

## Policies and Structure of Data Governance of Chinese Government

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**Abstract:** In the wake of the development of information technology, data governance of government has become a heated topic in the area of public administration. This thesis will summarize the core policies of the data governance of Chinese government into six areas. According to researches, Chinese government has long been pushing forward data governance by establishing leading groups or constructing ministerial meeting system, relying on organizations like General Office of the State Council, National Development and Reform Commission and Ministry of Industry and Information Technology. After constant adjustments and evolutions, it has formed a relatively stable data governance structure. However, due to the ambiguous roles of the various organizations, these organizations might enforce the policies differently and their jobs might overlap.

### 1. Introduction

As information technology develops, a new type of society ensues. Data has become the core resource of a nation and society. Thus countries around the world are putting forward big data strategies to tap into data resources. In such a new world, efficient data governance of government is conducive to creating more values from data resources. Since entering industrial society, Chinese administrative organizations, which are established based on bureaucratic systems, have been adjusting their structures and functions to meet the requirements of the reform of governance. Now, how to construct an organizational structure that meets the requirements of governance in the era of big data and how to define its responsibilities and functions have become important topics in the area of public administration.

The concept of data governance originates from companies. It is not only a system of division of responsibilities established to maximize the values of data assets but also a collection of data asset management activities.[1] Compared to that of companies, the data governance of government covers more areas and is more public. From formulating national strategies, which is macroscopic, to data quality management, which is microscopic, the government enforces data governance from three perspectives: use data for governance, govern data and data governance environment.[2] Focusing on the structure and functions of governance, it explores into the theories and practices of data governance.

Chinese researchers have conducted in-depth researches into the data governance structure of countries like UK and America. After years of development, the federal government of America has formed a data governance structure with Executive Office of the President and Office of Management and Budget as cores and with important data departments as branches.[3] UK government has formed a governance structure that features diversification of main bodies and clear division of responsibilities, with cabinet office as the central organization.[4] Canadian government has established a structure with complementary functions from three perspectives: technical support for data governance, supervision of audit and security of service.[5] Australia has formed a governance network that includes cooperation between government organizations and the

cooperation among social organizations, government organizations and the general public.[6] In the binary matrix organizational structure in China, there are prominent problems like the lack of cooperation between data resource management organizations and the fragmentation of data resources. The lack of cross-department cooperation has become a main factor that hinders the data governance of government.[7] According to the direction of the reform and development of Chinese government's data governance structure, some scholars argue that a data governance organization that can coordinate the cooperation among government organizations should be established. For example, establish a big data governance committee that is led by senior officials or designate a chief data officer (CDO) as the core [8] to form an organizational structure that has clear responsibilities and affiliation.[9] Some scholars claim that the governance structure of government should not be limited by regions, functions and departments [10] and that it should keep up with the fluidity and connectivity of data. Through information disclosure and open access to data, the government can further empower the society and engage more social organizations, market organizations and people in the governance of government using new means and new channels. By doing so, the governance structure of government will become more connected to the Internet and more open. For now, the reform of government organizations is limited to the division or merging of basic functions of departments under the framework of government, market and society.[11] However, the fluidity of data and the ubiquity of Internet are blurring the government's role as a governor as well as the boundaries between responsibilities. The government should base the design of its structure on the connectivity of data.[12] Concentrating on functions like coordination, overall planning, supervision, security, evaluation and feedback, it should reconsider the roles of government organizations. At the same time, it should pay more attention to the consultation, participation and supervision of third-party organizations and the general public.

This thesis will list the laws, regulations and rules on data governance that are issued by National People's Congress, State Council and related departments and summarize them into six core areas of Chinese government's policies on data governance. From the perspectives of structure and function, this thesis will center on executing organizations that aim to achieve the goals specified in policies on data governance, find out key organizations in Chinese government's data governance and their functions and try to outline the structure of central government's data governance and its departments' functions, in the hope of providing references for the reform of Chinese government's data governance organizations and the construction of local governments' data governance organizations.

## **2. Main areas of the policies and structure of Chinese government's data governance**

Since the 1990s, Chinese government has been formulating and enacting laws, regulations and rules on data governance and has established a rough policy system. Guidelines on Boosting the Development of Big Data, which was issued by State Council in 2015, marks the beginning the rapid development of Chinese government's formulation of policies on data governance. Chinese government's data governance policies can be divided into six areas by their goals and missions. They are e-government, open government and disclosure of government information, open access to and sharing of government data, Internet information security, privacy protection and government information management.

### **2.1 E-government**

The key missions of policies on e-government include government affair information system, government website, e-government network and Internet plus government service. The first aspect is the construction and integration of government affair information. Golden project, a project since 1993, has helped departments of State Council to establish their core affair information systems and has effectively promoted the collection and circulation of data of different levels of governments. [13] However, as the affair systems were established separately, the disconnected systems severely hinder the governments from sharing data and cooperating. Thus, China has begun the construction of government informationization but that cannot solve the problem radically. In 2017, General

Office of the State Council issued Implementation Plan of Integration and Sharing of Government Affair Information Systems in an effort to integrate the separated government affair systems. General Office of the State Council will supervise the works of different departments. Standardization Administration will develop standards for integration and sharing. National Development and Reform Commission will lead the implementation of the works [14].

The second aspect is the construction of government website. In 1999, 40 national departments have initiated Government Online Project. In 2002, Information Leading Group Conference decided to construct the website of central government. [15] On the first day of 2006, [www.gov.cn](http://www.gov.cn) was open. As the leading organization, General Office of the State Council has the responsibility to supervise, plan, coordinate and update the contents on the website. Chinese Government Website Operation Center, an organization directly under General Office of the State Council, is responsible for providing maintenance and technical supports. At the same time, as the supervisor of all the government websites throughout the country, General Office of the State Council should also provide instructions for the development of government websites, design indicators for evaluation, design indicators for evaluation of supervision and supervise the websites. Standardization Administration should issue technical guides for government website system security. E-government Office should supervise and instruct the application, management and security of the websites. Cyberspace Administration and State Commission Office of Public Sectors Reform should supervise and secure the domain name of government websites. The establishment of government website groups lays a solid foundation for the disclosure of government information, open government and online services of Chinese government.

The third aspect is the construction of e-government network. According to Guidelines on the Construction of E-government in China, which was issued in 2002, General Office of the State Council would lead the establishment of e-government construction team, which is responsible for coordinating and instructing the construction of e-government network throughout China, proposing implementation plans and constructing State Information Center. According to Opinions on Pushing Forward the Construction of National E-government Network, State Council Informationization Office and National Development and Reform Commission would lead the construction of the network. National E-Government Network Management Office would design E-government Network Security Guides, Information Security Standard System and electronic identification services. E-government network provides safe and efficient network platforms and security systems for the construction of government affair information systems and government websites.

The fourth aspect is Internet plus government service. In 2017, central government initiated the construction of Internet plus government service. General Office of the State Council would issue Technical System Construction Guides and departments like National Development and Reform Commission would formulate implementation plans and decide the division of missions. In July, 2018, State Council issued Guidelines on the Construction of Unified Online Government Service Platforms. According to the guidelines, General Office of the State Council would lead the establishment of platform construction and management group. It would supervise the departments' top-level design, overall planning, coordination and supervision in the construction of platforms. General Office of the State Council was also responsible for leading the construction of national government service platform ([www.gjzfwf.gov.cn](http://www.gjzfwf.gov.cn)) and connecting it with Chinese government website. E-government Office was responsible for the operation and maintenance of the platforms and providing technical supports like data sharing and inter-connectivity. Departments like State Administration for Market Regulation, State Cryptography Administration and Standardization Administration would establish electronic license technology organizations and formulate related standards together to provide standards for Internet plus government service.

## **2.2 Disclosure of Government Information and Open Government**

Core policy about disclosure of government information is Regulations of People's Republic of China on the Disclosure of Government Information, which was first enacted in 2008 and then revised in 2019. Main policies related to open government include Opinions on Furthering

Implement open government (2005), Opinions on Furthering open government and Enhancing Government Service (2011) and Opinions on Furthering open government in an All-round Way (2016). Seen from the perspective of information resources, disclosure of government information and open government include each other. Seen from the perspective of form, the contents of open government are carried by information. Seen from the perspective of range, information disclosed in open government only account for a small percentage of the information resources that government has. Unlike the disclosure of government information in UK and America, which is enforced under Freedom of Information Act, the disclosure of Chinese government's information is tightly connected with e-government from the beginning. Now, the government website has developed into the best platform for the disclosure of information and open government of Chinese government.

General Office of the State Council is the core organization that enforces Regulations of People's Republic of China on the Disclosure of Government Information (hereinafter referred to as the regulations). Conforming the principle of "disclosure as common, nondisclosure as exception", it instructs and supervises the standards set by all levels of administrative departments under the regulations and their implementation of the regulations. General Office of the State Council Government Information and Government Affair Disclosure Office (hereinafter referred to as Disclosure Office) explains the problems that emerge during the implementation of the regulations, sets the standards for information disclosure, propose the requirements for the format of reports, designs evaluation indicators, evaluate implementations with third party organizations and submits reports. In 2017, National Open Government Leading Group was transferred from the Commission for Discipline Inspection of the Central Committee of the CPC to General Office of the State Council with secretary-general of State Council as the leader to regularly hold meetings to plan for key works. The office of the leading group is set in Disclosure Office, responsible for giving policy suggestions to nationwide implementation of open government and supervising the works decided by the leading group. In 2019, Disclosure Office regulated the setting of government information disclosure platforms.

### **2.3 Open Access to and Sharing of Government Data**

Core policies related to open access to and sharing of government data include Outline Plans on Promoting the Development of Big Data issued by State Council in 2015 (hereinafter referred to as Outline Plans), Outline Strategy on Informationization Development jointly issued by General Office of the Central Committee of the Communist Party of China and General Office of the State Council in 2016 (hereinafter referred to as Outline Strategy) and Interim Measures on Sharing and Management of Government Affair Information issued by State Council in 2016 (hereinafter referred to as Interim Measures).

Outline Plans include open access to and sharing of government data into the development of big data. Outline Strategy proposes the open access to and sharing of public information resources and the construction of national data disclosure system from the perspective of exploitation of information resources. Interim Measures is formulated under Outline Plans. It specifies the principle of government affair information: sharing as principle, not sharing as exception. Although the three documents use different concepts, like open access to and sharing of government data, open access to and sharing of public information resources and sharing of government affair information resources and they have overlapping focuses and areas, they are still considered the discussion of open access to and sharing of government data. National Development and Reform Commission is responsible for holding Ministerial Conference on Promoting Big Data Development, coordinating the sharing of government affair information resources across all departments and all levels of governments, instructing the construction and operation of national data sharing platform and sharing websites, developing performance evaluation mechanism and supervising its implementation and submitting annual reports to State Council. National Development and Reform Commission and Cyberspace Administration are responsible for proposing means of evaluation, evaluating performance with departments like State Commission Office of Public Sectors Reform and Ministry of Finance and providing suggestions when releasing evaluation reports. State Information Center is responsible for

constructing and maintaining national data sharing platforms and sharing websites, setting platform access technology standard and regulating its management. It should be noted that so far, Chinese government hasn't issued any document that is directly about disclosure of government data so there is not enough top-level design in terms of system and organizational structure. However, as the trend of data governance of governments around the world suggests, the open access of government data is an area of data governance that cannot be ignored.

## **2.4 Internet Information Security**

Cyber security law is a large legal system. Internet operation security, key information technology and facility security, Internet information security, Internet information system security and even cyberspace sovereignty and national security all fall within cyber security. People's Republic of China Cyber Security Law (hereinafter referred to as Cyber Security Law) and National Cyberspace Security Strategy (hereinafter referred to as Cyberspace Security Strategy), which are enacted in 2016, become China's most basic and strategic documents in cyber security. This thesis will focus on the governance structure of the security of critical information infrastructure (CII) and the security of Internet information.

The first aspect is the protection of critical information infrastructure. In 2017, Cyberspace Administration issued the draft for comments of Regulations on the Protection of Critical Information Infrastructure, in which it specified that Cyberspace Administration would work with departments like Ministry of Industry and Information Technology and Ministry of Public Security to formulate CII identification guides and that State Council would specify the definition of CII and means of protection. The second aspect is information protection. As the department responsible for the protection of national network security level, Ministry of Public Security issued Measures for Protection and Management of Information Security Level in 2007. In 2017, based on Cyber Security Law, it issued Information Security Technology: Network Security Level Protection Guides and worked with State Secrets Bureau, State Cryptography Administration and State Council Informationization Office to issue the draft for comments of Regulations on Cyber Security Level Protection. State Administration for Market Regulation and National Standards Commission would formulate and release the requirements for the evaluation and technical requirements for safety design of cyber security level protection. Cyberspace Administration would coordinate the supervision and management of cyber security.

## **2.5 Privacy Protection**

Decision to Strengthen Internet Information Protection (2012) and Cyber Security Law (2016) are two basic laws about the protection of Chinese citizens' privacy. Cyber Security Law makes the first attempt to regulate the protection of Chinese citizens' personal information. In 2019, Cyberspace Administration issued Regulations on Protection of Children's Internet Information according to Cyber Security Law and The Law of the Protection of Juveniles, in which it further specified the principles for the protection of children's Internet information, but it is not clear as to how to implement it yet.

In January, 2019, Cyberspace Administration, Ministry of Industry and Information Technology, Ministry of Public Security and State Administration for Market Regulation launched a nationwide campaign against applications' illegal acts of collecting users' personal information. They instructed National Information Security Standardization Technical Committee, China Consumers' Association, Internet Society of China and Cyber Security Association of China to establish Rectification Group Against Applications' Illegal Acts of Collecting Users' Personal Information (hereinafter referred to as rectification group), which was responsible for formulating the guides, key indicators and procedures of evaluating the illegal acts of collecting users' personal information [16]. In November, Cyberspace Administration released the means for defining whether the acts are illegal. The rectification group would judge the applications' acts of collecting users' personal information. At the same time, they would hire legal and technical experts to establish an expert group for personal information protection. The expert group would assess the results of the evaluation and controversies and provide their opinions. Cyberspace Administration would supervise

the process and punish the illegal acts. In the same year, Ministry of Public Security worked with a third-party organization to issue Guides on Protection of Internet Personal Information, in which it specified the management mechanism of protection of personal information, measures for security technology and procedures of protection. It can provide guidance for Internet companies to establish management systems and take technical measures in order to protect personal information.

## **2.6 Government Information Resource Management**

Generally speaking, government information resource management can include the five aforementioned areas, but this thesis will just list two representative works in Chinese government's information resource management from the perspective of governance structure.

The first one is the management of digital files. In 2009, General Office of the Central Committee of the Communist Party of China and General Office of the State Council issued Interim Measures for the Management of Digital Files. General Office of the Central Committee of the Communist Party of China would lead to establish Ministerial Conference on Digital File Management, which is responsible for formulating policies, censoring related regulations and systems, regulating important standards and organizing and coordinating the management of digital files. Ministerial Conference on Digital File Management would be presided over by General Office of the Central Committee of the Communist Party of China. National Development and Reform Commission and State Commission Office of Public Sectors Reform would provide policy supports. Archives Bureau would manage the digital files. Ministry of Industry and Information Technology would provide technical supports. Secrecy Bureau would supervise the management of confidential digital files. In 2012, after the approval of Ministerial Conference on Digital File Management, State Archives Bureau issued Means for Transferring and Receiving Digital Archives. National Archives would receive and keep the digital files transferred from related departments and provide them in accordance with law.

The second one is government affair information resource index. Under the requirement that "sharing as principle, not sharing as exception" in Interim Measures for Government Affair Information Resource Sharing and Management, the compiling of nationwide government affair information resource index was conducted. In July of the same year, after the approval of Ministerial Conference on Big Data, National Development and Reform Commission and Cyberspace Administration released the index. Ministerial Conference on Big Data would organize, instruct, coordinate and supervise the sharing of government affair information resources. Office of Ministerial Conference on Big Data would compile, censor and collect government affair information resource indices. Office of Ministerial Conference on Digital Files would instruct and organize all departments of State Council and all local governments to compile government affair information resource indices. State Information Center would compile and maintain the resource indices.

## **3. Three Chinese government's core organizations for data governance**

It can be seen from the policies and structures in the six areas that, General Office of the State Council, Central network security and Information Commission and its office, Cyberspace Administration, National Development and Reform Commission, State Information Center and Ministry of Industry and Information Technology have become core organizations in Chinese government's data governance. The next part of the thesis will introduce the structure of Chinese government's data governance.

### **3.1 General Office of the State Council**

General Office of the State Council is an administrative organization that directly serves State Council. It used to be called Secretary Office of the Government Administration Council (1949), Secretary Office of the State Council (1954) and Office of the State Council (1970). It was not until 1980 that it was named General Office of the State Council. During the process of informationization, successive governments have established various informationization

coordination organizations in General Office of the State Council. After constant adjustments and evolution, General Office of the State Council has become the organization that is responsible for coordinating the construction of nationwide e-government and the disclosure of government information and government affairs.

Disclosure Office of General Office of the State Council is an administrative organization that coordinates, supervises, instructs and pushes forward nationwide government information and government affair disclosure. In 2017, National Open Government Leading Group was transferred from the Commission for Discipline Inspection of the Central Committee of the CPC to General Office of the State Council [17] and Disclosure Office undertook the adjustment of related functions. Now, other than taking care of daily routines of the leading group, Disclosure Office should also plan for nationwide open government works, propose implementation plans, supervise the implementation of open government in all regions and all departments, organize the setting of standards for experiments on open government works and organize third-party organizations to take part in the evaluation and submit reports. E-government office was established in 2008. It is responsible for planning the informationization of all departments in State Council, providing technical supports and security for the departments, construction, operating and managing Chinese government website and managing its contents and constructing and managing the network between central government and local governments and between departments in State Council. Now E-government Office and Disclosure Office are led by the same person.

### **3.2 Office of Central Network Security and Information Commission and Cyberspace Administration**

In 2014, Central Cyber Security and Informationization Leading Group was established. The leading group is responsible for planning the strategies and major policies about the development of cyber security and informationization and organizing the construction of network legal system. In 2018, in order to complete and optimize top-level system of data governance, the Party Central Committee transformed the leading group into Central Cyber Security and Informationization Committee as a decision making, deliberation and coordination that is directly affiliated with the Party Central Committee and a direct subordinate to Political Bureau of the Central Committee and Secretariat of the Central Committee. Under the leadership of Central Politburo Standing Committee of the Communist Party of China, the committee is responsible for making decisions in major works in cyber security and informationization and coordinating, pushing forward and supervising their implementation. As an administrative organization, Cyberspace Administration transferred National Computer Network and Information Security Management Center, which was originally affiliated with Ministry of Industry and Information Technology, into Cyberspace Administration and designated it as the department responsible for cyber security and the supervision and management of government website domain name. At the same time, it is also responsible for instructing the work of National Information Security Standardization Technical Committee.

### **3.3 Cyberspace Administration**

In May, 2011, State Council approved the establishment of Cyberspace Administration as a subordinate to Information Office of the State Council, with deputy director of Information Office of the State Council, vice minister of Ministry of Industry and Information Technology and vice minister of Ministry of Public Security as deputy directors. In 2014, Cyberspace Administration was reconstructed. In March, 2018, the eighth round of institutional reform of the Party and government transformed Cyberspace Administration into an organization with two names and designated it as the direct subordinate organization of the Central Committee of the Communist Party of China. Now Cyberspace Administration's responsibilities include planning and constructing Internet culture platforms and news websites, publicizing online, supervising Internet contents, shutting down illegal websites, pushing forward the construction of legal system about Internet information transmission, defining illegal usage of personal information and punishing illegal act. At the same time, as a supervision and management department, it should also issue regulations to protect citizens' privacy,

coordinate the management of cyber security and instruct the works of Secretariat of Advisory Committee for State Informatization.

### **3.4 National Development and Reform Commission**

National Development and Reform Commission is a component of State Council, an examination and approval department for informationization construction as well as a coordination department for the informationization construction of national departments. It is responsible for leading the establishment of ministerial conferences about informationization and planning the construction of informationization of all the national departments and the whole country. National Development and Reform Commission doesn't have an organization especially for data governance. As an organization responsible for data governance in National Development and Reform Commission, Innovation and High Technology Development Division is responsible for pushing forward the development of digital economy, organizing the implementation of national big data strategy and striking a balance between the plans for the development of informationization and the plans for national development.

State Information Center (also known as National E-Government Network Management Center) is a direct subordinate organization of National Development and Reform Commission. It used to be called State Economic Information Center. In 1988 it was renamed as State Information Center. In 2010, State Commission Office of Public Sectors Reform approved the application of adding another name for State Information Center, which is National E-Government Network Management Center.

National E-Government Network Management Office is affiliated with Public Technical Service Department. It is responsible for the planning, construction, operation, maintenance and management of national e-government network. It also provides technical supports for the government affair information system integration and sharing works of National Development and Reform Commission. In 2012, State Commission Office of Public Sectors Reform approved the establishment of National Development and Reform Commission E-government Project Center, which is responsible for the consultation of e-government projects commissioned by the government. In 2016, General Office of the State Council approved the establishment of Secretariat of Ministerial Conference on Big Data in State Information Center. Under the instruction of National Development and Reform Commission Innovation and High Technology Development Division, it serves as the office of Ministerial Conference on Big Data and an administrative organization that supports Big Data Development Expert Committee, assists Ministerial Conference on Big Data and its office and organizes the researches into key issues about the development of big data.

### **3.5 Ministry of Industry and Information Technology**

Ministry of Industry and Information Technology is an important functional department for the informationization construction of State Council. Since the 1990s, its data governance organizations and functions have gone through three major adjustments.

In 1988, the institutional reform of State Council decided to establish Ministry of Information Industries on the basis of the original Ministry of Electronics Industry and Ministry of Posts and Telecommunications and merged it with State Council Informationization Leading Group, a consultation and coordination organization established in 1996 for nationwide informationization works. By merging the two organizations, it established Informationization Promotion Department (also known as National Information Office). In 1999, State Council established National Informationization Leading Group and established four working organizations in Ministry of Information Industries, including establishing Computer Network and Information Security Management Office in Security Management Center, an organization established in 1999. Computer Network and Information Security Management Office was responsible for coordinating network security management departments. It also renamed National Information Office as National Informationization Promotion Office, which was responsible for coordinating different departments in the government and different levels of governments to solve problems about the development of critical information technologies and informationization project. It established Emergency Office for Computer Problems in 2000 in Electronic Information Product Management Department. After the



work was finished, it was dissolved. Finally, it established National Informationization Expert Consultation Group, which was responsible for providing suggestions on the development of informationization for leading groups.

In 2008, Chinese government launched an institutional reform to make large scale adjustments to coordination and management organizations of informationization. Ministry of Information Industries and Ministry of Industry were merged into Ministry of Industry and Information Technology. National Informationization Leading Group, which was reconstructed in 2001 was transferred from State Council into Ministry of Industry and Information Technology. At the same time, State Council Informationization Office was dissolved and related functions were undertaken by Ministry of Industry and Information Technology. In this period, as the department responsible for the informationization construction in China, the functions of Ministry of Industry and Information Technology included planning, coordinating, securing and providing technical supports for informationization construction. However, due to its incompetence in organizing and coordinating, the informationization construction in China in this period didn't make much progress.

In 2014, with the establishment of Central Cyberspace Administration and the reconstruction of National Cyberspace Administration, the functions of Ministry of Industry and Information Technology in informationization were once again adjusted. Security Management Center was transferred from Ministry of Industry and Information Technology into Central Cyberspace Administration. Secretariat of National Informationization Expert Consultation Committee was instructed and managed by National Cyberspace Administration as its direct subordinate organization. Now, the functions of Ministry of Industry and Information Technology in informationization include coordinating the construction of public and special communications networks, constructing information infrastructure, providing innovative technologies, supervising domain name industry and its services and filing the Internet Content Provider of government websites.

#### **4. Conclusion and Discussion**

After years of development, Chinese government has formed a rough data governance policy system and data governance structure. According to the discussions of the evolution of data governance policies and related organizations, we can draw the following conclusions:

First, the data structure of government is not yet complete. For a long time, Chinese government has been pushing forward data governance by establishing leading groups or constructing ministerial meeting system, relying on organizations like General Office of the State Council, National Development and Reform Commission and Ministry of Industry and Information Technology. After constant adjustments and evolution, it has formed a relatively stable data governance structure. Without a complete data governance system, central government can't have a governance structure with clear division of responsibilities. As a result, local governments, who are accustomed to follow the central government and parallel governments are at a loss. While innovating governance structure, local governments also cause ambiguous functions. Thus when faced with informationization works, some departments begin to pass the buck.

Second, the cost for coordinating organizations is too high. Successive Chinese government have put a lot of efforts into solving the lack of cooperation between data management organizations and the fragmentation of resources. On one hand, the premier leads the heads of different departments to establish leading groups to push forward the informationization construction. On the other hand, the establishment of more organizations make the resources all the more fragmented, not to mention there are also problems like the normalization of provisional organizations and third-party organizations taking part in administration. Now, consultation and coordination organizations, ministerial conferences and guidelines released by multiple departments have become common in informationization works.

Third, basic laws and regulations are not complete. Although after the release of Guidelines on Boosting the Development of Big Data, Chinese government began to enact laws and regulations about data governance, the governance policy systems in the six areas were not complete, especially

in terms of the protection of privacy and open access to data. Basic and special laws are required and associated documents that regulate the implementation of the laws and regulations are needed.

All in all, data governance has become a crucial topic for the transition of governments around the world in the era of data. China has just begun its data governance. Systematically studying governance policies and structures can provide references for the development of data governance in the big data age. Obviously, traditional bureaucracy structure and the ubiquity of data and Internet are in contradiction. The government should come up with a more powerful administration structure and coordinate government departments to gather or redistribute resources centering on coordination, organizing, supervision, security, evaluation and feedback. At the same time, it should pay more attention to the consultation, participation and supervision of third-party organizations and the general public.

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