

Research on the Innovative Path of Government Governance Ability under the Era of Big Data

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Abstract: With the rapid development of Internet and the continuous innovation of science and technology, big data appears in the public view and becomes the synonym of the new era. Its wide application has changed people's traditional life mode and promoted the progress of the whole society. In the new round of social change, the government should actively shoulder the role of managers. In the development of big data, it should realize the transition from government functions to innovation, openness and sharing, conform to the needs of social development, and enhance the ability of data governance so as to rationally allocate data resources, optimize the level of public services. Finally, China will become a stronger country with big data.

1. Introduction

With the vigorous development of science technology such as Internet, cloud computing, human society has stepped into the era of big data from the age of information. The emergence of big data has improved many emerging industries, promoted human exploration of the unknown field – data, therefore, it made everything possible. At the same time, however, the rapid development of big data makes it impossible for the government to change and improve the corresponding governance capacity in time. Faced with this social change, the government should optimize its functions, strengthen all-round self-construction and improve the adaptability of governance ability and the instantaneity of thinking mode particularly. As the old saying goes, enter with getting the way and succeed with obtaining the essence of things. Therefore, in the process of exploring innovative governance ability, the government should not only act as an ideological actor, but also as an action thinker.

2. Cognition of Big Data Connotation

Data is not only a basic resource, but also an important factor of production. Big data refers to a large number of data sets with various types and complex structures, which contain diverse data with potential value and can be effectively used. Therefore, big data also named data information asset, which has great economic and social value.

2.1 Emerging things and data complement each other

Many opinions read that data is the “derivative” of behavior in our daily life, but I can't agree with them; “derivative” is not the essence of data, but the external manifestation of its physical properties. Data is a kind of “trajectory” produced simultaneously with the object or behavior activity and doesn't have subordinate attributes, therefore, it is not a new thing based on the evolution of the original. It generates a “track” with the original or behavior activities. The development of science and technology provides us with a measurable dimension, which can be quantified in the form of data and used for statistics. Data comes from all walks of life and permeates every corner of people's daily life, we create and use data all the time. As long as the world is working and human beings are moving, data will be produced and circulated continuously and vice versa.

2.2 Big Data of Government

In China, the vast majority of data resources are in the hands of government departments. Because of its own characteristics, the government has an innate advantage in the acquisition of data sources for the whole society. There are two main types of data sources available to the government: one is government-produced data, which is generated by each administrative organs in the process of implementing administrative actions, such as environmental survey, urban management law enforcement, civil service assessment and data produced in the process of formulating normative documents and decision-making, which are owned by the government itself; the other one is government-managed data, this kind of data was collected by the government directly in the process of governing society and providing public services, and indirectly after further analysis of a large amount of information collected, such as data collected in household registration management, population census and vehicle registration information of Department of Motor Vehicles. Data managed and controlled by government featured with largest quantity and the highest value, which occupies an important position in the whole social data resources. All kinds of data owned and managed by the government are aggregated and merged into a huge data set, the core data set with higher value density, say, the Big Data of Government.

2.3 Significance of Big Data on Governmental Innovative Governance Ability

The issuance of the State Council Notice on the Issuance of the development and action compendium on September 5th 2015, means the change of government functions and management methods in the context of Big Data Era. The arrival of the big data era has brought new governance thinking and technical support for the government to realize functional transformation, improve modern governance ability and improve the development of comprehensive social governance methods. The use of big data has gradually become the focus of political practice.

Through the analysis and processing of massive data sets, the structure of market economy and the internal law of social operation can be more intuitively presented. By improving the government regulation mechanism, the data on which government governance is based can be more accurate, scientific and comprehensive. Big data provides technical support for promoting the government to make more effective and feasible decisions, and enhances the efficiency and reliability of administrative actions. At the same time, it also means that the term “governance capacity modernization” can no longer cover the needs of today's Society for the government as a model, and the digitalization of government governance capacity is bound to become a future trend.

3. The prominent problems in the practical application of government big data

3.1 Limitations of Big Data Applications

Firstly, the data we have obtained are only the tip of the iceberg compared with the whole nature and society and those data are not very representative because there are still a lot of data that have not been excavated by human beings. Moreover, with low density of value, not all data can be used in large data sets, and the results obtained from data set analysis and processing are not necessarily feasible. Secondly, the daily average output of data is increasing. The data base that the government has to deal with is too large and jumbled, including a large number of “data waste gas”, and the available data only accounts for a small proportion. Thirdly, the real-time requirement of data processing ability is very high in political practice. People are no longer satisfied with information “forecast”, but hope to get “accurate report” and “actual report” in the first time. But the data really lags behind. If the time limit of data collection is about to or has passed the time point of making a decision, it will become meaningless - -The future cannot be determined by the past and the present. Fourthly, through the analysis and integration of data, we can discover the “correlation degree” between data. Although it can provide feasible suggestions for government decision-making to a certain extent, it is only a pertinent reference, and it plays an auxiliary role rather than a decisive role. Therefore, the application of big data is suitable for improving the personalized service of specific business, and cannot carry out macro-control. We cannot rely entirely on the objective

prediction of big data, and government decision-making should be comprehensive and balanced.

3.2. Network Hazards Faced by Government Data Governance

The potential network hazards faced by the government in the application of big data are becoming increasingly prominent. On the one hand, large data sets formed by government storage are more centralized than individual data or data sets scattered in various corners, and may contain confidential or other important information, which is more valuable than scattered data. Therefore, with great security risks, the huge target of government data is easy to be conquered and stolen in cyberspace. On the other hand, there are more “data waste gas” in the data sets collected by the government, including a lot of false data in addition to some worthless data. Data collection mainly comes from network statistics and manual survey records. Comparatively speaking, there are a lot of false information in the network environment. We cannot specifically screen the authenticity and reliability of each data in the process of simple statistics, but if there is no authenticity, the value of data on this will cease to exist.

3.3. Deficiencies in the Basis and Standards of Big Data Governance

Big data, as an emerging industry in China, is still exploring in the initial stage of development. As for the application of big data, no clear legislation has been carried out. Relevant laws and regulations on the ownership, use and protection of data rights need to be further improved. In terms of government governance, a large number of data are continuously exported and circulated in the society. Faced with a wide variety of large-scale data, government departments still lack a unified governance standard, and the application and management of data is decentralized.

4. Research Direction of Optimizing Government Functions in the Era of Big Data

As the leading force of big data construction, government has a leading role for the industry when it comes to whether the government can maximize the strategic value of big data application. To promote the development of whole society, the government should give full play to the advantages and benefits of its position in the application of big data, make use of configurable and valuable data resources, establish a new data governance model, improve the government's governance ability and decision-making level.

4.1 Establishing a correct understanding of the application of big data by the government

Data resources are derived from the people and should be applied to the people. The main purpose of government big data application is to connect public activities and promote personalized services to meet social needs. The government should tailor it to the public according to the characteristics of big data applications, promote its development towards specialization, get rid of past thinking patterns, and avoid self-esteem. Only by strengthening the feasibility analysis ability of big data can we give full play to the administrative functions, provide more effective opinions and targeted evaluation for the implementation of government decision-making, and thus improve the efficiency of work¹. enhance the feasibility analysis ability of big data, in order to give full play to its administrative functions, provide more effective opinions and targeted evaluation for the implementation of government decision-making, and improve its efficiency [1]. In this regard, the government should first establish internal storage space for data preprocessing, analysis of different social needs, so as to optimize public services. Intelligent operation and multi-dimensional analysis of effective data formed by screening, extracting and merging can form a global vision. Then, according to the processing results, the relevance of the internal laws can be summarized. Finally, the decision-makers can extract the effective information from their value judgment and make use of it.

In addition, in order to digitalize government practice, it is necessary to have high-quality data analysis ability. In the data collection stage, useless “data waste gas” should be screened out and the base of effective data in the data set can be accurately preprocessed. In this way, big data applications can play a role according to needs, problems-solving and present the most effective

analysis results.

4.2 Improving the data management system of government departments through data collaboration

Enhancing data synergy is an important way for government departments to move towards data governance. Data synergy is to break through the information barriers between government and administrative organs, integrate related data, and realize the organic unification and real-time sharing of government big data. Data synergy can simplify the procedures of various government practices, save manpower and operating costs, avoid inefficient duplication of processing, and improve the level of government administration. At the same time, the management and application of the data of government departments should be strengthened in order to achieve great data synergy among the administrative organs, between higher and lower administrative organs, and between the government and society. Therefore, we should strengthen the construction of information channels of government departments, improve the data governance system of government departments through data collection management.

Collecting and integrating government data resources is the premise and foundation for the government to move from the modernization of governance capacity to the data-based construction of governance capacity, which provides the basic guarantee for the collaborative sharing of departmental data resources². Collection is not the direct centralization and unified use of previously dispersed departmental business data, but oriented by the actual needs of public services, through hierarchical collection and special collection, the related data will be combined into new data sets for analysis and utilization, so as to realize the real flow of data resources, collaborative sharing, and make the government governance model more transparent and efficient.

4.3 Building an All-round Government Data Sharing Platform

The real big data should be built on the basis of common standards, and a cross-domain data bearing platform should be set up for all industry organizations, social organizations, scientific research institutions and government units. As the core force of society management, the government should excavate all kinds of data reflecting the state of social operation from a wide, deep and multi-dimensional perspective, so as to realize the open sharing of real big data. In order to improve the efficient transformation of government functions in the era of big data, it is necessary to build a common, co-constructed and shared service platform of big data cloud for government affairs, and explore the role of big data in the integration of rule of law government, rule of law society and rule of law country and the value orientation of data governance. From a practical point of view, in the field of government management, many places have begun to build a unified open platform for government data³. In order to build an open data bearing platform for the public, it is necessary to use technology conversion to make the formats and standards of data from different sources consistent. The data operation results based on this can improve the efficiency of public use of government data.

5. Conclusion

In the era of big data, the use of cloud computing and big data processing technology can effectively save costs, improve the efficiency of government governance, and provide intellectual support for government decision-making.

At present, big data has been widely concerned at the level of government practice and applied in practice. Only with the help of big data, can we make full and reasonable use of the data resources, make use of the information we have obtained with highly efficiency. Take the social changes brought about by the big data era seriously, seize the opportunities and face the challenges actively, and make the potential power in the big data play a greater role in the future.

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