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Opportunities and Breakthroughs in Content Innovation in the Context of New Media Technology: Postprint

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Abstract

Abstract

【Purpose】 This study aims to innovate editorial content and enhance content quality through the utilization of new media technologies.

【Method】 The research adopts a two-dimensional framework examining opportunities and breakthroughs, strengthening the application of technologies such as big data and artificial intelligence to align new media content development with contemporary evolutionary patterns.

【Results】 Findings demonstrate that applying new media technologies enhances the quality of media content development and promotes editorial content innovation.

【Conclusion】By taking new media technology as a breakthrough point, this study analyzes content innovation strategies aligned with communication patterns, thereby contributing to the profound and high-quality development of media.

Full Text

Preamble

Opportunities and Breakthroughs in Content Innovation Under New Media Technologies (Shandong Radio and Television Station, Jinan, Shandong 250062)

Abstract: [**Purpose**] To innovate editorial content by leveraging new media technologies to enhance content quality. [**Method**] This study examines opportunities and breakthroughs, emphasizing the application of big data, artificial intelligence, and other technologies to align new media content development with contemporary trends. [**Result**] The findings demonstrate that new media

technologies can improve media content quality and promote editorial innovation. **Conclusion** Using new media technology as a breakthrough point, this paper focuses on analyzing content innovation strategies to align with dissemination patterns and support deep, high-quality media development.

Keywords: new media technology; short video; paid reading; popular science knowledge; big data technology
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Introduction

Enhanced interactivity fundamentally strengthens user engagement, as new media technologies drive continuous innovation in audiovisual content production and effectively boost dissemination power. The evolution of media content production is closely linked to media technology development. In innovating media content, practitioners must examine opportunities from the perspective of technological transformation and analyze multi-faceted approaches to achieve organic integration between content production and technology application. Based on this analysis, this paper proposes a breakthrough path centered on short videos as the primary form, supported by advanced technology, and rooted in content construction, aiming to promote innovative development in media content.

Third, interactive features enhance user stickiness. New media technologies innovate content interaction methods by emphasizing user participation and creating highly interactive environments through likes, comments, live streaming, and sharing, which increases user belonging. Content creators can then draw inspiration from user feedback to enhance innovation quality. Fourth, cross-border integration expands resources. In recent years, technologies such as big data have broken traditional industry boundaries, broadened dissemination channels, and enriched content creation material libraries by comprehensively integrating educational, cultural, and technological resources, thereby providing audiences with superior experiences. Fifth, restoring classics revitalizes vitality. New media technologies can be applied to inherit and innovate traditional cultural content production through 3D reconstruction and digital restoration. As traditional culture has become a major component of media content innovation, these technologies enable innovative cultural presentation methods, allowing certain folk traditions to shine anew and providing opportunities for content innovation.

1. Opportunities for Content Innovation Under New Media Technologies

Modern society is witnessing unprecedented changes in information dissemination forms driven by the vigorous development of new media technologies, which has further optimized the information dissemination landscape. Against this backdrop of emerging new media forms, media content innovation possesses infinite possibilities.

First, data-driven content innovation. As a key component of modern technological infrastructure, big data enables creators to deeply analyze multi-dimensional data such as user interests, preferences, and behaviors, thereby enhancing personalization in media content creation. Data-driven innovation promotes diversified content forms, increases attractiveness and relevance, and optimizes creative direction.

Second, intelligent production improves efficiency. Applications of artificial intelligence technologies such as machine learning and natural language processing enhance the convenience and efficiency of content creation, improving both production efficiency and quality. AI technologies also encompass intelligent editing software and automated writing tools that ensure high-quality, timely information and strengthen technical support.

2. Breakthrough Paths for Content Innovation Under New Media Technologies

2.1 Short Video as the Primary Form

2.1.1 Emphasizing the Integration of Technology and Short Video Production Supported by new media technologies, short videos have gradually become the main development direction for media content. To effectively enhance media competitiveness and optimize dissemination effects, greater attention must be paid to short video development. In recent years, short video platforms have achieved substantial user scale, demonstrating significant market potential. Fundamentally, high-quality content will capture larger markets, and short videos offer distinct advantages over traditional television media. As an irreversible trend, short videos can increase audience enjoyment and accelerate information dissemination speed. Therefore, to achieve content innovation, media organizations must prioritize short video development as a fundamental force in content production. From a media perspective, short video technology can be applied to add sound effects, subtitles, and visual packaging to content, increasing influence and achieving the goal of "optimized" content production.

2.1.2 Application in Major and Emergency Event Reporting Short video technology can be applied to reporting on major themes and emergency events, transforming traditional dissemination methods. Short video-based dissemination broadens reporting perspectives, strengthens visual impact, and

maximizes the value of reported information. Short videos can directly broadcast first-hand information from the scene, making media content more timely and meeting the demands and standards of major and emergency event reporting. For example, during the Beijing Winter Olympics, event coverage and original content primarily utilized short videos and premium videos. Data shows that over 200 short videos were produced and distributed through platforms such as Kuaishou and Douyin, achieving total views exceeding ten billion. In this event, short videos served as the main dissemination method and gradually became the primary arena for coverage, ensuring content innovation while broadening dissemination scope. Media organizations can learn from such cases in future news gathering and editing by applying short video creation to livelihood news and other areas to effectively increase viewership and ensure the social benefits generated by event reporting.

2.1.3 Emphasizing Content Production Chain Construction Short videos rely heavily on dissemination technology during development and operation. To ensure that production technology aligns with audience needs, content production chain construction must be emphasized. Short videos are characterized by their brevity and conciseness, requiring hierarchical information development centered on continuity. Information content must be continuously produced and disseminated to ensure systematic completeness, enabling users to receive accurate, comprehensive factual information and maintain sustained attention while avoiding confusion. To enhance the logical narrative of media content, a multi-platform dissemination matrix should be established to fully engage audiences' sensory cognition and increase their enthusiasm across platforms such as Douyin, Weibo, and client applications. During dissemination, data on user dwell time, user volume, and participation levels should be analyzed to identify directions for content optimization and improvement. Building a user-centered ecosystem from multi-dimensional user needs can enhance audience aggregation capabilities, increase content vitality, and strengthen media credibility and guidance. Chain construction methods can reinforce the behavioral shaping power of media content, truly achieving a "people-centered" approach and promoting sustainable, stable media development.

2.1.4 Exploring Paid Reading Models for Premium Content Current media content supply entities primarily include self-media and government-affiliated accounts. To enhance authority and professionalism, media organizations must explore paid reading models. For informational content, consumer needs should be comprehensively considered across lifestyle services, cultural knowledge, social entertainment, and personal health to establish a foundation for paid reading. Influenced by socio-economic structures, the current vast data volume has stimulated audiences to increasingly evaluate content value. Therefore, during news gathering and creation, practitioners should actively market-orient their work, maintain correct guidance of public opinion, establish

commercial platforms based on new media technologies, and ensure platform-level product development to guarantee content quality and increase competitive advantages. Mainstream media must actively expand copyright businesses and connect them with personal credit services to promote the sustainable development of paid reading. During this process, click-through rates, payment rates, and other data should be analyzed using big data analytics and mining technologies to identify consumer payment willingness, optimize media content, comprehensively integrate resources, and achieve a virtuous cycle of content optimization and paid reading habit formation.

2.2 Supported by Advanced Technology

In the modern context, new media technologies can enhance the depth and breadth of media content. Taking artificial intelligence as an example, its practical application can achieve innovation in media content production. Analyzing technological advantages, practitioners can construct diversified content production entities, including AI, social robots, and AI anchors, to broaden the scope of content producers beyond the public and traditional media, enabling multi-level optimization of content production and ensuring quality. AI anchors can serve multiple roles as announcers and journalists, expanding dimensions from human-only to human-machine collaboration and integrating multiple content production entities to provide high-quality information dissemination services. Meanwhile, media content production innovation requires efficient human-machine interaction support, utilizing generative AI technology to optimize material collection, filming, production, editing, modification, content output, and review processes. This human-machine combined production approach can comprehensively cover content distribution, effect feedback, and all other stages, achieving effective improvements in dissemination efficiency and speed.

Regarding media materials, the complexity of information in modern society directly increases information processing difficulty. AI technology can be applied to achieve information convergence and coordination. Intelligent technologies primarily include smart drones, intelligent voice recorders, and 5G interview glasses, which enable the organic transformation from information data to media content through audio-visual capture, clue mining, and information searching. In media content production, the powerful computing capabilities of AI can be leveraged to adopt multimodal intelligent creative production methods, deeply analyzing and processing massive data to collect creative material information for secondary development and recombination, thereby enhancing the personality and creativity of media content.

2.3 With Content Construction as the Foundation

2.3.1 Emphasizing Era Integration In the new era, to revitalize content vitality, practitioners must stand at the forefront of the times and emphasize era integration, using advanced new media technologies as support to reconstruct content production and value dissemination. In the modern context, to dissem-

inate positive energy to young audiences, news gathering and creation content must be comprehensively optimized. Taking livelihood news content innovation as an example, and considering its characteristics, practitioners can optimize content and format to expand the young audience base by creatively adopting "hand-account style" layouts and utilizing advanced technologies to collect online hot words through data analysis, achieving "circle-breaking" dissemination among young people. Additionally, China has recently increased emphasis on promoting excellent traditional Chinese culture. During news gathering and creation, excellent traditional culture can be adapted to modern civilization through new concepts and methods, integrating well with the spirit of the times to achieve coordinated development of cultural dissemination and content innovation. Furthermore, generative AI technology can be applied to inject new highlights into content. Intelligent technology applications can directly increase source channels and corroborate the authenticity and scientific nature of news content. In news collection, intelligent media can continuously and dynamically obtain data, accurately predict future trends, and ensure data accuracy, providing guarantees for subsequent information production and presentation. For example, regarding the Fukushima nuclear pollution incident as a livelihood news topic, practitioners can utilize satellite technology to collect information, focusing on comparing site images before and after the leak to enrich media content, increase news value, and enable audiences to clearly understand the entire event for optimal dissemination effect.

2.3.2 Emphasizing Method Integration In the Internet context, to enhance news content value, adaptive media forms must be matched based on new media technologies on the foundation of textual integration innovation. Fundamentally, media itself is content that influences audience thinking habits. Compared with traditional text formats, practitioners should actively apply new media technologies, fully expand their imagination, and adopt various forms such as vlogs, comics, films, trailers, and animations to stimulate audience interest and enable deeper understanding and acceptance of media content. Taking anti-drunk-driving news as a key livelihood news topic, practitioners can creatively use breathalyzer tests as a breakthrough point, employing short video filming techniques to break domain barriers and achieve content innovation goals. Meanwhile, the value of news content lies in its sense of presence and real-time nature. To enable audiences to directly experience the real-time nature of news events, practitioners can use modern new media technologies to convert textual materials directly into 3D animated scenes that accurately restore news details, providing audiences with multi-sensory integration and strong scene immersion. Additionally, from a narrative perspective, to increase content acceptance, traditional news narration methods must be transformed by innovating narrative subjects. For example, as China' s national treasure, the panda' s health and growth conditions attract nationwide attention. During reporting, pandas can be given human voices to enhance interest, highlighting human emotions and charm to increase audience affinity and generate strong emotional resonance,

thereby realizing the actual value of media content.

2.3.3 Emphasizing Science Popularization Integration For news gathering and editing, to ensure content effectiveness, hot news must be integrated during creation to popularize relevant knowledge among audiences through science popularization, thereby increasing social news value. As a social resource, news can be integrated with popular science in entertainment, health, law, and other areas. Taking legal popularization as an example, which includes legal awareness and knowledge concepts, its integration into news content can improve public legal awareness and knowledge levels, ensuring social stability and healthy development. In the current legal popularization environment, news entertainment hotspots can be fully utilized and integrated with new media technologies to increase media content dissemination value. For instance, Luckin' s recent "Sauce-flavored Latte" product has attracted widespread attention. Practitioners can use this as a breakthrough point, employing data analysis technology to comprehensively collect online reviews of the sauce-flavored latte and publishing the topic "Will Sauce-flavored Latte Reach Drunk Driving Standards?" to enrich news content while achieving science popularization goals. In this process, to enhance the scientific and interesting nature of media content, new media technologies should be supplemented with appropriate data information, remote sensing data, satellite images, and other materials to give news content stronger vitality.

2.3.4 Emphasizing Data Integration To increase overall media competitiveness, practitioners must actively apply data mining, visualization, and other technologies during gathering and creation to focus on news hotspots and improve information acquisition efficiency. In the current information explosion era, information is characterized by uncertainty, making actual processing and mining difficult. To improve people' s ability to identify key information, news content can be presented through visualization to ensure audiences can obtain the most critical information in the shortest time, efficiently saving cognitive resources. Taking weather data reporting as a major livelihood news example, practitioners can use data analysis and visualization technologies to present climate change trends through visual charts, leveraging data value to clearly show dynamic climate changes and ensure scientific news content. During gathering and creation, technical tools must be utilized to process massive information, enhancing capabilities in information acquisition and visual data analysis to strengthen content targeting. Meanwhile, given the limited length of news content, to present a comprehensive social picture, practitioners must use big data technology from a global perspective, focusing on data comparisons to help the public understand social changes. Taking marriage and fertility issues as key livelihood news topics, massive data must be mined during creation to identify annual national marriage registration numbers and compare them with historical data, showing audiences the actual trend of non-marriage and late marriage phenomena in China to help them understand the current marriage situation.

In the modern "post-truth" era, media content must be optimized with emphasis on content itself to ensure truthful and timely news reporting. For major public opinion controversies, news ideological discourse power must be strengthened by efficiently applying new media technologies in the form of data journalism to present multiple viewpoints, properly address contemporary issues, and meet audience demands for in-depth news information. For example, the issue of elderly passengers using free fares during peak hours and occupying commuter resources has gradually attracted social attention. To effectively ease opposition between elderly and young people and create a stable, harmonious social atmosphere, practitioners can start with media content, using big data analysis and mining technology to deeply investigate peak travel periods for both groups, presenting data on whether these peaks overlap to objectively show the full picture of the event, increase news persuasiveness, guide rational public thinking, avoid blind conformity, and effectively resolve public opinion disputes.

Conclusion

In summary, to successfully promote innovation in media content production, practitioners must innovate media dissemination forms with short videos as the primary carrier, focusing on contemporary backgrounds and patterns to broaden media content dissemination scope. On this foundation, advanced technologies should be applied to create high-quality audiovisual media content that enhances audiences' high-quality immersive experiences. Simultaneously, with content construction as the foundation, integrating era, method, science popularization, and data dimensions can broaden media information sources, optimize internal content logic, and use high-quality, valuable media content oriented toward audience needs to improve audience cognition levels and promote healthy, stable social development in China.

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