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Research on the Deep Convergence Development of Xinyang Media in the 5G Era (Postprint)

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Abstract

This study proceeds from the relevant theories and concepts of media convergence, applies 5G and media convergence-related theories to analyze the principal driving forces behind deep media convergence in Xinyang during the 5G era, examines the current status of media convergence in Xinyang, compares and draws upon the advanced experiences of media convergence in surrounding prefecture-level cities, and proposes strategies and recommendations for promoting deep media convergence in Xinyang in the 5G era. Grounded in the context of Xinyang and closely following the historical trajectory of radio and television development, this research explores the developmental pathway for deep media convergence in Xinyang against the backdrop of the 5G era, ensuring that the media convergence undertaking in Xinyang advances in a scientific direction, thereby promoting the deep development of media convergence in Xinyang and delivering benefits to society, the economy, and public welfare.

Full Text

Research on the Deep Integration and Development of Xinyang Media in the 5G Era

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Abstract: This paper analyzes the main drivers of deep media convergence in Xinyang during the 5G era from the perspective of relevant theories and concepts of media convergence, employing 5G and media convergence theories. By examining the current status of media convergence in Xinyang and comparing it with advanced experiences from surrounding prefecture-level cities, this study proposes countermeasures and recommendations to advance deep media convergence in Xinyang in the 5G era. Grounded in the local context of Xinyang and closely following the historical trajectory of radio and television development,

this study explores the path toward deep media convergence against the backdrop of the 5G era, ensuring that media convergence endeavors advance along a scientific direction, thereby promoting deep media convergence development and benefiting society, the economy, and people' s livelihoods.

Keywords: 5G era; media convergence; driver analysis; evaluation system; business architecture

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1. Analysis of Drivers for Deep Media Convergence in Xinyang in the 5G Era

1.1.1 Basic Networks

The development of basic networks has caused broadcasting and television networks to lose their original technological advantages, with the specificity among broadcasting networks, telecommunications networks, and the Internet gradually evolving toward universality.

1.1.2 Mobile Networks

Today, mobile phones have become indispensable tools in daily life and work, simultaneously catalyzing the rapid evolution of media convergence. By the end of 2025, 5G is projected to cover 65% of the global population and carry 45% of global mobile data traffic. Its unprecedented scale, broad applications, and high technological content surpass any previous communication technology. Traditional broadcasting and television technologies must integrate with cutting-edge 5G technologies to adapt to the new media landscape brought about by social development.

1.2 User Demand Drivers

According to data from the 47th "Statistical Report on Internet Development in China" released by the China Internet Network Information Center (CNNIC), as of December 2020, China' s internet user population reached 989 million, an increase of 85.4 million since March 2020. Mobile internet users totaled 986 million, with internet penetration reaching 70.4%. Among them, over 50% were under 40 years old, with students comprising the largest group at 21.0%. Mobile networks centered on smartphones are demonstrating vigorous development

momentum, with social networks and self-media having become integral parts of people' s daily lives.

1.3 Xinyang' s Livelihood Development Needs

In recent years, Xinyang has vigorously promoted concepts such as “rural revitalization” and “all-for-one tourism.” Following the principle of “one village, one feature; one town, one theme,” Xinxian County has undertaken comprehensive rural construction and full-factor allocation, creating the Dabie Mountain Tourism Park characterized by “scenery everywhere, changing views with every step, no entrance fees, no boundaries between zones, and no specific scenic spots.” The “Nine Towns and Eighteen Bays” has become a distinctive tourism brand. In the Xinyang Maojian tea industry zone, ancient villages and tea workshops have been connected into clusters without digging mountains, cutting trees, filling ponds, demolishing houses, or straightening roads, preserving the original fabric of traditional villages and restoring the authentic character of southern Henan residential architecture, thereby establishing an all-for-one tourism model featuring “no boundaries between zones, no specific scenic spots, and no entrance fees” [1].

2. Current Status of Media Convergence Development in Xinyang

2.1 Overall Status of Media Convergence in Xinyang

“Mainstream media advancing into the primary battlefield” —Xinyang' s various media outlets are flourishing with numerous outstanding communication cases emerging continuously. However, several problems persist in Xinyang' s media convergence development. First, traditional media suffers from insufficient innovation, relying heavily on “cramming-style” propaganda models that are clearly inadequate in the 5G era. Second, promotional channels remain monolithic; although Xinyang' s mainstream media have developed “two micro-platforms and one client” (WeChat, Weibo, and news apps) and websites, the disseminated information still follows traditional patterns. Third, with the rapid popularization of new communication media, the attention of broad audiences is unconsciously diverted to platforms such as WeChat Moments, Weibo, and self-media.

2.2 Current Status of Media Convergence at Xinyang Radio and Television Station

Currently, Xinyang Radio and Television Station has over 20 internal departments, including the General Office, Planning and Finance Department, Human Resources Department, Chief Editor' s Office, News Department, Technology Department, and Advertising Department, as well as three secondary institutions: Xinyang Television Relay Station, Xinyang Huanchuan Television Relay Station,

and Xinyang Luoshan Radio and Television Microwave Station. In recent years, Xinyang Radio and Television Station has consistently kept pace with Internet development in its media convergence reforms, initially establishing new media models such as news websites and mobile TV platforms.

Case 1: Piloting live broadcasting of radio programs. “Voice 890” is a comprehensive radio program beloved by Xinyang residents. At the end of 2020, the program added a “cloud broadcasting” feature to its self-operated public account, transforming listeners into viewers and eliminating listening scenario constraints, thereby shifting from audio broadcasting to visual broadcasting. Fans can actively interact with program hosts, and the resulting “fan economy” represents a viable new revenue growth point.

Case 2: Launching a short, fast-paced news briefing segment. While continuing to broadcast the “Xinyang News Network” on schedule, the current affairs news department condenses program content to produce short videos of approximately 3-5 minutes per episode, shared via WeChat, Douyin (TikTok), and other platforms. This enables audiences with mobile phones to quickly browse news content within a short time, significantly improving news dissemination efficiency.

Based on analysis of these two cases, Xinyang Radio and Television Station is actively exploring the path of media convergence development. Beyond transforming toward popular formats such as “short videos” and live streaming, the station is also advancing in personnel deployment and technical accumulation. However, it must be acknowledged that compared with advanced media outlets in surrounding prefecture-level cities, Xinyang Radio and Television Station’s degree of media convergence still requires improvement. According to the media convergence evaluation system proposed in this paper, the station remains in the initial stage of media convergence, necessitating comprehensive reforms to achieve full integration.

The following section will focus on introducing the convergence development status of Henan Radio and Television Station, comparing and drawing lessons from its development experience.

On July 1, 2017, Henan People’s Radio Station and Henan Television Station merged and officially adopted the designation “Henan Radio and Television Station.” Its current operational system is based on a frequency/channel system.

2.3.1 Mechanism Innovation This operational model is prominently characterized by broadcasting, television, newspaper, and other propaganda organizations utilizing their own promotional positions under the leadership of a command system (various levels of propaganda departments) to achieve unified propaganda.

Henan Radio and Television Group has implemented what can be termed “Media Convergence 2.0” with three key measures: First, in March 2020, a new

income distribution system was implemented where all personnel (both staff and contracted) receive a “basic salary + performance salary” compensation package. The basic salary is set at 3,500 yuan, with the entire performance portion subject to secondary distribution, directly linking wages to advertising revenue generation. Second, the assessment method for channels and frequencies was adjusted to implement a 100% revenue target assessment system, tightly integrating performance salaries with revenue goals. Third, staff members have two-way selection rights, allowing them to retain their staff identity when moving to company positions, with personal information stored in personnel files and staff identity restored upon retirement to process retirement procedures [2].

2.3.2 Media Convergence Reform Henan Radio and Television Group has prioritized the launch of the Elephant News client, supporting it through two approaches: First, emphasizing “one station, one client,” where the station is the client and the client is the station. Second, providing financial support for three years, after which the client operates independently.

3. Media Convergence Evaluation System

The new organizational model following media convergence represents a qualitative transformation compared to traditional radio and television organizational models. From a management structure perspective, relatively successful media convergence institutions have all achieved enterprise operation under Party committee management and matrix management models to varying degrees. From a technical standpoint, media convergence highly depends on digitalized management systems, with basic data service centers playing a crucial role. Regarding performance systems and human resource management, it is essential to fully follow performance management methods under enterprise operation models, employing flexible performance management to strengthen the monopolistic effect of advantageous resources on one hand, and on the other hand, releasing the “shackles” of performance management in administrative institutions to fully mobilize personnel enthusiasm, making the Party’s public opinion and propaganda endeavors more dynamic [3].

Through the above analysis of Henan Radio and Television Station’s converged media operation experience, this study attempts to establish a media convergence evaluation system from an Internet-thinking perspective, comprising three dimensions and eight points: business convergence, service convergence, and technical convergence, to provide reference for Xinyang’s converged media construction (see the mind map below).

At this stage, organizations explore establishing their own websites and consciously build “owned media” platforms through emerging communication channels. This stage also represents the deep integration of radio and television, while simultaneously witnessing the proliferation of “self-media” in society.

3.3 Media Convergence 3.0

This stage of media convergence represents an advanced form of deep media integration and will be the main focus for the foreseeable future. To achieve deep media convergence, all three dimensions—business convergence, service convergence, and technical convergence—are indispensable.

3.4 Media Convergence 4.0

In the foreseeable future, media moving toward higher-level convergence will depend on technological updates and iterations. In the 5G era, information dissemination, beyond human intervention, will incorporate Internet of Things concepts. Information related to emergency response, climate, transportation, diet, culture, entertainment, and propaganda may be automatically pushed based on user profiles (online behavior). After mainstream media have occupied the ideological main battlefield, they should advance to higher levels, leveraging continuously evolving intelligent algorithms to create new communication formats in areas such as public opinion hotspot tracking, intelligent writing, and precision pushing [4].

In the future, media convergence will upgrade from passive information collation and release to guiding correct public opinion directions based on target keywords (propaganda keywords) combined with social hotspots. Meanwhile, besides traditional positions such as journalists and editors, professions like algorithm engineers, public opinion monitoring specialists, and network information collectors will gradually emerge in ideological propaganda work.

4. Countermeasures and Recommendations for Deep Media Convergence in Xinyang in the 5G Era

4.1 Overall Statement

It is recommended that Xinyang's municipal Party committee and government take the lead, with Xinyang Radio and Television Station (or Xinyang Daily) as the foundational force, to fully integrate platforms including television, radio, newspapers, and emergency response systems, establishing a city-level converged media center with enterprise operation and matrix management to advance toward deep media convergence.

4.2 Management Model

4.2.1 Horizontal Dimension In horizontal management, a professional department system is adopted, consisting of the following main departments:

1. **News Business Department:** Primarily focused on policy propaganda work centered on the key tasks of Xinyang's municipal Party committee

and government, timely conveying the voices of the Party and government, while also undertaking Xinyang' s external propaganda work.

2. **Market Operations Department:** Develops annual business plans according to market conditions, expands business channels, and tracks market feedback. Transforms propaganda capacity into brand power, strengthens self-promotion, and enhances the influence of the converged media center.
3. **Product Sales Department:** For packaged propaganda products, integrates existing scattered customer relationships, sets performance based on target completion, operates in a market-oriented manner, conducts precise industry pushing according to product attributes, and tracks and maintains target customers.
4. **Content Production Department:** Integrates all image, video, photo, and other resources, consolidates the existing team of professional editing and production technicians, and produces competitive propaganda products according to the content planned by the Market Operations Department.
5. **Platform Technology Department:** Constructs a comprehensive control center for converged media with independent intellectual property rights, serving as the central hub for information collection, distribution, production, and release. Simultaneously, establishes modern data centers and research and development centers, keeping pace with Internet development trends and boldly applying new technologies.
6. **Internal Audit and Legal Affairs Department:** Internally strengthens tracking and handling of contracts, performance, payment collection, and other information; externally enhances handling of intellectual property infringement cases.

4.2.2 Vertical Dimension In vertical management, a business unit system is adopted. For important activities or significant client resources, specialized business units may be temporarily established. Business unit heads are granted temporary maximum allocation authority, with a comprehensive performance evaluation system implemented. Scores are assigned based on division of labor and propaganda effectiveness, which are incorporated into annual assessment indicators [5].

4.2.3 Matrix Integration The horizontal and vertical management systems constitute a matrix management model that ensures professionalism while fully utilizing resources, avoiding the dilemma where small teams waste resources and cannot handle major operations. During the live broadcast of the 29th Tea Culture Festival, Xinyang Radio and Television Station mobilized over 80 personnel from more than 20 departments, including propaganda operations,

technical support, and logistics management, forming a special task force that successfully completed the live broadcast mission.

4.3 Resource Management

4.3.1 Data and Materials The center establishes a data center (repository) where all audio-visual materials and data are promptly stored upon creation, with hierarchical approval for usage. Strict measures ensure that audio-visual materials are not leaked or lost to individuals or external parties.

4.3.2 Fixed Assets Equipment and facilities for relay, production, filming, and studios of the converged media center, except when serving major activities of Xinyang's municipal Party committee and government, are strictly prohibited from being used in activities without business cooperation.

4.3.3 Professional Talent Announcers and hosts affiliated with the center are not permitted to serve as hosts, judges, or trainers for any activities other than major events of Xinyang's municipal Party committee and government. They may only participate in activities and training with business cooperation relationships with the center, such as serving as hosts, judges, or trainers. Various management departments jointly formulate management systems, employing strict management and severe penalties to ensure resource security and enhance core resource competitiveness.

4.4 Performance Management

Performance evaluation focuses solely on business indicators. Assessment standards are differentiated between news and program departments primarily focused on news propaganda versus revenue generation. For the News Business Department's propaganda management evaluation, regular assessments only penalize without rewarding, while innovation and excellence awards are established with bonus funds incorporated into performance pay.

Floating reward performance is established for forming business units and allocating talent, providing certain performance rewards for completing activities beyond one's department or position. Performance is determined by position to maintain competitiveness. Department staffing numbers are verified, with personnel within the establishment allocated according to a 3:4:3 ratio for job positions (Type I, Type II, and Type III positions), with basic performance salaries determined by position. The department's initial performance total is calculated based on the positions and number of staff within the establishment, while the actual monthly performance total is calculated based on the department's monthly business target completion. On this basis, regardless of how many people the department employs, monthly performance is distributed according to this total, with the department responsible for allocation. A center director (station chief) reward performance is established, allocating a certain

percentage of the total performance pool for unified distribution by the center director (station chief).

Stage 1: Frontline all-media journalists are equipped with dedicated terminals to transmit collected materials via network to the platform's data center for centralized storage. Through 5G's high-speed transmission characteristics, the platform's powerful computing capabilities can be accessed, enabling weak terminals to edit ultra-high-definition (4K, 8K) videos online. Stage 2: After data enters the data center, indexes are automatically established and materials are categorized and stored based on preset keywords. Back-end editors search the database for materials according to dispatch center instructions (propaganda topics), utilize platform computing power for production, and link to different dispatch instructions. Stage 3: Through a unified platform, produced content is pushed to different distribution channels (two micro-platforms and one client, websites, Douyin, etc.). Stage 4: The platform automatically tracks information dissemination and collects audience feedback (likes, comments, etc.). Stage 5: Based on information such as view counts, likes, and comments.

Additionally, the platform will also feature public opinion monitoring capabilities. The dispatch center provides early warning information and necessary guidance based on automatically collected information (with preset keywords), and makes decisions on response models according to this information.

4.5.2 5G Convergence Development

In the 5G era, the converged media center actively seeks to access different data sources, such as traffic information data, climate data, etc. Based on this objective data, information is automatically edited and finished products are generated to provide references for the dispatch center. Although this paper has explored some meaningful findings, many shortcomings remain.

In the future, it is hoped that more experience from advanced regions' media convergence development can be drawn upon to push media convergence toward deeper development. Exploring the deep media convergence of Xinyang Radio and Television Station can promote the deep development of media convergence in Xinyang.

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

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