

Beyond Normativity in Generative AI through Creative Practice

Supervision

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Location and duration

The internship will be located at **ISIR** (Sorbonne University, Jussieu Campus in Paris) in the HCI Sorbonne Group.

The internship lasts 5 months, starting in March 2024

Context

Recent advances in artificial intelligence, particularly in text and image generation, have demonstrated impressive aesthetic and realistic capabilities. If these techniques become widely used by creative people, we will see a large proportion of illustrations and graphic creations generated by these methods. This growing representation of generated images, compared with images created by artists using more traditional tools, raises the question of the normativity of cultural representation. In other words, are we going to have graphics that share similar aesthetics and subjects?

Problem setting

From a Human-Computer Interaction point of view, the problem of normativity in visual generative AI can be formalised according to two distinct problems. Firstly, we need to understand how this normativity is perceived by stakeholders. Secondly, we need to understand whether this normativity stems from a problem of algorithm design or practice. We therefore need to study the expressive capabilities of these systems using methods of interaction and system discoverability, a fundamental problem in HCI.

Tasks

1. Literature review at the intersection of HCI and generative AI in creative fields.

2. Interview artists using generative AI about their perception of normativity in the created outputs in their own work and in the community.
3. Build an interactive system aiming at discovering the expressive capacities of generative AI (for instance through interactive prompt engineering).
4. Evaluate the systems in a study (potentially just a pilot study)

References

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- Sanchez, T. (2023, June). Examining the Text-to-Image Community of Practice: Why and How do People Prompt Generative AIs?. In *Proceedings of the 15th Conference on Creativity and Cognition* (pp. 43-61).