The Application of AIGC Technology in the Field of New Media Content Creation

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Abstract

With the rapid development of artificial intelligence technology, AIGC (Artificial Intelligence Generated Content) is profoundly changing the production methods and creation paradigms of new media content. From news reports to marketing content, from graphic design to video production, AIGC tools have permeated the entire process of new media creation, promoting dual breakthroughs in content production efficiency and innovative forms while also bringing numerous benefits to creation.

Keywords

AIGC technology, New media creation.

1. Introduction

This article focuses on the paradigm innovation of new media content creation brought about by AIGC technology. Through core technologies such as intelligent editing and cross-modal generation, AIGC reconfigures the content production chain, enabling creators to use AI tools to enhance their creative efficiency while lowering the threshold for content creation. This allows those who originally did not know how to design or edit to also participate in content creation. It also lists the possible problems that may arise during the creative process using AI tools.

2. The Application Forms of AIGC Technology in New Media Content Creation

2.1. Application in the field of text creation

AIGC tools have enabled the intelligence and personalization of content production. AI large models can quickly generate advertising copy that fits the brand tone based on simple prompt words, and support multi-style adjustment and multi-language output. The AI hit title generator analyzes over 2 million cultural tags to produce suitable titles that match the creative content, increasing the click-through rate of the content by more than 30%. With the continuous development of AI technology, exploring the impact of generative AI technology on the creative expressiveness of new media copywriting has become the key to understanding its role in the modern communication environment [1].

2.2. Application in the field of image generation

Image generation technology offers brand-new possibilities for new media visual creation. AI tools efficiently transform abstract scientific concepts into visual materials [2]. Creators only need to provide keywords to precisely generate high-quality images that fit the creative theme, achieving full-chain intelligence from creative conception to visual presentation. The satisfaction rate of the creation of the Hunyuan AI large model image generation tool developed

by Tencent is as high as 86%. The 8K resolution image quality can be directly used for advertising placement, significantly reducing the time and economic cost of visual creation.

2.3. Application in the field of video creation

Video production is the most active field in the application of AIGC. The video generation model supports both text-to-video and image-to-video modes, maintaining a high level of action continuity and smoothness. It can convert static materials into professional-level short videos with just one click. Intelligent video editing and compositing technology, based on deep learning algorithms, automatically identifies key frames in videos and completes operations such as picture splicing and adding special effects, making video production more efficient and creative [3]. Intelligent editing not only enhances creative efficiency but also lowers the threshold for creation, enabling those with good ideas but no experience in editing operations to participate in new media creation.

2.4. The comprehensive application of AI technology

The new media creative process empowered by AI technology takes intelligent tools as the core driving force. With complex neural network models, it can generate coherent, logical and large-scale content by simulating human creativity [4].

As shown in Figure 1, there are mainly five major links in the creation of new media content. First comes the creative generation stage. AI quickly outputs diverse topic directions by analyzing hot trends and user preferences, assisting creators in breaking through their thinking limitations. Secondly, in the content planning stage, the intelligent calendar tool can recommend the best release time based on the platform algorithm and automatically generate a content schedule suitable for multiple platforms. In the content creation stage, the system will match the optimal creation toolchain based on the content type (such as video, text and image, audio), and can achieve functions such as automatic text generation, intelligent image drawing, and video material editing, significantly lowering the production threshold. During the release phase, an AI assistant is utilized to synchronously distribute accounts across multiple platforms and automatically adapt to the format requirements of each platform. The final stage is the data analysis phase. The intelligent system tracks the content dissemination data in real time, generates visual reports and offers optimization suggestions, thus forming a creative closed loop.

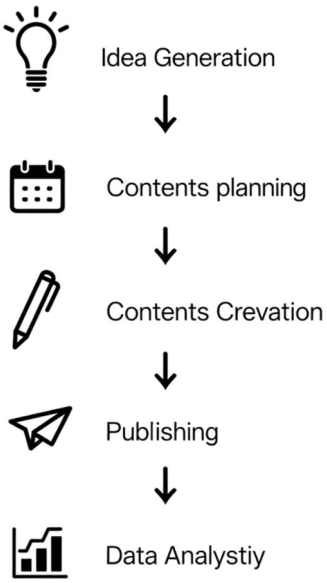

Figure 1. The creation process of AI tools

3. Whether to Use AI Tools for Efficiency, Quality Comparison and Analysis

3.1. A comparison of the traditional new media content creation process and the creation efficiency using AI tools

Table 1. Comparison of creative efficiency

Content type	Traditional creation time	Create time using AI tools	Efficiency improvement
Text	3 to 8 hours per article	0.5 to 2 hours per article	60%-80%
Image	2 to 6 hours per ticket	0.1 to 1 hours per ticket	80%-90%
Video	5 to 15 days per minute	1 to 3 days per minute	70%-85%

The data in the chart is sourced from the "Blue Book on Digital Transformation of Chinese Enterprises" and industry reports on the practice of university teams .

As shown in Table 1, in terms of generating text, images and videos by AI models, the efficiency of creating with AI tools is much higher than that of creating with traditional methods. In terms of copywriting generation, AI can quickly generate initial drafts and optimize logic, reducing the time for research and repeated revisions. The marketing promotion plan for a certain consumer brand has been compressed from 3 days to 1 hour, and a 2,000-word industry analysis has been shortened from 90 minutes to 40 minutes. In terms of image generation, parallel generation technology and model optimization technology significantly reduce the computational steps. MIT technology has reduced the image generation steps from 256 to 20, increasing the speed by 12.8 times. The OpenAI model generates a 512× 512-pixel image in just 0.11 seconds. In terms of video generation, AI tools integrate the entire process from script generation, storyboard design to special effects production, replacing traditional multi-character collaboration and significantly enhancing video creation efficiency. The production of a 3-minute short film has been shortened from several weeks to 4 days, and a 10-minute special effects video has been compressed from 10 days to 3 days. Although the use of AI tools can greatly enhance creative efficiency, creators also need to spend time learning how to use the corresponding tools.

3.2. A comparison of the traditional new media content creation process and the quality of creation using AI tools

Table 2. Comparison of creative quality

Contrast dimension	Traditional manual creation	Create using AI tools
Originality	Deep originality, unique perspective and creative expression	Relying on training data can easily lead to homogenization, especially in templated content
Emotional resonance	Emotional content is more infectious and has a high degree of emotional resonance among users	The lack of delicate emotional expression makes it difficult to evoke deep resonance
Professionalism	In-depth professional analysis is more authoritative	Structured content performs exceptionally well
Multi-modal fusion	Manual coordination of multimodal elements is required, which is less efficient	Intelligently match text, images and audio, and adapt to multiple platform formats

As shown in Table 2, AI tools have significant advantages in mass production, structured content, and multimodal integration, but they still lack professionalism and emotional expression. AI tools are more suitable for scenarios such as mass production of short videos and e-commerce product promotion, but the depth of content needs to be enhanced through manual optimization. At the same time, AI-generated content is more likely to pass through the platform's traffic recommendation mechanism, but it needs to be combined with human insight into user psychology. When new media creators are engaged in content creation, a "AI + human" hybrid model can be adopted. AI is responsible for standardized content production, while humans focus on creative planning and value output. AI tools need to be combined with copyright detection and originality enhancement technologies to avoid content homogenization and infringement risks.

4. Problems That May Arise When Creating With AI Tools

Although AIGC technology has brought convenience to the creative process, there are some issues that must be noted. In terms of copyright, infringement of training data is prone to cause disputes. In terms of ethics, Deep Reference may infringe upon the right to one's portrait. In terms of content, AI is prone to generating "illusory content", that is, it outputs information with factual errors and logical confusion. The spread of false information leads to "AI pollution". In addition, content homogenization and quality issues are prominent. It is necessary to enhance manual review and creative control, and strike a balance between technical efficiency and humanistic value.

5. Conclusion

AIGC technology brings high-performance innovations to new media creation from three dimensions: text generation, image generation, and video generation. To a certain extent, it has changed the traditional new media content creation model. However, technology is a double-edged sword. While it brings innovation opportunities, it also raises many issues such as the authenticity and ethics of the content [5]. The most important thing is that content creators should not overly rely on AI tools and thus neglect their creativity as "human beings".

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