Postprint: Convergence and Development of Broadcasting New Media in the Big Data Era

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Abstract

As society gradually trends toward modernization, big data has laid a solid foundation for further improvement and optimization of management mechanisms and operational models across various domains, with the broadcast new media industry being no exception. Currently, the broadcast new media industry is encountering an unprecedentedly fierce competitive landscape; consequently, integrating big data technology to undertake a new round of reform has become a key research topic among relevant professionals in the broadcast new media sector. Based on these considerations, this paper discusses the integration and development of broadcast new media in the era of big data, aiming to fundamentally promote the sound and rapid development of the broadcast new media industry, for reference.

Full Text

Abstract

As society progressively moves toward modernization, big data has laid a solid foundation for refining and optimizing management mechanisms and operational models across various domains, broadcasting new media being no exception. Currently, broadcasting new media faces unprecedented fierce competition, making the integration of big data technology for a new round of reform a key research focus among industry professionals. Based on these considerations, this paper discusses the integration and development of broadcasting new media in the big data era, aiming to fundamentally promote the sound and rapid development of the broadcasting new media industry for reference.

Keywords: big data era; broadcasting new media; integration; development

1.1 Concept of the Big Data Era

Big data primarily refers to massive volumes of data that can be collected, managed, and uniformly analyzed within a certain timeframe using existing software. These massive datasets require more advanced processing methods and analytical capabilities to achieve efficient utilization of internal resources.

1.2 Main Characteristics of the Big Data Era

Currently, the big data era exhibits three main characteristics. First, **aggregation**, meaning data is continuously generated in different forms and types. Second, **diversification**, reflected in the variety of data types. Academic circles have broadly categorized big data into three types based on structural degree, with non-structured data such as images, video, and audio constituting the vast majority of resources. Third, **rapidity**, indicating that the time required for data generation, processing, and analysis is decreasing, while data maintains high timeliness, reflecting development trends in real-time based on rapidly advancing network technology.

2. Integration and Development of Broadcasting New Media in the Big Data Era

With the rapid development of network technology, big data derived from it has been recognized across various fields and applied in actual production to enhance comprehensive strength. The outstanding results achieved from applying network technology in broadcasting new media have also laid a solid foundation for embracing the big data era. However, under the background of stable development of the socialist market economy and technological levels, broadcasting new media must continuously innovate in technology and operational models. While big data technology provides a foundation for consolidating broadcasting new media's important position in social development, it also presents numerous challenges. To effectively leverage the positive role of big data technology, relevant management departments should focus on the integration and development of broadcasting new media with the big data era.

Specifically, applying big data technology in smart TVs enables rational planning of television's effective information resource storage capacity, effectively improving the past situation of only unilaterally receiving audience information resources. It allows for more objective integration and analysis of these information resources, making smart TV-driven content more aligned with public preferences. Due to the large user base of broadcasting new media, using big data technology to accurately classify and record user needs can also provide important reference basis for the later upgrading and improvement of smart TVs. At present, how to enable the big data era to fully play its positive role in broadcasting new media has become a common concern among relevant staff. To promote sustainable development of broadcasting new media, the original development paths of smart and networked TVs should not be completely abandoned,

as substantial experience has been accumulated during the stable development era.

3. Impact of Big Data Technology on Broadcasting New Media Industrialization

Currently, technological innovation has laid a solid foundation for social development, not only fundamentally meeting the increasingly rising demands of the public and various fields, but also enabling technology sectors to continuously move toward marketization and commercialization. For instance, with the rapid development of network technology, numerous online information exchange platforms have emerged like bamboo shoots after a spring rain, promoting the transformation from traditional media to new media. This has not only accelerated the development speed of the media industry, but the explosive growth of information resources has also brought more development opportunities to the media sector. The impact of big data technology on broadcasting new media cannot be ignored.

3.1 Impact on the Industrial Development of Broadcasting New Media

As an important component of the socialist market economy, enterprises generate certain economic service benefits during production, and broadcasting new media is no exception. In the big data era, through research and deep mining of valuable data within big data, enterprises can quickly identify market opportunities. Therefore, when applying big data technology in the development process of broadcasting new media industry, relevant staff should fully demonstrate the practical application effects of big data technology, thereby greatly improving the social and service benefits of broadcasting new media. For example, an information exchange platform with a large audience can reasonably determine public preferences through the quantity and frequency of users' browsing pages, and timely renew and upgrade the push messages on its web interface to enhance public satisfaction with the software.

Moreover, the application of big data technology is key to whether broadcasting new media can truly gain public recognition. Big data technology can combine user behavior to make overall judgments about behaviors generated under broadcasting new media products, thereby improving the problem of rating fraud in the original broadcasting new media industry. Furthermore, using big data technology enables more comprehensive statistics on user behavior data and deep excavation of the causes behind this data and its later influencing factors on broadcasting new media products, thus maximizing satisfaction of users and society's increasingly rising demands for broadcasting new media products.

The value of broadcasting new media enterprises is mainly divided into internal and external aspects. External value primarily refers to public satisfaction with the products and service items produced, which has also become one of the

important competitive directions for enterprises. To better obtain user feedback on products, current broadcasting new media enterprises have already integrated big data technology into the process of designing new products. Internal value mainly concerns the refined operation of enterprises, constructing new systems that align with enterprise development and management by combining big data technology, thereby better and faster identifying problems and vulnerabilities in actual production processes and timely implementing relevant solutions to effectively promote the industrialization development path of broadcasting new media.

Simultaneously, under the background of the big data era, broadcasting new media enterprises face tremendous reforms in operational models and created value, breaking away from single information exchange channels to form diverse service platforms. Integrating the commercial and economic value generated by broadcasting new media enterprises throughout big data technology can promote continuous adaptation to the trends of the times and achieve sustainable development.

3.2 Impact on the Broadcasting New Media Enterprise Chain

With the widespread application of big data technology in the broadcasting new media industry, its impact on the broadcasting new media enterprise chain has gradually become evident. Specifically, in original broadcasting new media enterprises, there was a lack of close connections between enterprises. However, in the big data era, information resources have become more shared and public, promoting the formation of stable and collaborative relationships among enterprises. Similarly, during the process of building a successful broadcasting new media brand, enterprises should focus on systematically integrating public online activity data, mining valuable information from this data to continuously improve and expand broadcasting new media products, achieving a virtuous cycle among the public, broadcasting new media products, and big data.

Furthermore, applying big data technology in broadcasting new media can deepen the industry based on specific public preferences and focus points, and lay a solid foundation for developing and expanding peripheral enterprises related to broadcasting new media. For example, in the cooperation process between broadcasting new media enterprises and advertising companies, big data technology can be used to systematically investigate and understand user needs, thereby extending the industrial chain and effectively achieving the development goal of maximizing economic interests.

3.3 Impact of Big Data Technology on Broadcasting New Media Social Demand

Currently, big data technology has had a tremendous impact on the social demand for broadcasting new media. In the present broadcasting new media market, copyright ownership and the establishment of related institutions have

become important trends in development. Since China's broadcasting new media industry needs to enhance its competitiveness and bargaining power regarding copyrights, it should select works with high user attention when purchasing copyrights to reduce certain risks associated with copyright introduction. Moreover, in broadcasting new media, big data is applied to overall determination of product ratings and click-through rates, and through existing data, it can systematically predict public preferences to better satisfy public demands.

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