



# Research on the Innovation of Digital Social Governance to Government Supply

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**Abstract.** In the past few years, due to the rapid popularization of digital technology, it has become an important driving force in many fields and brought great changes to the government's information construction. However, there are still some problems in digital social governance in China, such as insufficient information sharing and uneven resource allocation. Under the current circumstances, the application of new information technologies such as 5G technology, a new generation of artificial intelligence and block chain will help to improve the efficiency of government decision-making, improve the well-being of the public, and help to establish a stable and safe social trust mechanism. Therefore, it is necessary to start with these new methods and give effective guidance when promoting the transformation of digital social governance to government supply.

**Keywords:** Digitalization; Social governance; Government supply; Innovation research

## 1 Introduction

In recent years, with the rapid progress of science and technology, it has been widely used in various industries. However, these technologies also have many potential risks, for example, they may lead to information leakage, personal information infringement, data filtering and information abuse [1]. Therefore, we must seriously think about how to make full use of these advanced science and technology to improve the quality of our public services. The purpose of this article is to deeply analyze the characteristics of digital social governance and explore how to use the most advanced information science and technology to promote the supply and improvement of government public management.

## 2 The connotation and characteristics of digital social governance

Volkhov and others put forward the theory of digital technology embedding, and analyzed the realization process of organizational system innovation caused by techno-

logical progress from the perspective of interaction between technology and system [2]. In the 1990s, the British scholar Pachak Deng Liwei introduced the idea of digital governance to China for the first time. His digital governance theory provided a comprehensive reference framework for government decision-making in China [3] and brought important guiding significance to government management. Due to the continuous advancement of reform and opening up in China, the complexity of society is increasing day by day, and the traditional government management methods can no longer meet the current needs. In the past, the government-centered social management and control system is facing unprecedented challenges. In order to better adapt to today's development trend, more comprehensive, scientific and effective measures must be taken to realize the reform of social management. Therefore, digital social governance came into being under this background [4].

(1) By applying advanced data analysis and disposal technology, we can greatly improve the level of social management and control, making it smarter, more orderly, more efficient and more convenient, which is the so-called digital social governance [5]. Digitize the data of all aspects of social governance, realize data sharing and interaction, and improve the efficiency and value of data utilization. Use artificial intelligence, big data, cloud computing and other technologies to intelligently handle all aspects of social governance and improve the scientific and accurate decision-making [6]. Through digital technology and information technology, all aspects of social governance are finally managed to improve the fineness and efficiency of management. Use digital technology and information technology to improve the work efficiency and management efficiency of social governance and realize the optimal allocation and utilization of resources.

(2) With the development of digital social governance, we must pay more attention to how to use information technology to improve the accuracy, intelligence and coordination of governance. In order to achieve this goal, we need to take data, openness, service, informationization, risk management and control, credit evaluation and security into consideration. In addition, we need to strengthen social participation and the construction of government credibility, so as to improve the efficiency and quality of government services and promote social development and progress. Compared with the traditional social management mode, digital social management has more uniqueness and advantages [7].

### **3 The status qua of digital social governance for government supply**

In June, 2022, the central government issued the Guiding Opinions on Strengthening the Construction of Digital Government, which formulated a concrete action plan for implementing the digital strategy shared by all people, and emphasized that in the future, we must persistently strengthen the country's digital government affairs, implement more advanced digital technologies, and build more efficient digital services in order to realize the Chinese dream of the great rejuvenation of the Chinese nation.

### **3.1 Remarkable progress has been made in the construction of government information.**

According to the latest report at the end of 2022, the government service system in China has been further developed. The implementation of digital service modes such as "Internet+Government Service" and "One Network for Running" has brought more convenience to government service activities and made the whole system more perfect and orderly. During the period of COVID-19, in order to ensure social stability, governments at all levels took measures to establish a nationwide network environment by using advanced digital social governance, and completed remote office, remote examination and approval, remote consultation and other functions.

### **3.2 Data security management and utilization have been strengthened.**

The central government has paid increasing attention to data security, and adopted a series of strict supervision mechanisms, such as the Network Security Law of the People's Republic of China and the Personal Information Protection Law of the Republic of China, to ensure that the personal information of the public, enterprises and other institutions is effectively protected and maintained. In addition, the central government also supports the development of digital economy, accelerates the realization of electrification, and effectively carries out data analysis and application. Due to the progress of technology, the government can monitor and evaluate the traffic conditions and air quality of the city in an all-round way by using big data technology.

### **3.3 The construction of smart cities has been accelerated.**

With the popularization of concepts such as "urban brain" and "digital city", the construction of smart cities is developing rapidly. At present, many cities are actively carrying out smart city construction pilot projects, involving transportation, medical care, education and other fields. For example, the intelligent transportation system introduced in Shanghai can realize intelligent control and optimization of traffic lights, greatly reducing the situation of urban traffic congestion [8].

## **4 How does digital social governance affect the government's service ability?**

### **4.1 Insufficient information sharing leads to information blocking.**

Information occlusion refers to a closed social circle formed by people in virtual spaces such as social media, and it is difficult to get in touch with different viewpoints and information. According to the National Digital Economy Development Report (2022), the number of netizens in China has now exceeded 1.067 billion, the national digital economy has reached 50.2 trillion yuan, and the Internet penetration rate has reached 75.6%. The number of mobile Internet of Things end users reached 1.845 billion,

making it the first country in the world's major economies to achieve "superman". However, the information on social media is often influenced by users' interests, regions, identities and other factors, and it is easy to form information occlusion. The formation of this information blocking situation is mainly due to the inter-departmental interest relationship leading to the formation of data barriers. Breaking the data barrier is not achieved overnight, but by adopting more advanced and effective decision-making measures to promote the digital transformation of social governance.

#### **4.2 Uneven distribution of resources leads to technical differences.**

Although digital technology has become an important means of social governance today, which greatly improves the government's supply efficiency and data sharing level, due to the differences between regions and urban and rural areas, people's cognition and use of digital technology are obviously unbalanced, which leads to technical differences and seriously affects the long-term development of society. Although the digital divide prevents many regions and people from fully enjoying the convenience brought by digitalization, which affects their participation in social governance, the government is also striving to promote digital transformation and has made some progress in technology application, such as the popularity of emerging technologies such as artificial intelligence and big data, which enables some social organizations and technology companies to enter the market, thus improving the efficiency of social governance. Although the government has invested heavily in capital and manpower to promote the construction of smart cities, the application of technology still needs to be strengthened to meet the needs of current social development [9].

#### **4.3 The governance subject has the problem of insufficient synergy.**

In digital social governance, first of all, the division of responsibilities of various departments is not clear enough, which leads to the unsmooth information exchange and coordination. Urban management covers a wide range, from the maintenance of infrastructure, the improvement of public health to the beautification of landscape, and every aspect has its unique function. However, due to the lack of clear division of power, it is difficult to transmit and cooperate with information. Secondly, the data sharing mechanism between departments is not perfect, which leads to the dispersion and difficulty of data integration. Due to the lack of perfect decision-making coordination mechanism, the decision-making between departments can not reach an agreement. Especially in the field of urban management, transportation, environmental protection, urban construction and other departments should strengthen cooperation, but due to the lack of effective coordination mechanism and decision-making platform, these departments can not reach a consensus in decision-making. The cooperation between the government and social organizations is still insufficient, which seriously affects the efficiency and quality of digital social governance and makes many social problems unable to be effectively solved. Therefore, it is necessary to strengthen the cooperation between the government and all sectors of society in order to improve the efficiency and quality of governance. Therefore, a more effective policy framework

must be established to promote the consensus and cooperation between the government and all sectors of society [10]. With the development of science and technology, the implementation of digital social governance pays more attention to establishing the consensus of the government, enterprises and the public, and establishing an effective cooperation mechanism to promote a win-win situation. In order to promote the healthy development of digital social governance, the government should invest heavily in resources, train more professionals with digital literacy, and constantly improve their governance ability and level.

## **5 Digital social governance empowers the innovative path of government supply**

### **5.1 Using 5G+ big data technology to improve government decision-making ability**

The use of 5G+ big data technology can provide the government with faster, more accurate and real-time data processing capabilities, thereby enhancing the government's decision-making ability and helping it to conduct efficient social governance. 5G+ big data technology has brought great changes to social governance, especially for intelligent construction and development. For example, 5G big data technology can effectively monitor and predict the traffic flow on expressways, thus improving road safety and operational efficiency, reducing road congestion, improving road quality and improving residents' travel efficiency. The 5G+ big data technology has brought great potential to health care. It can not only help the government identify which areas need to increase investment in infrastructure, but also enable medical staff to obtain a large amount of data in a short time, thus providing them with accurate diagnosis results and providing them with the best treatment strategies. The 5G+ technology provides a brand-new way for the government, which can obtain a large amount of environmental data such as air and water quality from the cloud and analyze them, so as to grasp the current environmental situation more accurately and take effective measures to reduce pollution and improve environmental quality. 5G+ big data technology can also help the government to better protect public safety. In addition, the government can also use big data analysis to determine which areas have security risks, and take corresponding measures to strengthen security.

### **5.2 Using artificial intelligence technology to assist public service management**

The application of artificial intelligence technology in government public service management can be divided into the following aspects. Government agencies are using artificial intelligence technology to enhance customer experience, such as adopting natural language processing and machine learning algorithms to realize real-time response to public inquiries and complaints, so as to better meet the needs of the public. Artificial Intelligence By using big data analysis, the government can better understand

the needs of the public, so as to formulate and implement better policies and services in a more targeted manner. Artificial intelligence technology can help government agencies to realize some automated processes. For example, automatic examination and approval, automatic payment, etc. This can greatly improve the efficiency and convenience of public services and reduce the mistakes and delays of manual intervention. By using artificial intelligence technology, the government can greatly improve the efficiency of public service management, reduce operating costs, and better meet people's needs. At the same time, the government also needs to pay attention to issues such as protecting personal privacy and data security.

### **5.3 Building a credible society by applying blockchain technology**

By introducing blockchain technology, we can realize more secure and convenient data storage and transmission. It can not only achieve seamless security, but also bring more security for our society, thus greatly promoting the development of digital society. Blockchain technology can be used to realize digital identity authentication and ensure the authenticity and credibility of personal and organizational identity information. Using blockchain technology can build a credit evaluation system and improve social credibility. For example, the People's Bank of China used blockchain technology to build a "credit chain" platform to collect, integrate and analyze all kinds of credit information and provide credit evaluation services for financial institutions and enterprises. Blockchain technology can be used to build a credible supply chain management system and video traceability system, thus improving the quality and reliability of products and services. By adopting advanced blockchain technology, food enterprises can build a perfect and efficient SCM system, realize real-time monitoring of raw materials, costs and processes, and effectively improve the safety and quality of food. In addition, the system can also provide a reliable and mutually beneficial data sharing environment for all kinds of enterprises and realize the coordinated development between enterprises.

## **6 Conclusion**

With the advent of the digital age, digital social governance is empowering government supply management. However, how to use digital social governance to improve the level of government supply is still an urgent problem to be solved. The purpose of this paper is to study the innovative research of digital social governance on government supply, and to explore how to make better use of digital social governance to improve the efficiency and quality of government supply. This paper deeply discusses the concept of digital social governance and compares it with the traditional social governance model from different angles. In addition, the article also describes the development process of governance transition in China's digital society, and points out some problems such as information occlusion, technical differences and lack of effective cooperation among governance subjects. This paper puts forward how to give full play to the advantages of cutting-edge digital technologies such as 5G, big data, artificial

intelligence and blockchain, so as to promote the main strategies of digital social governance for government supply, and provide useful suggestions and reference for practice in related fields.

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