

# A Communication Research on Reshaping the Content Ecosystem of New Media Platforms Based on AIGC Technology

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**Abstract:** In the era of omnimedia, the rapid development of Artificial Intelligence Generated Content (AIGC) technology has profoundly and extensively influenced the news and public opinion ecosystem. This paper delves into how mainstream media utilize AIGC technology to reshape their agenda-setting capabilities within the context of intelligent communication, and exhaustively explores the specific applications of this technology on new media platforms and their resulting communication effects. Through systematic analysis, the study finds that mainstream media, empowered by intelligent communication technology, have successfully constructed a four-dimensional support system centered on discourse interpretation, discourse connectivity, discourse affinity, and discourse guidance. This system not only strengthens the discourse power and influence of mainstream media on new media platforms but also promotes the formation of a new mainstream opinion landscape, providing robust support for constructing a healthy and orderly news and public opinion ecosystem. Specifically, mainstream media utilize AIGC technology to enhance the efficiency and quality of content production, achieve precise content delivery and personalized communication, and effectively strengthen interaction and connection with audiences. Meanwhile, by reinforcing discourse interpretation and guidance, mainstream media maintain a clear orientation in the complex and ever-changing public opinion environment. The application of AIGC technology injects new vitality into the development of mainstream media in the new media era and provides essential impetus for the continuous optimization of the news and public opinion ecosystem.

**Keywords:** AIGC; New Media; Media Communication; Content Platform.

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## 1. Introduction

At the advanced stage of media convergence development, intelligent transformation has become a necessary step for the development of mainstream media. Based on universal technologies such as 5G, cloud computing, big data, the Internet of Things, and artificial intelligence, smart media application technologies such as image recognition, robotic writing, virtual anchors, and algorithms have emerged [1]. The cluster of intelligent technologies has become the internal driving force of the "media + AI" model, constituting a brand-new intelligent communication environment. In this context, Generative Artificial Intelligence (AIGC) has brought new improvements to the news industry in terms of content production efficiency, precise communication, service levels, and human-computer interaction applications, while also posing risks in content supervision, false information dissemination, and value orientation.

## 2. Mainstream Public Opinion in the Context of Intelligent Communication

### 2.1. Transformation Led by "Four Capabilities"

Media convergence is a national strategy that conforms to the development of the times, reshaping China's media landscape and the symbiotic environment of the communication discourse system. Mainstream media attach greater importance to user-centric thinking, endowing "content is king" with richer connotations, namely, content that truly reflects user needs, is visible to users, and gains user recognition [2]. Since 2021, mainstream media and industry

associations have repeatedly emphasized breaking the "traffic-only" mindset and establishing a non-market-oriented evaluation system with genuine credibility and vitality. This transformation not only reshapes the content production and communication mechanisms of media but also imposes higher requirements on media's social responsibilities and credibility.

### 2.2. Technology Bridging Boundaries

Innovations in microelectronics, computers, and electronic communications have driven the information revolution, and information processing and communication technologies have transformed society's restructuring. Network information and virtual communities have established "interest-based" relationship networks among people of different races, regions, and identities, leading to changes in the discourse system of the online society. The boundaries between traditional media and traditional audiences have dissipated, transforming users from recipients to collaborators. The boundaries between mainstream media and commercial platforms have also been reshaped as mainstream media push forward media convergence in a complex, diverse, rapidly changing, and technically contradictory environment. Technological advancements have made information dissemination more efficient but have also led to issues such as information overload and the proliferation of false information, prompting mainstream media to explore new paths for survival and development in this context.

### 2.3. Disruptive Audio-Visual Habits

The popularization of the internet has revolutionized communication orientation and user audio-visual habits. Today's internet has become a highly centralized, image- and

video-based, emotionally driven "viewing platform." Audio-visual products prioritize evoking user emotions, shaping a content production and platform operation logic centered on emotions. Emotional communication provides emotional outlets and empathy conditions for users from different backgrounds, making news values based on commonalities and recognition more apparent. This change requires media to pay more attention to evoking user emotions and interactive experiences in content creation, thereby enhancing content attractiveness and communication effectiveness [3].

### 3. AIGC Applications in New Media Platforms

#### 3.1. Enhancement of Content Production Efficiency

Within the context of intelligent dissemination, AIGC technology significantly elevates the speed and quality of media content creation by automatically generating various forms of content, including text, images, audio, and videos. The "Z Vision" platform developed by Zhejiang Radio and Television Group leverages AIGC technology to produce a diverse array of cultural short videos, facilitating widespread content dissemination and intelligent media asset management. This technology not only boosts content production efficiency but also mitigates labor costs, enabling media outlets to generate a greater quantity of high-quality content within shorter timeframes, thereby better satisfying user demands.

#### 3.2. Advancement in Precision Communication and Service Quality

AIGC technology enhances the precision of content distribution and service quality through intelligent recommendation and personalized push notifications. The "Z Vision" platform utilizes big data and AI technology to analyze creators' content across multiple dimensions, such as social value, view count, and engagement metrics. By introducing the "warmth" dimension, the platform intelligently recommends and allocates traffic to high-quality content. This approach enables more precise identification of user preferences, leading to personalized content recommendations that enhance user experience and platform loyalty.

#### 3.3. Innovation in Human-Machine Interaction Applications

AIGC technology excels in human-machine interaction applications, offering novel interactive experiences. During the Hangzhou Asian Games, the "Z Vision" platform launched the creative interactive product, "Experiencing the Hangzhou Asian Games with AI," featuring the virtual digital human "Gu Xiaoyu." This digital persona tailored its interactions and information delivery around users' interests and needs, offering personalized engagement with the Asian Games. Such AIGC-based interactive applications not only increase user engagement and experiential satisfaction but also pave new avenues for the dissemination of media content.



Figure 1. Hangzhou Asian Games Figure sourced from Yuan Xiaohua and Yu Nina, "Application and Innovation of AI Technology in the 'Z Vision' Platform: Reshaping Content Production and Dissemination"

### 4. Analysis of the Propagation Advantages of AIGC Technology

#### 4.1. Enhancing the Agenda-Setting Power of Mainstream Discourse

Mainstream media need to strengthen their social responsibility, unity with the public, and their ability to guide mainstream opinions. To shape a new landscape of mainstream public opinion, mainstream media should focus on enhancing their agenda-setting capability. This capability is influenced by various factors, including institutions, markets, media outlets, content, culture, and the environment. The intertwining of institutional constraints and market challenges embodies the balance between social and economic benefits. Different from commercial platforms and self-media, mainstream media must position, scale, and intensify their content production and dissemination while exploring development paths amidst the balance between institutional norms and market demands [5].

#### 4.2. Boosting Content Production Efficiency and Transmission Speed

In the era of information explosion, transmission efficiency is crucial to media competitiveness. AIGC significantly enhances content production efficiency through automation and intelligence, enabling information to be generated and disseminated more rapidly. This aligns with the "speed law" in communication studies, which states that the faster information spreads, the wider its influence and reach. AIGC technology can work 24/7, rapidly processing vast amounts of data and generating content, significantly shortening production cycles. Additionally, new media platforms leverage AI algorithms for instant content distribution and promotion, ensuring that information promptly reaches target audiences.

#### 4.3. Strengthening Discourse Connectivity

In the current media ecosystem, users and media jointly

shape news agendas, fostering a more interactive and participatory communication environment. This interaction is strengthened through cultural bonds and value resonance, particularly by focusing on livelihood issues and precision delivery to optimize personalized user experiences. During the 20th National Congress of the Communist Party of China, People's Daily launched the "New Thousand-Mile River Landscape" multimedia product, showcasing the development achievements and struggles of the past decade in the new era using various new media technologies. This product successfully integrated macro narratives with micro experiences. The enhancement of discourse connectivity is achieved through several aspects: fostering emotional resonance through cultural bonds and value resonance; focusing on livelihood issues to facilitate effective public opinion supervision and increase public participation; and leveraging AIGC and algorithmic technologies for precision delivery, providing personalized content experiences that cater to diverse user needs.

#### **4.4. Driving Content Innovation and Diversification of Communication Forms**

Innovation is the driving force behind communication development, while diversified communication forms cater to the needs of different audiences. AIGC technology offers boundless possibilities for content innovation and promotes the diversification of communication forms. It can generate novel and unique content ideas and expressions, such as virtual anchors and intelligent customer service, enriching the media content ecosystem and providing users with more innovative and entertaining experiences. Additionally, new media platforms can explore new communication channels and formats using AIGC technology, such as social media and short video platforms, to adapt to the needs and habits of different audience groups.

### **5. Case Study: Virtual Idol HeZ**

#### **5.1. Case Background**

With the rapid development of AI technology, its applications have expanded into various fields. In music and entertainment, AI is not only used for music creation and recommendation but has also spawned the concept of virtual idols. HeZ, also known as Hezi, is a widely discussed character in the entertainment industry in recent years. It debuted in the music talent show "Tomorrow's Stars" as a virtual singer without a physical form, sparking controversy and attention. HeZ's voice is synthesized by computers, its image is designed in a Two dimensions anime style, and it is accompanied by voice actors, enabling it to perform singing and dancing on stage. As a Two dimensions virtual idol, HeZ's birth is rooted in this technological backdrop. Leveraging AI technologies such as voice synthesis and image processing, it achieves highly anthropomorphic performance effects, offering audiences a novel entertainment experience. For instance, on live streaming platforms, HeZ can engage in simple conversations and interactions with viewers through preset scripts and algorithms, significantly enhancing audience participation and immersion.

#### **5.2. Case Positioning**

In today's rapidly evolving entertainment industry, virtual idol HeZ serves as a bridge between technology and culture, leading a new wave of change. It is not merely a performer on

stage but also a frontrunner in the integration of entertainment industry innovation and technology. HeZ's positioning is clear: a Two dimensions virtual idol targeting young audiences. As younger generations become the mainstay of cultural consumption, their demand for fresh, stimulating, and personalized content continues to grow, leading new trends in cultural consumption. This trend not only drives innovation and development in the entertainment industry but also injects new vitality and momentum into the cultural industry. This positioning accurately captures the strong demand for diversified and personalized content among young internet users. Through its virtual image and unique persona, HeZ has successfully built a broad fan base among Two dimensions enthusiasts

#### **5.3. Case Positioning**

In today's rapidly evolving entertainment industry, the virtual idol Hezi stands as a bridge connecting technology and culture, spearheading a new wave of transformation within the sector. More than just a performer on stage, Hezi embodies the forefront of innovation and technological integration within the entertainment industry. Positioned precisely as a two-dimensional virtual idol catering to young audiences, Hezi addresses the growing appetite of the younger generation, who now constitute the mainstay of cultural consumption, for novelty, excitement, and personalized content. This trend not only propels innovation and development within the entertainment industry but also injects fresh vitality and momentum into the cultural industry as a whole. By precisely capturing the intense demand for diversified and individualized content among young internet users, Hezi, through its virtual image and unique persona, has successfully cultivated a vast fan base among anime and manga enthusiasts. Furthermore, it serves as a bridge connecting the two-dimensional and three-dimensional worlds, offering unique interactive experiences to audiences across diverse domains.

#### **5.4. Case Innovation Points**

The primary innovation of Hezi lies in the technological prowess underpinning its existence. By harnessing artificial intelligence technologies such as voice synthesis, image processing, and motion capture, Hezi achieves a highly anthropomorphic performance, enhancing viewers' audiovisual experience and presenting new possibilities for the creation and expression of virtual idols.

As a two-dimensional virtual idol, Hezi's image and performances are imbued with rich elements of otaku culture. Through music, dance, and other forms, it conveys the unique charm and values of this culture to its audience. This cultural innovation not only enriches the connotation of the entertainment industry but also fosters cross-cultural exchange and integration. Additionally, Hezi's operational model disrupts traditional idol industry boundaries, transcending physical constraints like time and space to engage in round-the-clock content creation and performance. Its social media presence further strengthens the bond with fans, fostering a closer relationship. As a representative of otaku culture, Hezi's dissemination not only promotes the popularization and development of this culture but also enhances its influence and recognition within mainstream society.

## 6. Conclusion

The era of omnimedia presents both opportunities and challenges for mainstream media, necessitating a fusion and transformation that integrates technological upgrades with strategic planning. Mainstream media must adapt to the trends of intelligence, informatization, and digital intelligence, emphasizing professionalism and innovation while leveraging smart technologies to revitalize content production and dissemination. Simultaneously, they must remain vigilant against information overload and false dissemination, maintaining a keen insight to ensure news authenticity and credibility. With a sense of mission, mainstream media should innovate reporting and communication methods to meet audience demands, fostering discourse interpretation, connection, affinity, and guidance while reinforcing agenda-setting capabilities to enhance social impact and credibility. Looking ahead, mainstream media should delve deeper into intelligent communication technologies, optimizing content production and dissemination mechanisms to serve society, promote development, and fortify capabilities to address

regulatory, misinformation, and value-orientation risks. By fostering deep media integration, a healthy news and public opinion ecosystem can be cultivated.

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