

# Innovation of News Dissemination in the Era of Big Data

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**Abstract:** In the “era of big data”, news dissemination is bound to be influenced by massive, rapid and mixed information, which makes profound changes in the form, mode, content and influence of communication. The innovative application of big data technology will contribute to the improvement of news dissemination scheme. This paper briefly describes the definition and characteristics of big data, and expounds the changes brought by the era of big data to news production. At the same time, the characteristics of news dissemination are summarized and analyzed. Then, starting from the characteristics of big data communication, it systematically explains the far-reaching impact of big data on the field of news communication. This paper discusses how to use big data technology to improve the amount of information, speed and accuracy of communication, expand information coverage and influence effect, etc. Further understand the characteristics and laws of news dissemination methods under the condition of big data; Therefore, the strategies that meet the needs of news communication improvement in the era of big data are formulated. This research is of great positive significance to improve the comprehensive quality of news dissemination.

## 1. Introduction

In the era of big data, massive data is creating an information society and stimulating the informatization process in all fields of society. Technological change leads to new prosperity, and the traditional news communication form and pattern are undergoing the subversion of big data [1]. Both the market environment and policy environment, and even the audience's lifestyle and media contact habits, have undergone major changes under the impact of big data technology. It is no exaggeration to say that big data technology based on digitalization is reshaping the media ecology together with the Internet [2]. Data news has a fast propagation speed and a wide range of popularization, and its application prospect is very considerable. In this context, news communication talents should have relevant qualities and abilities, be able to complete news communication work more efficiently, and improve the speed and breadth of news communication [3]. From the perspective of industrial chain, big data is of great value to the news industry from the acquisition of information sources to the production and dissemination of news content, to the secondary expansion of news value, and to the effect evaluation of the degree of news value realization.

In the innovative activities, the Chinese media industry and academia have explored the practice and theoretical innovation in the field of news communication through independent thinking and judgment [4]. When big data, as a feature of the times, is more and more obvious in front of people, how journalists find the possible space for their own progress has become an unavoidable problem for every individual with career ideals. For journalists, they should be able to easily control big data technology, and use it to complete rapid and accurate analysis of relevant news data, so as to mine more valuable news hot spots [5]. From the perspective of the media industry and Journalism and communication academia, big data has a great impact on the theory and practice of Journalism and communication. Under the background of “era transformation”, this paper summarizes and analyzes the characteristics of news communication, studies the outstanding application value of big data technology, and formulates strategies that meet the needs of news communication improvement in the era of big data.

## 2. News Communication in the Era of Big Data

### 2.1 Characteristics of News Communication in the Era of Big Data

Big data involves change of think, business and management. In various fields, decisions will increasingly be made based on data and analysis, rather than on experience and intuition. Different from the simple textual explanation of traditional news reports, news communication in the era of big data shows its grasp of the trend, dynamics and structure of a certain aspect of society from the macro and meso levels, and has the characteristics of timeliness, interactivity, follow-up and participation [6]. From the “mass” point of view, the information involved in big data is vast, and it is difficult to obtain accurate screening and effective dissemination of news information through traditional information sorting. Therefore, the innovation of news gathering and editing mode is needed. The way of collecting news data has changed from the traditional form of informants and interviews to a brand-new professional tool, that is, the big data method, which helps everyone to dig news and innovate news dissemination. The media gathers the audience's attention to the media through its own products and services, so as to realize its influence and communication power [7]. Under the condition of big data technology, as long as the media correctly handles the rational allocation of massive data information resources in time, space and quantity, and provides the public with more information products, more timely, more accurate and more applicable, the media will have more influence and communication power. News communication power usually refers to the ability of the media to spread information outward. That is, the media's ability to spread the news outward through the combination of news content and various modes of communication, resulting in the best possible communication effect. It includes information quantity, speed and precision, information coverage and influence effect. Big data features are shown in Figure 1.

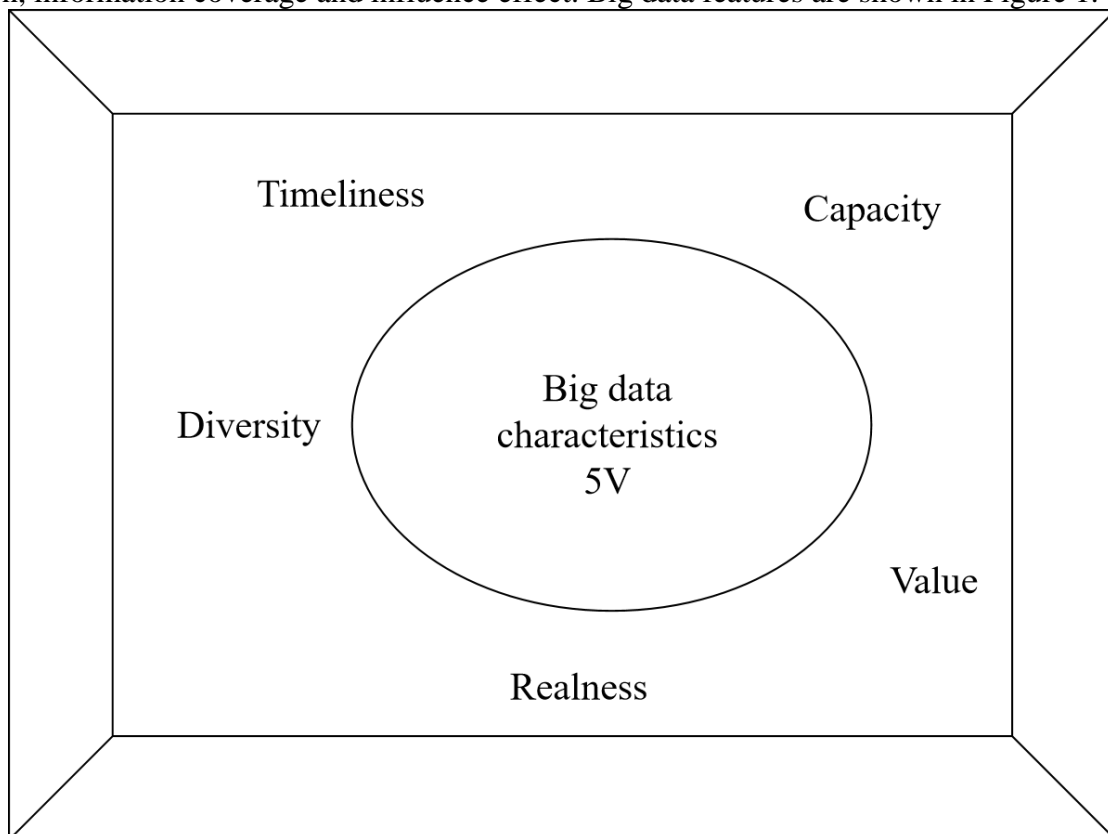


Fig.1 Big Data Features

Under the condition of big data, the media don't have to blindly pursue the accuracy of news reports, but only need to master the general situation and development direction of news. For example, for a major news event, people will know the whole story of the news through multiple channels, instead of relying on one media or a single channel to know all the facts. In particular, having big data information and properly ignoring the accuracy at the micro level will make the

audience have better insight at the macro level, and their ability to identify the value of news will be correspondingly enhanced [8]. Whether the communication technology and means are advanced or not has a direct impact on the reporting speed and communication breadth, and becomes an important material basis and even a prerequisite for the composition of communication power. Under the condition of big data, the media don't have to pursue the causal relationship between things, just look for the correlation between things, and get the whole picture of news facts through the connection between things. Big data will even make the audience change their demands on the accuracy of news and pursue the complexity of news instead. It is relatively simple to collect, process and mine news through big data technology, and to reveal the relationship between information, so that news cognition is close to the truth of events, which not only attracts the attention of the audience, but also greatly enhances the influence of media communication.

## **2.2 Big Data Innovation News Communication**

Big data influences and reconstructs many traditional industry operation modes. The innovation and development of big data technology, the large collection, cognition, analysis and sharing of data, provide all industries with a new way to look at the world and make decisions based on facts and data. The interaction, sociality and intelligence of the media have been enhanced, and media integration and man-machine symbiosis have become the direction of media development, and the role of the audience in media content production has been increasing [9]. For the media, the purpose of the application of big data technology is not to master massive data information, but to professionally process meaningful news information or data, and to determine the correlation between news information, so as to determine and enhance the value of news dissemination. In the past, some media reports relied on the statistical results published by relevant institutions, and some reports were mostly based on random samples. Therefore, the validity and reliability may not be comprehensive enough. Under the condition of big data technology, the media can obtain more and more comprehensive data through open channels such as the Internet, which makes the media's reports on facts more authentic, accurate and credible. The news dissemination in the new media era has revolutionary significance, and its data news forms are more diverse, and it can convey news through novel, concrete and efficient visual graphics.

Traditional media and social media are increasingly becoming important data sources, and a large amount of data generated by media has become considerable social wealth. Data mining will reveal the law of information dissemination and social activities of human beings more deeply, and various forms of presentation will expand the means of news information dissemination [10]. Through big data to convey the connection between news and audience, and through audience clicking interactive design, you can learn more personalized information, even original data, so that audience can find problems and participate in news dissemination. News is disseminated through novel, concrete and efficient visual graphics, and the combination of static and dynamic images, especially the visualization of data, forms a multimedia communication form and pattern, which greatly enriches and diversifies the news expression forms. Innovate the digital news and communication, make the facts that have happened and are happening more transparent, and tap the potential or relevant news value of the information that was not in the past. From the process of data news gathering and editing, it is a process of continuously refining information by repeatedly grabbing, screening and reorganizing data, focusing on special information to filter data, visually presenting data and synthesizing news. The correlation of all kinds of information is very prominent here, which provides a more convenient and accurate means for news gathering and editing.

## **3. Reconstruction and Optimization Strategy of News Communication in the Era of Big Data**

### **3.1 “Big Data” Forces the Reconstruction of News Communication Power**

News communication power usually refers to the ability of the media to spread information outward. That is, the media's ability to spread the news outward through the combination of news content and various modes of communication, resulting in the best possible communication effect.

It includes information quantity, speed and precision, information coverage and influence effect. In the internet age, everyone is providing data, and a trickle of water merges into an ocean to form big data. In the past, the traditional mode of obtaining information by single-line contact between journalists and correspondents in media news must be changed, conform to the development of the situation, and actively explore new ways to collect data and information. It is relatively simple to collect, process and mine news through big data technology, and to reveal the relationship between information, so that news cognition is close to the truth of events, which not only attracts the attention of the audience, but also greatly enhances the influence of media communication. It can be seen that the news content and the truth of the content are the key to the composition of communication power.

Big data affects the way and pattern of news dissemination, but it forces the reconstruction of news dissemination power. News professionals must study the influence of self-media access on news creation and dissemination in the new era, and take the optimization of news dissemination power as the main work to improve news quality, so as to provide help for the prominent application value of big data technology. In the traditional sense, the evaluation of communication effect can only stay at the audience's behavior level, and it is impossible to conduct more detailed attitude and psychological analysis on them. This situation can be fundamentally changed in the era of big data. In the era of big data, the audience is keen to comment on news and ask to participate in news release, which requires the media to change the original concept of simply publishing indoctrination news at a regular time. At the meantime, the positive role of big data in optimizing news expression should not be underestimated. The way in which the news content is presented to readers can be achieved by adjusting the layout of newspapers and websites. However, through big data technology, News can be presented by digitalization way. the news content and expression forms can be mined and optimized, highlighting the hot spots that the audience pays attention to.

### **3.2 Reconfiguration Optimization Strategy**

Big data directly affects the choice of news information. With the help of big data technology, relevant data can be deeply excavated, analyzed and sorted out, and the news reports formed on this basis will be more convincing and more suitable for the needs of the audience. In the process of exploring the specific application scheme of big data technology, it is necessary to summarize the main components of news dissemination power, so that the speed and accuracy of information dissemination can be fully maintained with the support of big data technology, so as to ensure that news dissemination can be disposed of under the condition that the coverage of information is guaranteed, thereby improving the application level of big data technology. In the era of big data, the impact and challenges of news media industry are becoming more and more obvious, and news communication education, which is closely related to news media industry, can't avoid the impact of big data. In order to realize the transformation of traditional news communication industry, it is necessary to attract better talents from universities. In order to meet the development of society, colleges and universities must change the traditional educational concept, keep up with the pace of data news development, and make certain teaching changes and adjustments to cultivate innovative, applied and comprehensive talents. Figure 2 shows the innovative teaching system model.

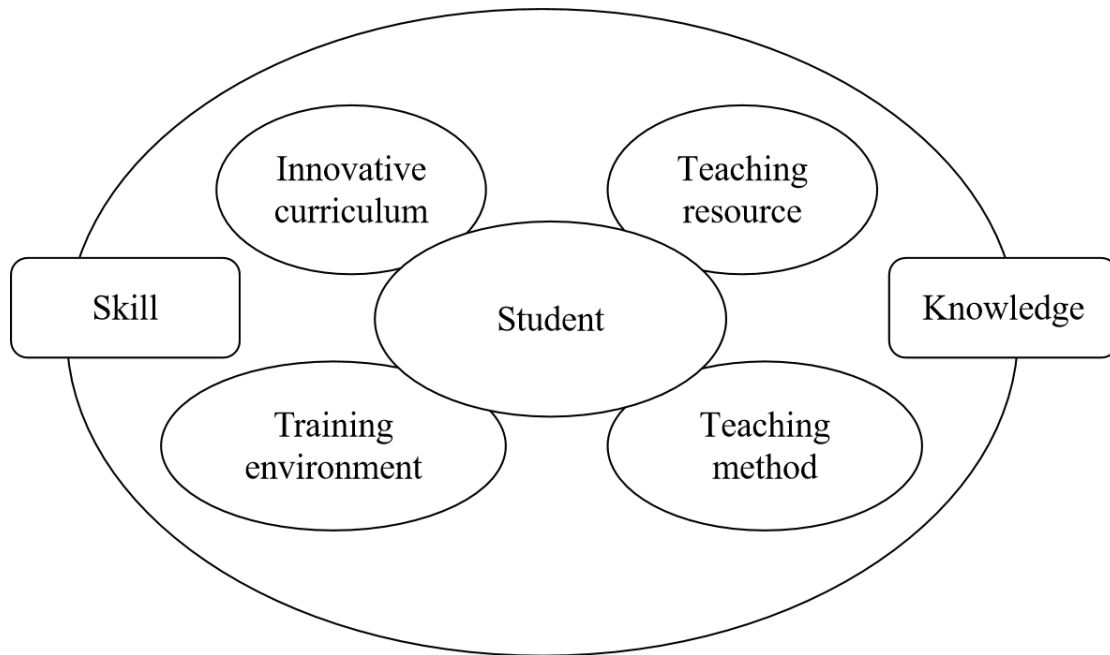


Fig.2 Innovative Teaching System Model

News dissemination in the era of big data needs to improve three abilities: the ability to integrate and optimize big data; The ability to discover the news value behind big data; The ability of accurate, fast and real-time dissemination. In the process of exploring and analyzing the application scheme of big data, we must examine the outstanding value of news information selection, and improve the measures that affect the demand of news resources, so as to more completely meet the demand of news information selection and supply, and provide more complete support for the innovative application of big data. In addition, over-reliance on data may result in insufficient motivation of content producers in innovation and weaken the presentation of media personality. Therefore, journalists who are ready to use big data to help news production can only ensure that they become the beneficiaries of the era of big data by practicing a pair of discerning eyes to remove the false and keep the true.

#### 4. Conclusions

The era of big data has given journalism and communication a certain impetus for change. Driven by the new media, the ecological environment of the media has undergone great changes, and the channel hegemony of the traditional media no longer exists. In order to obtain the ideal communication effect, it is very important to promote the technology of communication. The arrival of the era of big data has greatly changed the operation mode of news dissemination, and the analysis of the characteristics of news dissemination is helpful to the innovation and improvement of news dissemination mode. It is an indisputable fact that big data is forcing the reconstruction of news communication power. In the era of big data, both traditional media editors and new media editors must have the innovative ability of data collection, processing and visual presentation. In addition, under the background of big data, colleges and universities should take the cultivation of applied, IT-integrated and data technology-based news communication talents as the talent cultivation goal, and innovate the path of talent cultivation based on the current difficulties faced by news communication talents cultivation. At the same time, news communication theorists should seize the opportunity of big data, constantly promote the development and innovation of news communication theory, and strive to enhance the discipline connotation and foundation of news communication. Through big data processing, we can reveal information closer to the facts in a wider range, provide a foundation for the in-depth news reporting, and effectively promote the promotion of communication level. The transformation of the times is still going on, and some new changes brought by big data in the field of news dissemination deserve our continued attention.

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