Exploring the Convergent Development of Traditional Radio and Television with New Media: Postprint

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Abstract

This paper begins with an analysis of the importance of convergence between traditional broadcasting and new media, proposes recommendations for the development strategies of such convergence, and seeks to provide valuable references for effective integration between the two.

Full Text

Research on the Integration Development Between Traditional Broadcasting and New Media

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Abstract: This paper examines the importance of integration between traditional broadcasting and new media, proposing strategic recommendations for their convergence to provide valuable references for effective media fusion.

Keywords: traditional broadcasting; new media; integration; technology

1. The Importance of Integration Between Traditional Broadcasting and New Media

In today' s digital information age, all sectors of society continuously transmit, interact with, and share massive amounts of data. Against this backdrop, new media has emerged, creating a significant impact on traditional broadcasting development. From the perspective of traditional broadcasting, it is essential to recognize its own limitations, identify convergence points with new media, and seek better development pathways to revitalize integrated media and provide superior services to audiences.

As science and technology continue to advance and mature, they have laid a solid technical and economic foundation for new media development. Meanwhile, China has introduced a series of policies to promote rapid new media development, providing ample space for emerging media technologies to grow and be applied. Traditional broadcasting, as a crucial component of the media industry, also possesses promising development opportunities. The key challenge we must address is how to effectively apply information technology to facilitate integration between traditional broadcasting and new media. At present, digital television has achieved large-scale popularization, yet television' s dominant position has diminished considerably in the context of internet development. Consequently, traditional broadcasting, which primarily relies on television, has lost its former advantages. Simultaneously, mobile internet media has gained excellent development opportunities. According to relevant data, internet media companies such as Tencent now rank higher than television stations, and this trend indicates that new media will continue to surpass traditional broadcasting to become the primary medium for market investment [1].

From a game theory perspective, traditional broadcasting and new media are in competition, primarily vying for capital, resources, equipment, technology, and concepts to achieve economic benefits. However, from a comprehensive media development viewpoint, the two should cooperate, as effective integration will create greater value and provide higher-quality media services for audiences. The integration of traditional broadcasting and new media represents an inevitable development trend. Moreover, "triple network convergence" is imperative, meaning that the traditional television industry' s former monopoly status will no longer exist. Therefore, it is necessary to analyze the characteristics of both traditional broadcasting and new media and propose feasible integration methods and models from a technical perspective.

2. Development Strategies for Integration Between Traditional Broadcasting and New Media

To a certain extent, traditional broadcasting and new media actually have a progressive relationship; from another perspective, they are complementary. In other words, the effective development of new media cannot be separated from the support of traditional broadcasting, while the effective development of traditional media requires continuous momentum from new media. Typically, the effective integration of traditional broadcasting and new media involves the extensive, effective, and comprehensive development of network television, radio broadcasting, and related services. For instance, a traditional broadcasting station should not only focus on television station construction but also establish a characteristic website, which helps expand the dissemination scope of programs and, most importantly, enables resource sharing. By effectively utilizing multiparty resources, traditional broadcasting can improve its own resource base and launch programs that better meet the demands of contemporary audiences [2].

At present, China' s mobile multimedia signal quality is relatively high, and the

cost is reasonable, making it the preferred choice for many modern audiences. Terminal devices can include smartphones, tablets, computers, digital cameras, and MP3 players, capable of providing more comprehensive and convenient media services. Regarding development strategies for integrating traditional broadcasting and new media, the author proposes the following recommendations:

2.1 Technical Path for Integration Between Traditional Broadcasting and New Media From the perspective of traditional broadcasting, to maintain its market share and achieve development space, it must consider how to integrate with new media. It is essential to fully recognize its own shortcomings and the advantages of new media technologies, then improve outdated technologies, models, and concepts based on actual conditions and characteristics. Content should be made more engaging, dissemination efficiency continuously improved, and influence consistently strengthened. This approach helps leverage the irreplaceable advantages of traditional broadcasting—namely, the authority and influence that new media currently cannot match.

The integration development of traditional broadcasting and new media is an inevitable trend, and the goal is to fully leverage the strengths of both to build a new integrated media platform that provides more intelligent and humanized services. However, examining the current state of broadcasting systems reveals that the lack of long-term planning has resulted in unreasonable equipment models and network hierarchies that fail to meet the basic standards for effective integrated operation. For example, the bandwidth designed for front-end networks is only about 200MHz, which is insufficient and restricts the launch of new channels. Additionally, the network transmission process in traditional broadcasting is chaotic, with no clear distinction between trunk and branch lines, and no standardized specifications for routing or installation methods. This has led to cable aging problems, particularly vulnerable to issues during thunderstorms [3].

Based on these deficiencies in traditional broadcasting, integration with new media can facilitate mutual learning, absorbing strengths while discarding weaknesses to promote effective development. By leveraging big data technology, virtualization technology, and broadcasting cloud platform technology, and integrating various self-media and micro-media tools, we can build a cloud-based integrated media technology platform with broadcasting characteristics. At the PaaS level of the platform, resource scheduling, middleware management, and various authentication technologies must be centralized. Through system development languages, applications designed with tools such as .Net, Python, and Java can be reasonably deployed on the platform to provide relevant support for audiences.

Considering that modern audience demands follow trends of triple network convergence, multi-channel diversification, fragmentation, and one-cloud multi-screen, traditional broadcasting content production must develop toward diversification for internet and mobile internet. For example, through integrated media

tools, resources such as text, images, audio, and video can be aggregated and extended to the grassroots level to achieve comprehensive coverage, enabling content sharing and equalization. Particularly for variety shows launched by television stations, the starting point should be serving the vital interests of audiences, leveraging the interactive capabilities of integrated media platforms to integrate various technologies such as Apple Final Cut, Avid MC, Adobe Premiere, GV Edius, transcoding, technical review, packaging, PaaS docking, invocation, registration, and intelligent workflow engine manual service node processing into a toolset. Then, program content information can be systematically planned to improve resource utilization efficiency.

2.2 Resource Integration Between Traditional Broadcasting and New Media Integrating resources between traditional broadcasting and new media establishes a unified, complete, and comprehensive resource sharing platform. This involves generating all content within the broadcasting station' s scope as resources and building an integrated media platform. Continuous development of traditional broadcasting resources enables program production and editing to extend beyond the television station' s confines and connect with external networks and other platforms. Simultaneously, attention must be paid to APP client development and functional improvement, using the internet to disseminate broadcasting resources.

From a cloud perspective, whole-network aggregation is achieved, effectively concentrating mobile APPs, media professionals, and audiences to form a more complete integrated media platform. Further mining and aggregation of content from television stations, media professionals, newspapers, audiences, and all-media content libraries can realize the goal of three-dimensional media resource release. Meanwhile, audiences can co-develop resources in the integrated media environment through online interaction, collecting, adopting, and aggregating various media resources to establish an open, dynamic resource platform.

Due to the system' s flexible network virtualization capabilities, additional functions can be added as needed, such as virtual SSL VPN, virtual load balancing, and virtual firewall functions, aiming to provide security and optimization services for business operations without requiring additional hardware investment. This enhances business security and operational efficiency, meeting the basic requirements for integrated program development [4].

2.3 Content Generation Methods for Traditional Broadcasting and New Media Integration The integration of traditional broadcasting and new media requires transforming various content resource aggregation approaches. In the information age, although traditional broadcasting remains a crucial tool for public opinion guidance, the refined segmentation of media forms has significantly impacted information dissemination, making information increasingly niche-oriented. Under this trend, the production environment for traditional broadcasting programs becomes more complex, requiring integration

with professional clients, commercial websites, and various social platforms while developing corresponding APPs.

During the specific aggregation and integration process, big data from various resources must be filtered, analyzed, and predicted to transform it into small data that meets the actual needs of broadcasting program production. Simultaneously, we should fully incorporate the news requirements of special correspondents and dispatched journalists to establish an online resource development center, aiming to aggregate self-media and Weibo to form a more diversified content aggregation platform [5].

Considering modern audience demands for triple network convergence, multi-channel diversification, fragmentation, and one-cloud multi-screen, traditional broadcasting content production must develop toward diversification for internet and mobile internet. For example, through integrated media tools, resources such as text, images, audio, and video can be aggregated and extended to the grassroots level to achieve comprehensive coverage, enabling content sharing and equalization. Particularly for television variety shows, the focus should be on serving audiences' vital interests, leveraging the interactive capabilities of integrated media platforms to integrate various technologies into a toolset, then systematically planning program content information to improve resource utilization efficiency.

Conclusion

In summary, this paper has focused on exploring development strategies for integrating traditional broadcasting and new media. We can see that such integration must be based on digital technology while emphasizing innovation. Industry barriers must be broken to create a harmonious competitive environment that promotes the healthy development of China' s entire media industry.

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