henderson et al., 2023; Smits & Borghuis, 2022; Gervais, 2019). This research explores the potential status of AI-generated outputs under copyright law in the eyes of laypeople.

Copyright law aims to promote creativity by granting exclusive rights over creative works to authors. These exclusive rights determine that only authors can profit from their creations, incentivizing them to continue exercising their creativity for further financial benefit (Mandel, 2014; 2016). For copyright law to incentivize the production of creative outputs, it must be understood by potential authors and rights-holders (i.e., laypeople). Here, we study laypeople's perceptions of copyright in the context of GenAI. Specifically, we captured laypeople's opinions concerning:

1. the creativity, effort, and skills involved in using GenAI to create art—i.e., factors that help determine whether human creations are eligible for copyright in different jurisdictions (Eshraghian, 2020) (-3 = low creativity/effort/skills, 3 = high creativity/effort/skills);
2. who they perceive as authors of AI-generated art across i) the user who prompted the AI model, ii) the AI model itself, iii) the company that developed the AI model, and iv) the artists whose creations were used for training the AI model (-3 = low authorship, 3 = high authorship);
3. who they believe should have the rights to display and make copies of AI outputs commercially and non-commercially between the above-mentioned potential authors and "anyone"—which we interpret as participants indicating that no one should have *exclusive* rights over images;
4. the quality of the GenAI outputs (0 = very bad, 10 = very good).

Our study took the form of a juried AI art exhibition, in which the 10 best submissions received a monetary award, mimicking a setting common in the art world and simulating some of the incentives granted by copyright. Participants (N = 424) engaged in the exhibition either as creators (by using the GenAI model to create art), invested evaluators (by generating art and evaluating other people's submissions), or uninvested evaluators (by only evaluating others' images). Our experimental design allowed us to study how perceptions about copyright vary between those who have something to gain from copyright protection—creators—and uninvested third parties. Inspired by prior work suggesting that people exhibit egocentric biases when judging their own creative outputs (Buccafusco & Sprigman, 2011), we study if similar egocentric effects emerge in the context of AI-generated art.

Creators used an AI model to generate an image for the AI art exhibition and evaluated their own submission with respect to the factors described above. Invested evaluators also generated an image for the exhibition, evaluated their own creation, and then judged the creations of four creators. Finally, uninvested evaluators did not use the AI model and, instead, only evaluated four images generated by creators.

We consider that people exhibit egocentric biases if creators evaluate their own images more favorably and/or are more likely to identify users as authors and right-holders than (invested and uninvested) evaluators rating the same images. Similarly, we consider that invested evaluators are egocentric if they rate images more highly and/or are more likely to identify users as authors and right-holders when judging their own creations than when evaluating others' images.

2. Results

Creativity, Effort, and Skills: Figure 1A shows participants' evaluations regarding creativity, effort, and skills. Participants somewhat agreed that creativity and effort were necessary to generate images with GenAI. In contrast, judgments concerning skills were closer zero, meaning that on average participants neither agreed nor disagreed that creators used their skills.

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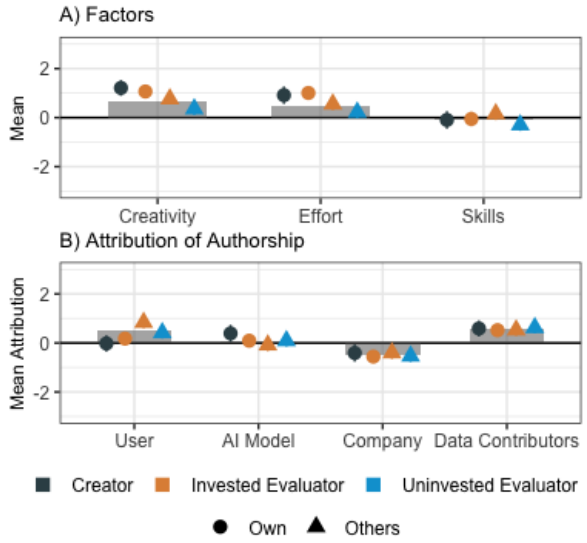

Figure 1. A) Perceived creativity, effort, and skills involved in generating images using GenAI. B) Perceived authorship of the user, the AI model, the company that developed the AI model, and data contributors. Gray bars present the mean value across all conditions, while circles and triangles represent mean values in each treatment condition. Error bars correspond to 95% confidence intervals.

Concerning creativity, uninvested evaluators rated images lower than creators ($p < .001$) and invested evaluators, both when the latter evaluated their own creations ($p < .001$) and other people's images ($p < .05$). As for effort, uninvested evaluators assigned lower effort ratings than creators ($p < .005$) and invested evaluators judging their own images ($p < .001$). These results offer support for egocentric biases in judgments of creativity and effort. In contrast, we did not find statistically significant egocentric effects on skill judgments.

Authorship: Figure 1B shows that participants somewhat agreed that users and data contributors are authors of AI-generated images. Participants neither agreed nor disagreed that the AI model itself is an author. The company that developed the AI model had the lowest perceived authorship.

When judging others' submissions, invested evaluators attributed more authorship to creators than creators attributed to themselves ($p < .001$). Moreover, invested evaluators attributed more authorship to others than to themselves ($p < .001$). This effect goes against the hypothesized egocentric effects. There were no significant differences in the perceived authorship of the other entities across treatments.

Rights-Holders: We also captured participants' opinions regarding who should hold the rights to display and make copies of AI-generated images. Users (i.e., those who used the GenAI to generate images) were selected by more than 60% of participants for all rights, in both commercial and non-commercial settings. Data contributors were identified as rights-holders by approximately 50% of participants across all rights and settings. The company that developed the AI model was granted rights over AI-generated images by around 37% of participants. The AI model was recognized as a rights-holder by around 23% of participants. We did not find evidence of any egocentric effects.

Participants were also able to indicate that no one should have *exclusive* rights over the images by selecting that "anyone" should be able to display and make copies of AI-generated images. We observed clear differences in responses between commercial and non-commercial rights. Participants were more likely to support non-exclusive rights in non-commercial settings (approximately 57% and 47% in favor of anyone having the right to display and make copies, respectively). In contrast, when evaluating commercial rights, only a few respondents indicated that anyone should have them (approximately 9%).

Score Evaluation: Finally, participants also evaluated images to determine who was granted the monetary award and which images were displayed in our AI art exhibition. Creators evaluated their own creations more highly than invested and uninvested evaluators judging the same images ($p < .001$). Invested evaluators judged their own images more positively than images generated by other participants ($p < .001$). Our results indicate clear egocentric effects.

3. Implications

Our analysis suggests that people evaluate the process of using GenAI to generate art egocentrically with respect to some factors—e.g., creativity and effort—but not others—skills. When deciding who should win the art exhibition's monetary award, however, participants judged their own creations much more favorably than art generated by others, supporting our egocentric hypotheses. Surprisingly, we found the opposite trend in attributions of authorship to the user of the GenAI model, such that evaluators attributed more authorship to creators than creators themselves. Finally, our results show that people believe users and those whose creations were used to train the GenAI model should enjoy the rights to display and make copies of AI-generated images, with no indication of egocentric effects.

Our research has implications for the deployment of GenAI models and their future regulation under copyright law. Our evidence of egocentric biases, particularly when monetary incentives were involved, suggests that some conflicts of interest may arise in discussions surrounding the copyright status of AI-generated art. Furthermore, our findings call for considering a more distributed ownership structure of copyright, under which training data contributors are also recognized as authors and rights-holders, and no actor has exclusive rights over AI works in non-commercial settings.

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