

## Research on Innovative Methods of Public Administration in Big Data Era

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**Abstract:** With the development of science and technology, big data has become a major product of modern science and technology, and has played a role in various fields. In the information age where the opportunities and challenges are the same, big data, as the medium of interconnection and sharing, has been among the industry reform, and the public management work closely related to people's lives has also changed. This paper analyzes the advantages of big data and the innovation of public management methods in the era of big data, hoping to help the development of various industries in China.

### 1. Introduction

With the popularization of science and technology, people's consideration and solution of problems have changed with the advent of big data era, people's lives are more and more inseparable from the Internet, people's work has gradually shifted from offline to online, and public management as a management model for government management defects needs to be reformed. Public management emphasizes "public" nature, which makes social management become the rights and obligations of every person in all walks of life. The application of the scientific and technological products of the big data era to strengthen public management will make social affairs more transparent and open, let the people become the main force in the management of social affairs, make government affairs fair and open, and increase the degree of social harmony. In recent years, China's Internet technology has grown rapidly, and the development of 5G has made our country's science and technology among the forefront of the world's science and technology, and this technology has gradually penetrated into all fields of life, which has brought convenience to people's life.

### 2. Status of Public Administration

The main body of public administration is diversified. The aim of public management is to make the social public facilities operate in an orderly manner, and to make people's life more convenient and fast through the proper management of public goods. At the present stage, the public administration in our country has not been completely managed by the people, but is in a state of government monopoly. Public administration is closely related to people's life, national security and so on, which is the public medium of social and economic development. Now computer technology has penetrated into many industries, the mode of public management through the network is gradually replacing manual management, but the rapid development of the network not only provides management facilities but also increases the risk of public management, and there are still many deficiencies in the legal regulations, people's information security and so on, which hinders the development of public management in the era of big data.

At the present stage, the public management has not completely subdivided the individual and the government as a whole, and it is difficult to implement the management work in detail to the individual, which requires the scientific and technological products in the big data era to provide the effective management design, and then reduce the problems in the public management.

### 3. The Necessity of Innovation of Public Administration in Big Data Era

On the surface, big data is to organize, analyze and store a lot of data, especially in the Internet popularization, the total amount of data is increasing, data types are becoming more and more complex, coupled with the speed of data generation is very fast, making data analysis a huge process. As far as big data is concerned, it can use the Internet to subdivide all kinds of data, through a few people's operation alone can complete the huge calculation work, and can visualize the process of screening and refining data, and provide the future direction of various industries in society. Therefore, people cannot just stay on the surface of big data use, but should be more in-depth exploration and use of the potential value of big data, and then facilitate social development. The development of big data brings many opportunities for public management, the following points are the necessity analysis of public management innovation in the era of big data.



Figure 1 A big data age

#### 3.1. Big Data Makes Public Administration More Efficient

With the advent of the big data era, the social public management work has successfully broken the traditional boundaries and made the public management work more open. Because the public management work in the big data era does not need people to record offline, it only needs to use the network platform to operate on the computer, which makes the people of all levels of society and all can realize the management of the social public affairs through the cloud platform, so that every citizen can be in the public management framework, and the concept of the participation of the whole people in the public management can be realized better. In addition, people can discuss social things through social software such as WeChat and Weibo, and can better participate in public decision-making while increasing their own social information reserve. Through the products of the big data era, people can also make suggestions on their own social needs and receive timely feedback from the government to make public management more efficient.

#### 3.2. Big Data Makes Public Administration More Transparent

History has proved that fair, just and open social management can involve people more in social management. In the traditional public administration in the past, the paper management documents are difficult to preserve, and the bottom people cannot receive the high quality resources of the government in time, which makes the social governance structure take the shape of the pyramid, and only the top managers can enjoy the state policy, which can easily arouse the dissatisfaction of all walks of life and thus arouse the social contradictions. And with the help of the products of the big data era, people can enjoy the same resources, and the information between the various levels of society has become visualized, which has successfully changed the past rigid situation and made the allocation of social resources more open and transparent.



Figure 2 Public administration

### 3.3. Big Data Makes Public Administration Safer

Public order has always been a difficult problem for government management, which involves the influence of social resource sharing, social population mobility and so on. For example, in transportation, the time-lapse population makes it difficult for the relevant managers to predict the population base, can only be created blindly in the establishment of public transport, in some places with a large population may be inadequate facilities, and in some places with a relatively small population, there is a waste of public facilities. And with the support of big data, the relevant departments can use the data memory and analysis function of the Internet to make a feasibility analysis of the known data, to provide the relevant departments with effective resource allocation ratio, and to reduce the waste of resources.

In addition, big data can improve the security of public administration. For example, in some social problems, the government can learn the real situation of the outside world through the Internet, make a prediction of the potential social risk, and make public management more safe by monitoring and analyzing the social data to solve the social problems.

## 4. Innovation of Public Administration in Big Data Age

### 4.1. Refinement of Public Administration

Although our country's big data technology starts later than some developed countries, and the data resources lag behind the developed countries, we have never slowed down in data management. In the modern society, the operation of many public management departments in our country has not yet realized the fine management, which requires the era product of big data, the Internet as the core of data sharing, fully utilize the data analysis function of the Internet to scientific public management, through the cloud platform to establish a precise link between public management and social management to achieve the purpose of overall management. In addition, the data of many government departments are not true enough, there is a phenomenon of fraud, the state can establish a work mechanism of public supervision based on big data, so that the assessment index of public management is more precise, so as to enhance the government's ruling ability and effectively promote the development of public management.

### 4.2. Protection of Public Information Security

In the Internet age, people's information is shared on the Internet, which makes the information have potential risks. In public administration, the laws and regulations of big data in our country are not perfect enough, and the management mechanism has not completely protected the privacy of users, which to some extent increases the security risk of Internet users. Therefore, it is necessary to perfect the laws and regulations and establish the information security mechanism under the blessing of the big data era. According to the investigation, the number of Internet users in our country is increasing rapidly, and the early construction of the legal protection system can

effectively avoid the network user information leakage and other problems, and realize the security construction of the network system. If the state takes the construction of network security as the basis of legislation, the harmony and stability of society will be guaranteed, and people will be more assured to invest in public administration.

#### **4.3. Building a Data Sharing Platform**

The traditional data sharing is still transmitted through the paper information in the file library, and in the era of big data, the state can establish a network data sharing platform to open the data of public management in people's vision to realize the supervision of social public resources. This kind of online sharing platform cannot only reduce the cost of data storage, but also reduce the workload of relevant technicians to a certain extent, and improve the accuracy and availability of data. In addition, the transparency of government resources can effectively reduce the problem of uneven distribution of social resources, and give people access to the allocation of social and public resources can reduce the contradiction between various industries. However, the establishment of a data-sharing platform does not mean that all resources will be shared, some state secrets and privacy of the data or do a good job of confidentiality, in order to ensure that the premise of national security to achieve social transparency supervision, so as to better carry out social public administration.



Figure 3 Data sharing platform

#### **4.4. Strengthening Talent Training**

In the era of big data, the emergence of many scientific and technological products cannot be separated from the efforts of relevant technicians, therefore, the state should also vigorously carry out the cultivation of creative talents, strengthen the construction of innovative talents, pay attention to the training of public management personnel, and enhance the professional quality of public management personnel. In the recruitment of public managers can set up a screening system, after the selection of talent set up irregular assessment system. In addition, relevant management departments can also communicate and learn from each other to further enhance the ability of public management.

### **5. Conclusion**

The big data era has brought us convenience, but also produced many challenges, public management as an important content of social development must conform to the trend of the times, use the scientific and technological products of the big data era to complete the reform, to achieve our public management data, information, so as to improve the world competitiveness of our country.

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