

THE ROLE OF ARTIFICIAL INTELLIGENCE IN MODERN ART

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Abstract: *This article analyzes from a scientific perspective the role of artificial intelligence technologies in the development of modern art, their impact on creative processes, opportunities for creating new forms of visual art, as well as their aesthetic, philosophical, and ethical aspects. It also highlights the application of generative technologies based on artificial intelligence in fine arts, their significance in the development of digital art, and the formation of new relationships between artists and technology. During the study, the function of artificial intelligence in the practice of modern art is revealed not only as a technical tool but also as a creative partner. The article also discusses the experience of world painting, the evolution of aesthetic views, and the changing boundaries between human and machine creativity.*

Keywords: *artificial intelligence, modern art, digital art, generative image, algorithm, aesthetic thinking, creativity, visual art, innovative technologies, digital transformation, philosophy of art, artistic thinking*

The 21st century is characterized by unprecedented rates of technological development in the history of human development. In particular, the improvement of digital technologies, neural networks, machine learning, and artificial intelligence systems has a significant impact on science, economics, medicine, education, and culture, as well as the arts. Modern painting, which is one of the most important branches of fine art, was not excluded from these processes. On the contrary, as a result of integration with new technologies, new forms of artistic expression, new aesthetic approaches, and the transformation of views on creativity are emerging. In particular, the role of artificial intelligence in modern painting is one of the most pressing issues in scientific and practical terms today. The reason is that artificial intelligence is showing a trend of moving from the status of a simple technical tool to becoming an active participant in creative activity.

Historically, art has always developed in interaction with technological progress. The emergence of photography brought a new interpretation to classical realism, while film and video technologies created new types of visual art. The popularity of computer graphics and the Internet gave rise to the concept of digital art. From this perspective, the penetration of artificial intelligence into painting can be regarded as the next technological turning point in the history of art. However, the essence of these changes differs significantly from the previous ones. While previously technology served more as a tool in the hands of the creator, today artificial intelligence is increasingly capable of developing, to a certain extent, independent visual solutions. One of the most important functions of artificial intelligence in painting is the ability to create generative images. Generative algorithms generate new visual images by analyzing millions of images, colors, compositions, and stylistic elements. This process is based on statistical models and probability theory, unlike the thinking of a human artist. As a result, artificial intelligence sometimes manages to create aesthetic combinations that did not exist before. This situation led to the formation of the concept of “algorithmic creativity” in art history. This concept allows for the interpretation of creativity

not only as a process inherent to the human mind but also as a phenomenon arising through complex computational systems.

Interesting trends are also observed when looking at the issue of artificial intelligence in painting from a psychological perspective. Human creativity is often closely linked to chance, intuitive decisions, and emotional experiences. Artificial intelligence is based on identifying statistical patterns. Nevertheless, in some cases, images created by artificial intelligence can be more complex or unusual than human imagination. This leads to a revision of the boundaries of the concept of “creativity.” Previously, creativity was evaluated only as a quality inherent to human thinking, but today the phenomenon of algorithmic creativity has become a distinct direction of scientific research. Technological transformation in modern painting also affects the education system. In today's art academies and higher education institutions, alongside traditional academic drawing, there is a growing need to teach visual programs based on digital imaging, media art, generative design, and artificial intelligence. This is because the artist of the future must possess the competence to work not only with a pen, brush, or paint, but also with algorithms. This situation requires a modernization of the artist training methodology.

However, the widespread use of this technology also raises some concerns. First of all, there are opinions about the possibility of weakening the values of traditional painting. If the process of creating art is overly automated, human manual labor, individual skill, and spiritual expression may fall into the background. Furthermore, there is a risk that the mass reproduction of AI-generated images will lead to standardization in visual culture. Because algorithms often rely on existing databases, this can lead to the repetition of certain aesthetic patterns.

In the fine arts of Uzbekistan, interest in digital technologies and artificial intelligence is also gradually increasing. There is a growing trend among young artists toward using graphic tablets, generative image platforms, and digital processing technologies. This situation not only forms a new audience for art but also accelerates integration with international visual culture. Therefore, harmonizing national art schools with modern technologies will become an important strategic task in the future. From the perspective of future prospects, artificial intelligence is highly likely to become an integral component of the development of modern painting. Because in an environment where technological progress is accelerating, art is also forced to search for new means of expression. In particular, together with virtual reality, augmented reality, three-dimensional visualization, and interactive art forms, artificial intelligence is creating a new paradigm of visual culture. Now the viewer is not only an observer of the finished work, but also a participant in the interactive process. This significantly changes the traditional “author-work-viewer” model of painting. In today's modern art, evaluating artificial intelligence as an absolutely positive or absolutely negative phenomenon is a scientifically one-sided approach. Because this technology, on the one hand, opens up new creative opportunities, and on the other hand, raises complex questions about the essence of art, originality and the importance of the human factor. In fact, at the heart of the issue is the question, “How can humans and technology cooperate?” rather than the question, “Will artificial intelligence take the place of an artist?” Modern practice shows that the most effective results occur precisely when human artistic thinking and the computational capabilities of machines are combined.

The widespread use of visual images created with the help of artificial intelligence is also affecting the increase in the number of art consumers. While previously fine arts were

primarily presented through museums, galleries, or specialized exhibition spaces, today’s digital environment is bringing art to a global audience through the internet. As a result, the distance between the artist and the viewer is shortening, and a process of democratization of art is taking place. This, along with creating new opportunities for creators, also leads to increased competition.

In conclusion, the increasing role of artificial intelligence in modern painting indicates that art has entered a stage of technological transformation. Artificial intelligence is becoming a tool that enriches the artist's creativity by revealing new compositional solutions, color combinations, and creative possibilities in visual arts. At the same time, it also raises a number of scientific problems related to the philosophy of art, copyright, originality and aesthetic values. Analysis shows that in the future, artificial intelligence is unlikely to take the place of an artist entirely, but rather to operate on the basis of creative cooperation with humans. Therefore, in the development of modern painting, the harmonization of technological innovations with traditional artistic values is of urgent importance as an important scientific and practical task.

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