

Participatory Approaches to Address Ethical Concerns in AI-Generated Art Education: Enhancing Cross-Cultural Art Sharing and Learning

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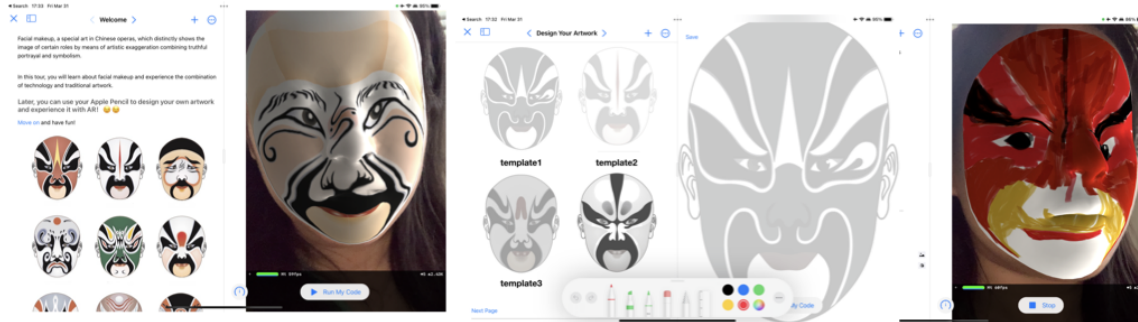


Fig. 1. FacialMakeupTour

Artificial intelligence-generated art (AIGA) plays a pivotal role in children’s education, fostering creativity and personalized artistic expression. However, AIGA raises ethical concerns, such as copyright infringement, impersonation of renowned artists’ styles, undisclosed use of AIGA, and direct copying of others’ work. The cultural diversity of artistic expression, encompassing Eastern and Western traditions, further amplifies these concerns and introduces potential cultural bias.

This paper investigates participatory approaches to detect and prevent cultural bias within AIGA education, emphasizing AI technology’s practical application in cross-cultural art sharing. We propose a participatory design method involving stakeholders, including children, teachers, and experts from diverse backgrounds, to develop culturally sensitive strategies.

We explore various techniques and technologies for sharing cross-cultural art and addressing cultural bias in AIGA education, presenting case studies that demonstrate successful AI implementation in cross-cultural art sharing and education.

Our paper highlights participatory approaches’ potential to address challenges, promote ethical practices, and enhance AI application in AIGA education, contributing to a more responsible, inclusive, and culturally aware art learning environment.

CCS Concepts: • **Human-centered computing** → **User studies; Empirical studies in collaborative and social computing; Collaborative and social computing theory, concepts and paradigms.**

Additional Key Words and Phrases: AIGA, participatory approaches, ethics

1 ANSWERS

1.1 Why do you want to attend?

As an individual with a technical background and interest in AIGA and participatory approaches, the workshop presents a unique opportunity to explore ethical challenges related to emerging technologies for children. By engaging with field experts, I aim to exchange ideas and gain valuable insights into applying participatory approaches for addressing ethical issues in AIGA education.

1.2 What can you contribute?

I can contribute to an approach that tackles the ethical issues of cross-cultural sharing in AIGA education. Specifically, I can contribute in the following areas:

I will share insights on developing culturally sensitive strategies for diverse backgrounds, as different countries have distinct histories of art development and art education. My region-specific perspectives will contribute to the paper's objective of detecting and preventing cultural bias within AIGA education through participatory approaches, ultimately promoting a more responsible, inclusive, and culturally aware art learning environment.

In addition, I have been involved in several projects utilizing emerging technologies for cross-cultural art sharing and education:

- (1) **FacialMakeupTour**¹: This project employs augmented reality to allow users to experience Chinese traditional opera masks in real-time. Following the process shown in Figure 1, users can first try on template masks and then experience their own custom-made masks with Apple pencil and AI-generated ones.
- (2) **Dragon's ART**: Showcasing dragon dance using AR technology offers a fresh and exciting way to experience and learn about this cherished traditional art form. This project provides a unique opportunity to preserve and share cultural heritage with future generations and brings new possibilities for artistic expression and innovation.
- (3) **Hanzi Creator**: Using DALLE2-generated sketches, this project introduces select Chinese characters formed by abstracting and simplifying objects.
- (4) **Cross-stitch Kit**: This project leverages AIGA tools to empower children's creativity, freeing them from the constraints of fixed templates while maximizing their creative potential with limited crafting materials.

Leveraging my experience in applying computer vision and other AI techniques to detect and correct ethical issues, I can enrich the discussion on techniques and technologies for detecting and preventing unethical practices in AIGA education.

1.3 What do you hope to get out of the workshop?

I hope to deepen my understanding of innovative participatory approaches to ethical issues surrounding emerging technologies for children that have been adopted by other researchers and professionals.

I seek constructive feedback on my work, opportunities for research collaborations, and, ultimately, contributing to the development of a responsible and inclusive learning environment in AIGA education through knowledge sharing and collaboration with workshop participants.

¹<https://github.com/wyy511511/FacialMakeupTour>