

## Discussion on the Challenge and Innovation Mode of Public Management under the Environment of Big Data

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**Abstract:** With the progress of science and technology, information technology is gradually used in all aspects of people's life, whether in production activities, or in the process of life, people begin to use computers and smart phones in their daily life. Therefore, in the process of using intelligent devices, a large number of data will inevitably be generated, and these data for the current environment of public management, has a key significance. With the increasing amount of data, which has a more and more in-depth impact on public management. Therefore, the traditional public management model has been unable to adapt to the current background, which makes the new public management model based on big data technology gradually applied to people's production and life. With the continuous integration of big data technology and public management work, it has brought more convenience for human production and life. However, it is worth mentioning that the use of big data technology of public management model is still facing great challenges, public management service is single, data information is not rich and diverse. The author puts forward innovative solutions to the challenges faced by public management in the environment of big data, hoping to provide some reference for the relevant personnel engaged in public management at present.

### 1. Introduction

At present, China's public management service is changing from the traditional period to the period of innovation. Therefore, in this period of transition, China's public management is facing great challenges. In the current environment of big data, China must constantly optimize and innovate the theory of public management, effectively improve the quality of public management services, and promote the progress of public management services in the whole society. At the same time, the relevant managers should understand big data technology, fully combine big data technology with public management, and introduce the advanced concept of public management in western countries, combined with the specific national conditions of our country. Only in this way can we fundamentally solve the challenges faced by China's public management under the background of big data, to promote the smooth transition of China's public management model from the traditional mode to the innovative mode.

### 2. Theoretical Basis

#### 2.1 The Connotation and Characteristics of the Era of Big Data

Big data technology, cannot be simply understood from the size of the data. It is a technology that uses a large amount of data to serve people's production and life. The 21st century is the era of information technology. Big data technology is an important component of the information technology era, which promotes the development of the current era, and the production and life of human beings have changed fundamentally because of its arrival. If human beings can make scientific and efficient use of big data technology, then it can become an important boost to the current social development. Moreover, through the combination of big data technology and public

management mode, it can also promote the sound and rapid development of public management service in our country [1].

The 21st century is the era of big data, the current characteristics of the times mainly in three aspects. One is the huge amount of data. At present, in daily life, every moment, there are hundreds of millions of data information generated. Second, rich and diverse forms of data. At present, with the popularity of Internet technology, data is also expressed in a variety of forms, for example, images, video, text can be the form of data representation, and even geographical location, audio, blog can also become the current form of data representation [2]. Third, low data value. The current era is the era of data explosion, in which all kinds of data are highly dispersed, the relationship between data is not close, it needs to be filtered and classified, and useful data and useless data are intertwined, which leads to the value of the data being very cheap.

## **2.2 The Concept and Content of Public Management**

Public management is not only a management concept, but also a management model, which is mainly to solve the management problems of government departments. On the one hand, it has a public purpose, in other words, it requires the public power of the government must play its own public functions. On the other hand, it requires government departments to supervise and restrict public power scientifically and efficiently.

In essence, the main content of public management is the management of public affairs. Public management, which is an important component in the field of modern management science, has broad prospects for development. Since the 1990s, China has begun to attach importance to public management and regard it as an independent discipline. With the development of China's economy and the progress of the times, the field of public management science in China continues to bring forth the old and bring forth the new, showing its own vigorous vitality to the society. With the progress of China's economy, China began to make great efforts to build a harmonious society, therefore, the role of public management has become increasingly prominent [3].

## **3. Challenges to Public Administration in the Era of Big Data**

### **3.1 Single and Less Feasible Public Management Services**

In the era of big data, public management service also showed new characteristics, which began to be valued by people from all walks of life. Many experts and scholars believe that public management service is the most valuable management technology in the field of modern management science. However, when the public management technology began to be used in the process of public management in our country, its performance is poor, and it is only used as a performance index of the government management platform. In other words, at present, with the comprehensive application and development of public management technology in our country, its real value has not been fully reflected, which leads to the stagnation of public management work in our country. At the same time, at the present stage in our country, the relevant managers still have old ideas about public management [4]. They do not realize that the current era is the era of big data, nor have they changed their previous management concepts. This leads to the current management work in our country is relatively single, with poor feasibility and scientific, which undoubtedly hinders the development and upgrading of public management in our country. In addition, in recent years, there have been frequent problems of food safety and medical and health products in various parts of our country, which shows that the current government has not changed its traditional concept of public management. The use of inappropriate means to violence management and supervision is not in place, which shows that there are problems in public management in our country, that is, the service of public management is single, scientific and feasible.

### **3.2 Weak Big Data Consciousness and Not Rich Data Information**

In terms of big data technology, compared with western countries, the application period of big data technology in China is relatively short. At present, China is still in the primary stage of big data

application. Therefore, many management departments in China do not have a deep understanding of big data's technology, and many relevant personnel do not have a good ability to collect data and information, nor do they have an excellent ability to induce data and information. This also makes it difficult to combine the current public management work with big data technology in our country. In recent years, there have been several mass incidents in China, which have exposed the problems encountered in the public management service in the environment of big data in our country. Among these problems, the main problem is that most of the government departments in our country have not set up the consciousness of big data when making decisions, and they are less sensitive to the current social phenomena and public opinion [5]. Therefore, they often miss the best period of public opinion guidance, which leads to the stagnation of public management service in our country. In addition, in recent years, there have been a number of serious stampede incidents in China, which seems to be caused by on-site management errors. However, in essence, if the relevant managers can use big data technology to analyze the regional passenger flow in real time, then they can take preventive measures in advance, and then fundamentally reduce the probability of such incidents.

### **3.3 The Digital Divide in the Era of Big Data**

Big data technology is based on the Internet, but before the emergence of the Internet information, if no one put this information into the Internet, then big data technology will not be able to collect this information. Therefore, both developed countries and developing countries like my brother, in the era of big data, the digital divide is an important social problem to be solved. In China, because the speed of urban development is faster than that of rural areas, the Internet penetration rate in urban areas is higher than that in rural areas, and the education level of urban people is also higher than that in rural areas. As a result, many rural people do not understand big data and will not use the Internet, let alone express their emotions, opinions and aspirations on the Internet [6]. Under such circumstances, it is very difficult for the aspirations of rural residents to enter the vision of the relevant personnel of public management in our country. Therefore, in the era of big data, how to solve the problem of digital divide is one of the important issues that need to be explored in our country.

## **4. The Innovative Mode of Public Management in the Era of Big Data**

### **4.1 Perfecting Laws and Regulations and Maintaining Data Security**

In recent years, with the continuous progress of the information age, people begin to use intelligent devices frequently in their daily life. When people use intelligent devices, they will produce a large amount of data, if not managed. Then there is a great chance that people's privacy will be exposed. Therefore, the security of personal information data has become the focus of attention from all walks of life. Compared with developed countries, due to the late start of the application period of big data technology in China, the development of big data technology is also slow, and the awareness of Chinese citizens to protect personal data information is also lower than that of citizens in western countries. In many environments in our country, there is still a lack of sound laws and regulations in the protection of personal data and information. Although, at present, our citizens gradually have the consciousness of protecting personal information data, and the government departments of our country also gradually realize the importance of the current personal information data security. Therefore, our government departments must realize the importance of data information security and issue laws and regulations on personal data information security, to standardize the use and types of data information [7]. In addition, our country must also make clear the standard of data information collection and processing, to maintain the personal privacy of our citizens.

### **4.2 Constructing and Perfecting the Information Collection System and Doing Well the Work of Public Opinion Analysis**

In the era of big data, the network media gradually popularized thousands of households, and its spread speed was extremely fast, and its spread scope was very wide, but the network media still had some irregular behavior. This also makes any type of public opinion may spread on the network media, which also leads to some wrong public opinion to guide our citizens to the wrong road. Over time, this will have a great negative impact on the development of a harmonious society in our country. In the public management work of our country, the supervision and analysis of public opinion is an important part of it. For the current public management work under the environment of big data in China, the most important task of the relevant personnel is to do a good job in the supervision and analysis of public opinion. On the one hand, only the relevant managers make full use of big data technology to do a good job in the analysis of public opinion information. Only in this way can we timely understand the current hot topics on the network and the public opinion orientation of our citizens, and grasp the overall direction of the current public opinion events. On the other hand, only by making full use of big data technology can we formulate scientific and efficient work reports and publish the society in time, so as to optimize and upgrade the public management services in our country.

### **4.3 Constructing a Scientific Data Platform for Social Public Management**

Under the environment of big data, the government departments at all levels in our country should actively look for the existing problems and formulate feasible measures for the existing problems. In addition, government departments at all levels should also actively build a scientific social public management data platform, which can fundamentally improve the quality of social management services in our country. For example, China can build a sound data acquisition platform by building communication base stations, making full use of the convenience brought about by big data technology, or, China can also use the existing low space resources to build a perfect data service analysis and storage platform [8]. In the era of big data, the construction of a perfect public management service data platform, on the one hand, can fundamentally improve the quality of public management services in our country. On the other hand, it can better collect and store data, and analyze the data in time, so as to formulate scientific and efficient strategic measures. It makes the public management service of our country better serve the economic construction of our country and the construction of harmonious society.

## **5. Conclusion**

With the increasing popularity of the Internet, big data technology has also developed rapidly and fully applied to people's production and life, the importance of public management has become increasingly prominent. At the same time, the current social environment also puts forward higher requirements and standards for public management in our country. Big data technology and public management combination, can sort and classify a large number of data, and a large number of data for in-depth analysis, so as to predict the development trend of the future society. Therefore, in the field of public management, big data technology plays an extremely important role, which can fundamentally improve the quality and efficiency of public management. However, it is worth mentioning that in the environment of big data, China's public management has also encountered great challenges, for example, the relevant personnel do not have a deep understanding of big data technology, there is a serious digital divide and so on. Under the current environment of big data, the relevant managers of government departments at all levels should actively establish the awareness of the use of big data technology and combine big data technology with public management as much as possible. In this way, China will promote the public management model from the traditional to innovative, to meet the needs of the current social development. To sum up, the government management departments must step up efforts to promote the integration of public management and big data technology. Only in this way can China's public management services be continuously optimized and upgraded under the environment of big data, and better contribute to the economic construction and harmonious society construction of our country.

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