Creative Expression and Aesthetic Value of AI-Generated Image Style Transfer in Micro-Film Creation

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Abstract: With the deep involvement of artificial intelligence (AI) technology, image creation is undergoing a silent and profound change. Based on the style transfer technology in AI-generated images, this article discusses its creative expression path and aesthetic value in microfilm creation. In microfilm, an image form that emphasizes individuality and experimentation, AI style transfer realizes the visual translation from reality to dreams, from individual memory to cultural symbols, and expands the expression dimension of images. This article analyzes the unique value of AI-generated images in defamiliarization experience, fluidity aesthetics and cross-time visual dialogue, and also reflects on the problems of aesthetic homogenization and author weakening that may be brought about by the popularization of technology. The research believes that AI is not replacing the creator, but reconstructing the aesthetic possibility of human-computer cooperation. The future development of microfilm will form new visual grammar and aesthetic cognition in the continuous dialogue between technology and art.

1. Introduction

With the rapid development of digital technology, the boundary of image creation is expanding at an unprecedented speed. AI is no longer just an imaginary element in sci-fi works, but is actually integrated into all aspects of artistic production, showing strong penetration and innovation in the field of visual expression [1]. In recent years, AI-generated image technology, especially the style transfer based on deep learning, has gradually moved from the laboratory to the creative frontier [2]. Microfilm, as a short and pithy image form that pays attention to creativity and freedom of expression, is naturally highly sensitive to new technologies. It does not rely on large-scale industrial processes, but focuses on personalized visual language and emotional transmission [3]. This provides a potential practice space for AI style migration technology.

The essence of style transfer is to separate and reorganize the content structure of one image from the visual style of another image by using algorithms, and then generate a new image with both content realism and style artistry [4]. This technology was originally applied to static image processing. With the improvement of video processing ability, its dynamic migration has now been able to realize the stylization of the whole image [5]. From Van Gogh's brushwork to Miyazaki Hayao's animation texture, from ink smudge to neon light and shadow of Cybercity, AI can "translate" a realistic shot image into a visual presentation of a certain artistic style in just a few seconds. This ability has changed the way of image generation and reconstructed the relationship between creator and technology, art and machine at a deeper level.

In the creation of micro-movies, visual style is not just a decorative exterior, but a key part of narrative, emotion and theme expression [6]. In traditional film and television production, the achievement of style depends on complex processes such as art design, lighting set, post-color matching, etc., with high cost, long cycle and extremely high requirements for team professional ability [7]. The emergence of AI style transfer technology enables individual creators or small teams to try a variety of visual schemes quickly and even create surreal pictures that are difficult to achieve by traditional means [8]. This trend of technology democratization is quietly changing the ecology of image creation. More importantly, it inspired new creative thinking. Style itself becomes

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an active narrative language, not a passive visual achievement.

At present, the research on AI images mostly focuses on technical realization or ethical disputes, and there is still a lack of systematic discussion on its aesthetic function and expression potential in the context of specific artistic creation. The purpose of this article is to explore the practical application and deep significance of AI-generated image style transfer in microfilm creation from two dimensions: creative expression and aesthetic value.

2. Overview of AI generated images and style transfer technology

The image generated by AI is not "created" out of thin air, but is actually based on the learning and reorganization of a large number of existing image data. Its core relies on the development of deep neural network, especially the generation model. GAN makes the machine learn to generate realistic images through confrontation training between "generator" and "discriminator". For example, StyleGAN series can generate face images that are almost fake, which lays the foundation for image "out of nothing" and style control [9]. However, what really realizes the "transfer" of artistic style is the neurotic style transfer (NST). Deep network extracts "content", such as object outline; The middle and shallow layers capture "style", such as brush strokes. With the help of optimization algorithm, the target image can approximate the style of artistic works while retaining the original content, and complete the style "transplantation".

At first, this technology was only suitable for a single static image, which took a long time to process. However, with the optimization of algorithm and the improvement of hardware computing power, the style migration is moving towards real-time and video. Then, aiming at the consistency of video sequence, the researcher introduces optical flow compensation and other mechanisms to ensure visual coherence when watching dynamically. In recent years, the diffusion model has risen, further improving the quality and controllability of generated images. Different from GAN, it generates images by "denoising" step by step, with stable process and rich details [10]. In an open source model such as Stable Diffusion, users can control the generated content through text prompts, and realize "text-to-video" style output. Its openness allows non-technical creators to participate and accelerate the penetration of AI images in micro-movies and other fields.

Style transfer is not a simple "filter" processing, but involves deep semantic understanding and reconstruction of images. For example, transforming urban street scenes into ukiyo-e style, AI not only imitates color composition, but also adjusts light and shadow and weakens perspective. This "understanding-transformation-generation" process makes AI more like a collaborator with "visual cognition". Of course, technology has limitations. When dealing with complex motion and other scenes, it is easy to have problems such as blurred edges. And the style "mixing" and "innovation" depend on labor, AI lacks real aesthetic judgment, and it is difficult to create a new aesthetic paradigm.

Nevertheless, these technologies bring new possibilities for micro-film creation. Creators can use AI to transform the real shot material into oil painting texture, or strengthen the world view by unifying the style of sci-fi themes, and also distinguish the perspectives through style switching. From a technical point of view, the essence of the evolution of AI style is the deepening of the machine's learning ability of "visual language", which reshapes our understanding of image creation.

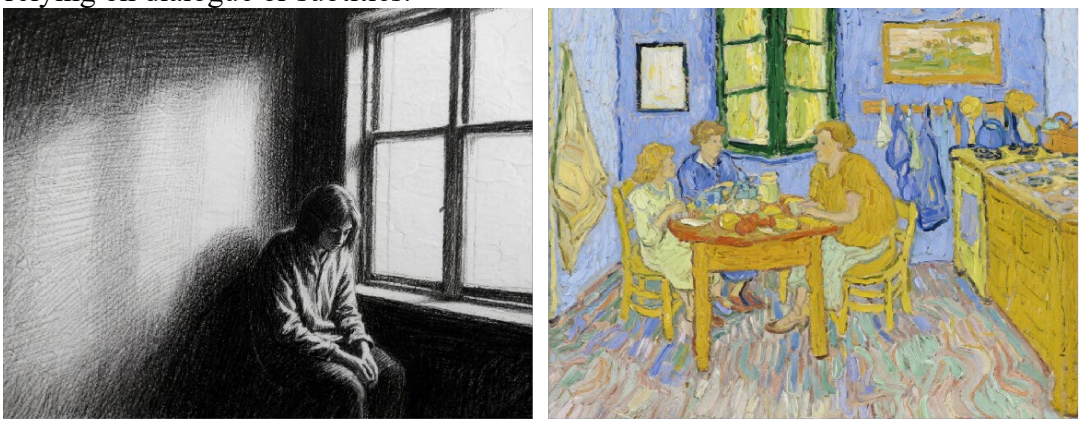
3. Creative presentation of style transfer in microfilm creation

Style transfer broadens the diversity of visual expression. Microfilm is no longer limited to a single realistic image, but can switch styles in different paragraphs to form visual rhythm and contrast. For example, when expressing the hero's dreams or memory fragments, the creator can transform the real shot material into watercolor or printmaking style, so that the picture can be divorced from the realistic logic and enter the psychological space. Figure 1 shows the effect of a city night scene transformed into Japanese ukiyo-e style by AI. The traffic flow and buildings in the original material are reorganized into plane color blocks and lines, and the relationship between

light and shadow is simplified, creating a quiet and alienated oriental artistic conception as a whole.

Figure 1 Real-shot urban night view transformed into ukiyo-e style

Style transfer has also become an effective way to strengthen narrative emotions. In a micro-film about loneliness and alienation, the creator unified the scene of the protagonist's solitude into a cool sketch style, the outline of the characters was blurred, and the background was blurred into a gray texture painted with charcoal. In contrast, the memories of living with relatives use warm oil painting brush strokes, which are rich in color and obvious in brush strokes, forming a strong contrast. Figure 2 shows the style contrast between the two scenes: the sketch style of the real paragraph on the left and the post-impressionist style of the recalled paragraph on the right. This style-based emotional coding allows the audience to intuitively feel the emotional trend of narrative without relying on dialogue or subtitles.



Sketch style Memories - Post-Impressionist style

Figure 2 Comparison of style transfer of the same character across different times and spaces

Moreover, style transfer provides the possibility for the integration of cross-cultural visual languages. In a micro-film to discuss the cultural conflict between the East and the West, the director treats the perspective of western characters as a high-contrast Cyberpunk style, highlighting the mechanical sense and cool tone; The perspective of the oriental role adopts the ink-and-ink smudge style, which leaves more white space and has a slow rhythm. When two people talk, the picture alternately switches between the two styles, forming a visual "cultural confrontation" (see Figure 3).

The creative value of style transfer lies not only in "resembling an art", but also in how it serves the overall creative intention. Successful application is not a technical stunt, but a deep fit between style and content. For example, at the end of an environmental protection theme micro-movie, the creator gradually "restores" the polluted urban landscape into a natural landscape painting style

through gradual style migration, as if the earth is repairing itself, creating a poetic sense of redemption visually.

Figure 3 Style switching in cross-cultural dialogue scenarios

4. Aesthetic value of AI style transfer

As AI generated images increasingly appear in microfilms, a thought-provoking question arises: do these images "drawn" by algorithms have aesthetic value? Are they products of technological showdowns or can they truly enter the realm of art? In the past, people used to base aesthetics on human perception, emotions, and manual skills, but the emergence of AI style transfer has had an impact on this traditional cognition. It does not require hand drawing or color grading, but can generate visually appealing images.

The transfer of AI style has also given rise to the "aesthetics of fluidity". After the traditional film visual style is determined, it often runs through the entire film to maintain unity, while AI allows the style to switch or even gradually change at any time. The first second is a realistic shot, and the next second the image "melts", brushstrokes emerge, colors recombine, and reality gradually becomes a dream. This dynamic style transition is the grammar of visual narrative, allowing the audience to perceive entering someone else's heart or another time and space. It breaks the fixed style, making aesthetics variable and malleable, with a "breathing sense" of the digital age.

Some people question whether this kind of beauty is too frivolous, and that one click generation does not require rigorous technique practice, which will dissolve the seriousness of art. But technology has never been the enemy of art, just like when photography emerged, although some people shouted "painting is dead", later photography became art, and painting also moved towards abstraction and expression. The transfer of AI style may be triggering a similar aesthetic fission, as it lowers the technological threshold but does not eliminate aesthetic judgment.

In addition, AI style transfer can reawaken the 'collective visual memory'. Most people have never painted oil paintings, but they can see Rembrandt's light and shadow and Monet's colors in their own images through AI. This' familiar unfamiliarity 'not only brings visual pleasure, but also triggers cultural resonance, bringing classic visual language from art history from museums to contemporary narratives. Using Impressionist style to depict modern urban loneliness in microfilms is actually using 19th century visual grammar to tell the emotional dilemma of the 21st century. This cross temporal dialogue is a deep aesthetic practice.

Of course, this aesthetic also carries risks. When "Van Gogh style" and "ink wash style" are easily generated, style may become labels, and beauty becomes cheap and repetitive. More seriously, if the audience cannot distinguish whether the image is human drawn or AI generated, the creator's labor and intention may be erased, which is related to artistic ethics and aesthetic trust.

However, regardless, AI style migration has opened a door. In the field of microfilms, it brings not only new visuals, but also new ways of viewing and expression logic. Its aesthetic value lies in

making people rethink the possibilities of images.

5. Conclusions

The application of AI style transfer in microfilms has long gone beyond the superficial operation of "changing filters". It is participating in the construction of meaning, influencing how we tell stories, convey emotions, and understand visuals. It allows a student to shoot a short film with oil painting texture using a thousand yuan device, making an ordinary monologue full of psychological tension due to the sudden change in style. This possibility was unimaginable in the past. But the freedom of technology also comes with responsibility. AI can generate images, but cannot generate intentions. True creativity still comes from human sensitivity, memory, and thinking. The value of style transfer lies in whether it makes the story more powerful and emotions more authentic. More importantly, this technological revolution is forcing creators to redefine 'beauty'. It is no longer limited to manual temperature or author signature, but may exist at the intersection of algorithm and intention.

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