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BMMA 3
RRL Research methods

This section is divided into five parts to create the context for this research paper. The first part examines the emergence of the type-generated AI art community. The Influence of Artificial Intelligence on Art Design in the Digital Age and similar studies on picture books and language learning are presented in five parts.

The emergence of the type-generated AI art community

Despite the widespread misconception that a machine cannot produce art, technological. Programs with artificial intelligence can produce a variety of art forms, including music, poetry, visual art, design, and architecture.
This thesis's objective is to examine and comprehend how the growing community around type-generated art interprets AI in practice and evaluates the fundamental topics of conversation inside the community. The research examined Midjourney, a type-based generative art platforms on Twitter and Facebook, two social media websites media outlets.

The method the researcher used was mixed methods like Netnography. Netnography is a "more human-centered, participatory, and interactive" kind of media, according to Kozinets et al (2014). Involved emotionally, socially, and individually (p.96). Note that this is important to keep in mind. In contrast to ethnography, technique does not involve any offline contact.
Netnography, one hand, it is simple to combine with other techniques to provide more beneficial outcomes. I found it interesting to see the social media posts made by AI-artists and their perspectives. To understand the meanings and values aroused within the community. Hence, in order to support the researcher’s conclusions, the researcher carried out a qualitative content analysis.
According to Sandlin (2007), one advantage of netnography is that the data collecting is fully non-intrusive and "much less time-consuming and elaborate" than, say, ethnography (Kozinets, 2010, p.62). The fact that netnography offers a glimpse into the naturally occurring behavior is a crucial component that makes it beneficial for this research. Among the people who were studied (Kozinets, 2010; Sandlin, 2006).

The data sample comprises of Facebook comments and tweets, and the researcher utilized Twitter's advanced search tool to filter my information in the case of tweets. I have perused the phrases, hashtags, comments, and responses of a topic. Since this is a recent issue, the majority of postings were created recently or actively when the data was being gathered.

For collecting information from Twitter and Facebook, the researcher used a purposive sample strategy. In qualitative research, the purposive sampling method is frequently employed, and it is based on the researcher's capacity to choose the data that is most valuable for the study (Kumar, 2014; Palinkas et al., 2015). (Kumar, 2014; Palinkas et al., 2015).

To conclude this study, a sizable portion of participants appear to view AI as a collaborative tool that can either encourage or improve their creative abilities. This technical entity so becomes a crucial component of their creative process.

Although some posts were plainly against the emergence of the AI phenomenon, a large volume of tweets and comments were sustaining this practice. More than 10,000 new members join the community each week, which demonstrates how quickly it is expanding.

This thesis makes the case that it would be advantageous on many levels to investigate how humans engage with AI when creating type-generated art. It would first advance the field of research into how deep learning models and artificial intelligence in general interact with people. Second, it aids in making future projections regarding potential shifts and transformations in human agency and creative activity.

The Influence of Artificial Intelligence on Art Design in the Digital Age

With the advancement of technology represented by artificial intelligence, art creation is becoming increasingly rich, and content expression is intelligent, interactive, and data-driven, making the relationship between technology, art, and people increasingly close and bringing opportunities for the development of emerging interaction. By the ability to recognize human qualities, decode emotions, and enable natural responses based on the surroundings, artificial intelligence technologies seek to precisely imitate the human mind.

This study's contributions can be summed up as follows:

(1) First, we categorize the streams of interactive art expression and AI technology development on a timeline based on historical development, and then we study the deconstructive relationship between the two from a macroperspective of the historical development of both technology and art.

(2) On the basis of examining the benefits of AI technology, we suggest the influence of AI on the inventiveness, inventiveness, and artistic experience of interactive art and construct the AI-related paradigm of interactive art production.

(3) The suggested approach can be utilized to easily identify the type of painters when confronted with various types of unsigned digital Chinese painting images for the authenticity identification task.

How AI functions:
- Analysis for images is complicated by mathematical tools alone and requires finding feature values that can quantify the image information. Therefore, extracting image features and combining them with the feature learning capability of computers can improve the efficiency of image analysis.
- Statistical-based methods: texture features are random in the image region, but some regular characteristics of texture features can be mined using statistical methods. Statistical-based methods mainly study the grayscale distribution within the image region.

- Color features are important visual features in image processing. Among them, red, green, and blue (RGB), hue, saturation, and lightness (HSV) are the two most commonly used color spaces.
- Deep learning is a new research hotspot in the field of machine learning. Deep learning mainly emphasizes two points: (1) the depth of the model and (2) the mapping of feature information learned from shallow layers to a new feature space by reasonably increasing the number of network layers, which makes the classification more accurate.

Experimental results: and conclusion
- Firstly, the algorithm uses contrast statistical features to eliminate digital Chinese painting image blocks with little information; secondly, the features are pregenerated for digital Chinese paintings using the style characteristics of Chinese paintings; then, an intelligent classification network based on multibranch attention mechanism is designed to complete the fusion and classification of Chinese painting features.
- Based on the analysis of the innate advantages of AI technology, this study proposes how AI can change the original paradigm of interactive art expression application from the level of creative thinking, creation mode, and art experience so as to establish an intelligent interactive art creation model in the context of AI.

Artists or artificial intelligence? The effects of identity on liking and purchase intention

- This study investigated the effects of AI art on people's perceptions of Chinese and Western-style paintings as well as their intentions to buy them and collect them. It also explored the impact of art knowledge.
For the data analysis, Greenhouse-Geisser was used by the researcher. Analysis of variance (ANOVA) for repeated measures analyses received corrections.
According to the findings of their study, Chinese participants preferred Chinese-style paintings over Western-style paintings.
They specifically shown a preference for collecting Chinese-style paintings over Western-style paintings, regardless of whether the paintings were produced by artists or by AI. Participants rated Chinese-style paintings more favorably than Western-style paintings based on the liking scale, but there was no discernible preference for paintings created by artists.
Another result from the study showed that experts showed less liking toward AI-generated paintings than non-experts.
Simple effect study on the purchase intention and collecting intention for the interaction between the author and the art expertise produced comparable findings. As predicted, experts expressed more desire to purchase and collect paintings created by artists than paintings created by artificial intelligence.

The Role of AI Attribution Knowledge in the Evaluation of Artwork

Abstract
Artwork is increasingly being created by machines through algorithms with little or no input from humans. Yet, very little is known about people’s attitudes and evaluations of artwork generated by machines. The current study investigates (a) whether individuals are able to accurately differentiate human-made artwork from AI-generated artwork and (b) the role of attribution knowledge (i.e., information

about who created the content) in their evaluation and reception of artwork. Data was collected using an Amazon Turk sample from two survey experiments designed on Qualtrics. Findings suggest that individuals are unable to accurately identify AI-generated artwork and they are likely to associate representational art to humans and abstract art to machines. There is also an interaction effect between attribution knowledge and the type of artwork (representational vs. abstract) on purchase intentions and evaluations of artworks.

Result

As AI-generated artwork becomes increasingly common, it is important to better understand audience attitudes toward such artwork and their ultimate reception and evaluation of it. Through a two-study approach using artwork as stimuli, we investigated (a) whether individuals are able to accurately identify Gangadharbatla 13 the creators of artworks and (b) the effects of attribution knowledge and type of artwork on the evaluation and reception of artworks. Interestingly, individuals in our study were not able to accurately identify the majority of the artworks in our study. More precisely, they were able to accurately identify only one out of the five AI-generated artworks. Similar to findings in previous studies (e.g., Chamberlain et al. (2018), individuals in our study 1 also seemed to associate abstract artworks to AI technologies and representational artwork to humans.

Defending humankind: Anthropocentric bias in the appreciation of AI art

Abstract

We argue that recent advances of artificial intelligence (AI) in the domain of art (e.g., music, painting) pose a profound ontological threat to anthropocentric worldviews because they challenge one of the last frontiers of the human uniqueness narrative: artistic creativity. Four experiments (N = 1708), including a high-powered preregistered experiment, consistently reveal a pervasive bias against AI-made artworks and shed light on its psychological underpinnings. The same artwork is preferred less when labeled as AI-made (vs. human-made) because it is perceived as less creative and subsequently induces less awe, an emotional response typically associated with the aesthetic appreciation of art. These effects are more pronounced among people with stronger anthropocentric creativity beliefs (i.e., who believe that creativity is a uniquely human characteristic). Systematic depreciation of AI-made art (assignment of lower creative value, suppression of emotional reactions) appears to serve a shaken anthropocentric worldview whereby creativity is exclusively reserved for humans.

Result

Participants experienced less awe when the piece of music was labeled as AI-made (vs. human-made). Specifically, their awe scores were skewed to the left when the human-made piece was on the left, and to the right when the human-made piece was on the right. This analysis allows us to conclude that participants' bias is due to the information about the source (AI vs. human) and independent of the art content. In line with Hypothesis 2, participants also perceived the piece of music as less creative when it was labeled as AI-made (vs. human-made).

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