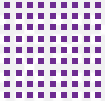# THE IMPACT OF ARTIFICIAL INTELLIGENCE ON EMOTIONAL EXPRESSION IN ART

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Abstract: Artificial Intelligence (AI) has permeated various aspects of human life, including art. This research aims to explore how AI affects emotional expression in art, both in terms of creation and analysis of artworks. Using a literature review method, this study examines existing literature to understand the extent to which AI can imitate or replace human emotional expression in art. The results show that while AI can create technically and visually appealing artworks, authentic emotional depth remains an area of knowledge rather than experience. Additionally, AI has the potential to analyse and reveal emotional patterns in human artworks, which can open up new perspectives in art studies. However, the issue of authenticity and the genuineness of emotions in AI-generated artworks remains a matter of debate.

Keywords: Artificial Intelligence, Emotional Expression, Art, Authenticity

Introduction

The development of Artificial Intelligence (AI) has transformed various aspects of human life, including art. AI, with its analytical and machine learning capabilities, is now able to create complex artworks that mimic human artistic styles. However, an important question arises about the extent to which AI can express human emotions through art. Emotions are fundamental elements in art, where artists express their feelings and experiences through their works. Human-created artworks are often laden with emotional meaning, as they stem from the artist's life experiences and personal perceptions.

In this context, research on the impact of AI on emotional expression in art remains very limited. Most studies focus on AI's technical ability to create art or on AI's potential to automate the creative process. However, very few address the authenticity and depth of emotion in AI-generated artworks. This study aims to fill this gap by exploring how AI affects emotional expression in art, both in the creative process and in the analysis of artworks.

In this research, we use a literature review method to examine the existing literature on the role of AI in art, with a particular focus on the emotional aspect. Through this review, we aim to understand the extent to which AI can replace human roles in expressing emotions through art, and whether AI-generated works possess the same emotional depth as those created by humans. Additionally, this study will discuss the potential of AI in analysing human artworks and identifying emotional patterns that may go unnoticed by humans.

This study is important as it provides new insights into the relationship between technology and art, and how AI may influence our understanding and creation of art. By understanding the impact of AI on emotional expression in art, we can be more critical in assessing AI's role in the art world and how this technology should be used to support, rather than replace, human creativity.

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Literature Review

Art and emotion have been widely discussed topics in literature. Emotional expression in traditional art is seen as a manifestation of the artist's personal experience, which creates an emotional connection with the audience (Dewey, 1934: 45). According to Tolstoy (1897: 52), art is a means of transferring emotions from the artist to the audience, where these emotions form the essence of authentic art.

With the advent of AI, this discourse has changed. AI is recognized for its ability to create technically impressive artworks, but the issue of authenticity and emotional depth remains debated. Some researchers, such as McCormack et al. (2019: 102), state that AI can mimic emotional patterns but cannot truly understand or experience emotions. Gervais et al (2020, 2015) reinforce this idea arguing that AI-generated artworks may have an emotional impression but lack a foundation of genuine emotional experience.

Other studies highlight AI's potential in analysing human artworks. One example is the research conducted by Elgammal et al. (2017: 364), which used AI to analyse thousands of paintings and identify emotional patterns that were not consciously recognized by the artists. This research shows that AI can provide new insights into how emotions are expressed in art, even though it lacks the capacity to feel the emotions itself.

Despite various perspectives on AI's role in art, the general consensus is that AI can be a useful tool in analysing and creating art, but there are still limitations in terms of authentic emotional expression. Bender et al. (2021: 84) note that AI-generated artworks often lack the "soul" typically found in human-created art, reflecting deep life experiences and feelings.

Methodology

This research employs a literature review method to examine and analyse existing literature on the impact of AI on emotional expression in art. Data were collected from various academic sources, including scholarly journals, books, and relevant conference articles. The selection of literature was based on the relevance and quality of the sources, with a focus on research discussing the relationship between AI, art, and emotion. The literature analysed includes theoretical and empirical perspectives, aiming to obtain a comprehensive understanding of this topic.

Discussion

Based on the literature review conducted, the impact of AI on emotional

expression in art can be understood from two main perspectives: first, as a creative tool capable of producing artworks, and second, as an analytical tool that can provide new insights into art and emotion.

AI has become a widely discussed subject in the context of art, particularly concerning how AI expresses and understands emotion through artworks. Generally, emotional expression in AI-generated art is considered to be knowledge-based rather than experience-based. This is because AI, as a non-biological entity, lacks consciousness or emotional experience, so its expressions are derived from data it has learned, rather than from personal feelings or experiences. This section explains how AI's emotional expressions in art are knowledge-based, not experience-based, and how AI-generated artworks are more data-driven than deeply emotional experiences.

AI Emotionality: Knowledge from Data
In the context of art, AI can be trained to recognize certain patterns associated with emotional expression through extensive data analysis. For instance, AI can be trained with thousands of images or artworks categorized based on specific emotions, such as joy, sadness, or fear. Based on this training, AI can then create new artworks that mimic these patterns (McCormack et al., 2019: 105). However, the main issue is that the emotional expression produced by AI does not stem from experience or feelings. AI lacks the capacity to feel; it merely processes the data it has been given and produces outputs based on learned patterns (Gervais et al., 2020: 219).

This contrasts with human artists who create art based on life experiences and personal feelings. For example, an artist who creates a painting about sadness might channel their personal feelings of loss or suffering into their artwork. These deeply personal feelings are then translated into a visual expression with authentic emotional depth. In contrast, AI can only mimic the external appearance of this emotional expression without understanding or feeling the underlying emotion. As noted by Bender et al. (2021: 87), although AI can produce works that appear emotional, they are merely the result of statistical and probabilistic processes based on learned data, not from genuine emotional experiences.

AI Artworks: Data, Not Experience
In creating artworks, AI relies on extensive data analysis to generate new pieces. Algorithms such as Generative Adversarial Networks (GAN) allow AI to create images or other forms of art that appear original, although they are actually combinations of various elements learned from previous datasets (Goodfellow

et al., 2014: 2680). In other words, AI does not create artworks from inspiration or personal experience, but from data that has been programmed into its system.

This raises important questions about the authenticity of AI-generated artworks. Traditional artworks are often valued for reflecting the artist's life experiences and personal emotions. A painting, for instance, may convey a deeply personal story or emotion derived from the artist's life experiences. In this context, art becomes more than just a visual representation; it becomes a means of communication between the artist and the audience, where the artist's emotions and experiences can be transferred through the medium of art (Tolstoy, 1897: 56).

However, in the case of AI, the artworks produced do not have a foundation in deep emotional experience. Instead, these works are the result of data processing and algorithms trained to produce certain visual patterns associated with emotions (Elgammal et al., 2017: 366). For example, AI might produce an image that appears sad or melancholic, but the "sadness" in the image does not stem from real feelings or experiences, but rather from statistical knowledge about how sadness is typically depicted in art.

As an example, the art world now has a new artist, or rather a new robot named "Botto," who has been in the market for five weeks and has earned over €1 million from its first four NFT artworks at auction. This AI-powered artist uses algorithms to analyse millions of artworks and produce their own. Introducing itself as "a generative algorithm whose sole destiny is to create," Botto references Leonardo da Vinci as its main inspiration, saying, "I don't think we'll ever see anyone like that again."
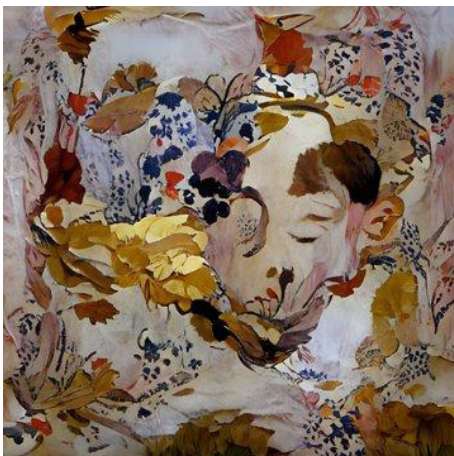
But Botto's style can be better defined as fluctuating, as the machine paints everything from colourful landscapes to deconstructed portraits. The "decentralized autonomous artist," as it likes to describe itself, has some serious advantages over its human counterparts. What sets Botto apart from other models and makes it more "open" is that it uses the public as a source of knowledge to refine its work.

Every week, the AI system creates 350 new images that are shared with a community of 5,000 users who then vote on their favourites. At the end of each week, one image is selected for auction as an NFT on a platform called 'SuperRare,' where collectors can bid on it. And Botto learns from all this feedback. It searches for patterns that the public likes and adapts its art based on its findings.

"All the votes from the community feed back into the AI, which tries to develop a sense of taste. So, looking at the fragments it has created, and then trying to determine whether the audience will like this or hate it. And the more information it gets from the community, the more confident it becomes in its judgments. What to do, what not to do, almost like a child," added Klingemann.

Botto doesn't just think with intensity—and humanity—about its own work. Its creators also believe it will be able to write music or books in the not-too-distant future, as a representation of its work.

Artwork "Seaport Subject" by Botto.
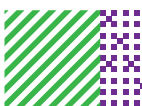
AI-generated artworks, while often visually striking, may lack the emotional depth and authenticity that are typically found in human-created art. Art created by AI is more of a statistical representation of emotions learned from existing data. This is different from human artists who create art based on personal experiences and deep emotions, which are often reflected in their work. Art observers might find AI art visually appealing, but they often sense a lack of emotional depth because the work is not based on real experience (Bender et al., 2021: 87).

Conclusion

This research shows that AI has a significant impact on emotional expression in art, both as a creative and analytical tool. While AI can create visually appealing artworks and mimic emotional patterns, authentic emotional depth remains a challenge. AI lacks consciousness or emotional experience, so the artworks it produces may lack genuine emotional authenticity.

On the other hand, AI also offers great potential in analysing human artworks and providing new insights into how emotions are expressed in art. Therefore, it is important to use AI as a tool that supports, rather than replaces, the human role in art. The future of art in the AI era may see a combination of human creativity and technology, where AI is used to enrich, not replace, the emotional expression that lies at the heart of art itself.

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