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ARTIFICIAL INTELLIGENCE AND MODERN ART

AI is radically changing the nature of not only technical professions, but also penetrated into the artistic environment, affect creative processes, and even a phenomenon called digital art has emerged. Without the use of digital processing and computer effects, it is impossible to imagine either modern cinema or music. “Computer” has literally become a canvas, a brush, and a musical instrument these days.

AI-generated artwork has captured the public and even a few collectors’ imagination. Apparently, we are already on the threshold of a new era of creativity, when AI and the artist become co-authors, complementing each other in those areas and “skills” where they are strongest.

The new field of digital art pushes the boundaries of creativity and destroys the way art is created. Artists create autonomous robots for collaboration, supply algorithms with data, and train machines to create new visual works. They work with computer programs that mimic human intelligence,

creating an endless stream of unique works of art. AI has become a desirable partner in artistic creativity.

Artists working with AI understand the relationship between randomness and control and use AI to find a balance between them when developing new concepts and visual effects. For example, AI assistants can help restorers recreate Long-Lost Masterpieces of art history by analyzing works of art and learning the unique style of any artist who has ever lived.

Neural style transfer is the simplest and most popular form of using AI in creativity. The model is based on image stylization and is based on convolutional neural networks (CNN). It is embedded in such popular mobile applications as DeepArt and Prisma. There are two images at the input of the model – the template-style and the original.

The technology allows you to successfully imitate the style of Van Gogh, Monet from the template library. Each template corresponds to a set of parameters of a pre-trained neural network. The technology allows the use of character images in advertising and product promotion. If a photo of a real object is submitted to the input of the model, then it is difficult to distinguish the result from the work of the artist – the technology passes the Turing test.

Sculptures created by AI are not as popular as paintings yet, but there is still development in this direction. AI is mainly used to develop a three-dimensional model. Scott Ethan's sculpture debuted at the exhibition 'Artist + AI: figures and forms' and it was created in collaboration with AI. In this case, AI translates the drawings into a three-dimensional form.

People concluded that human/ML complementarity in the arts is a rich and ongoing process, with contemporary artists continuously exploring and expanding technological capabilities to make artworks. Although ML-based processes raise challenges around skills, a common language, resources, and inclusion, what is clear is that the future of ML arts will belong to those with both technical and artistic skills.