Intelligence · Innovation · Convergence: The Practical Pathway for New Quality Productive Forces Driving High-Quality Development of Media Convergence (Postprint)

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Abstract

Purpose: This paper mainly explores the practical pathways of intelligence, innovation, and integration in the high-quality development of media convergence driven by new quality productive forces.

Method: By analyzing the opportunities and challenges brought by new quality productive forces driving media convergence.

Results: It explores the positive roles and practical pathways of intelligent technologies, innovative models, and integrated ecosystems for the in-depth development of media convergence.

Conclusion: Intelligent technologies reshape media production workflows, innovative models dismantle traditional media barriers, and integrated ecosystems consolidate multi-stakeholder forces, thereby providing media convergence with broader development space and sustained innovative momentum.

Full Text

Intelligence, Innovation, and Integration: The Practical Path for High-Quality Development of Media Convergence Driven by New Quality Productive Forces

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Abstract

[**Purpose**] This paper explores the practical pathways through which intelligence, innovation, and integration drive high-quality development of media convergence under the impetus of new quality productive forces. [**Method**] By analyzing the opportunities and challenges that new quality productive forces bring to media convergence. [**Result**] It investigates the positive effects and practical pathways of intelligent technologies, innovative models, and converged ecosystems on the deep development of media convergence. **Conclusion** Intelligent technology reshapes media production workflows, innovative models break down traditional media barriers, and converged ecosystems gather multi-stakeholder forces, providing broader development space and sustained innovation momentum for media convergence.

Keywords: media convergence; new quality productive forces; high-quality development; implementation path; intelligent technology
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1. The Inevitable Trend: New Quality Productive Forces Empowering Deep Media Integration

1.1 Evolutionary Trajectory: Advancing Media Convergence Toward Deeper Integration

Driven by the revolutionary new media technologies, media convergence as a systematic reform process is reconstructing the information dissemination ecology through phased implementation. This transformation involves three dimensions: the diversification of communication forms, breakthroughs in technical architecture, and the value 重塑 of content products. Specifically, communication carriers achieve functional expansion through multimodal interaction, production systems achieve performance leaps relying on artificial intelligence, and information products undergo value iteration centered on user needs. This composite reform is forming a new paradigm of open and collaborative communication, pushing the industry toward full-factor integration. Since 2013, media convergence has gradually evolved from initial internal industry exploration to a national-level priority. In 2014, the "Guiding Opinions on Promoting the Converged Development of Traditional and Emerging Media" was released, officially incorporating media convergence into the national strategic framework.

Starting in 2017, concepts such as the "Central Kitchen" model and "converged journalism" emerged successively. In 2018, "artificial intelligence" and "knowledge graphs" became hot topics in the industry. In 2019, emerging concepts such as "intelligent media" and "user thinking models" proliferated. By 2022, the rapid development of intelligent technology has enabled AIGC to penetrate every aspect of media production and dissemination, marking the full arrival of an intelligent communication era dominated by data and algorithms.

1.2 Essential Connotation: A New Paradigm of Advanced Productive Force Development

High-quality development, as the core strategic imperative in China's new era of modernization, is essentially characterized by a new form of productive force leap. At this critical stage of building a new development pattern, new quality productive forces, as the latest achievement of Marxist political economics adapted to the Chinese context and contemporary era, not only constitute the theoretical cornerstone of high-quality development but also form a dynamic mechanism supporting a modern socialist powerhouse through innovative allocation of production factors, improvement of total factor productivity, and deep reform of the industrial system.

The concept of "new quality productive forces" was first proposed to refer to the advanced productive force paradigm catalyzed by revolutionary technological breakthroughs, innovative allocation of production factors, and deep industrial transformation and upgrading [2]. Its essential characteristics manifest in three dimensions: high-tech attributes driven by innovation as the core driver; high-efficiency traits supported by strategic emerging industries and future industries; and high-quality development orientation aimed at achieving high-level dynamic balance between supply and demand. From a practical value perspective, cultivating new quality productive forces not only helps accelerate breakthroughs in scientific and technological self-reliance but also promotes the construction of a modern industrial system while providing new momentum for sustainable development.

1.3 Core Momentum: New Quality Productive Forces Driving Deep Media Integration

The innovative development of deep media integration takes new quality productive forces as its key driving force. Current frontier technologies represented by artificial intelligence, blockchain, big data, and the metaverse are continuously driving the iterative upgrading of new quality productive forces in media. This not only reshapes the communication ecology and media convergence landscape but also propels the industry toward deep-level transformation and innovative breakthroughs.

The significance of new quality productive forces driving media convergence is mainly manifested in several aspects: First, technological innovation has be-

come the core driving force for media upgrading. Frontier technologies within new quality productive forces inject continuous vitality into media convergence by optimizing media content production workflows, enriching communication methods, and enhancing user experiences. Second, the reshaping of industrial ecology and model innovation has become the new normal of media convergence. New quality productive forces promote deep integration and cross-industry cooperation between media and other industries, helping media institutions expand into new business fields and explore new profit models, thereby driving the diversified development of the media industry ecosystem. Finally, effective policy guidance and comprehensive strategic support provide solid guarantees for advancing media convergence. With the continuous development and maturation of new quality productive forces, media convergence will embrace broader prospects, propelling the media industry toward a more innovative, intelligent, diverse, and open new era.

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2. Numerous Challenges: Difficulties in Breaking Through and Enhancing Media's New Quality Productive Forces

In the clear trajectory of media evolution, new media has risen rapidly due to its high-speed information dissemination, extensive communication pathways, and diversified communication methods. Traditional media such as radio, television, and newspapers are experiencing unprecedented impacts and challenges. Therefore, traditional media urgently needs to actively explore pathways for integrated development with new media to move forward steadily in the torrent of new quality productive force development.

During the enhancement process of media's new quality productive forces, multifaceted challenges emerge. Professional talent shortage has become a bottleneck constraining its development, the transformation path of traditional media is fraught with difficulties, and information security and privacy protection issues are increasingly prominent, posing significant risks and tests for the media industry.

2.1 Technical Bottlenecks: Arduous Path for Technological Innovation and Talent Cultivation

Among the constituent elements of new quality productive forces, talent serves as the decisive active element. Their innovative thinking, critical thinking, and practical capabilities are key drivers for enhancing productive forces. The primary challenge facing the enhancement of media's new quality productive forces is the continuously rising technological threshold and the scarcity of human resources.

The rapid development of digital intelligence technology has propelled the media industry into deep transformation. While technological innovation opens

new possibilities for content production and dissemination, it also brings multi-dimensional challenges due to rising thresholds. Taking artificial intelligence as an example, the virtual anchor "Yang Xiaoxin" launched by central-level media collaborated with Baidu's "AIGC Wenxin Yige" to jointly create the AI creative short video "Blueprint for the 'Hui' of the Founding Year" during the 2023 Two Sessions, receiving widespread acclaim. Behind the success of this technological application lies the increasingly high technological threshold, posing higher demands on media industry practitioners.

In the era of digital intelligence, the media industry urgently needs interdisciplinary talents who integrate information technology, master advanced equipment, and possess rapid knowledge iteration capabilities. However, domestic talents proficient in big data, 5G+4K/8K+AI, VR/AR, MR, Internet of Things, and blockchain are mostly concentrated in high-tech and internet enterprises. Professionals who are proficient in both media business and new technologies are relatively scarce, making it difficult to fully unleash the potential of new technologies. Meanwhile, some media workers do not attach sufficient importance to new technologies and lack enthusiasm for learning and mastering cutting-edge media technologies, further exacerbating the talent shortage.

2.2 Transformation and Upgrading: Traditional Media's Communication Models Urgently Need Innovation

Although traditional media possesses certain authority and credibility among audiences, with the development of communication technology and the diversification of audience habits, traditional media also faces challenges.

First, traditional media communication models are primarily characterized by one-way communication, such as newspapers and magazines. Under the digital intelligence communication model, information exhibits unidirectional flow characteristics, and the one-way transmission mechanism from communicator to audience leads to enhanced passivity at the receiving end, consequently weakening participation and interactivity.

Second, traditional media exhibits deficiencies in grasping audience personalized needs. Traditional media adopts broad-based communication strategies, resulting in a lack of precision in information delivery. The diversification of audience demands requires traditional media to shift toward segmented content and differentiated services.

Third, there are deficiencies in institutional and mechanism innovation. Although some mainstream media institutions have conducted organizational integration and resource reorganization, internal management mechanisms remain imperfect, and effective collaboration between various business departments is lacking, leading to poor resource integration effects and slow transformation progress.

2.3 Information Leakage: Privacy Security Protection Issues Increasingly Prominent

Generative artificial intelligence technology, with its powerful content production capabilities, has demonstrated broad application prospects in the media field. However, as the technology becomes deeply applied, numerous potential risks gradually emerge.

First, data 甄别 has become a difficult problem. In the process of media content production, generative AI large models rely on internet data sources, but the complex network environment can easily lead models to absorb erroneous, low-quality, and harmful information, thereby triggering public cognitive bias and public opinion risks. A dual defense line combining technical filtering and ethical norms needs to be constructed.

Second, the risk of false information diffusion intensifies. Under specific circumstances, intelligent algorithms may misjudge false information as authentic content, and the rapid distribution and dissemination capabilities of AI technology will exacerbate the spread of misinformation, leading to public emotion misleading and cognitive confusion.

Third, information monopoly risks cannot be ignored. Some large media institutions or technology companies, by mastering advanced AI technology, monopolize information production and communication channels, restrict the development of other media institutions or individuals, and lead to the absence of information diversity and viewpoints.

Finally, information security and privacy protection issues are prominent. Although social media platforms such as WeChat and Weibo provide basic privacy options and control functions, users often find it difficult to fully grasp their privacy settings and data flow, seriously threatening users' information security and privacy rights.

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3. Implementation Pathways: New Quality Productive Forces Driving High-Quality Media Integration

New quality productive forces represent a significant hallmark of socialism with Chinese characteristics entering a new era. This innovation-driven productive force paradigm is not only a strategic opportunity that must be seized but also the core for occupying the frontier position and building new competitive advantages in the process of achieving high-quality development. Among these, artificial intelligence is the core dominant technology of the new round of scientific and technological revolution, exerting significant influence on the formation of new quality productive forces and guiding media institutions toward a new stage of high-quality development [3].

3.1 Intelligent Technology: Revolutionizing Media Production Workflows

Due to the gradual implementation and application of AI technology, the media industry is undergoing transformation from multiple dimensions including content creation and content presentation [4]. The central document points out that systematic thinking should be used to promote integrated development in a coordinated manner, with frontier technologies as support, and emphasizes the need to innovate the editorial process [5]. Therefore, media institutions urgently need to leverage the automation advantages of intelligent technology by introducing AI technologies such as natural language processing and machine learning to achieve "one-time collection, multi-channel distribution" of content, thereby promoting the revolution of media production workflows.

Second, media institutions should deepen integration with AI technology and actively introduce intelligent production tools such as AI digital humans to inject diversified momentum into content production. For example, digital virtual humans such as CCTV.com's "Xiao C," Hunan TV's "Xiao Yang," and The Beijing News' "AI Xiao Bei" have successfully broken into mainstream popularity, winning recognition and affection among youth demographics [6].

On this basis, media institutions also need to actively explore application scenarios of intelligent technology in media integration, promoting media convergence toward broader and deeper development. For example, using AI technology to build cross-media intelligent platforms that achieve integrated presentation of multiple media forms such as text, images, and video, providing users with richer and more diverse content experiences.

3.2 Innovative Models: Deepening Media Convergence Development

Innovation, as the essence of media convergence, is helping journalism become a "bright and shining cause" [7]. To substantially promote the deep development of media convergence, media institutions need to implement a series of innovative models. First, in cross-platform cooperation, media institutions should move beyond simple content sharing to explore deeper cooperation mechanisms such as joint planning of special reports and co-building content ecosystems, thereby promoting deep integration of content, users, and resources. For instance, international media organizations such as The New York Times have developed intelligent interactive products based on ChatGPT technology, while domestic Baidu Wenxin large model has established deep cooperation with multiple mainstream media including The Beijing News, fully demonstrating the development potential of collaborative innovation [8].

In the content production field, users, as content consumers, exert strong attraction on content formation, while simultaneously serving as producers providing continuous productivity for new content generation, making them important participants in value co-creation [9]. Specifically, media institutions can establish User-Generated Content (UGC) platforms or develop collaborative content

editing tools to allow users to participate in content creation and editing. For example, commercial communication media platforms such as Bilibili and Douyin have successively launched co-creation functions [10].

Finally, in business models and operational mechanisms, media institutions should boldly attempt diversified profit models such as membership subscriptions + value-added services, content e-commerce, and IP incubation. Meanwhile, they should establish organizational structures and decision-making processes that respond quickly to market changes, ensuring that innovation strategies can be rapidly implemented and continuously optimized.

3.3 Convergence Ecosystem: Building a High-Quality Integration Environment

The convergence ecosystem serves as the foundational guarantee for high-quality development of media convergence, providing comprehensive and in-depth support for the transformation and upgrading of the media industry. In an increasingly changing media environment, a single media institution cannot alone address all challenges and opportunities. The future of integrated development lies in building a healthy pattern and new media convergence ecology with reasonable layout, orderly competition, distinctive features, and diverse forms [11].

The optimization and upgrading of the communication ecology from the perspective of media convergence requires practical measures. First, the government should continuously optimize relevant policies and regulations to provide institutional guarantees for media convergence. Simultaneously, it should increase support for the media convergence industry, guiding and supporting media institutions in technological innovation and industrial upgrading.

New-type convergence talents, as the core driving force for building an all-media communication system, are catalyzing qualitative leaps in media productive forces through their knowledge cross-boundary characteristics, innovative thinking, and composite skill features, as well as through talent collaborative innovation effects [12]. In the process of media convergence, convergence talents with both professional depth and cross-domain knowledge reserves can drive qualitative leaps in media productive forces [13]. Facing the development requirements of new quality productive forces, media institutions urgently need to build talent cultivation mechanisms adapted to the convergence ecosystem, focusing on strengthening intelligent technology application and cross-boundary integration capabilities to provide sustainable intellectual support for deep integration.

The "decentralization" trend of media brought by digitalization is becoming increasingly evident [14]. According to data, as of July 29, 2023, among 3,943 video works released by Xinhua News Agency, 387 videos were co-created, accounting for nearly 10%, demonstrating this trend [15]. Under the internet model of UCC (crowdsourced production), users are actively incorporated into the content creation and dissemination process, becoming important participants. Against this background, building an open and inclusive cooperation

mechanism is particularly important. Media institutions should engage in cross-boundary cooperation with users and other industries to jointly explore new pathways and models for media convergence.

Conclusion

With the deep advancement of the scientific and technological revolution and industrial revolution, new quality productive forces, with their deeply integrated high-tech attributes, high-efficiency transformation, and high-quality orientation, are accelerating to become the core innovative driving force leading China's new pattern of sustainable development. Against this backdrop, media institutions need to deepen the integrated application of intelligent technology, using advanced technologies such as natural language processing and image recognition to reshape content production workflows, innovate content production paradigms, strengthen intelligent interactive experiences, and achieve intelligent content production and collaboration, thereby substantially improving operational quality and efficiency. Simultaneously, with an open attitude, they should explore innovative models such as cross-platform joint planning, content co-creation mechanisms, and diversified profit strategies to break traditional media boundaries, promote deep collaboration and resource sharing, and better meet users' personalized needs. Additionally, they should build a convergence ecosystem that gathers multi-stakeholder forces including government, media institutions, and users, forming a powerful joint force to jointly promote innovative development of the media industry through policy support, technological innovation, talent cultivation, and open cooperation mechanisms. These measures will provide effective pathways and solid support for the high-quality development of media convergence.

References: [1] Pan Yue. Challenges and Countermeasures: Driving Media High-Quality Development with New Quality Productive Forces [J]. Media Review, 2024(8): 70-71.
[2] Xi Jinping Economic Thought Research Center. Connotation Characteristics and Development Priorities of New Quality Productive Forces [N]. People's Daily, 2024-03-01(9).
[3] Zhang Xu. Promoting AI Technology to Accelerate the Formation of New Quality Productive Forces [J]. Democracy and Science, 2024(2): 28-30.
[4] Shen Hao, Yuan Lu. Artificial Intelligence: Reshaping the New Ecology of Media Convergence [J]. Modern Communication (Journal of Communication University of China), 2018(7): 8-11.
[5] Hu Zhengrong. Key Points and Pathways for Convergence of Traditional and Emerging Media [J]. Journalism
[6] Lu Xiaojing, Jiang Cuiping, Yao Yongchun. AI-Driven Transformation of International Communication: Strategies for New Mainstream Media's Response and Adaptation [J]. Publishing Wide Angle, 2024(10):
[7] Zhu Jiangli, Zuo Wenrong. Innovation Within Structure: A Grounded Study

of Media Convergence Innovation Models and Their Influencing Factors [J]. Journalism Reporter, 2024(3): 10-26.
[8] Qi Yalin. New Quality Productive Forces Empowering All Domains: New Directions for Intelligent Media High-Quality Development [J]. Publishing Friends, 2024(6): 74-83.
[9] Liu Jiaxi. Research on Innovation in Mainstream Media Content Production from a Co-Creation Perspective [J]. News Dissemination, 2024(6): 12-14.
[10] Wang Ying, Wang Yue. Mainstream Media's Development Path from "Content Co-Creation" to "Value Co-Creation" [J]. Youth Journalist, 2023(15): 20-22.
[11] Zhao Shuqing. Reconstructing Media Ecology and Promoting Convergence Innovation—The Fundamental Strategy for Radio and Television Media Convergence Development [J]. Media, 2016(17): 14-17.
[12] Wang Runjue, Huang Qinwen. Generation Path and Logic of New Quality Productive Forces in the Media Industry in the "Digital Intelligence" Era [J]. China Editor, 2024(5): 22-27.
[13] Li Mingde, Liu Jiaoyang. Construction of All-Media Communication System Led by New Quality Productive Forces [J]. Publishing Friends, 2024(10): 53-62.
[14] Li Zhiwei. Media Content Co-Creation: New Logic of Collaborative Content Production and Dissemination [J]. Youth Journalist, 2023(15): 23-25.
[15] Huang Kangyi. Content as "Media," Voices Co-Created—Reflections on Xinhua News Agency's Bilibili Account Content Co-Creation Practice [J]. Youth Journalist, 2023(15):

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Note: Figure translations are in progress. See original paper for figures.