

Postprint: Implementation Pathways for Generative AI-Driven Systemic Transformation of Mainstream Media

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Abstract

generation, style imitation, and AI drawing. Shandong Network Media Group, Shandong Radio and Television, Cover Technology, and others have connected their various technology platforms to DeepSeek, enhancing intelligent analysis and creation capabilities.

Full Text

Implementation Paths for Generative AI-Driven Systemic Reform of Mainstream Media

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Preamble

In recent years, Generative Artificial Intelligence (GenAI) technology has rapidly evolved from demonstrable concepts to practical applications, expanding from text to multimodal capabilities encompassing images, audio, and video. This evolution has witnessed single models upgrading to networked, collaborative, and integrated systems; general-purpose models differentiating into industry-specific variants for media, finance, and healthcare; foundational models focusing on knowledge bases, knowledge graphs, and intelligent agents; and a fundamental shift from closed-source to open-source paradigms. Consequently, GenAI has entered public consciousness and integrated into myriad industries, attracting widespread attention from mainstream media for its novel perspectives on content production. From media outlets announcing integration with Wenxin Yiyuan in February 2023 to their subsequent adoption of DeepSeek in

February 2025, the author has personally experienced both waves and observed the powerful momentum driving mainstream media to embrace change. Media organizations are now systematically adopting measures including deepening creative applications, conducting training programs, issuing usage standards, strategic planning, establishing innovation institutions, developing specialized models, building technology platforms, launching intelligent products, forming cooperative alliances, and developing industry standards to fully embrace AI and initiate a new round of deeper intelligent transformation.

1. Deepening Creative Applications

With increasingly capable large models available, media organizations' first consideration is effective utilization. During the 20th Party Congress in 2022, *People's Daily* collaborated with Baidu to launch "What Will Future China Look Like? AI Draws It for You," while Guangming Online, Red Net, and other media outlets also produced GenAI-integrated multimedia reports, demonstrating GenAI's potential in major news coverage. During the 2023 Two Sessions, CCTV News adopted an AI perspective for its "The 'Hui' of the Inaugural Year" micro-video series. In 2024, Xinhua News Agency employed text-to-image and video generation for its "AIGC Paints China" series. By the 2025 Two Sessions, *People's Daily* had created AI-powered creative videos such as "Nezha, Ao Bing, and Sun Wukong Are All Here! Mythology Meets Reality with a Billion Points of Cool." The launch of Sora in early 2024 propelled AI video generation to new heights, accelerating the elevation of GenAI creation from mechanical to sophisticated aesthetics.

2. Conducting Skills Training

Following initial demonstrations of GenAI-enabled innovative content production, an increasing number of media professionals have joined the learning ranks. Dazhong Newspaper Group organized GenAI application training camps, selecting AI application mentors, forming practical training groups, and producing real-world works with over 500 participants. The group also launched the "Dazhong Lecture Hall" all-media practical training camp, training nearly 100 provincial news communication backbone personnel. Shanghai United Media Group implemented an "AI Learning Month," launched an "AI Graded Training Series," and initiated the "Intelligence in My Hands" AI application skills competition. Southern Media Group established an AIGC creation training base, providing targeted training services for government media, university students, children, and senior citizens, and launched the Bay Area AIGC creation column.

3. Issuing Usage Standards

As media organizations enrich their GenAI application scenarios, they increasingly recognize the need to strengthen regulatory constraints on AI applica-

tions. China Media Group formulated and issued the *Artificial Intelligence Usage Guidelines (Trial)*, establishing norms for content production, labeling rules, strict review processes, and classified supervision in accordance with laws and regulations. Sichuan Daily released the *Sichuan Daily Digital Journalist Information Management Measures (Trial)*, stipulating mechanisms for usage authorization, work ownership, and error liability. Dazhong Newspaper Group formulated the *All-Media Positions AI Skills Guide (Version 1.0)*, listing responsibilities, skills, and tool inventories across text production, video production, graphic design, and technical R&D.

4. Strategic Planning

As GenAI capabilities become increasingly sophisticated and effective, more mainstream media organizations are incorporating it into new strategies for systemic transformation. Shanghai United Media Group proposes “becoming the media group that best understands technology,” viewing AI adoption as an existential imperative for media organizations, requiring acceptance of AI’s “imperfections” and growing alongside it [1]. Dazhong Newspaper Group comprehensively revamped and upgraded its Dazhong News client, establishing an “AI-Founded Platform” strategy to comprehensively advance AI applications, from enriching user experience to assisting content production. Hunan Broadcasting System proposes “becoming the technology company that best understands culture and the cultural company that best understands technology,” identifying culture-technology integration as its core strategy and introducing AI and other new technologies to innovate cultural expression [2].

5. Establishing Innovation Institutions

After initial trial-and-error attempts in isolation, mainstream media recognized that GenAI applications require systematic advancement. The launch of Sora in early 2024 propelled AI video generation to a new stage, accelerating the establishment of AI innovation institutions within mainstream media. Since 2024, China Media Group; provincial newspapers from Hainan, Jiangsu, Henan, and Chongqing; provincial-level broadcasters from Shanghai, Beijing, Henan, Chongqing, Hubei, Hebei, Ningxia, Fujian, Jilin, Liaoning, and Anhui; municipal newspapers from Luoyang and Ningbo; and municipal broadcasters from Shenzhen, Chengdu, Zhongshan, Nanjing, Ningbo, Taiyuan, and Wuxi have successively established AIGC-focused innovation institutions in collaboration with universities, research institutes, and leading technology companies [3]. These institutions have defined research and application directions in model deployment, corpus co-construction, and media ethics, producing practical works including AI animation series, AI full-process micro-dramas, AI-translated micro-documentary series, and AIGC public welfare micro-drama series.

6. Developing Specialized Models

Media technology teams are developing vertical domain application large models, which have successively passed the Cyberspace Administration of China's generative AI service filing and domestic deep synthesis service algorithm filing to provide public services. By drawing on various open-source models and pre-training results, and aligning them with media organizations' proprietary data and integrable specialized domain data, these teams conduct specialized fine-tuning to achieve applications in media, public opinion, culture, finance, and other fields. Chuanbo Brain, Qilu Yidian, and Cover Technology have successively launched communication large models, media large models, and intelligent media large models for content production. Shandong Network Media Group launched the Haidai Public Opinion Large Model, focusing on public opinion monitoring, analysis, and management. Qilu Yidian introduced the Qilu Culture Large Model and Yimeng Spirit Large Model to excavate Qilu cultural genes and innovate cultural transmission methods. Interface Cailian Press launched the Caiyue F1 Financial Large Model, concentrating on financial knowledge Q&A, chart comprehension, and calculation.

7. Building Technology Platforms

As large models become increasingly abundant, media organizations continuously integrate these capabilities into enterprise-facing technology platforms, substantially enhancing intelligence levels. Xinhua News Agency's Jiaozhen, Yidian Tianyan multimodal content risk control platform, and Cover Intelligent Media Audit Cloud have integrated large model technology to comprehensively improve content risk control capabilities. Dazhong Newspaper Group's "Dazhong" new media platform has launched intelligent creation functions including full-text polishing, abstract generation, style imitation, and AI drawing. Shandong Network Media Group, Shandong Radio and Television, Cover Technology, and others have connected their various technology platforms to DeepSeek, enhancing intelligent analysis and creation capabilities.

8. Launching Intelligent Products

By matching large models with knowledge bases, knowledge graphs, and other technologies, media organizations have launched intelligent agent products for public users, enriching application methods and innovating operational approaches. The Dazhong News client integrates industry data to launch agents such as "Medical Consultation," "Transportation Encyclopedia," and "Safe Consumption in Shandong," empowering big health and big transportation platform construction and innovating consumer reporting formats. Xinhua News Agency's "Xinhua Miaobi," Chuan Guan News's "Xingyun," and Southern Media Group's "Southern AI Agent" collect professional materials and templates, employing AI technology to address pain points in government applications. Interface Cailian Press's "AI Little God of Wealth" and National

Business Daily’s “Financial Report Agent” aggregate authoritative financial data, high-quality financial information, and professional investment research data to provide financial analysis services.

9. Establishing Cooperative Alliances

During the R&D and application of large models, the contradiction between media organizations’ limited resources and unlimited demands has become increasingly prominent, making the construction of cooperative alliances a viable solution. In July 2023, the “Large Model Corpus Data Alliance” was established with participation from China Media Group, People’s Daily Online, Shanghai United Media Group, and other media organizations. The alliance launched the open-source data service platform OpenDateLab, successively releasing pre-training corpora including “Scholar · Wanjuan 1.0” multimodal data, “Michao · Huaafen 1.0” internet media data, “WanJuan2.0 (Wanjuan-CC)” high-quality English web text data, and “Wanjuan · Silu” multilingual data. In February 2025, the Academy of Broadcasting Science of the National Radio and Television Administration and media organizations from Zhejiang, Guizhou, Hebei, Shandong, Jiangxi, Guangdong, Tianjin, Shaanxi, and other regions jointly established the “DeepSeek Media Industry Application Innovation Alliance” to collaboratively research new prospects [3].

10. Developing Industry Standards

As media organizations deepen their GenAI applications, industry leaders are spearheading the development of AI standards for the news industry to regulate sector development. The China Academy of Information and Communications Technology released the *Large Model-Driven Media Production and Processing* standard, aiming to promote safe and efficient large model applications in media. The Communications Technology Bureau of Xinhua News Agency and over 30 other units jointly drafted and released the *News Industry Large-Scale Pre-trained Model* series of group standards, designing requirements from five dimensions: practicality, security, evaluation, multimodality, and R&D data. The application and R&D of generative AI technology across media organizations are gradually transitioning from disorder to order, expanding from content production to business operations. Moving forward, new risks such as copyright, privacy, ethics, and governance will continue to emerge. Media organizations must fully implement various norms and standards to serve as rule guardians, continuously leverage professional advantages to serve as content gatekeepers, and persistently learn new AI technologies to serve as innovation pioneers. Generative AI may represent another major variable for systemic reform of mainstream media following the mobile internet era. If skillfully harnessed, it may offer new solutions to resolve the contradictions between news content quantity and quality, and between limited resources and unlimited demands.

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Author Bio

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(Responsible Editor: Li Jing)

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

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