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Research on the Dissemination Effect of AIGC-generated Content on New Media Platforms: A Case Study of Xiaohongshu

Yangyang Mu
School of Drama, Sichuan Conservatory of Music, Chengdu 10654, China
**Corresponding author: Yangyang Mu, E-mail: 2534600069@qq.com.*

Abstract

With the rapid development of artificial intelligence technology, AIGC (Artificial Intelligence Generated Content) technology has shown strong application potential and communication effect on new media platforms. Taking Xiaohongshu as an example, this paper deeply discusses the communication effect of AIGC-generated content on new media platforms. Through empirical analysis, this paper reveals how AIGC technology affects content creation, communication efficiency and user interaction, and analyzes the mechanism, influencing factors and future development trends behind it. The purpose of this article is to provide valuable reference and inspiration for content creators, brand owners and platform managers of new media platforms.

Keywords

AIGC; new media platforms; propagation effect; Xiaohongshu

1. Introduction

In the digital age, new media platforms have become an important channel for information dissemination. As a social platform that integrates various elements such as shopping sharing, life records, and fashion collocation, Xiaohongshu has a large and active user base. At the same time, the rise of AIGC technology has brought revolutionary changes to content creation and distribution. With its powerful natural language processing capabilities and content generation capabilities, AIGC software has injected new vitality into the content creation and dissemination of new media platforms. This paper will take Xiaohongshu as an example to explore the dissemination effect of AIGC-generated content on new media platforms.

2. Overview of AIGC Technology

2.1 Definition and Principle of AIGC Technology

AIGC refers to the innovative practice of using artificial intelligence technology to automatically generate content. It integrates multiple technologies such as machine learning, natural language processing, computer vision, etc., to simulate or even surpass human creativity by processing and analyzing large-scale data to generate multiple forms of digital content such as text, images, audio, and video. The core of AIGC technology lies in its powerful data processing and generation capabilities, which can quickly generate high-quality content according to user needs and market trends. Artificial intelligence generated content (AIGC) is a form of content classified from the perspective of content producers, and also represents a content production method, as well as a collection of technologies for automatic content generation (China Institute of Information and Communications & Jingdon Institute of Exploratory Research, 2022).

In 1950, Turing proposed the famous “Turing test” in his paper “Computing Machinery and Intelligence”, which gave a test method to determine whether a machine has “intelligence”, that is, whether the machine can imitate the way of human thinking to generate content, so as to communicate with humans (Turing, 1950). Since then, AI technology has continued to carry the expectation of powering human content creation. On October 17, 2023, Baidu officially launched Wenxin Model 4.0, an innovation that quickly attracted wide attention from the industry, not only demonstrating the deep strength of AI in the field of content generation, but also further enhancing the public's confidence in AI's creative capabilities. As a new way of digital content production, AIGC has provided significant cost reduction, efficiency increase and new economic growth capabilities for the media industry. At the same time, AIGC has profoundly changed the situation of the international communication industry. With the emergence of copywriting robots, interview assistants, subtitle generation, voice broadcasting, virtual anchors, and other related applications, the way media produces and disseminates content is undergoing a sea change. For example, for relatively stylized topics, such as finance and sports reporting, generative AI can quickly generate news reports according to existing templates (Wei & Chen, 2023).

3. Characteristics of the Xiaohongshu Platform and the Application Status of AIGC

3.1 Overview of the Xiaohongshu Platform

Xiaohongshu is a UGC (User Generated Content) social platform, where users can post content in the form of graphics, texts, videos, etc., to share shopping experiences, life experiences, fashion matching, etc. Xiaohongshu has attracted a large number of users with its unique community atmosphere and high-quality content, and has become a leader among new media platforms.

3.2 Application Status of AIGC in Xiaohongshu

The 2024 China AIGC Application Panorama Report, released by Qubit Think Tank, provides an in-depth discussion on the application status and development trends of generative artificial intelligence (AIGC) in China. The report points out that AIGC technology is promoting a new wave of technological innovation and industrial development, especially in 2024, with the maturity of large model technology and the introduction of applications, AIGC has entered a period of rapid development. The report predicts that the size of China's AIGC application market will reach 20 billion yuan in 2024 and continue to grow in the next few years, and is expected to reach a trillion yuan by 2030, showing a strong momentum of development (TOP Industry Report, 2024).

In the past six months, many bloggers on the Xiaohongshu platform have begun to use AI to produce graphic content. A certain personality test account generated a graphic analysis of personality types through AI, and its followers increased by nearly 40,000 in half a year; Another knowledge account has amassed 60,000 followers in a year by updating an AI-generated question answer every day. Search for “Xiaohongshu AI copywriting generation” in Baidu, and it is easy to see all kinds of AI writing “artifacts”. A number of large-scale model products, including Kimi, Doubao, Tongyi Qianwen, Wenxin Yiyan, etc., basically have AI writing capabilities specifically for Xiaohongshu copywriting (She & Song, 2024).

AIGC technology is widely used in copywriting, image creation, video production and other fields on Xiaohongshu. Many bloggers and businesses are starting to use AI tools to assist in content creation, improve productivity and content quality. With the continuous maturity and popularization of AIGC technology, the amount of AI-generated content on Xiaohongshu has grown rapidly. More and more users are embracing and relying on AI tools to create content, which has further boosted AIGC's development on Xiaohongshu. AI technology is also being applied to Xiaohongshu's image and video creation fields. For example, some AI tools can automatically generate images or video footage that meet the requirements based on keywords or descriptions entered by the user. This not only enriches the content form of Xiaohongshu, but also provides users with more diversified creative options.

With the continuous development and popularization of AI technology, Xiaohongshu users are gradually becoming more receptive to AI-generated content. More and more users are trying to use AI tools to create content and share it on the platform. Merchants are also quick to seize the opportunities brought by AI and use AI tools to produce popular notes to attract more users' attention and purchases. This has become a new marketing tool and business model.

However, there is still a certain degree of homogeneity in AI-generated copywriting and content, which may affect users' reading experience and willingness to pay.

In addition, although AI tools have brought convenience to content creation, their technical barriers and costs are still high. For the average user, it may take time and effort to learn and master how to use these tools.

4. Analysis of the Dissemination Effect of AIGC-generated Content on Xiaohongshu

The spread effect of AIGC (Artificial Intelligence Generated Content) on Xiaohongshu can be analyzed from multiple dimensions. The following is a comprehensive analysis of the dissemination effect of AIGC-generated content on Xiaohongshu:

4.1 Innovation in Content Form

Xiaohongshu's recently launched “Moment” feature allows users to post text-only content and automatically generate AI images, which provides a new form of expression for content creators. The AI-generated pictures and text have a high degree of matching, and are interesting and usable, meeting the diverse needs of users. For example, users can choose different presentation types such as “Notepad”, “Chat Feelings” or “Want to complain”, and these different styles of pictures greatly enrich the expression form of the content and improve the user's reading experience.

4.2 User Interaction and Engagement

The content generated by AIGC is often able to quickly capture the attention of users, triggering interaction and discussion. For example, when AI-generated design drawings set off a craze for buying little green dresses on Xiaohongshu, it not only increased the exposure of the content, but also drove users' purchase willingness and engagement. This AI-generated content marketing method helps brands better connect with users and increase user stickiness and loyalty. In addition, it can also help users achieve positive interactions. In terms of communication effect, AIGC can logically expand the knowledge of users, and reasonable and appropriate use can eliminate extreme emotions, return public opinion to rationality, and enhance diversity and inclusion (Cai, 2023).

4.3 Content Quality and Personalization

Through a large amount of data analysis and algorithm optimization, AIGC is able to generate more accurate and personalized content. On the Xiaohongshu platform, AI can recommend relevant content according to users' interests and needs, improving the pertinence and effectiveness of content. For example, service providers such as Weimob have fine-tuned and optimized AI copywriting by introducing their marketing business experience to generate content that is more in line with the brand tone and user preferences. This personalized content push method helps to improve the reading experience and satisfaction of users.

4.4 Commercialization Potential

The effect of AIGC on Xiaohongshu is also reflected in its commercialization potential. As more and more brands and enterprises begin to experiment with AIGC technology, AI-generated content on the Xiaohongshu platform has gradually formed a unique business ecosystem. For example, AI-generated design drawings not only sparked a buying rush for users, but also led to a considerable increase in sales for the brand. In addition, AIGC technology can also help brands find user needs more accurately, achieve precision marketing and advertising, and improve marketing effectiveness and ROI.

5. Conclusion

It is foreseeable that the continuous development of AIGC will gradually form a monopoly on user entrance, content production, data resources and communication channels in the omni-media production and communication system (Cai, 2023). AIGC is not only a type of content classified from the perspective of content producers, but also a content production method, and a collection of technologies for automatic

content generation (China Institute of Information and Communications & Jingdon Institute of Exploratory Research, 2022)。 As a new way of digital content production, AIGC has provided significant cost reduction, efficiency increase and new economic growth capabilities for the media industry. At the same time, AIGC has profoundly changed the situation of the international communication industry. With the emergence of copywriting robots, interview assistants, subtitle generation, voice broadcasting, virtual anchors, and other related applications, the way media produces and disseminates content is undergoing a sea change. For example, for relatively stylized topics, such as finance and sports reporting, generative AI can quickly generate news reports according to existing templates (Wei & Chen, 2023).

5.1 AIGC Technology Improves Content Quality and Creativity

The application of AI technologies such as deep learning and natural language processing (NLP) has enabled AIGC to demonstrate unprecedented capabilities in content generation. These technologies are capable of simulating the human creative process to produce high-quality, creative text and image content. On the Xiaohongshu platform, the application of this technology not only enriches the platform's content library, but also attracts the attention and participation of a large number of users through unique creativity and high-quality production. The Internet development report released by the National Bureau of Statistics also shows that with the continuous progress of new media technology, users' demand for high-quality and personalized content is increasing, and AIGC technology just meets this market demand.

5.2 Automated Generation And Distribution Mechanisms Improve Efficiency

The automatic generation and distribution mechanism of AIGC technology, combined with the precise push function of the Xiaohongshu platform, has greatly improved the efficiency and coverage of content dissemination. According to relevant research, automated content generation systems can significantly shorten the content creation cycle, reduce labor costs, and ensure the timeliness and diversity of content. According to the Internet economy data of the National Bureau of Statistics, with the continuous optimization of intelligent recommendation algorithms, the content received by users is more and more in line with their personal interests, which not only improves user satisfaction, but also promotes the wide dissemination of content.

5.3 Enhance User Interaction and Engagement

The interesting content generated by AIGC and the optimized interaction mechanism have significantly improved user interaction and engagement on the Xiaohongshu platform. Research shows that interesting content sparks interest and curiosity in users, prompting them to actively participate in discussions, likes, and shares. At the same time, interactive features such as intelligent replies and comment bots further enhance users' sense of engagement and belonging. This view is also supported by data from the Office for National Statistics on social media user behavior, showing an increase in the frequency and duration of user interactions on new media platforms.

5.4 Demonstrate Commercialization Potential

The commercialization potential of AIGC technology in the field of content e-commerce has been widely recognized. AI-generated content can accurately match user needs, providing efficient and accurate marketing channels for brand owners and merchants. On the Xiaohongshu platform, this technology not only improves the conversion rate of ads, but also promotes the development of content e-commerce. According to the e-commerce development report released by the National Bureau of Statistics, with the in-depth application of artificial intelligence technology in the field of e-commerce, content e-commerce has become a new trend in the development of e-commerce, and its market size and number of users are showing a rapid growth trend.

5.5 Challenges and Opportunities

Although AIGC technology has shown great potential on the Xiaohongshu platform, its further development still faces challenges in terms of technical maturity, user acceptance, and policies and regulations. However, with the continuous innovation and breakthrough of technology, these challenges will

be gradually solved. At the same time, the state's support policies for new media and artificial intelligence technology also provide a strong guarantee for the development of AIGC technology. Therefore, it is foreseeable that with the expansion of application scenarios and the strengthening of cross-border cooperation, AIGC technology is expected to play a more far-reaching role on new media platforms, promote the comprehensive upgrading of content creation and dissemination, and bring unprecedented development opportunities to the industry.

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Conflicts of Interest

The authors declare no conflict of interest.

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