

# Research on the Problems and Countermeasures of Digital Government Construction in the County

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**Abstract:** *Digital government construction is a kind of governance structure reconstruction, since the 19th Party Congress, General Secretary Xi Jinping has repeatedly mentioned that "the world today is experiencing a great change unprecedented in a century". With the outbreak of Newcastle Pneumonia, the international environment has become increasingly complex and uncertain. The complex international environment brings new contradictions and new challenges, and there are risks and opportunities lurking in the crisis and challenges. The construction of digital government at the county and city level determines not only whether China can seize the opportunity in this period, dare to challenge, rise to the challenge and move forward, but also whether China can use digital technology and other technical means to guide public opinion, reflect public opinion and collect information to make accurate and scientific decisions in this period full of opportunities and challenges, so as to avoid crises, seize opportunities and turn crises into opportunities in a timely and accurate manner.*

**Keywords:** *Digital Government; Digital Governance; County*

## 1. Introduction

Since the 21st century, the rapid development of the Internet, the Internet of Things, Big Data, artificial intelligence and other emerging technologies has marked the entry of humanity into the digital age. The new generation of digital technology has not only reshaped the production, consumption and operation of the economy and society, but also posed new challenges to the way of governance of national governments. In response to the new changes, the Fourth Plenary Session of the 19th CPC Central Committee clearly put forward the general requirement and goal of "promoting the modernization of the national governance system and governance capacity" [1], and governments around the world have generated a lot of practices of using digital and intelligent technologies to drive governance modernization, which has stimulated the vitality of market creation, activated the enthusiasm of social participation, and stimulated government Self-reform. The modernization of governance in the digital era has become an inevitable trend of historical development.

Digital government is an emerging governance system built by digital technology through the joint action of two mechanisms: technology-enabled government and technology-empowered society, which contains the connotation of emerging technology-driven institutional changes in government and social organizations, institutional policy system reshaping, governance capacity enhancement and optimization of governance effectiveness. The goal is to build a digital governance ecology in which multiple subjects such as the party government, technology enterprises, social organizations, media and the people share data, computing power, algorithms and other governance resources, and cooperate and govern with each other [2]. Under the framework of the existing administrative organization system, through strengthening institutional innovation, mechanism innovation, management innovation, business innovation and technological innovation, a new form of government governance is built with the deep integration and iterative development of government governance system change and technology system empowerment. "County set and county, county set and the world, county rule, the world is not ruled."

As the basic unit of national administration and economy, the rise and fall of counties is related to the overall situation. The number of counties and county-level cities in China totals more than 1,700, about twice the number of municipal districts of prefecture-level cities and above, carrying a population of nearly 900 million; as of the end of 2019, the national gross domestic product of counties was RMB 39.1 trillion, accounting for about 41% of the country. The list of "2021 China's Top 100 Smart Cities" presents a comprehensive picture of the level of smart city construction in China's counties, and also reveals the

economic strength of China's counties that cannot be underestimated. From the policy level, in 2020, the National Development and Reform Commission issued the "Notice on Accelerating the Work of County Urbanization to Make Up Short Boards and Strengthen Weaknesses", proposing to vigorously improve the public facilities and service capacity of counties, create county functions that can undertake the decentralization of non-core functions of central cities and optimize the spatial pattern of urbanization.

## **2. The Reality of the Challenges Facing Digital Government**

With the focus of smart city construction to lower tier cities and rural areas down, the county has become an important starting point. The construction of new smart cities is an important carrier for the implementation of innovation-driven development strategy in China, whose foundation is in the county, vitality is in the county, and the difficulty is also in the county. Under the promotion of the national rural revitalization strategy, the modernization of county governance in the digital era also faces new opportunities and challenges.

### ***2.1. The Digital Revolution Collapses the Institutional Change of Government***

In terms of internal government institutional reform, the Internet has become a supervisor to promote decentralization and a catalyst to optimize public service processes. The rise and continuous development of the Internet provides a rare opportunity to improve government administrative efficiency. Government agencies use modern computer and network technologies to transfer management and service functions online and provide efficient, high-quality, standardized, transparent and all-round management and services to the whole society, fundamentally changing the way traditional government acts and making government operations and business management digital, networked and intelligent. On the other hand, in terms of the government's external functions, digital technology has expanded the government's "eyes and ears" and continuously improved the government's monitoring capabilities in areas such as transportation, while significantly improving the government's ability and level of precision governance and enhancing the accuracy of group positioning of government tools.

### ***2.2. Increased External Risks in the Digital Environment***

It is more difficult to maintain the social order of the network in the digital era. The digital environment has problems such as privacy risk, property security risk, trust crisis, etc. There is also a large amount of rumor information, and some rumor information which is against the objective social facts leads to social trust crisis among users and easily leads to social order disorder. Secondly, the difficulty of monitoring the proliferation of public opinion in the digital era has increased. In the digital era, people can obtain information more conveniently from various online information sources and spread the obtained information on the network more easily. With respect to the existing technology, it is still difficult to systematically and comprehensively monitor different types of online information sources, and the relevant departments still face challenges in timely detection and effective mitigation of negative online public opinions. Finally, the development of the digital era may further aggravate information inequality. Since different individuals have different abilities to identify and select information sources and to analyze and transform high-quality information, the information inequality caused by these differences has become more and more serious in the present era [3].

## **3. The Problems of Digital Government Construction in the County**

### ***3.1. Low Level of Informationization***

Information sharing is an important part of the government's social governance, and an important way to strengthen the horizontal linkage of departments to solve cross-cutting problems. However, the overall level of informationization in the county is low, and some vertical industries are overly dependent on higher-level departments, isolated from other departments, and "data silos" are ubiquitous. Various platforms and data and other resources such as interoperability is not enough, has existed in the government, transportation and other platforms are not planned under a unified system construction is difficult to achieve coordination and full use.

First, the lack of unified guidance from the same leading agency affects the promotion of inter-departmental information sharing, and the horizontal linkage capacity of departments is insufficient and

the degree of information sharing is low. At the same time, the data sharing mechanism among departments is not sound enough, and information silos are now serious. Information resources are distributed in many departments, and there is a lack of relevant management systems for inter-departmental resource disclosure, confidentiality and sharing and exchange mechanisms, resulting in difficulties in inter-departmental information sharing, serious data redundancy, low data utilization and serious waste of resources [4].

Second, insufficient information sharing leads to insufficient integration of data resources, which means that the amount of data is small and the density is low, data analysis will be difficult, the potential value of data resources will not be tapped, and the problem of "information island" is facing escalation [5]. The problem of "information silos" faces escalation. Inadequate information sharing and over-cognition of its own uniqueness by each department lead to low utilization of resources and some cross-cutting issues are difficult to solve.

### ***3.2. Weak Foundation for New Infrastructure***

The meeting of the Standing Committee of the Political Bureau of the CPC Central Committee held on March 4, 2020 pointed out the need to accelerate the progress of the construction of new infrastructure such as 5G networks and data centers. The main areas involved in new infrastructure are summarized in seven areas: 5G base stations, extra-high voltage, industrial internet, intercity high-speed railroads and intercity rail transportation, charging piles for new energy vehicles, artificial intelligence, and big data centers. In the process of new urbanization in the county, traditional infrastructure is gradually improved and perfected, but new infrastructure has problems such as low investment and insufficient construction. 5G and other new infrastructure mainly start to be built in the central cities, and the layout and construction progress in the county economies is slow, which is difficult to support the construction of digital governance system.

For the county level, on the one hand, due to the low administrative level of the county itself, the level of financial support is relatively weak, and the large amount of annual financial resources cannot sustainably supply the investment in large-scale infrastructure construction, which often makes the government finances tight, but digital government has high requirements for the government its hardware construction, which leads to the vast majority of county-level cities being left behind in the process of upgrading digital government from 1.0 to 2.0. On the other hand, county-level cities generally form administrative areas larger than their urban areas, and in the central and western regions there are more widespread and sparsely populated, often the construction of base stations need to pull a longer front, otherwise it is easy to cause part of the region to meet the hardware conditions and another part does not meet, can not form a region-wide, unified, thus increasing the difficulty of promoting the construction of its digital government.

### ***3.3. Lack of Talent and Capacity***

First, there is a lack of digital talents within the government. When dealing with relevant digital business, the government needs not only talents who understand digital technology and have digital literacy, but also composite talents who are familiar with internal government processes, management rules and regulations, especially talents who have digital thinking and can use digital tools to solve various issues and problems that arise in the process of government governance. At present, relatively few of our public officials are majoring in information technology-related fields, especially county-level public officials do not know much about related technologies. At the same time, the daily office at work deals with more administrative affairs, resulting in their knowledge of practical technology is also half-knowledgeable. In addition, due to the need for confidentiality, some work matters are not easily handed over to third parties or hired employees to do. All these are likely to cause the dilemma that "those who can do it cannot use it, and those who can use it cannot do it".

Second, the speed of digital professionals training can not keep pace with the development of digital industry. Digital professionals are the foundation of digital development and an important support for the continuous advancement of digital government construction. At present, the county government is still lacking in the digital professional talent training system, professional design, employment, financial investment and incentive mechanism, and the progress of talent training is slow, the training mechanism is not flexible enough, and the training effect is not satisfactory. This has hindered the development of digital talents to a certain extent.

Third, the public's digital literacy training lags behind. The digital society has put forward new

requirements for the public's knowledge structure. Digital literacy has become the core literacy of the public in the digital era and a necessary skill for the public to survive in the 21st century [6]. At present, the digital literacy of the county public is low, and there are still deficiencies in digital information access ability and digital security awareness in general, which largely hinder the construction of digital government and affect the promotion and use of digital applications.

#### **4. Measures to Accelerate the Construction of County Digital Government**

##### ***4.1. Smooth Information Sharing Channels***

Establish and improve the "vertical and horizontal" county digital governance structure, vertically with the general platform at the county and city level as the coordinator, and the streets and towns as the second level of vertical digital governance structure, and establish an integrated command complex. Horizontally, with the general platform as the coordinator, it will be divided into the government platform, industry platform, security platform, traffic platform, medical platform and other platforms in various fields to strengthen resource integration and data linkage. It consolidates the foundation of county governance, improves social governance mechanisms, establishes social governance organizational structures, improves departmental coordination and linkage mechanisms, improves grassroots information communication mechanisms, smooths information sharing channels, promotes intelligent social governance, and strives to build a vibrant, harmonious and orderly county of good governance.

By introducing a series of measures to revitalize the existing digital infrastructure resources and information database resources of various departments in the county, build a unified data sharing and exchange platform and government service information system, quickly access external resource systems, realize data sharing at the grassroots level, and accelerate the realization of accurate governance. Unify the software system of the supporting comprehensive service information platform, accelerate the data connection between the county and the higher-level government service information platform, promote each functional department] to incorporate the service matters closely related to the masses, especially the hot and high-frequency matters of concern to the masses, into the comprehensive service platform of information technology, and build a standardized and intelligent office platform integrating party affairs, government affairs, business and social services.

##### ***4.2. Consolidate the New Infrastructure Support***

Promote the digital construction and transformation of the county's public infrastructure. Accelerate the construction of digital terminals and system renovation in municipal areas such as transportation, water, electricity, gas and heat. Promote the construction of new infrastructure, accelerate the scale deployment and commercial application of 5G networks, promote the construction of 5G base stations and supporting networks in key areas such as stations, communities and shopping malls, continuously optimize 4G network coverage in areas with weak foundation, promote the expansion of backbone networks and metropolitan area networks, and promote the popularization of home broadband gigabit and 100 megabit access. Promote the deployment of IOT sensing facilities in key areas such as industry, transportation and logistics. Explore the construction of supporting facilities required for the operation of drones and robots, and coordinate the deployment of intelligent facilities for medical waste disposal. On the basis of the "Broadband China" strategy to achieve full coverage of the Internet system, further promote the construction of 5G base stations in counties, accelerate the innovative application of blockchain technology in multiple scenarios, and make counties an important position for new digital infrastructure; accelerate the digital upgrade of traditional infrastructure, promote the balanced allocation of digital public resources, and promote counties Comprehensive digital development of smart water conservancy, smart grid, smart transportation, smart logistics, etc.

##### ***4.3. Sound Talent Training System***

First, we should strengthen the training of digital skills for public officials. Public officials are the main force, guide, implementer and participant in promoting the construction of digital China, and their digital literacy level is related to the success or failure of the construction of digital China, so they must be given high attention. A scientific and reasonable digital knowledge curriculum training system for public officials should be constructed, digital knowledge training topics should be incorporated into the daily teaching curriculum system of party schools at all levels, and famous digital information experts should be invited to give lectures. At the same time, we should carry out practical teaching of digital

governance in advanced areas to trigger inner resonance and stimulate innovation motivation with real experiences, and insist on combining theory and practice in order to enhance the training effect.

Second, we should accelerate the training of digital professionals. The development of online shopping, electronic products, digital economy, digital industry and other aspects need a large number of digital talents. Online Learning Platform Development Report" shows that the demand gap for talents related to digital skills is expected to reach nearly 10 million in the next five years, among which the number of digital manager practitioners will exceed 2 million. Talent has become an important factor affecting digital governance. To innovate the training mechanism of digital talents, we should insist on colleges and universities as the main body, open digital technology-related majors, give certain financial inclination to encourage digital innovation and digital application, improve the incentive mechanism of talents, give moderate inclination to digital talents in hiring, recruiting and title assessment, and improve their welfare treatment.

Thirdly, we should improve the public digital skills. In the era of digital governance, the public is the direct beneficiary of digital governance. Their ability to use and master digital technology is directly related to the effective promotion of digital governance, so it is imperative to strengthen public digital skills training. To build a training system of "government + vocational colleges + communities (villages)": the government proactively formulates training courses, determines training targets and training goals, and gives sufficient financial guarantee; vocational colleges send teachers to establish training alliances with communities (villages); local primary and secondary schools make full use of their resources to carry out digital information skills training in their vicinity. Digital information skills training. At the same time, make full use of various network training channels and develop training App webcast lecture mode to achieve full time, full time and space coverage. Driven by the wave of information technology, it is necessary to seize the opportunity to occupy the digital governance high ground, eliminate the digital divide and create a favorable environment for digital governance.

Efforts to promote the transformation of the digital society to a smart society has leapt from a newborn to a strategic choice to promote high-quality economic development and achieve new advantages in social governance. County wisdom city construction should be more small steps, gradually iterate, to be gradual, long-term, scientific approach, sustainable development, benefits, the general public, to explore a practical path with its own characteristics.

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