

Research on the Reasonable Application Strategy of AI Technology in the Field of Artistic Creation

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Abstract: In the context of social modernization, AI (artificial intelligence) technology has developed rapidly and accumulated practical experience in various industries, including the artistic creation, which is actively exploring the integration path with AI technology. However, in this process, influenced by various factors such as the creative environment and market characteristics, practitioners and creators in different art fields have made different reactions. These differences are objectively present and cannot be ignored. This paper explores the reasonable application strategies of AI technology in different fields of artistic creation, hoping to provide theoretical references for creators.

Keywords: AI technology; artistic creation; application strategy

1. Introduction

After the launch of “ChatGPT” by Open AI, more and more people have begun to pay attention to the development of production, life, and artistic creation in the context of the artificial intelligence era. Many artists have also begun to try to make use of AI technology to assist in creation. However, whether it is possible to uncover the “popularization” of AI technology application and explore its meaningful and reasonable application is a crucial task in the new era, as well as an important path to distinguish the differences between traditional creation and “AI creation” in the field of artistic creation.

2. Painting creation: The contradiction and transformation between algorithms and art

In recent years, AI technology has made rapid progress in image processing and output, and has emerged in the field of artistic creation. For example, “Midjourney” has achieved the transfer, transformation, filling, and synthesis of image styles, it can capture painting techniques and styles and create new images with the help of algorithms. However, this kind of artistic “creation” achieved through algorithmic learning has also sparked widespread discussion. Although they come from basic human values and experiences, do they comply with ethical and moral standards or copyright laws? This is a key point in reasonable application of AI painting technology.

Some viewpoints suggest that human artistic creativity comes from learning knowledge and understanding the world. Therefore, we can also consider AI technology’s artistic creation as a form of learning knowledge and re-understanding of the human world, as well as a form of creativity. However, the contradiction here lies in the fact that human creation belongs to external expansion inspired by knowledge, and is an innovation of human thinking exploring the “virtuality”; The AI technology that relies on mathematical algorithms remains within the scope of human thinking, metaphorically speaking, it is a very exciting paragraph in human’s “Nanke Dream”. In reality, even though “Midjourney” has developed to a relatively mature level, it cannot “create” a new model, but still highly simulates human thinking and creative behaviors, rather than life or thinking itself.

In short, in the field of painting, the reasonable application of AI technology (excluding the illegal commercial activities) has not reduced the difficulty of creation, nor has it achieved the goal of “universal painters”. On the contrary, the difficulty of art creation has been greatly improved due to the application of AI technology, and the visual and technical resources of artistic creators have been reduced. The quality of the creative product itself depends more on the artistic perception, life (emotional) experience, artistic concept advancement, and other personal qualities that only humans can possess. This is also one of the main reasons for the low acceptance of AI technology in the field of art creation (similar to music creation).

3. Literature creation: Integration and development of instrumental and creative assistance

The latest generation of ChatGPT has demonstrated a level of imagination and creativity that is not inferior to that of

humans in practical applications, and can even meet human requirements by creating high-quality literary works at an extremely fast speed. Moreover, from the perspective of the general public, the field of literature creation has a high acceptance of AI technology, which originated from the achievements of algorithm improvement and breakthroughs in deep learning algorithm technology. After “obedience training” for massive amounts of text, AI technology can imitate human application ability and literary writing style to some extent, and even produce some high-quality literature works. For example, at the end of 2023, a team of Prof. Shenyang from the School of Journalism and Communication at Tsinghua University used generative AI technology to complete a science fiction novel called *The Land of Machine Memories*, which was anonymously submitted and won the second prize in the Jiangsu Youth Science Popularization Science Fiction Works Competition. The novel’s title, content, illustrations, and author names were all “trained” through dialogue, keyword prompts and literary style descriptions between the team and AI. In other words, this is a new type of literary work produced by a new creative model of “AI technology + human creation”.

We can also realize the reasonable application of AI technology in the field of literary creation from the success of *The Land of Machine Memories*. Simply put, it is to combine the “instrumental” characteristics of AI technology with human thinking, complement each other, and play the value of both roles, greatly improving the practical efficiency of literary writing while also bringing more possibilities to literature creation in the new era. However, in contrast, the unique aesthetic literacy and emotional expression of human beings in literature creation cannot be replicated or manufactured by AI technology. It should be objectively and dialectically viewed, and the information processing and integration capabilities of AI technology should be fully utilized to achieve spiritual activation, material organization, and layout planning, manuscript polishing. At the same time, human beings should maintain objectivity and rationality, and leverage the advantages of human creators in theme sublimation, emotional expression, and other aspects. In short, artistic creators should face the advantages of AI technology frankly and take its essence to realize the common progress of human and computer technology. Taking science fiction works as examples, although the creation of science fiction works is mainly focused on thinking about technological development, the key point of creation is still expressing humanistic care, rather than simply piling up technological elements and “flashy skills”, it emphasizes more importantly thinking about the value orientation of the times.

4. Music creation: Driving “creative equality” and improving aesthetic “threshold”

Generative AI technology has been widely applied, and there are naturally related achievements in the field of music creation. For example, the emergence and application of AIGC products such as “Suno V3” and “Udio” have enabled AI technology to “ascend to the top” in the field of music creation. Objectively speaking, AI technology has now occupied a certain share in the music creation field, lowered the “threshold” for music creation, and achieved a “universal creation” environment. Whether professionals or amateur enthusiasts, they can obtain some results that meet their own needs in music creation. However, on the other hand, many composers and lyricists engaged in music creation have also raised concerns about whether they can preserve the creativity while applying AI technology, which is a very important issue.

From a professional perspective, the music created by AI technology is difficult to raise the upper aesthetic limit within society, but it can greatly improve the “threshold”. For creators specializing in artistic creation, AI technology is a reliable auxiliary tool that can provide richer inspiration. To put it metaphorically, AI technology is the “spark” that ignites the “flame” of creators’ thinking, rather than the “flame” itself. Therefore, we can believe that for professional creators, the application of AI technology will not affect their music creation. Instead, it can provide them with richer inspiration and enhance the artistic quality (aesthetic level) of their works due to the high emotional and artistic literacy requirements of music creation itself (such as the subjective conditions of performers’ mastery of various instruments and differences in their singing skills).

On the other hand, from the perspective of the general public (amateur), AIGC products provide a tool for expressing oneself, which does not fundamentally belong to creation, but it also has its own value. As mentioned above, this self-expression “creation” realizes a social atmosphere of “universal creation”. Although most AI music works currently rely on users’ written descriptions, resulting in weak homogeneity, and most amateur music enthusiasts have significant differences in instrument or singing skills compared to professionals, the application of AIGC products still leaves them in a state of “creating for passion”, with few folk creators able to “stand out”.

5. Conclusion

To sum up, the application of AI technology in the field of artistic creation, whether it is painting, literature, or music, presents a distinct “instrumental” and “auxiliary” characteristic. At the current level of technological development, it has not completely replaced human creativity, but has stimulated human creative potential and provided new creative methods and

possibilities to some extent. Therefore, artistic creators in the context of the information age should rationally view the role of AI technology in artistic creation, neither exaggerating its role nor completely rejecting the changes it brings. They need to learn to “cooperate” with AI technology while maintaining unique creativity, making it a capable assistant in their artistic creation process.

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