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# The Illusion of "Authenticity" : Ethical Dilemmas and Aesthetic Imagination in Pop Music Creation in the Age of AI

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#### Abstract

With the widespread application of artificial intelligence (AI) in music creation, the creative logic, aesthetic paradigms, and power structures of pop music are undergoing profound transformations. This paper takes AI-generated music as its research focus, examining the controversies surrounding its generative mechanisms, aesthetic presentation, copyright ethics, and social practices. Drawing on real-world international research findings and policy documents, it explores the future of human-machine collaboration. The study finds that while AI can enhance creative efficiency, it also poses serious challenges to originality, authorship, and emotional authenticity. Constructing an ethical framework and rights recognition system adapted to the AI context is an urgent issue that demands scholarly attention and practical resolution.

Keywords : AI Music; Vocal Authenticity; Originality; Aesthetic Imagination

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# Introduction

Artificial intelligence (AI) is rapidly emerging as a new productive force in the field of music. From AI composition engines like Amper and AIVA to large-scale generative models such as OpenAI's Jukebox and Google's MusicLM, machines are becoming increasingly capable of "imitating human composition." The rise of AI-generated music not only represents a technological breakthrough but also triggers deep discussions around creative ethics and aesthetic values. On the one hand, AI technologies are making music creation more efficient and diverse; on the other, they challenge traditional notions of authorship and artistic worth.

First, the creative process of AI-generated music typically relies on learning from and mimicking vast amounts of existing musical works. This raises critical issues surrounding originality and copyright. Many artists and musicians are concerned that AI-generated compositions may infringe on their intellectual property rights or even replace their roles. For example, in 2023, the AI-generated song "Heart on My Sleeve" mimicked the voices of Drake and The Weeknd without authorization, sparking widespread legal and ethical debates (Reed, 2023).

Second, the emotional expressiveness and artistic value of AI music have also come under scrutiny. While AI can produce technically flawless pieces, whether it can truly convey human emotion and experience remains an open question. Music is not merely a combination of sounds—it is a form of emotional expression and cultural transmission. Whether AI can comprehend and reproduce such deep-seated artistic values is a question worth pondering (Corbelli, 2024; Gordon, 2023).

Moreover, the growing prevalence of AI-generated music is also impacting the structure and ecology of the music industry. As AI becomes more capable, more music can be automatically generated, potentially leading to market saturation and homogenization, which in turn may affect the diversity and innovation of music. At the same time, the rise of AI could redefine the role and status of musicians, transforming them from original creators into AI collaborators or overseers (OECD, 2023; Soundful, 2023).

Against this backdrop, it becomes necessary to reexamine the ethical and aesthetic questions surrounding AI music. We must explore how to protect and preserve human artistic value and cultural heritage in the face of rapid technological advancement. This is not only a technological imperative but also a cultural and societal necessity (Samuelson, 2023).

In conclusion, the emergence of AI-generated music presents both new possibilities and new challenges for musical creation. While we embrace and utilize the power of AI, we must also uphold the value of human artistry to ensure that music—as a vital form of emotional and cultural expression—continues to flourish in the age of AI.

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Market.us. (2024). AI in Music Market Size, Share, Trend | CAGR of 25.8%. https://market.us/report/ai-in-music-market/

# **Overview of AI Music Creation Mechanisms**

#### **Representative AI Music Systems**

In recent years, artificial intelligence has made significant strides in the field of music creation, giving rise to a variety of representative systems. For example, Jukebox, developed by OpenAI, can generate sung music in the raw audio domain. The model uses a multi-scale VQ-VAE (Vector Quantized Variational Autoencoder) to compress raw audio and employs an autoregressive Transformer to model the discrete codes, thereby generating high-fidelity and diverse songs lasting several minutes (Dhariwal et al., 2020).

Another example is MusicLM, proposed by Google. This model treats conditional music generation as a hierarchical sequence-to-sequence modeling task and is capable of generating coherent music at 24 kHz that lasts for several minutes. Experimental results show that MusicLM outperforms previous systems in terms of audio quality and adherence to textual descriptions (Agostinelli et al., 2023).

#### Technical Foundations: Transformer, Diffusion Models, and Style Transfer

The core technologies behind AI music generation include the Transformer architecture, diffusion models, and style transfer techniques.

Transformer models are widely used in music generation tasks due to their powerful sequence modeling capabilities. Music Transformer, a neural network based on the attention mechanism, can generate music with improved long-term structure. It utilizes relative positional encoding to capture long-range dependencies in music, enabling the generation of more structurally coherent compositions (Huang et al., 2018).

Diffusion models perform well in cross-modal generation tasks, including text-to-music generation. Studies show that these models tend to focus on capturing global musical attributes such as genre and mood, enabling the generation of high-quality music segments (Huang et al., 2023).

Style transfer techniques make it possible to apply one musical style to another musical content. For instance, Groove2Groove is an AI system for musical accompaniment style transfer. It can apply the style of one MIDI file to the content of another MIDI file to generate new accompaniments (Cifka & Gelly, 2020).

#### Fundamental Differences from Traditional Music Composition

AI-generated music differs fundamentally from traditional music composition in several key aspects. Traditional composition typically relies on the inspiration and experience of human musicians, while AI generation is based on learning from large datasets and recognizing patterns. Human composers often infuse their music with personal emotions and cultural background, whereas AI models generate music through algorithms, potentially lacking emotional depth (Barnett, 2023; The Cornell Daily Sun, 2024).

Moreover, AI-generated music may involve imitation or reconstruction of existing works, leading to copyright disputes. For example, in 2024, the Recording Industry Association of America (RIAA) filed a copyright infringement lawsuit against the AI music platform Suno, accusing it of training its AI model using copyrighted works without authorization (The Guardian, 2024). These controversies have sparked widespread discussions about the ethical, aesthetic, and legal implications of AI music generation, prompting a reassessment of the nature and value of music creation.

# The Aesthetic Crisis of "Authenticity" in Pop Music

# AI Music from the Perspective of Baudrillard's Theory of Hyperreality

The French philosopher Jean Baudrillard proposed the concept of hyperreality to describe a state of reality constructed by signs and simulations, where replicas replace the original, blurring the line between the real and the fictional (Baudrillard,

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1994). In the context of AI-generated music—particularly works that imitate the style of specific human artists—listeners may perceive the output as authentic human compositions. This leads to questions about originality and authenticity (Cunningham, 2024). Such phenomena embody what Baudrillard described as the replacement of reality by simulacra, positioning AI-generated music as a quintessential example of hyperreality in contemporary cultural production.

#### Algorithmic Substitution of Emotional Authenticity

As a medium of emotional expression, music's power lies in its ability to convey human emotional experience. However, whether AI-generated music can truly deliver such emotional depth remains highly contested. While AI systems are capable of generating technically proficient musical pieces, research shows that listeners often question the emotional authenticity of such works (Kang et al., 2023). For example, the EmoGen system attempts to generate music conditioned on emotional tags, yet still struggles to convey emotions convincingly. Furthermore, listener responses to AI music are frequently shaped by preexisting biases — even when AI-generated music contains emotional elements, audiences may engage less emotionally simply because they are aware it was composed by a machine (Babu et al., 2023).

#### Misaligned Emotions and the Illusion of Music in Listener Perception

The rise of AI music has also given rise to a phenomenon of emotional dissonance in listener perception. When listeners are informed that a piece of music was created by AI, their preference for that music tends to decrease, even when its objective quality is high (Krause et al., 2022). This suggests that musical perception is influenced not only by the sonic content but also by the context of authorship. Moreover, the widespread application of AI in music creation could lead to a homogenization of musical output, reducing diversity and innovation in music, which in turn negatively affects the listening experience (Hesmondhalgh et al., 2019).

# Ethical Dilemmas: Authorship, Attribution, and Moral Responsibility

#### Who Is the Author of AI-Created Music?

As artificial intelligence becomes increasingly integrated into music creation, the question of authorship has grown more complex. In the United States, works created entirely by artificial intelligence may not be eligible for copyright protection. In March 2025, a U.S. appellate court reaffirmed this position, highlighting that creative works must reflect human originality to qualify for copyright (Samuelson, 2023). By contrast, in the United Kingdom, the Copyright, Designs and Patents Act 1988 stipulates that for computer-generated works, the 'author' is the person who undertakes the arrangements necessary for the creation (Clifford Chance, 2023). This opens up the possibility for AI to legitimately claim to be the author if they have sufficient creative control.

Concerns about this legal ambiguity have been voiced by industry figures. In May 2025, more than 400 British artists, including Paul McCartney and Dua Lipa, signed an open letter urging the government to reconsider AI copyright regulations that would allow AI firms to use protected materials without permission (The Guardian, 2025).

#### Legal Gaps in Human-AI Co-Creation

AI-assisted music creation raises further legal questions about co-authorship and rights allocation. According to the U.S. Copyright Office's 2025 guidance, AI-generated content is only eligible for copyright if it contains significant human authorship (U.S. Copyright Office, 2025). This implies that creators must meaningfully modify or curate AI outputs to gain protection. However, legal frameworks are still catching up to this 'hybrid authorship' model. Some scholars have proposed the introduction of new copyright categories or sui generis protections to recognize AI-assisted co-creation (Gordon et al., 2022).

#### Accountability for Emotional Harm and Biased Content

Another ethical dilemma concerns the liability for emotional harm or discriminatory content generated by AI. Studies show that generative AI models may replicate societal biases, especially when trained on non-diverse datasets (Hacker et al., 2024). When AI-generated music unintentionally promotes stereotypes or harmful narratives, assigning responsibility becomes challenging. Furthermore, AI-generated content may be weaponized to manipulate listener emotions or impersonate artists, potentially causing reputational or psychological harm. The U.S. Federal Trade Commission has warned of consumer risks arising from emotional manipulation by AI systems (Federal Trade Commission, 2024). Currently, there is no unified legal consensus on who should bear the responsibility—developers, users, or platforms.

# Conclusion

The rapid development of artificial intelligence (AI) in the field of music creation has raised significant ethical concerns. While AI provides innovative tools for music production, it also challenges traditional notions of authorship and creativity. The integration of AI into music necessitates a reevaluation of ethical frameworks to ensure that technological advancement does not undermine artistic integrity or human creativity. As AI-generated music becomes more prevalent, establishing clear guidelines that balance innovation with ethical responsibility is imperative (Samuelson, 2023).

Striking a balance between protecting the rights of human creators and promoting technological innovation is a complex challenge. Legal frameworks must continuously evolve to address AI-generated content and safeguard the rights of creators. At the same time, policies should not stifle innovation but rather encourage the responsible development and use of artificial

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intelligence in the field of music.Collaborative efforts between policymakers, technologists, and artists are essential to create a sustainable ecosystem where creativity and technology coexist harmoniously (OECD, 2023).

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