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E-B Environment - Behaviour Proceedings Journal

KICSS2024

Kedah International Conference on Social Sciences:
https://kicss2024.wixsite.com/kicss2024

e-IPH e-International Publishing House Ltd., United Kingdom

IC2reDIT: International Conference On Creative Design, Innovation & Technology
Virtual Conference, 23 & 24 October 2024

Organised by: Universiti Teknologi MARA, Kedah, Malaysia

AI in Art: A comparative analysis of human and machine-created works in contemporary art exhibitions

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Abstract
This study aims to examine the differences and similarities between human and AI-created artworks in contemporary art exhibitions. It investigates how each type of artwork is produced, interpreted, and received within modern cultural contexts. The research uses qualitative thematic analysis based on secondary data, including exhibition catalogues, critical reviews, and case studies. It addresses the growing concern over AI's expanding role in creative industries, raising questions about authenticity, authorship, and artistic value. Findings reveal distinct thematic patterns, highlighting a future shaped by both emotional expression and computational creativity.

Keywords: Human-created art; AI-created art; Emotional resonance; Computational creativity.

DOI: https://doi.org/10.21834/e-bpj.v10iSI29.6894

1.0 Introduction

Artificial intelligence (AI) is rapidly transforming creative sectors, including the visual arts, by producing artworks displayed alongside human creations in contemporary exhibitions. This development challenges traditional ideas of authorship, creativity, and artistic value (Tian, 2022). There has been a lot of literature providing insights on the aesthetics and processes of AI-generated art but very little has been done to compare artificially generated and human-created pieces explicitly in the context of artworks exhibited.

This report examines the differences between artworks created by artificial intelligence and those created by people in terms of concept, emotion, and technique. Furthermore, the current study discusses audience reception and reactions to these artworks, as well as thinking about and technique. Furthermore, the current study discusses audience reception and reactions to these artworks and considers how AI is changing the creative world. The research is based on qualitative secondary sources, including exhibition catalogues and critical reviews.

This report aims to conduct a comparative analysis of human and AI-generated artworks in contemporary art exhibitions. The objectives are to identify the distinguishing features of both types of artworks, evaluate their reception by critics and audiences, and assess AI's influence on current and future artistic trends.

The study's contribution is in the depth it goes into the implications of AI on the creative environment and its transformational impact. It examines the ways human innovation and AI are transforming artistic expression through collaboration. These results are conclusively

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DOI: https://doi.org/10.21834/e-bpj.v10iSI29.6894

valuable to technology's impact on the future of the art world and underscore the need for considerate reflection on how AI increases its influence in making art.

2.0 Literature Review

2.1 Introduction to AI in Art

AI has changed the art sector by bringing in new forms of creativity and styles. Artificial intelligence can produce artwork, music, and indeed whole books, thus challenging the definitions of art and what counts as creation. AI incorporation in art gives the potential to rethink main concepts in art and gives fresh vision to creative (Bajohr, 2022). This part focuses on the differences and similarities of the artwork created with the help of people and AI, the response of critics and audiences, and the consequences of modern art.

2.2 Characteristics of Human-Created vs. AI-Created Artworks

2.2.1 Human-Created Artworks

The artwork created by humans is unique in that it has depth regarding the emotions put into it and the artist's intentions. They express themselves, their feelings, and the world they live and come from when creating their masterpieces. Creativity is often related to freedom of expression, where intuition and the creation of ideas rely on the willingness to be spontaneous and organic in creating new ideas (Bonnefon et al., 2023).

2.2.2 AI-Created Artworks

AI-generated images, as opposed to AI-designed, are produced with the help of algorithms and data analysis. These works can replicate specific styles, patterns, and techniques when given massive sets of existing art to study; however, AI remains devoid of a deep emotional understanding and real-life experience, relying purely on patterns and statistical likelihoods. AI art can look artistic, polished, technically sound or skilfully crafted. However, it does not necessarily have the purpose and individuality implied in artwork made by people (Goold, 2020). The significance of AI art is that it can break the conventions and experiment with new concepts in art by applying technology.

2.3 Reception and Interpretation of Artworks

2.3.1 Art Critics' Perspectives

Art critics are responsible for analyzing and commenting on creations from aesthetic and cultural viewpoints. When people create art pieces, there is always originality, emotions, and the artist's talent behind the work. Auditors assess the degree of concern, craftsmanship, and creativity used by human artists in the context of a theme. On the other hand, art created by AI is analyzed for its originality, the algorithms employed, and the future they hold for the art industry (Anciaux, 2021).

2.3.2 Audience Perception

The public's perception of human and AI art depends on personal and cultural predispositions as well as awareness of the technological aspect of the artwork. The art made by humans is generally admired for eliciting an array of feelings in the viewers or narrating a story. People understand the artistic value as well as the story that is portrayed in the work of art. While AI art is still debatable, it can also captivate the audience with its live performances and the fusion of technology and artistry (Tian, 2022). Understandably, people can be attracted by the novelty and uniqueness of AI art and begin a discussion about art, its future, and the place of technology in it.

2.4 Technological Advancements in AI-Driven Art Creation

2.4.1 Algorithmic Innovation and Artistic Autonomy

Recent advancements in machine learning, particularly in generative adversarial networks (GANs) and deep learning, have significantly enhanced AI-generated art's complexity and visual quality. These technologies enable machines to learn artistic styles, generate original content, and mimic human-like creativity with increasing precision (Tian, 2022). However, this rapid progress raises questions about the extent to which AI can independently generate meaningful artistic expressions without human input or intent.

2.4.2 Real-Time Generation and Interactivity

Emerging AI systems are capable of producing real-time, adaptive artworks that respond to viewer engagement or environmental data. These interactive features introduce a new form of audience participation absent in traditional human-created art (Sundar et al., 2016). Despite these innovations, there remains limited analysis on how such works are critically received and understood within established art institutions or by audiences unfamiliar with technological art forms.

2.5 Impact of AI on Contemporary Art Practices

2.5.1 Innovation and Exploration

AI has presented artists with new possibilities previously unimaginable, thus expanding the realms of artistic expression. Artists can use AI to develop new concepts, practice with different art forms, and even challenge the normal art styles. It is productive for the overall development of artwork and creativity and helps to think beyond the boundaries of art (Tian, 2022). AI can enhance the modern art scene through computation by making intricate patterns and shapes, graphic and interface designs, and immersive artwork and public art experiences.

2.5.2 Ethical and Philosophical Implications

The use of AI in art thus opens up questions of ethics and philosophy where authorship, creativity, and value of art are concerned; this introduction of AI as a co-artist undermines the idea of originality. Controversies arise to copyright and ownership of AI-created

productions and the degree of human intervention or input in a project (Bin, 2023). Such discussions raise further questions on how we assess AI's work in the art context, let alone embrace it as a game-changer. The ethical concerns applying to AI art range from bias, who is represented, to whether it can exacerbate current imbalances in the art industry.

2.6 Gaps and Controversies in Comparative Art Analysis

2.6.1 Lack of Unified Critical Framework

Although literature explores AI art's technical and aesthetic dimensions, there is no unified critical framework for comparing it with human-created works in exhibition contexts. Current studies often isolate AI art or treat it as a novelty rather than examining its position alongside traditional artistic practices (Bin, 2023). This limits the scope of critical discourse and fails to account for shared or diverging aesthetic principles.

2.6.2 Blurred Authorship and Value Attribution

Controversies persist around authorship, especially when humans co-produced or curated AI-generated works. Attribution of artistic value becomes problematic when creative decisions are distributed between code, programmer, and system output (Caviness, 2019). The literature lacks consensus on evaluating these hybrid contributions, highlighting a need for new evaluative models that this study seeks to address.

2.7 Future Trends in Art

It can be suggested that further advances in artificial intelligence technologies will play a role in future contemporary art development. AI is expected to gradually become a creative medium in art, for which institutions and artists continue to explore and harness its possibilities, making art more digital and interactive and hinting at a relatively near future where co-creation with AI is more common (Aslam, 2024). It may lead to artistic symbiosis in which humans and machines create art in concert, thus providing a diverse representation of art. These areas will also determine how AI translates art education, curation, and exhibition practices and how contemporary art will evolve.

3.0 Methodology

This study aims to conduct a comparative content analysis of human and AI-generated artworks exhibited in contemporary art exhibitions, focusing on their conceptual, aesthetic, and emotional dimensions. A secondary qualitative method used thematic analysis to explore recurring themes and patterns in the artworks and critical responses (Dadia et al., 2021). The methodology used the research onion framework to ensure a structured and rigorous research design.

3.1 Philosophical Underpinning

The research adopts an interpretivist philosophical stance, which aligns with the focus on understanding subjective interpretations of art. This paradigm allows exploration of the meaning-making processes applied by critics, curators, and audiences when encountering human and AI-created works (Guo et al., 2022). As artistic value arises from cultural and social influences, interpretivism offers an opportunity to analyse audience reaction and artistic objectives using situational analysis.

3.2 Research Approach

By applying an inductive approach, the investigation generalises ideas from studying chosen works of art and other material. Instead of trying to confirm a hypothesis, this research explores themes arising from the chosen artworks and the literature accompanying them (Goold, 2020). Such an approach is suitable for exploring emerging areas such as AI-generated art, hypothesising, and stating hypotheses supported by specific data.

3.3 Research Design

3.3.1 Data Collection Methods

The study collected data from a purposeful selection of international exhibitions between 2018-2024, from exhibits at the Barbican Centre in UK, Ars Electronica in Austria, and Beijing AI Art Centre in China. The research team studied exhibition catalogues, artist statements, as well as curatorial narratives and published critiques for these exhibitions. The choice of artworks was dependent on the way they had been presented in curated professional exhibitions that presented both AI-based and human-made art. Other sources were from scholarly journal reviews in Artforum, Journal of Contemporary Aesthetics, and research studies in art and technology (Aslam, 2024). The scope of the study included those artists, from Refik Anadol to Mario Klingemann, who made substantial use of AI in their practices, to Marina Abramović, who produced original works of pure human effort.

3.3.2 Data Analysis Methods

The research utilised thematic analysis to search for hidden themes in the dataset. Thematic coding was driven by the literature review, which paid attention to such elements as emotional expressiveness, computational creativity, author ambiguity, and how the audience perceives the artworks. During the investigation of artworks and reviews, researchers focused on language, descriptors and evaluations to understand the creativity, originality and meaning (Cheng, 2019). Through the regular revision and adjustment of themes, the researchers brought out both similarities and differences between artistic representations of things by humans and AI systems.

3.4 Ethical Issues

Ethical complications include the need to uphold the intellectual property of artists and to credit the developers of supplementary databases. The study ensures that credit is given to creators of all materials used, virtually eliminating risks associated with information use. Moreover, the research raises ethical questions of AI in art, particularly addressing questions concerning authorship, originality, and bias. The research examines these questions with great care to create an equitable and ethical conception of AI's role in artistry.

4.0 Findings

4.1 Thematic Analysis

Table 1. Thematic Analysis

Initial Code Generation	Define the Theme (Search for Themes)	Review the Themes	Theme Description or Define Themes
Emotional depth, personal expression, cultural context, narrative, craftsmanship	Emotional Resonance in Human-Created Art	The initial codes highlight the unique characteristics of human-created artworks, focusing on emotional and cultural elements.	**Emotional Resonance in Human-Created Art:** Human-made works frequently express powerful feelings, distinctive life histories, and experiences of the creator's culture, as Caviness (2019) declares. Such a combination makes the works truly original and emotionally gripping, causing deep resonance with the audience.
Patterns, algorithms, technical proficiency, lack of personal touch, and innovation	Computational Creativity in AI-Created Art	The codes suggest that AI art is defined by technical prowess and innovative algorithm use but often lacks emotional depth.	**Computational Creativity in AI-Created Art:** The nature of AI-created artworks is that they use sophisticated algorithms and possess technical skills (Wohl, 2023). AI's capability to replicate design elements results in appealing art, yet it can never catch up with the emotional intricacies and individual narratives inherent to art created by humans.
Audience intrigue, skepticism, novelty, discussion, and cultural impact	Audience Reception and Interpretation	The audience's response to AI art varies, with a mix of intrigue and skepticism, highlighting AI's novelty and cultural impact in art.	**Audience Reception and Interpretation:** Viewers tend to be willing to explore and mistrustful of AI-created work (Sedgman, 2019). Some are attracted by the curiosity factor and cultural impact, while many question artistic legitimacy and emotional affinity due to the lack of personal engagement.
Critical analysis, thematic depth, ethical implications, artistic merit, originality	Art Critics' Perspectives	Critics focus on the thematic depth, ethical implications, and artistic merit of both human and AI-created artworks, emphasizing originality and creativity.	**Art Critics' Perspectives:** Bajohr's (2022) view explains why art critics analyze art pieces as seen from humans and AI aspects of the theme and creativity of art alongside its ethical aspects. Here, works created by humans are honoured for their unique vision and true expression, and the works generated through AI have to be accountable for their inventive means and their lack of personal element.
Ethical considerations, authorship, bias, originality, creative collaboration	Ethical and Philosophical Implications	The ethical and philosophical issues surrounding AI art include authorship, bias, and originality, prompting debates on the future of artistic creation.	**Ethical and Philosophical Implications:** The issue of originality and authorship as well as that of bias in art production are raised by artificial intelligence in the realm of art (Bonnefon et al., 2023). Such debates raise questions about what we describe as creativity and highlight the possibilities of interaction between human and AI in artistic activities.
Innovation, new tools, expanded possibilities, collaboration, and future trends	Innovation and Future Trends in Art	AI introduces new tools and techniques for artists, fostering innovation and expanding creative possibilities. It also suggests future trends in collaborative art.	**Artistic Innovation and Emerging Trends:** AI develops creative tools and methods to stimulate creativity and new artistic possibilities (Goold, 2020). As AI advances, we can expect more cooperation between artists and artificial intelligence, which would lead to many unique artistic visions based on human understanding and machine work efficiency.

(Source: Author)

5.0 Discussion

5.1 Emotional Resonance in Human-Created Art

The implications derived from the study show that human art is characterized by the profound infusion of emotions and unique touch. These considerations are essential in developing unique and personal works that will help to touch people's hearts (Guler, 2019). The meaningful cultural context and story that underpins these pieces of artwork adds another layer of meaning, which places these artworks as powerful statements by the artist that embody a lasting legacy.

5.2 Computational Creativity in AI-Created Art

The artworks created by AI are more technical, precise, and exact, and they involve the algorithms in their development. These works can closely copy styles, patterns, and techniques, and all these art pieces display the possibility of AI art as being aesthetic. These drawbacks include the lack of originality and or passion for creating art, as seen in these works (Caviness, 2019). However, from an artistic point of view, using AI seems to have its limitations as it does not possess the purpose or purposefulness of human art.

5.3 Audience Reception and Interpretation

The effects of testing artworks created with the help of AI are varied, which points to the immense field of interest. There are two concepts; some are fixated on AI art's procedural and technological aspects, while others criticize Ormin for the absence of emotion and engaged involvement (Wohl, 2023). This duality depicts the emerging conundrum of perceiving the artwork designed by AI systems, where appreciation of the technical aspects may be offset by emotional depth and narrativity.

5.4 Art Critics' Perspectives

Art critics give the audience insights into the richness of subject matter and the ethical reasoning behind the theme and technique of both human and AI-generated art. Art created by humans is always ethereal and creative, two characteristics highly celebrated in art. On the other hand, AI art receives praise for its non-traditional approach to art, but it gets criticized for its complete absence of personality and emotions (Sedgman, 2019). It is also important to acknowledge the ethical concerns when the creative works are autonomously produced, which include issues of authorship and originality.

5.5 Ethical and Philosophical Implications

The use of AI in art leads to several recurring questions concerning human morality that stem from basic principles such as the author's rights, prejudices, and novelty. The idea of AI as a co-artist cancels out conventional theories of creativity and artistry, raising contentious questions regarding the online valuation and proprietorship of artistic creations (Bajohr, 2022). Attending to these ethical concerns is imperative as they form part of the secondary condition for achieving a well-rounded viewpoint on the use of AI in art. It is also essential to consider how such advancements in AI technology reproduce old prejudices and inequalities within the art world.

5.6 Innovation and Future Trends in Art

AI is a revolution that brings new tools and skill sets for artists, always opening new horizons of creative exploration. Based on the report, the future of postmodern contemporary art will involve new creative synergies between humans and AI and create new genres of creativity (Bonnefon et al., 2023). This interaction can marry the intuitive with the rational, resulting in various artistic expressions. Artists' interactions with AI thereby signify the ongoing processes in art practices, which suggest the continued development and expansion of possibilities.

6.0 Conclusion

The purpose of this report is to explore the manner in which the products rendered by human hands are mixed with those of AI and their works in the contemporary exhibition setting. The findings manifested striking differences in acceptance and traits, but were restricted by the indirect nature of the research material and the contexts reviewed. Future research may extend upon this work by gathering new data from across a greater variety of locations in order to explore these dynamics even more. It is recommended for curators to develop clear labelling procedures for AI works and to encourage cooperation between artists and AI developers. Education for the public regarding the ways in which AI assists in art-making should be a primary concern in subsequent educational programs. As the synergy of human and machine creativity evolves, the art worlds are called upon to adjust their practices to help develop ethical, innovative and inclusive arts practices in this evolving hybrid field.

Acknowledgements

On behalf of the research team, I sincerely appreciate the Universiti Teknologi MARA (UiTM). We also want to thank art critics, gallery curators, and audience members for their valuable input in assessing the shows. Finally, I appreciate the artists and developers of AI who have informed the development of the creative works used in this research. I wish to acknowledge all the scholars for their support, which has greatly assisted the work relating human imagination/creativity to AI in modern art.

Paper Contribution to Related Field of Study

This paper significantly advances contemporary art knowledge by comparing human and AI-generated art, highlighting their similarities and differences. It explores AI's role in art-making, revealing its strengths and limitations, while examining the interplay between creativity, emotion, and AI. The study also addresses key ethical and philosophical concerns, such as authorship, originality, and bias, fostering future discourse on AI's impact on art. By uncovering new possibilities for cross-disciplinary hybridity, it suggests potential future developments in art. This opens avenues for further research on collaborative efforts between artists and AI developers, shaping the evolving landscape of art in the digital age.

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