Investigation on the Development Trend and Characteristics of Media Convergence Based on Big Data Analysis

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Abstract. Under the background of big data analysis, the development of traditional media has been unable to adapt to the trend of social history, and the integration of new and old media has become the inevitable trend of media development. At present, China's new and old media has emerged an effective trend of integrated development, the speed of development is also fast. However, China's media convergence is still at a shallow level, and further efforts are needed to achieve a deep level of media convergence. The purpose of this paper is to explore the trend and characteristics of media convergence under the background of big data analysis. This paper first discusses the related concepts of big data analysis and media convergence, and then analyzes the opportunities and challenges brought by big data analysis to media convergence. Then through the investigation and experiment of media convergence development, we draw some conclusions about the current situation and characteristics of China's media convergence development, and put forward the specific development trend of China's media convergence in the future. The experiments in this paper show that the current media convergence shows a good development trend, showing the development characteristics of diversified, personalized and precise media forms.

Key words: Big Data Analysis, Media Convergence, Development Trend, Development of Fusion

1. Introduction
Under the background of the era of BD, information data shows explosive growth, and the use of this information data directly affects the development. The arrival of the era of BD has caused a huge impact on traditional industries, especially the traditional media industry. On the one hand, BD analysis brings opportunities to media convergence; on the other hand, it also brings huge challenges
to media convergence. Therefore, it has great significance to study the development trend and characteristics of media convergence based on BD analysis.

Media convergence is a topic of common concern in recent years. Chinese scholars have made relevant researches on it and obtained certain research results. In [1], the author takes media convergence, analyzes the current situation, and then expounds the future development trend of media convergence from the perspectives of development philosophy and business model. In [2], the author firstly analyzes the specific background of media convergence, makes an in-depth analysis of BD thinking and visualization technology embodied in media convergence, and discusses the application of BD analysis technology in the media industry with specific application cases as evidence. In [3], based on the development history of foreign media and the current development status, the author deeply analyzes the features of fusion between new and old media, and accordingly puts forward strategic measures to realize the integrated development of new and old media. In [4], the author first discusses the background of the integration of new and old media in the context of BD analysis, then analyzes the feasibility of media integration based on the commonness of new and old media, and finally proposes specific strategies for realizing in-depth media integration.

To sum up, there are relatively more studies on media convergence development, which mainly focus on the analysis of the background, feasibility and strategies of media convergence, and few studies involve the development trend and characteristics of media convergence, so no accurate research and prediction on media convergence development has been formed [5, 6]. From this perspective, there is still a certain theoretical gap in the research on media convergence, which needs to be further improved [7].

This paper firstly discusses the related concepts of BD analysis and media convergence, and then concretely analyzes the opportunities and challenges brought by BD analysis to media convergence. Then through the investigation and experiment of media convergence development, relevant conclusions about the trend and characteristics of China's media convergence development are drawn, and based on this, specific strategies for China's media convergence development in the future are proposed, providing beneficial guidance for the in-depth development of media convergence [8, 9].

2. Method

2.1 Relevant Concepts

BD refers to the data set that cannot be completed successfully by general software, which is a relative concept. BD analysis is the inevitable result of the rapid development of information technology. It mainly refers to the analysis and arrangement of massive data The main features of BD analysis include large amount, diverse types and efficient processing [10, 11]. Generally speaking, data serves as an important basis for BD analysis, and there is a positive correlation between the total number of data and BD analysis results. In other words, the more data collected in BD analysis, the more scientific the analysis results will be. Nicholas negroponte of the United States was the first to put forward the concept of media convergence. He pointed out that media convergence refers to the development trend of integration of functions between different types of media. Chinese scholars generally believe that media convergence is essentially a new diversified operation mode, which realizes the organic integration of the communication channels between the traditional media
represented by newspapers and the emerging media represented by mobile phones and the Internet. Media convergence is conducive to the centralized sharing of information resources and greatly expands the communication channels [12, 13]. BD analysis has realized the efficient processing of data information, provided a new solution for the analysis of mass media information, and promoted the gradual withdrawal of traditional media from the historical stage and the integrated development of media.

2.2 Analysis of the Effect of BD Analysis on Media Convergence
BD analysis technology plays an important role in media convergence. On the one hand, BD analysis brings development opportunities to media convergence. First, BD thinking is permeated in the process of media convergence. No matter how it develops, media content should be centered on customer needs. BD analysis is conducive to in-depth mining of user information, so as to ensure accurate delivery of media content and continuously enhance user experience. Not only that, it can monitor and analyze the development effect of media convergence with the help of BD analysis and provide beneficial guidance for its further development. Second, it has strengthened the application of BD analysis in media platforms, effectively promoting the continuous improvement of media platform functions. First, the application level of BD technology is relatively low, and the technology application needs to be improved; Second, the user information security problem is difficult to guarantee; Third, the reliability and authenticity of data is difficult to be guaranteed. Due to the huge amount of data, it is impossible to verify the authenticity of the data, so it is impossible to guarantee the authenticity of the information transmitted by media.

3. Investigation and Experiment of Media Convergence Development
In order to better study the trend and characteristics of China's media convergence development. First of all, this paper inquires the national data network, the media industry data network, etc., and also inquires the research papers in this aspect in the paper journal database such as cnki and wanfang, forming the original data about the media convergence development in China. Secondly, analyze the current situation of China's media convergence development. The respondents include the practitioners of new and old media industries and experts and scholars in the field of media convergence development. The survey covers the background, problems, current trends and other aspects of media convergence development. A total of 6000 questionnaires were issued and 5913 valid questionnaires were collected. SPSS statistical analysis software was used to analyze and sort out the questionnaire survey data. The final questionnaire survey data were experimental data. Finally, through the comparative analysis of original data and experimental data, and with the help of Matable software analysis technology, the data chart of media convergence development is drawn to draw relevant conclusions about the development trend and characteristics of media convergence under the background of BD analysis in China.

4. Discuss

4.1 Characteristics of Media Convergence Development under BD Analysis
Through the above investigation and experiment of media fusion development, the following experimental data
can be obtained. The specific experimental data are shown in table 1 and figure 1.

**Table 1.** Data table of media development under media convergence

| Project   | Characteristics | Development trend | Degree of integration |
|-----------|-----------------|-------------------|-----------------------|
| Media form| diversification | +16.3             |                       |
| Media data| Accurate        | +18.4             |                       |
| Media content | personalized | +10.9             | 73.57%                |

*Data were collected from questionnaires and documents*

The media convergence development in China has the following characteristics: first, the diversification of media forms. New and old media can construct different forms of media according to different data combinations. Media forms such as WeChat, douyin and weibo are the results of different data combinations. Secondly, the accuracy of media data and the personalization of media content. As mentioned above, China's media form is gradually diversified, which also makes media content and data face challenges. Mobile media, in particular, has a wide range of users due to its diverse functions. To ensure the normal experience of mobile phone users, it is necessary to grasp user needs and push media information according to user needs. BD analysis technology can realize the in-depth mining of users' browsing data, analyze users' habits based on browsing data, and push the media information required by users accordingly, realizing the accuracy of media data and the personalization of media content.

4.2 Trends and Strategies of Media Convergence Development under BD Analysis

![Figure 1. Media convergence trend from 2015 to 2019](image)

As can be seen from the data in figure 1, the degree of media convergence in China is deepening at present. The degree of convergence has increased from 47.62% in 2015 to 73.57% in 2019. The growth rate of media convergence showed an upward trend before 2017, and the convergence rate gradually slowed down after 2017. Generally speaking, the trend of media convergence in China is as follows: the degree of convergence is deepening, the speed of convergence is slowing down, and the overall effect of convergence has not reached the ideal state. In order to promote the deepening of China's media convergence and accelerate the overall speed of media convergence, this paper puts forward the following media convergence development strategies: first, take digital as the primary support to build personalized media services. At present, some outside the media development status, active integration is the first choice. Therefore, it is necessary to use BD analysis technology as the support to conduct data mining on media audiences, communication methods and communication
information, so as to promote the development of media integration towards a comprehensive direction. Second, share data and information resources to build an integrated media industry chain. To promote the integrated development of media, it is necessary to strengthen the cooperation and exchange among different media, which is based on the sharing of data resources. New and old media should make full use of their own advantages, realize the complementary advantages of different media, and jointly build an integrated media industry chain.

5. Conclusion
The research in this paper is not only conducive to the realization of in-depth media convergence. Through the research, the following conclusions are drawn:

(1) Media convergence in China is characterized by diversified media forms, accurate media data and personalized media content.

(2) The trend of media convergence in China is that the degree of convergence is deepening, the speed of convergence is slowing down, and the overall convergence effect has not reached the ideal state.

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