The Ethical Dilemmas of AI-generated Art and Contemporary Reflections on Art Ontology

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Abstract: The implementation of generative AI tools has not only reshaped the contemporary art ecosystem through AI-generated artworks, but also triggered ethical dilemmas such as the erosion of subjectivity, copyright ambiguities, and aesthetic alienation. These challenges have compelled a paradigm shift in traditional art ontology. This study examines the reconstruction of art ontology in human-machine collaborative contexts, using ethical dilemmas as a starting point and combining commercial applications with avant-garde practice cases. It reveals that traditional creator identity definitions and copyright frameworks struggle to adapt to new creative models, while technological monopolies exacerbate aesthetic homogenization and fairness crises. Art ontology must transition from anthropocentric perspectives to a "human-machine-data" collaborative system framework, with value evaluation standards incorporating both technological innovation and cultural compatibility. Future efforts should focus on establishing interdisciplinary dynamic ethical norms, advancing copyright law reforms and tiered rights confirmation mechanisms, while balancing technological iteration with artistic integrity through humanistic values.

***Keywords*:** AI-generated art, ethical dilemmas, art ontology, human-machine collaboration, copyright governance

1. Introduction

Since the large-scale deployment of generative AI tools in 2022, AI-generated art has rapidly transcended its technical utility to become a pivotal force reshaping the contemporary art ecosystem. From revolutionizing post-production workflows in advertising videos to digitally reconstructing Dunhuang cultural animations, generative AI's cross-modal capabilities have not only reduced costs and boosted efficiency but also thrust artistic creation into ethical controversies. Currently, AI-generated art faces multiple challenges: the erosion of human creativity by algorithms has sparked art circles' anxiety over "the disappearance of spiritual resonance"; copyright disputes over training data and ambiguous ownership of artworks expose the inadequacies of existing legal frameworks; meanwhile, the invisible barriers to creation imposed by technological monopolies are undermining the original intent of art democratization.[1]

2. Analysis of Core Ethical Dilemmas in AI-Generated Art

The ongoing debate over the creative agency of AI-generated art fundamentally reflects the clash between traditional creator definitions and emerging human-machine collaborative models. The once-stable human creator in traditional art is being replaced by new forms of agency embedded in human-machine-data ecosystems, transforming artistic creation into emergent behaviors guided by humans, algorithmic participation, and cultural heritage permeation. This shift blurs the boundaries of creative authority between humans and machines, raising the core question: "Who is the creator?" While some fear the erosion of human creative agency, others argue that the creator role will undergo paradigm shifts similar to those seen with photographic technology. Generative AI's algorithmic generalization capabilities, constrained by the semantic complexity of advertising contexts, often fall into the trap of aesthetic homogenization through de-branding during style transfer, undermining the uniqueness and diversity of artistic creation. When algorithms prioritize mainstream aesthetic paradigms from training data, they gradually compress niche and avant-garde aesthetic spaces, ultimately leading to aesthetic alienation and reducing art to standardized products dictated by technical logic. Meanwhile, the technological monopoly of large tech companies on AI art tools exacerbates the fairness crisis in artistic creation. Enterprises controlling core algorithms and training datasets leverage technical barriers to raise creative thresholds, depriving independent creators of equal creative resources and further solidifying power imbalances in the art ecosystem. This monopoly extends beyond tool usage rights to aesthetic discourse control, as platforms reinforce mainstream aesthetics through algorithmic recommendation mechanisms while squeezing distribution channels for non-mainstream art.[2]

3. Contemporary Reconstruction of Art Ontology: Paradigm Shift in the Context of AI

Traditional art theory has long regarded human creativity and emotional expression as its core anchors, yet AI-generated art is redefining these boundaries. The philosophical shift from "what is art" to "how art exists" signifies that conventional ontologies of physical art are being transcended, with artistic forms now extending beyond human-centric creation. In human-machine collaborative creation, creative agency no longer resides solely with humans but permeates the "human-machine-data" ecosystem, evolving into an emergent process guided by humans, algorithmic participation, and collective cultural heritage. This new form of intersubjectivity dismantles the creator-tool dichotomy, transforming AI from a mere assistant into a co-creator with active creative involvement.[3]

Traditional art evaluation systems have long centered on three core criteria: the technical mastery, emotional depth, and originality of human creators. However, the rise of AI-generated art is revolutionizing these standards. Context-based cluster evaluation theory posits that artistic value should be assessed within its original creative context rather than through rigid, singular benchmarks. In AI-generated art, dimensions like technological innovation, depth of human-computer interaction, and cultural relevance of data training are emerging as new value anchors. For Dunhuang-themed animation projects, the precision of AIGC's mural color reproduction and the integration of cultural knowledge graphs have become key indicators of a work's cultural and artistic value, breaking away from the traditional evaluation logic that prioritized hand-drawn accuracy.

4. Empirical Analysis and Implications of Typical Cases

4.1 Commercial Application and Legal Cases: Ethics and Legal Conflict in Industrialization

In the field of post-production for advertising videos, the commercial application of generative AI is reshaping industry production paradigms while sparking intense ethical and legal conflicts. Brands leverage AI's cross-modal generation capabilities to rapidly achieve style transfer and personalized ad creation, achieving cost reduction and efficiency gains. However, the limited generalization ability of algorithms, constrained by the semantic complexity of advertising scenarios, often leads to style deviations that de-brand the content, accompanied by ethical controversies surrounding deep fakes. In animation production, generative AI assists with character design and scene rendering, alleviating production pressure. Yet, due to ambiguous copyright status of training data, it falls into a legal vacuum regarding copyright ownership.[4]

The landmark Thaler v. US Copyright Office case became a defining moment in copyright disputes, revealing how the U.S. Copyright Office's human authorship requirements struggle to align with the creative logic of AI-generated works, exposing the limitations of existing legal frameworks. The lawsuits against Midjourney and Google further exposed the risks of unauthorized use of human works in AI training data, highlighting the challenges in effectively protecting creators' intellectual property. In South Korea's commercialization of AI-driven performing arts, collaborative human-AI performances have garnered market attention while sparking industry debates about whether AI can be recognized as creators, blurring the boundaries of rights and responsibilities in commercial collaborations. These commercial applications and legal cases collectively point to a core contradiction: the current legal system lacks copyright allocation rules tailored for AI-generated content, while technological advancements far outpace institutional development, leading to frequent ethical lapses and legal conflicts in industrialization processes.

4.2 Controversies in the Art World and Avant-Garde Practices: Identity and Boundary Expansion

The year 2022 marked the dawn of generative AI art, with AI-generated works entering mainstream exhibitions sparking debates about identity. This became a defining moment in the art world's paradigm shift. When AI creations competed with human works, the traditional belief that "art must be human-made" was challenged, igniting heated debates about AI's artistic legitimacy. Some adhered to anthropocentric art theories, arguing that AI-generated content lacked the emotional depth and existential experience of human creators, thus failing to capture art's "aura." Avant-garde artists, however, expanded creative boundaries through human-machine collaboration. They juxtaposed AI's algorithmic essence with the embodied nature of painting, creating ontological contradictions by overlaying hand-drawn gestures on AI-generated images—challenging both human-centric artistic control and algorithmic dominance. In Dunhuang-themed animations, creators used AIGC technology to embed cultural knowledge graphs, achieving precise cultural expression while maintaining human control over artistic content and boosting efficiency. Others developed interactive installations that fostered romantic human-machine relationships, inviting audiences to reflect on the boundaries of subjectivity in the AI era through immersive experiences. These avant-garde practices moved beyond the binary debate of "AI as creator" to view AI as a new medium

for artistic expression, steering the art world from identity debates to exploring collaborative human-machine creation possibilities.

5. Conclusion

The ethical dilemma of AI-generated art fundamentally stems from the clash between technological rationality and humanistic values in contemporary art. Resolving this issue cannot rely solely on technological iteration but requires anchoring itself in the reconstruction of artistic ontology. The traditional ontological premise of absolute creator subjectivity has become untenable under human-machine collaborative creation paradigms, giving way to a new form of creative subjectivity embedded in the "human-machine-data" ecosystem. This paradigm shift necessitates redefining copyright attribution logic, transcending legal frameworks centered solely on human creators, and establishing tiered ownership mechanisms compatible with human-machine collaboration. Moreover, the root cause of aesthetic alienation lies not in technology itself but in the imbalance of creative discourse power under technological monopolies. Only by promoting the development of technology equity platforms can we dismantle algorithms' singular shaping of aesthetic standards and return to the original intent of art democratization.

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