

# AI Ethics for Creativity

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## Background

AI Ethics for Creativity is a study of lived experience under the overarching theme of creative expression through new technologies—the new technology being AI. In this context, I reference the past, situate the present, and speculate on the future. The nature of the dissertation is to ask “humanities” questions from the lens of Human-Computer Interaction, i.e. what is creativity, interaction, art, aesthetics, embodiment, and expression... with AI in the creative endeavor.

## Visual Mapping

I present three pillars of my dissertation in Figure 1 below. In the outer triangle, I have philosophy, art, and technology, each of which is contextualized by the arrow pointing to its definition. In the interior triangle, lie the core of my dissertation—AI, Ethics, and Creativity. Read from the bottom right, upwards then left, this beckons *AI Ethics for Creativity*.

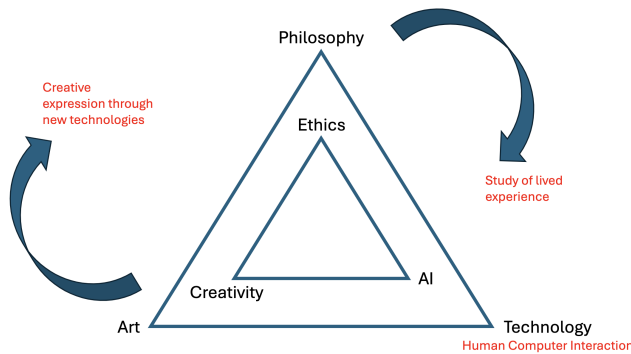


Figure 1: Visual mapping of dissertation

## Research Question

The current central research question of my dissertation is situated as follows:

*What is the nature of interaction of AI in creative practice with respect to creative individuals (1) endeavors and (2) process of garnering expression through the arts?*

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I highlight endeavors and process as two separate components as *endeavors* signal how artists are coming to terms with and establishing their practice in the unraveling field of AI in creative practice, and *process* looks at the practice of what has been established by the interactions of creative individuals.

## Related terms

My dissertation accompanies the following related terms from the three core pillars of ethics, creativity, and AI in Figure 1. These are categorized, read by column, in Table 1 below.

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Ethics	Creativity	AI
Autonomy	Creative Practice	Human-AI-Interaction
Principles	Artistic expression	Human-Centered AI
Value systems	Aesthetics	Generative AI
Phenomenology	Techno-aesthetics	Augmented Intelligence

Table 1: Related Terms for Ethics, Creativity, and AI

## Literature Review

As an interdisciplinary thesis, I conducted my literature review by consolidating academic publications at the intersection of AI, Creativity, and Ethics.

To address the technical aspect, I source publications from the International Conference on Computational Creativity (ICCC), an annual conference hosted by the Association for Computational Creativity that began in 2010. To the creative dimension, I source publications from ACM Creativity and Cognition (C&C), an art practice and research conference with roots in 1993; and to the ethical dimension, I source publications from ACM AI, Ethics and Society (AIES) which published its first official set of proceedings in 2018. To navigate the relevancy of the review, I look at the past five years of proceedings (2019 - 2023) with the exception of C&C in 2020 as the conference was halted due to the pandemic.

I take the approach of inclusion and exclusion criteria for each conference based upon already established intersections. Hence, for ICCC at the intersection of AI and Art, the inclusion criteria was *Interaction*; for C&C at the intersection of Creativity and Critical output, the inclusion criteria was on *AI*, and for AIES at the intersection of AI and Ethics, the inclusion criteria was *Art*. I summarize the review criteria and findings in Table 2 below.

Conference	Proceedings	First	Second	Final
ICCC	307	166	37	37
C&C	167	20	14	14
AIES	390	22	9	8
Total				59

Table 2: Summary of literature review upon two rounds of inclusion and exclusion criteria (Interaction for ICCC, AI for C&C and Art for AIES). Total of 59 publications.

Upon reading through and coding the 59 publications, I arrive at three themes for the review. These include *Human-AI Interaction* for papers from ICCC papers, *Creative Practice Research* for papers from C&C publications, and *Artistic Implications* for papers from AIES. I have submitted this review for my qualification exams in May 2024 and am set to defend in an oral defense in September 2024.

## Methods

My dissertation is structured into three methods which unfold from my individual practice (Method 1), subject-matter Experts (SME) in the AI Art pipeline (Method 2), and ethnographic case studies of creative practices from different disciplines (Method 3). I outline the methods in detail below.

### Method 1

Phenomenology of the Author (4 studies): This approach begins with artistic autonomy, followed by prompt programming techniques and principles on AI Art, and culminates with creativity as a human right. The publications are itemized as follows:

1. Artistic Autonomy in AI Art (Issak and Varshney 2022)
2. Prompt Programming for the Visual Domain (Issak and Varshney 2023)
3. Stories Stay Lessons Leave: Principles on Photography from AI Art (Issak 2023)
4. Creativity as a Human Right: Design Considerations for Computational Creativity Systems (Issak 2024)

### Method 2

AI Art with subject-matter Experts (2 studies): In this method, I incorporate subject-matter experts (SME) into the AI Art pipeline to examine the medium in specific use cases. As of now, these include the two studies below:

1. Mapping the Typographic Latent Space of Digits (Issak et al. 2023)

2. Kaleidoscope Gallery: Exploring the seemingly static yet dynamic nature of Ethical theories and Generative AI models (to be submitted)

In the first study, I employed Disentangled Beta-VAEs to map the latent feature space of MNIST style digits across a variety of font styles. This method enables typographers (one of which was on our team) identify new attributes to their current font classification system. For the second study and curation of *Kaleidoscope Gallery*, I interviewed 10 experts in ethics to gain their understanding of ethical theories. I examine their interpretation of these theories through the AI-generated imagery that are thematically coded from the interviews. I then evaluate the visual representation in the emerging field of Visual Ethics (Johnson 1994).

**Curation of Exhibit** One outcome of my dissertation, along with a written manuscript, is a gallery curation. As such, I piloted *Kaleidoscope Gallery* in an immersive experience with viewers in a projected curation. This is a work in progress and will develop as my dissertation continues. The exhibit is seen in Figure 2 below.



Figure 2: Pilot of an immersive experience for gallery exhibition. Participants were asked to reflect on their understanding of the ethical theories by entering the room.

### Method 3

Ethnography and Case Studies (forthcoming): this method gathers the aforementioned studies to examine creative practitioners' use of AI in their practice. These entail a variety of disciplines and creative stages. The method seeks to understand how AI is deployed across various creative fields, with emphasis on those I do not practice.

1. Ethnography of Creative Practice via AI: Experts and Novices in Theatre (pilot study)

## Going forward

The thesis so far has progressed from the establishment of a central research question to the outline of the methods section. In doing so, I plan to work on the following:

- Restructuring methods section if need be and remaining agile as ideas will shift the current schema.

- Creating a strong foundation for the philosophical papers in Method 1 with complementary studies and real-world practice.
- Situating artistic research as a lens through which ethics can be understood whilst utilizing it to ground the dissertation.

### **Contributions and Significance**

As a field that is unraveling, the contributions of my dissertation are to provide foundational knowledge of “AI ethics for creativity” and ground the scholarly practice of artistic research in this endeavor.

### **References**

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