Challenges and Countermeasures of Service-Oriented Government Construction in Big Data Era

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Abstract: In the information age, how to fully grasp the opportunities and change the existing problems in traditional governance management models by using the big data to construct a service-oriented government has become an important problem the government faces. The paper gives the suggestions of enlarging data, accelerating data consolidation and strengthening data security to provide some references for the service-oriented government construction in the big data era.

1. Introduction

A service-oriented government is a government serving the people. Its essential connotation includes people-oriented concept of service, rule of law administration, economic and efficient management mode, full provision of public services, political participation of the masses, and two-way interaction between government and society. To provide better governance and better service for the society and the people, this has become the goal and the direction of reform all over the world. The gradual change from management to management and service is an important trend of the change of the current government functions. The construction of service-oriented government has become an important part of deepening the reform of the administrative system in China. To build transparent, honest, efficient and service-oriented government with modern governance capability, we need more help from modern science and technology. Big data can provide a technical way to achieve this goal. It can innovate the service mode, change the management thinking, lead the management reform and promote the social development. McKinsey, a management consulting firm in the United States, was the first to claim the era of big data. It gives the definition: a large scale to obtain, store, manage and analyze data set which is far beyond the traditional database software tools. Big data has the characteristics of massive, high-speed, diverse and valuable. It includes not only the number that reflects objective facts, but also text, pictures, audio-video, comment and location information. All these data can be recorded and transmitted. Making full use of large data technology to provide accurate public service for our citizens is the key link in the construction of a service-oriented government in the information age. The emergence and application of large data technology will affect our way of thinking, change our living environment and promote the development of economy and society. Big data can bring great application value to government's public governance and public service.

2. Challenges of Service-Oriented Government Construction in Big Data Era

2.1 Small Scale of Data

At the current stage, ninety percent of government data are not yet open. The open data is generally the data of the macro-economic operation. It is not yet deep into the specific information level of the enterprise and the individual. Information is power, who mastered the key information, who mastered power. Data and functions are related, and what information means you can play a role. The Department of information and control, and often determines the status of the Department in the

society and the government of the internal chain. Therefore, starting from their own interests, each department you want information to be firmly in control in their own hands, thereby increasing its position in the whole system and increase the game ability with other departments. Compulsive pressure is not enough. The opening of data requires a comprehensive adjustment of the whole system and the need for special legislation. If the data should be open to the enterprise and individual level, professional is relatively strong, which data can be open, which requires public data is not clear, but to understand these questions to understand the relevant business, not like the national requirements of government information disclosure as a universal mandatory law, must be specific analysis of specific issues, as it relates to national security, business secrets and personal privacy. The imperfection of government information regulations directly affects the public's information rights awareness and information needs behavior, and the lack of demand will affect and suppress the development and utilization of government data. Our government's data opening process is far from the expectation of public government information acquisition, as well as the development of government data assets and the overall needs of national economic and social development. There are still a series of institutional, managerial, cultural and technological issues that need to be faced and solved.

2.2 Slow Speed of Data Consolidation

At present, both horizontal and vertical public management data of our government are in a relatively closed state, forming an information island. Between different levels of government, the government departments, different data specification standards, data resources are not to mobilize and use of government information, caused by the duplication of facilities the same information collected, the service level not to force inefficient. At the same time, the use of data resources is also very low, causing great waste. Government departments can continuously collect data from sensors, satellites, social media, mobile communications, such as email, along with the increasing of data collection, the process of rapid expansion in the data, how to effectively capture the new proper management, high perspicacity, large data modeling, sharing and transformation, to bring new thinking and insights from, and a new way of making decisions, provide opportunities. At present, the government still lacks the systematic analysis and utilization of the data. Too many government departments have been set up, and the other problem brought about by the complex process is the repeated collection of data. The different departments spend a lot of manpower, material and financial resources to collect, analyze and deal with the data. In fact, a lot of work in this process is repeated because of the intersecting intelligence between government departments. These repeating wastes come from no effective information communication, and the cooperation mechanism between various departments is not smooth enough. At the present stage, the management of information resources at all levels in China is mainly based on event driven. For the preparation of large sports events, the government is integrating more of the population information and traffic data, but after the end of the activity, the data integration and sharing work is in a dilemma. This has not formed a long-term mechanism to continuously promote the integration and application of government information resources.

2.3 Insufficient Enforcement of Data Security

Security and privacy are the challenges that must be faced in the era of large data and cloud computing. The advantage of cloud computing is the sharing of resources, but private and dedicated digital resources are bound to create irreconcilable contradictions with the cloud computing that needs to be shared. The government's big data is not enough for the construction of the legal norms related to privacy and security, and the security precautions. Moreover, once the more concentrated the data, the larger the target, the easier it is to be the target of attack and attack. With the development of technology, this kind of leakage has brought more harm to the government and the people of all countries. The data leaked to all kinds of personal information theft that brought danger to the lives and safety of the people. And China has become the main victim of this kind of harm. Therefore, in the era of big data, the first thing to deal with is the problem of data security to transform

into a highly efficient service type government. Under the background of big data, all kinds of network tools are developing rapidly, people can get more information from more channels, and are more capable of relying on these information and tools to reflect appeals, and have more diversified needs for the government. Although there are various kinds of protection for public privacy in laws and policies, there is still lack of detailed and targeted guidelines for the use of big data. We need to clarify the basic rules of big data usage from relevant policies and regulations. If any data cannot be collected illegally, what data should be collected, which is a damage to the legitimate rights and interests of the person being collected, how to protect the voluntary and fair credit principle of data resource transaction, and how to punish it in violation of the relevant regulations. For the government, it is also necessary to provide the public with safe network use equipment to help the people to collect data while carrying out effective service. The government service website sets up a security early-warning system to discover and dispose of possible dangerous information in time so as to achieve efficient service with data driven security.

3. Countermeasures of Service-Oriented Government Construction in Big Data Era

3.1 Enlarge Data Open

With the development of information technology, a large number of government departments are sleeping in the computer, and few are used. Why would such a problem lie in the government departments of the data information sensitivity is not strong, the use of data information to guide the work of the consciousness is not strong, did not form a complete set of data comprehensive analysis using the system, thus causing the reference using the data service decision is not strong, which breaks the information department monopoly. Data development is not a technical problem, but a sense of consciousness, and requires the government to have a sense of service and attitude. The government should not perfect the information opening from all walks of life for various reasons, but should clarify the scope of information disclosure, and draw the line between confidential information, business public information, free and open information and obligation information. The government should also promote the disclosure of information so that the public can open access to government information at anytime and anywhere, and then understand the process of decision making of the government. We should establish a unified data open platform for public access and query, and build and improve a unified government data opening to meet the new demands of people for fine information and promote the interaction between government and society, and stimulate people's enthusiasm and motivation to participate in public affairs. We should collect data from various departments at all levels, and realize intercommunication between different databases through data opening platform with unified data. To effectively standardize the management of the data, to ensure that the data is true and complete and up-to-date. In order to give full play to the role of data platform, the government should provide user data for government submission and reply, public communication, data analysis principle and technology learning is conducive to the efficient use of government data resources module, thus strengthening the interaction of open government data.

3.2 Accelerate Data Consolidation

Government data are mostly scattered in different departments and databases. The integration of these scattered data into the integration of the government is the only way to improve the service ability. Large data is not only the change of traditional data, but also the improvement of the value of data. The promotion of this value affects the way we work and the way we think. For the government, big data will also enrich the source of government data. Government agencies should regard big data as a strategic asset, which can be used to achieve better work results, and can be deployed in strategic planning, business structure and human resources. With the rapid development stage of E-government in the integration of resources and deepen the use of the central departments and local government e-government collaboration problems have become increasingly prominent, compared with the strong demand for the rapid growth of the e-government information resources collaborative

sharing is still facing difficult to break through the bottleneck. In the use of large data, the government of our country should make some reference to the application of some advanced enterprises. In terms of data volume, the amount of government data is still less than that in manufacturing industries. Therefore, in the application of big data, the government should learn more advanced experience and technical means. Make use of the original data and innovate the service through it. For the government, in order to achieve efficient service, we need to mobilize the enthusiasm of the whole society and guide the public to participate actively in addition to changing their minds and efforts. Therefore, we must promote the big data industry standard system construction, accelerate the establishment of standard system, including government institutions and other public sector data and statistical standards, promote the formulation and implementation of data acquisition, open government data, indicators caliber, catalogue, security and other key common standards, give full play to the big data standard in the cultivation of service market. Enhance the ability of government services.

3.3 Strengthen Data Security

The transparent opening of data in the data age does not mean that the data is open unconditionally. The coming of the big data era makes the past single protection mode difficult to deal with the urgent emergencies, which requires us to build collaborative and coordinated personal information security system from multiple aspects such as the legal system, organization and management, and technology application. We need to escort the information security from the technical level. Although massive information increases the risk of information leakage, it also provides support for information security service providers to find out the risk points in data. Prophylactic analysis of data combined with real time security and business data to prevent phishing attacks, fraud and hacker intrusion. To strengthen and improve legal supervision, it is necessary to strengthen national cooperation and formulate joint, executive and supervised international network management laws through the joint efforts of the international community. A real establishment of an international network supervision system will be the key to solving the problem of network security. The security and privacy of large countries, enterprises and personal data is still protected by law. It is necessary to establish a sound government big data related laws and regulations, formulate relevant laws and regulations and the new problems of big data point, so that the new regulations and old regulations, orderly convergence, clear managers and users in data collection, collation and analysis of the process of sharing responsibilities and rights. We can learn from and learn from the mature and advanced practices of western developed countries, make clear legal definition of data acquisition, use, responsibilities and powers, and enhance the legal governance capacity of big data. This is the proper meaning of the modernization of state governance and the inevitable requirement of the service type government in the era of big data. We should improve the emergency management mechanism of network and information security, organize emergency preparedness and rehearsal regularly, and improve the emergency handling capacity of information security events. We should establish a good monitoring and response system for data security, and strengthen basic work such as safety evaluation, electronic certification, monitoring and early warning, emergency disposal and so on, so as to enhance the emergency response ability of data security incidents. We should make data application of disciplinary mechanism and strengthen the punishment of illegal behavior such as data abuse and privacy infringement.

4. Conclusions

The age of great data is an age of wisdom, and it is full of opportunities and challenges in this era. In the process of changing functions, government departments must be brave enough to change their minds, dare to face challenges, grasp opportunities, innovate and transform themselves, and make full use of big data to serve themselves. In these ways, we can achieve transformation from an administration-oriented government to a service-oriented government.

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