Guangzhou Smart Government Construction under the Vision of Big Data Governance

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Abstract: With the continuous development of the social development process, the new technologies of the Internet have achieved rapid development, and the cities are becoming more and more intelligent. The traditional thinking and behavioral methods have been unable to comply with the social development process, especially in the public service field. This paper will briefly analyze the practice of smart government innovation construction, and put forward the challenges and challenges facing the current smart government construction, and propose a new idea of Guangzhou smart government under the vision of building big data governance.

1. Introduction

Since the development of the 21st century, the industrialization process has continued to develop, and the level of information technology has continued to advance[1]. Modern information technologies such as the Internet, Internet of Things, cloud computing, and big data are constantly changing the way people live and work. In order to promote the modernization of the government, more and more countries are building smart governments by promoting the development and application of modern information technologies such as big data and cloud computing, and promoting smart government governance. Facing the challenges of the era of big data governance, this paper will combine the application of big data technology in Guangzhou government governance to give new kinetic energy to government governance, realize new development of smart government governance, and accelerate the modernization of national governance system and governance capacity.

2. Intelligent government governance innovation practice

2.1. Formulating Science Policy

Government decision-making in the context of big data will turn to the facts of respecting data and believing in data, collecting public opinion and public opinion through big data analysis, turning big data into policy resources, and prompting the government to provide high-quality public goods and services to society. Fairness and justice[2]. The Guangzhou region has established an economic operation monitoring and forecasting platform, focusing on improving the ability of macro-decision support services, applying application-oriented, and building and sharing as the starting point, and strives to create an economic operation monitoring and forecasting system with “data is unique, analysis is deep, and response is fast”. Provides a scientific and accurate source of data for macro decision making.

2.2. full power supervision

Intelligent government governance based on big data effectively combines big data technology with the administrative platform of the administrative department, making it an important medium throughout the administrative process, effectively connecting various administrative links,

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eliminating the gap of power supervisionp[3], and building a technical guarantee. The power supervision system improves the traditional operation mode of power and realizes full-scale power supervision. Through the record and supervision of data, Guangzhou timely investigates and corrects violations of laws and regulations that occur in the exercise of power, and forces the government to carry out reforms of the power system, so that power can be visualized and standardized, so as to facilitate the supervision of the public.

2.3. Networked collaborative governance

Networked governance is a new type of governance mechanism that is relative to hierarchical and market-oriented. Participants from government, market, and civil society are interdependent in an institutionalized framework and engage in joint actions to achieve certain public values. The rapid development of new generation information technology represented by big data, cloud computing, Internet of Things, mobile Internet, etc. has promoted the transformation of government governance model from fragmentation to network, from control to participation, from static to dynamic. . Guangzhou uses big data, cloud computing, Internet of Things and other technical means to establish a unified social management innovation platform. Based on big data, according to the idea of grid management, all kinds of resources are integrated into the unified platform of the city, and a sound and perfect system is established. Social management services.

2.4. preventive crisis management

Modern information technology such as big data offers possibilities for improving public crisis management capabilities from concept, method to practice. The use of modern information technology such as data mining and machine learning to construct a public crisis management information system can realize real-time dynamic monitoring, early warning and management of the whole process of public crisis. Guangzhou City has established a forecast system for flood control in urban areas. Collecting the walking paths[4], wind speeds and rain conditions of all the typhoons affecting China over the years, and using the professional algorithms of the big data platform to compare the paths with the typhoon historical database, quickly and accurately predict and simulate the scale and trend of the typhoon. The warning information will be sent out at one click. Ningbo citizens can browse the flood prevention warning information at any time and any place through the public 864 early warning electronic display, website, WeChat, Weibo, SMS, mobile phone, etc., and realize the wisdom and prevention.

2.5. Precision Public Service

Smart public service is a technological innovation derived from the further development and maturity of smart city construction and modern public service theory. Guangzhou adopts a smart city construction model featuring “smart and people's livelihood” to create “smart Guangzhou”. By strengthening infrastructure construction, coordinating smart construction projects, and implementing smart management services, Guangzhou will provide better public services and improve the society. Social public satisfaction.

3. Building a smart government faces challenges

3.1. Intelligent government governance mechanism is imperfect

The construction of a smart government governance system should first clarify the boundaries between the government and society, and exert the enthusiasm[5], initiative and creativity of social forces. However, the boundary between the government and society in China is still unclear. The focus of government governance is on social stability. The Guangzhou government relies on

administrative orders to rely on administrative orders to interfere too much with social administration and control is too dead, resulting in insufficient social organization vitality. Coupled with the lack of smart government construction standards, the new generation of information technology and government governance continue to merge, but for the connotation and extension of smart government governance, does not form a unified evaluation criteria.

3.2. Dynamic network collaborative governance system is not sound

With the development of modern information technology, the combination of collaborative governance and big data and other network technologies is not close enough. The dynamic network collaborative governance system has not received the attention it deserves. Guangzhou has not yet effectively constructed a dynamic network collaborative governance system. Some government departments have a low degree of coordination, and the administrative agencies adjacent to each other are still isolated information islands. Although the Guangzhou government has established a government platform for information sharing on the surface, in reality, the problem of weak coordination among government departments remains unresolved, and the level of information sharing and overall decision-making is still low overall.

3.3. Government data open sharing process block

In recent years, under the influence of new information technologies such as big data, cloud computing, and social media, the open sharing of data has made the information gap[6], culture difference, poor knowledge, and poor ability that existed between the government and the public gradually being eliminated. There are also many shortcomings in the open sharing of data in Guangzhou. First, the top-level design of open data sharing of government data is still not perfect. Second, the laws and regulations related to the open sharing of government data are lagging behind. Third, there are barriers between the departments involved in the open sharing of government data. Fourth, supply and demand are disconnected during the open sharing of government data.

3.4. The lack of support for key elements of smart government governance

Smart government governance must rely on modern scientific and technological methods to build a modernization model that promotes governance systems and governance capabilities, and makes full use of big data and Internet technologies to scientifically and refine the goals and key links within the government governance system. And research, continuously improve the level and ability of scientific and modern government governance. However, at present, the key elements of Guangzhou's smart government governance are insufficient, mainly because the relevant supporting industries are not developed enough. The application of key technologies such as blockchain technology, machine learning or artificial intelligence needs to be broken, the information infrastructure construction needs to be improved, and relevant professionals are lacking. Still facing the challenges of funding, security and other security factors.

3.5. Smart government governance platform is not efficient synergy

China's big data strategy started late, and the construction of Guangzhou's smart government governance platform based on big data is far from keeping pace with the times. First, the wisdom of government governance application support platform, big data platform and public database construction is slow, public information service cloud, emergency command cloud, information security cloud and other smart cloud infrastructure is relatively lacking, it is difficult to provide support for smart public decision-making, it is difficult to reflect wisdom The characteristics of government governance; Second, there are some problems in the established smart government governance platform. For example, the top-level design is insufficient. Government departments at

all levels have established their own smart governance platforms, which has made it difficult to implement the various data platforms of the Guangzhou government. The effective sharing of information between regions is also difficult to achieve high levels of synergy between various government departments and regions.

4. Building a smart government concept in the context of big data governance

4.1. Emphasis on the top design of smart government governance

In the era of big data, the government needs people-oriented, promotes inclusive growth, and forms a development concept of building, building, and sharing[7]. Second, we must pay attention to the institutional construction of Guangzhou's smart government governance. Institutional construction first needs to establish and improve the corresponding laws and regulations, and at the same time, it is necessary to formulate uniform norms and standards for smart government governance. The third is to attach importance to the system construction of smart government governance. With the development of modern information technology, the use of the Internet, big data, cloud computing and artificial intelligence to achieve the interconnection of people, the interconnection of objects. And build a platform that can share resources, information, and opportunities, so that everyone is on an equal footing, decentralization and flattening at the government level. The fourth is to attach importance to the mechanism of smart government governance. Through the performance evaluation and incentive mechanism construction, the wisdom government governance work is summarized and analyzed, and the shortcomings and defects in the wisdom government governance process are discovered in time to point out the direction for improving the wisdom of government governance. At the same time, through the reward and punishment mechanism to promote the development of smart government governance.

4.2. Innovation Government Dynamic Network Collaborative Governance

The first is to achieve multi-dimensional coordination of governance subjects. Relying on big data resources, the company mobilizes the forces of all levels of society, various organizations and various teams to participate in government governance and form a new pattern of multi-dimensional coordinated governance led by the government, departmental linkage, enterprise support and social participation. The second is to promote online and offline network collaboration. On the one hand, online technology is used to create an information interaction platform to realize the interconnection of information and data, establish a social governance database, capture social focus in real time, accurately understand and respond to social problems and challenges in a timely and effective manner; Some grids, to play the enthusiasm of various subjects, promote social participation to promote diversified cooperation and truly achieve social synergy, and form a 020 collaborative governance model. The third is the coordination of governance methods, using administrative, legal, market and other governance tools to effectively respond to the changing and complex social environment.

4.3. Promote the openness of government data sharing

To promote smart government governance, it is necessary to strongly promote the open sharing of government data. Open data sharing is not only the internal demand and strong driving force of government transformation, but also the only way to promote the modernization of government governance system and governance capability[8]. Through the open sharing of government data and the mining and analysis of big data technology, it is helpful to realize the scientificization of government governance decisions and the synergy of governance entities, help to achieve the

transformation of government governance paradigm, and promote the government from $authoritative governance & to $ Scientific governance & transformation, from the single governance of the government to the transformation of social pluralism.

4.4. Exploring the wisdom of public decision-making path

Smart public decision-making is based on complex economic and social conditions. Public organizations are supported by next-generation information technologies such as big data, cloud computing, artificial intelligence, the Internet of Things, mobile Internet, next-generation Internet and emerging network technologies. Sexuality, rapidity, high price and diversity of big data resources for real-time perception, intelligent analysis, predicting future development trends, optimizing decision-making processes, and assisting decision makers to make more scientific and effective decision-making and actions, thus realizing a big data of public interest Driven public decision mode. The intelligent public decision-making model and decision-making process tend to be more personalized, autonomous, intelligent, transparent and precise. The decision-making analysis mode, organizational mode and action mode also show a trend of digitization and networking. In essence, smart public decision-making is based on big data driven, supported by a new generation of information technology, with the goal of maximizing public interest, with comprehensive perception, objective transparency, real-time continuous, independent presets and multiple governance. A new public decision model for features.

4.5. R&D and application of smart government governance technology

In order to seize the opportunity of the era of big data and use modern information technology to innovate the government governance mode[9]l, Guangzhou must fully understand modern information technology including big data, cloud computing, blockchain, machine learning, artificial intelligence, etc. to promote government governance. The status and role in the process of capacity modernization, attaches great importance to the research of the technical basis of government governance reform, and strengthens the research and development and application of technologies related to smart government governance.

4.6. Improve the smart government governance infrastructure

Guangzhou should further improve and improve the standardization, openness and security of network infrastructure, promote the construction of smart cities, and provide effective technical support for the development of smart government governance. Specifically, the first is to strengthen the construction of information infrastructure networks, and pay attention to basic network layouts such as next-generation broadband Internet, next-generation broadcast television networks, urban wireless network WIFI systems, and unified urban Internet of Things and home Internet of Things[10]; The application supports the construction of cloud platform, and exerts the enthusiasm of cloud platform builders and cloud service providers to form various modes such as public cloud, proprietary cloud and hybrid cloud, and enlarge and strengthen e-government cloud, public information service cloud, emergency command cloud. Smart cloud infrastructure such as information security cloud; third, strengthen the construction of government governance big data platform and public database, build a government governance application basic database and comprehensive thematic database, and lay the foundation for the development of smart government governance and smart public decision-making.

5. Conclusion

Due to the important role of big data technology in government governance, the Guangzhou government should pay attention to the R&D and deep integration of the application of new generation information technology in government governance to promote the development of smart government governance and the modernization of government governance capabilities.

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