

Explore the Development Trend and Problems of Social Media from the Evolution Process of Content Creation

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Abstract: The evolution of content creation mode from Professional Generated Content (PGC) to User-Generated Content (UGC), and then to Artificial Intelligence-Generated Content (AIGC), profoundly shows the influence of technological progress and social development on content creation and communication. However, in the development of content creation models, there are still deficiencies in the ability to process information in social media. This article discusses the evolution logic of content creation mode and analyzes its impact on the development of social media platform and user interaction. Based on this, this article proposes specific suggestions to strengthen information screening, content supervision and creator rights protection, to promote the development of content creation and dissemination on social media platforms and the optimization of digital content.

1 INTRODUCTION

In recent years, social media has become an important part of people's daily life. With the continuous development of the Internet, science and technology, online media is also evolving. From static web pages in the original Web 1.0 era to interactive platforms in the web 2.0 era, and from Professional Generated Content (PGC) to User-Generated Content (UGC), the Internet has gradually changed from information consumption to content creation (O'reilly, 2007). Users have changed from simple social media users and consumers to content creators. In particular, the extensive use of UGC on social media platforms has made the creative content on social media more diversified and promoted the rapid development of social media. However, the growth of social media has also brought many problems. While encouraging users to create content, it will lead to problems such as information overload and the spread of false information.

Although there has been a lot of research on social media content creation, especially the discussion on the impact of UGC on social media content, the research on social media content creation in the current stage tends to focus on a certain platform, and there is little complete analysis of its evolution. With

the continuous development of social media and platformization, artificial intelligence has gradually become popular and gradually integrated into the content creation of social media, bringing richer ways for the content creation of social media. These new creation technologies and models can change the interaction between users and platforms and bring new challenges to social media.

Studying the evolution of content creation in social media is important for understanding the future development of social media. The integration of AI and other technologies has changed the way content is produced and disseminated, making social media content creation more diversified. By analyzing these changes, this article helps reveal the development trends and challenges faced by social media in the evolution of content creation.

2 THE IMPLICATIONS OF CONTENT CREATION EVOLUTION FOR SOCIAL MEDIA DEVELOPMENT

2.1 From PGC to UGC -- User Engagement Increases

With the development of Internet technology and the popularization of social media, the content production mode has experienced an important transformation from professional content production to user content production and then to artificial intelligence content production. This shift could not only change the way content is produced, but also greatly increase user engagement and shape new models of digital interaction. Users are no longer simple media users, but also become media content creators. Professional Generated Content (PGC) refers to the content produced by professional teams or organizations, which usually has high production standards and commercial goals. The content created is professional and unified, and usually appears in news reports and television production of traditional media. There are two main sources of PGC content: content purchased from third parties or produced by websites (Gilardi & Lam, 2024). In the process of PGC production, more professional standards are adopted. This content production mode emphasizes the control of quality but lacks the independent creation ability of users. In this mode, users are usually passive content recipients. But with the continuous development of technology, there is a dynamic change between the roles of media producer and consumer. Jenkins mentioned that the emergence of media convergence can show the relationship between new media and old media, and the complex interaction caused by the emergence of new media has contributed to the transformation of media consumers from passive to content creators (Jenkins, 2006). The rise of UGC mode benefits from the popularization of digital technology and the openness of the platform (Kaplan & Haenlein, 2010). As an open Content production mode, UGC provides platforms for ordinary users to create and share content, which greatly improves users' participation in platforms. Technology drives the development trend of UGC. Easy-to-use content creation tools enable users to participate in content creation without professional knowledge or skills, lowering the threshold of content creation and providing opportunities for ordinary users to create content. The creation of UGC content meets users' needs for self-expression through free

creation space and open social media environment, so that users can express themselves and publish and disseminate their created content on social media platforms. Moreover, interactive features in UGC platforms, such as comments and likes, are key to increasing user engagement. UGC can prompt users to post their favorite and interested topics. Through the comment and like function, user-generated content can be recognized on social media platforms, forming communication communities, and enabling users to find a sense of belonging and identity on the platform. This kind of interaction not only enhances the influence of user content, but also promotes the emotional connection between users and encourages users to participate more deeply in the creation and dissemination of content.

2.2 From UGC to AIGC--Development and Convergence of Technologies

With the continuous advancement of artificial intelligence technology, the field of content production is undergoing a profound transformation. The transformation from User-Generated Content to AI-generated content can reflect the leapfrog development of content production mode driven by the Internet and digital technology. As the core mode of content production in the Internet era, UGC is mainly characterized by the free creation and sharing of content by users, which makes content creation more diversified and enhances users' sense of participation and social interaction. However, the UGC model also faces some significant limitations. Users need to invest a lot of time and energy to produce content, and it takes a long period to process and run the content during content creation, so users' motivation and continuity of creation will be limited (Kaplan & Haenlein, 2010). However, these limitations provide a good opportunity for the rise of AIGC, and the application of artificial intelligence technology in the field of content generation can make up for the vacancy of UGC. In 2014, Goodfellow et al. proposed that Generative Adversarial Network (GAN) had become an important basis for AIGC in the field of image and video generation (Goodfellow et al., 2014). The integration of technology can not only help improve the efficiency of content production but also provide users with a new creative experience. However, AIGC cannot completely replace UGC. These two modes are mutually integrated and complement each other. A good integration of these two content creation modes can provide more possibilities for content creation. AIGC tools can provide users with

creative references or material support. For example, generative AI, such as Chat GPT, can provide users with creative ideas, greatly improve content production efficiency, and reduce the time cost of content creation. Image generation tools can generate personalized pictures based on descriptions, improving the quality and efficiency of UGC. Moreover, with the continuous development of technology, the algorithm technology of artificial intelligence is constantly enhanced. According to the user's behavior data and preferences, the algorithm enables AIGC to generate personalized content for users to meet their personalized needs. From UGC to AIGC, the development and integration of technology mark a revolutionary transformation of content production mode. UGC enriches content creation by stimulating users' enthusiasm for creation, while the rise of AIGC improves the efficiency and quality of content production through Internet development and digital technology empowerment.

The transformation of content creation from PGC to UGC and then to AIGC is not only the result of technological development, but also reflects the continuous progress and development of society. This process can reflect the gradual change of the information society and people's continuous pursuit of freedom and innovation in content creation.

However, the transformation of creation mode in social media platforms also brings many problems and challenges. The development of UGC has limited PGC content to some extent. Although the emergence of UGC mode improves users' engagement on social media, it also causes a series of problems of information overload and the decline of transmitted content. And in content creation, the continuous development of AIGC will lead to a flood of information, because AIGC's content creation threshold is low and content generation speed is fast. At the same time, AIGC weakens the dominance of human creativity in the traditional UGC mode to some extent. UGC provides initiative for users to create, but when users provide creative ideas through AI, users' inspiration for content creation will be limited, which may lead to content duplication and cause users to question the authenticity of content.

3 PROBLEMS AND CHALLENGES IN THE DEVELOPMENT OF SOCIAL MEDIA

3.1 Information Overload and Content Quality Degradation

Information overload refers to the phenomenon that users feel information overload when facing a large amount of information, because it is difficult to process or filter the information useful to them. With the growth of social media and the transformation of content production models, this problem has become more and more prominent. The wide application of UGC and AIGC and other content production modes has significantly improved the speed of information generation and dissemination, but it also leads to problems such as uneven content quality and excessive repeated content. First, information overload will directly affect users' decision-making ability and experience quality. According to Herbert Simon's bounded rationality theory, the amount of information humans can process when making decisions is very limited (Simon, 1997). Therefore, when the amount of information exceeds the user's own processing capacity, the user may feel very confused and confused because of the inability to effectively filter the content. Especially on social media platforms, information is updated very fast, and thousands of messages will pop up in a short period. This explosive information will reduce users' perception and recognition ability of content, thus making them suffer from information fatigue and reducing effective information acquisition. Second, information overload is usually accompanied by the problem of declining content quality. In UGC mode, user-generated content usually lacks professionalism, and repeated content or low-value information emerges in large numbers, which is exacerbated to some extent by the popularity of AIGC. As AIGC technology can generate a large amount of content at low cost, many users may over-rely on algorithms to produce content. Although the content generated by AIGC can meet users' immediate needs in form, AI has fixed algorithm mode and data, and the generated content lacks originality and depth, and often the generated content is of low quality.

3.2 Difficulty of Content Supervision and Spread of False Information

The World Wide Web is a favorable environment for the mass dissemination of unsubstantiated rumors (Del Vicario et al., 2016). With the rapid development of social media platforms and artificial intelligence-generated content (AIGC) technology, the difficulty of content supervision is increasing, and the spread of false information is becoming more and more serious. AIGC technology can generate a large amount of content efficiently and at low cost, thus lowering the threshold to produce false information. In addition, AI can imitate and learn human language, and much of the content generated is often very confusing, which is difficult to distinguish between true and false information in social media networks, making it difficult to identify and suppress false information in social media networks.

AIGC technology exacerbated the explosive growth of information volume and brought great pressure to platform content regulation. Traditional manual review information is difficult to cope with such a massive amount of information flow, and relying on algorithms for content review also has obvious shortcomings. AI moderation systems often struggle to understand complex contexts because AI has trouble understanding the emotion of content as humans do, which can lead to misjudgments. For instance, disinformation may bypass the moderation mechanism using suggestive language, image mosaicking, or semantic ambiguity, which further increases the difficulty of supervision (Gorwa et al., 2020). Second, false information spreads extremely fast on social media. False information is often more likely to attract users' attention than real information because its content is usually more emotional and novel, which will attract users more and promote the spread of false information (Vosoughi et al., 2018). Users unwittingly expand the spread of false information through reposts, likes, and comments due to their lack of discrimination or intention. In addition, while pursuing user engagement, the recommendation algorithm will give priority to the content that users are interested in according to their preferences.

3.3 Protection of Content Creators' Rights and Interests

With the popularization and development of UGC and AIGC technology, the protection of the rights and interests of content creators has also become a topic of concern. In the context of the rapid development of

the Internet, creators' intellectual property rights, creative freedom and income from creation are all facing challenges.

First, insufficient protection of intellectual property rights is one of the core problems of the rights and interests of creators. In the UGC mode, creators' original content is often subjected to unauthorized reprinting, plagiarism, and even commercial use, and the intellectual property rights of creators are difficult to protect, creators themselves often lack effective means of recourse and rights protection, because there are too few ways and support provided to them. With the development of AIGC technology, this problem is more complicated. Artificial intelligence can use a large amount of public data to train imitate and generate new content, but these training data may contain copyrighted works, thus triggering the controversy of "secondary infringement".

The freedom of creators to create content is also limited to some extent. To avoid controversy or cater to specific aesthetic tendencies, some content review or recommendation mechanisms will restrict or block certain types of content without reason, making it difficult for creators' content to be spread and their freedom of expression to be infringed. In addition, the large-scale emergence of AI-generated content may lead to the original works being submerged in many repeated or templating content and the content created by AIGC will be widely disseminated, but the original content will be limited.

In addition, on social media platforms, creators can generate revenue by creating content, but they often face the problem of unfair distribution of revenue. Many social media platforms distribute content through algorithms, and creators' income is highly correlated with content exposure. However, these platforms often dictate distribution rules and may favor higher-traffic content or mass-market titles, making it difficult for small or deep creators to earn a reasonable financial return. Moreover, in the era of AIGC content dominance, automatically generated content may be used for commercial purposes on a large scale, and there is no need to pursue copyright issues, so many platforms are more willing to use AIGC, while creators in the original data set are difficult to get any share. This unequal distribution of revenue will discourage creators, which in turn will affect the diversity and quality of content on the platform.

4 IMPLICATIONS OF THE EVOLUTION OF CONTENT CREATION FOR THE FUTURE DEVELOPMENT OF SOCIAL MEDIA PLATFORMS

4.1 Strengthen the Information Screening Capability of Social Media Platforms

Faced with the problem of information overload and the degradation of the quality of the created content caused by the use and convergence of UGC and AIGC, social media platforms should respond to this, and it is very important to strengthen the information screening ability of social media platforms. Optimizing the algorithm recommendation mechanism of the platform is a way to the information screening ability. At present, most social media platforms adopt personalized recommendation mechanisms based on users' interests and preferences. Although this recommendation mechanism can enhance users' engagement and meet their basic needs, it is also easy to lead to the emergence of information cocoon rooms. Therefore, the platform should introduce a multi-dimensional content screening and dissemination mechanism to balance the relationship between user interest and content quality. At present, many social media platforms have tried to give priority to the recommendation of verified high-quality news reports through the combination of manual and algorithm and recommend authoritative certified content or sources with high information transparency, to ensure the reliability and authenticity of information. At the same time, the platform can also provide users with more independent screening tools, such as labels and tags, as well as the choice of information sources, to improve users' autonomy in content creation and their ability to screen content.

4.2 Strengthen the Regulation of Content in Social Media Platforms

With the continuous development of social media, platforms have become the main channel for information dissemination, while also facing the problem of disinformation due to inadequate content regulation. Therefore, it is very important to strengthen content supervision in social media platforms, and social media platforms should build a comprehensive and efficient supervision system.

Platforms need to improve the mechanism and process of content review to ensure standardization and transparency. At present, the audit standards of many social media platforms are not clear enough, and the decision-making process lacks transparency, which is easy to cause users to question the platform audit system. To this end, platforms should make public their content moderation policies, including the definition of illegal content, moderation processes, and grievance mechanisms. Especially for some ambiguous or sensitive content (such as satirical remarks or sensitive political topics), platforms need to formulate specific censorship rules for such information, clearly stipulate punishment mechanisms, and ensure information openness and transparency to reduce disputes (Shin et al., 2018).

In addition, the maintenance of the sound development of social media platforms cannot be separated from the joint supervision of governments and institutions. The government can legislate minimum standards for the content regulation of platforms, and institutions can conduct third-party supervision on the moderation behavior of platforms to ensure the fairness and transparency of content release. This multi-party collaboration mechanism can help reduce the regulatory burden of platforms, improve the quality and authenticity of content created by social media platforms, and reduce the spread of false information by strengthening diversified supervision.

4.3 Strengthen the Protection of the Rights and Interests of Content Creators

In the context of the rapid development of the Internet, creators face challenges in creating content. With the development of the Internet, more and more content creators are active on various social media platforms. However, due to weak copyright awareness and imperfect relevant mechanisms, the rights and interests of many creators are not fully protected. For example, original content is randomly reproduced or stolen by others, and the distribution of income is not common, which will damage the enthusiasm of creators in content creation. Therefore, it is necessary to strengthen the copyright protection of original content. The platform can detect and review the content published by users through the combination of manual and automatic methods, to understand whether there is content infringed, to help creators discover infringement and take measures in time, and this combination can prompt efficiency and accuracy. Secondly, platforms should ensure that the

distribution of revenue is fairer and more reasonable. At present, many creators rely on advertising share or rewards for income, but this income is often taken too high by the platform, or the distribution mechanism is not transparent, resulting in low income for creators, reducing their enthusiasm, and reducing the richness and quality of content. Therefore, the platform can optimize the share ratio, or provide additional reward mechanisms for high-quality content, to encourage creators to produce more valuable works. In addition, through the establishment of creator support programs, such as the current Douyin and Xiaohongshu platforms creator support programs to encourage the release of original content and provide resource support for newcomers, which can also help them grow rapidly.

5 CONCLUSION

The transformation of content creation mode from PGC to UGC and then to AIGC not only reflects the rapid development of technology, but also reflects the society's pursuit of freedom and diversity of content creation. This process has driven the decentralization of information dissemination, the rise of the platform economy, and the satisfaction of users' needs for expression. At the same time, the introduction of AIGC brings completely new possibilities for creation by improving the efficiency and quality of content production. However, the rapid evolution of these models has also brought many new challenges such as information overload, uneven content quality, and the spread of false information, which even threaten the rights and interests of creators and the normal development of content for social media creators.

In the future, social media platforms should find a balance between technology and culture, strengthen the ability of information screening and content supervision, establish a transparent and efficient review mechanism, and curb the spread of false information. At the same time, platforms should pay attention to the rights and interests of creators and encourage the creation of original content by optimizing the copyright protection mechanism and revenue distribution system. Under the background of the integrated development of UGC and AIGC, the platform should take user demand as the core, combine artificial intelligence and user participation, and promote the diversified and high-quality development of content production, so that to achieve the sustainable development of digital communication.

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