Chinese Modernization: The Logical Application of Digital Technology to Empower Social Governance

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Abstract: *The Party's 20th Congress put forward the strategic task of Chinese-style modernization, and proposed to strengthen and accelerate the construction of network power and digital China. In 2016, the Party Central Committee put forward the conclusion that "there is no modernization without informatization", and promoting "digital governance" has become a new development focus of Chinese-style modernization. Digitalization is the forerunner of Chinese-style modernization. The construction of China's independent knowledge system of digital governance is an important content of the socialist rule of law thought with Chinese characteristics in the new era, and it is also a key topic of the modernization of the rule of law. In the context of the promotion of Chinese-style modernization by digital governance, the significance of digital governance is more to emphasize the empowering effect of digital technology. However, digital technology, like other technologies, is a double-edged sword, digital empowerment effect is risky, we should not only see the advantages of digital empowerment, but also fully understand the threshold and potential risks of digital technology application. Facing the wave of digital reform in the world, we should refine and process the rich digital scenes on the basis of analyzing the advantages and disadvantages, and gradually build an independent knowledge system with Chinese characteristics. Finally, efforts to make the digital governance knowledge system not only stay in practical productivity, but also realize the transformation from theory to productivity.*

Keywords: *Chinese modernization; Digital governance; Risks and challenges; Autonomous knowledge system*

1. Digital technology is an important engine for Chinese modernization drive

Digital governance is a new governance model based on digital technology. It has the characteristics of strong cross-border attributes, strong demand for integrated application, and strong business relevance. It is conducive to promoting the modernization of national governance system and governance capacity, and plays an important empowering role in the modernization of Chinese style.[1] Big data and intelligent algorithms are increasingly playing a role in our political, economic and cultural lives. In the field of political life, big data and artificial algorithms reshape the power structure, for example, the black swan and gray rhino events in recent years are mostly closely related to Internet big data technology. In the field of economic life, Internet big data, as an invisible hand, always affects and changes the development situation and efficiency of the economy. In the field of cultural life, emerging technologies and application platforms such as the Internet and artificial intelligence have gradually taken the initiative in the cultural field, and are also changing the operation mode and structure of human social life. With the advent of the digital age, human life style, production mode and cognitive mode have undergone many changes and are facing a system upgrade. Modern science and technology, represented by digital technology, are revolutionizing traditional modes of production, life and communication, ushering mankind into an era of digital economy featuring greater efficiency, openness, freedom and mutual trust.

It also calls for a jurisprudence based legal order featuring science, humanism, justice, inclusiveness and co-governance.[2] The digital age is marked by information digitization, digital networking and digital intelligence.[3] In 2021, the CPC Central Committee made clear instructions on the development of "digital governance" : to stimulate the vitality of the digital economy, enhance the effectiveness of the digital government, optimize the digital social environment, build a digital cooperation pattern, build a strong digital security barrier, and let the digital civilization benefit the people of all countries. Fujian, Zhejiang, Shanghai and other places have proactively deployed digital social governance models such as "Digital Fujian, digital Zhejiang and Smart Shanghai" to promote the transformation and upgrading of social governance effectiveness. The 21st century is a digital world,

and digital technology has a significant impact on the improvement of productivity and the transformation of production relations, the adjustment of the international political and economic pattern, the security and interests of national sovereignty, and the exchange of different cultures and values in the world. Today, the international situation has undergone profound changes, the global political and economic pattern is being adjusted, and digitalization, as a forward-looking new international technological revolution, has become the focus of competition among countries around the world.

Digital and information technology has profoundly influenced and changed the multiple dimensions of Chinese modernization, which helps all the people achieve common prosperity and modernization, and promotes the modernization of material and spiritual civilization. As our country has stressed: common prosperity is the common prosperity of all the people, is the people's material life and spiritual life are rich, digital technology is not only an important factor of production in material production, but also in the construction of spiritual civilization increasingly significant role. In the process of China's modernization, we must focus on the development of digital economy and the construction of digital civilization. The state proposes to build a community of shared future in cyberspace and actively respond to digitalization as a national historical development opportunity. When digitization brings great development prospects, it will also bring major risk challenges. For example, digitization will increase the risks of political security, network security, ideological security, financial capital security, data security and other aspects. As the power of traditional state actors and new non-state actors represented by super-platforms changes, digital governance has become the key to empowering traditional national governance issues and governance deficits. Digital governance empowers, supports and leads the modernization of social governance. As a social subversive technology, digital information will also have a major impact on the challenge of the structure of social relations and the adjustment of cultural values and ethical concepts. As an emerging productive force, digital technology has been fully and deeply integrated into the political economy, social culture, national defense and military. Therefore, we must actively respond to the new opportunities and challenges of digitization for national and social governance.

Today, our national and social governance issues are more fluid, complex and uncertain. Grassroots governance is facing increasingly complex and risky public governance problems. Digital technology empowers public political participation and grassroots information governance, and gradually generates "deliberative democracy based on digital technology".[4]First, our governance bodies are more diverse, and our interest demands and patterns are more complex and differentiated. Second, our governance methods, tools and paths are more diverse, and third, the technical adaptability of governance entities has become higher. Therefore, many of the problems we encounter today must be observed from a multi-disciplinary and multi-dimensional perspective. First of all, a single technical logic cannot respond to and solve various complex problems brought about by digital development, and a single market logic and regulatory logic cannot cope with new models, new problems and new challenges under the digital technological change. It requires government, academia and all sectors of society to actively adapt to such changes, carry out adaptive changes and debugging, and jointly explore the way of governance in the digital age. Compared with the concepts of e-government, digital government, and data governance that we often mention, digital governance is more profound in connotation, more extensive in extension, and more inclusive. Through government-led digital empowerment and the collaborative participation of digital platforms with enterprises, social organizations, network communities, individual citizens and other multiple entities, digital governance aims to achieve the goal of modernization of governance system and governance capacity.

In the digital age, governance should focus more than ever on the creation of public value to meet the growing social expectations of citizens.[5]The application basis of digital governance is data, which is enabled by digital technologies and platforms. Digital governance takes the government as the leading role and involves the participation of multiple entities. It is a governance that puts people first and aims to improve people's well-being. We want to further improve the capacity and dimension of digital governance, we need to layout and start from the following three aspects. First, accelerate the promotion of digital technology literacy. Today, our feet have stepped into the threshold of the digital society, our body can not remain in the industrial society, the thinking can not remain in the agricultural society. Second, accelerate the improvement of digital feasible capabilities, accelerate the improvement of digital service capabilities, accelerate the improvement of quality governance capabilities, especially improve the ruling ability and governing level of Party members and leading cadres at all levels in the digital era. Third, it is necessary to accelerate the construction of a knowledge system and discipline system of digital governance with Chinese characteristics. Traditional theories and classical theories have insufficient explanatory power for the digital era, so we should consciously change the vision,

innovate the scope, optimize the logic and improve the ability, and constantly deepen the research on important theoretical and practical issues of digital governance. We can find important statements from national leaders on digital governance in many speeches, instructions and congratulatory letters, which are a system that points out that digital governance is a system composed of many parts, such as digital economy, smart society and digital government governance.

2. The effects and risks of social governance enabled by digital technology.

In the context of the promotion of Chinese-style modernization by digital governance, the significance of digital governance is more to emphasize the empowering effect of digital technology. The enabling effect of digital technology, whether in social governance or in government administration, has extremely profound significance and influence. Digital governance ecology understands the digital transformation of government from the perspective of ecology, emphasizing the systematization of governance system, the inclusiveness of governance subjects, and the sharing of governance resources.[6] Today, the country's initiative to embrace digital technology is actually a desire to strengthen governance capacity, because modern social governance has shifted from traditional order administration to risk prevention and control. In the application of digital technology, national governance extends from order administration to risk administration, and the degree of social complexity it faces expands. In order to deal with the problem of governance deficit, the active application of digital technology is actually an instinctive response. Digital technology, like any other technology, is a double-edged sword, and the digital empowerment effect is risky. In the context of social governance, we should not only see the side of digital empowerment, but also fully understand the threshold and possible risks of the application of digital technology.

The analysis of the possible risks of digital technology presupposes an understanding of the logic behind the enabling effects of digital technology, which is different from the traditional logic of state management of social governance. We can roughly summarize this logical difference into the following two aspects. First, differences in organizational logic. Technology empowerment challenges traditional organizational models. Whether it is national governance or social governance, we have traditionally relied on a set of "curricular" organizational systems to carry out, but national governance and digital administration are more based on network and grid organizational systems. For example, in digital governance, in the past, this kind of grid governance was realized more through manual and technical assistance, and in the future, the assistance of people and systems will turn more to the autonomy of the system itself. Similarly, in government governance, the organizational system, which used to take bureaucracy as the main organizational tool, has gradually evolved into the new organizational model of the whole government today. This has a great impact on the legal rights and responsibilities, the division of rights and responsibilities, and the jurisdiction system with territorial jurisdiction as the main element. Second, behavioral logic differences. Digital technology is premised on its assumed neutrality, objectivity and instrumentality. In this context, the traditional behavior model of "human to human relationship" will be challenged. In the person-to-person relationship, we emphasize more humanistic care, and more emphasis on the ethical feelings of "people-oriented" in administration. However, the extensive use of digital technology has changed the behavior pattern from "human-to-human relationship" to "machine-to-human relationship". The behavior pattern no longer has people as the important behavior center. In addition, in the procedural dimension, the interaction between human and machine and system, such as "automated decision-making", makes the expression of interests such as transparency and participation emphasized by traditional administrative procedures affected. The wide application of digital technology will have an impact on the value system of traditional national governance. The application of digital technology requires the digitization of people and things in society. In the vision of digital technology, people actually become a data set by applying techno values to govern society. When people become data, how to settle human dignity, human subjectivity and human basic rights in the logic of digital governance is a problem worthy of our focus.

Digital governance advocates that technology should be embedded in institutional structure and data enabling governance process, promote government information sharing and policy process optimization on the basis of information collection and data calculation, and promote multiple governance subjects to cooperatively and efficiently solve complex governance problems, so as to realize the shift from 'fragmented' management to 'holistic' governance.[7] To specifically focus on the risks of the widespread use of digital technology, it can be summarized in four aspects. First, there is a risk of complexity reduction in digital technology. In order to adapt to the technical logic of digital governance, we need to digitally encode complex social facts and the complexity of people, that is, transfer them into codes that can be understood by machines and systems. In fact, there is a risk of

complexity reduction in the process of such transfer, whether it is the transfer of legal rules or the transfer of social facts, there is a risk of complexity reduction or oversimplification. The second risk is that digital technology has a systematic self-cycling and self-reinforcing risk, and this self-cycling is mainly all of this decision may be based on emotional data, and then the data is brought into this algorithmic model. So once the data is wrong or the algorithm's source code Settings are wrong, such errors are difficult to correct in the system. The tools of technology lack the reflective rationality of law, and they cover up old mistakes with new ones. For example, errors in Beijing Health Treasure can only be corrected according to the self-closed loop logic set by the system. Third, the technology locking risk of digital governance. Managers or organizational systems develop a strong path dependence on digital technology, and it is difficult to restart reversible procedures once the technology is applied to a specific problem. For example, in epidemic prevention and control, after the use of technology has a huge empowering effect, the reversibility of technology has become a relatively big trouble. Fourth, digital technology has the risk of digital avoidance, which makes the traditional relationship between authority and responsibility become fuzzy and the rules become more difficult. As a result, it is likely to bring digital formalism and digital bureaucracy. In the face of this risk, China's digital society governance should not only consider its enabling effect, but also pay attention to its risks and problems, and invest equal research resources in this field.

3. Chinese digital governance independent knowledge system construction path.

From the founding of New China to the reform and opening up, because of the exploration of modernization "crossing the river by feeling the stones", our country's legal construction had a long period of time, which was unable to look at the world. In the decades after the reform and opening up, especially after the 18th National Congress, our rule of law has achieved rapid development, and gradually shifted from looking up and down to looking down. This shift is closely related to the huge development of China's digital scene. Building a digital China is an important engine for promoting Chinese-style modernization in the digital era and a strong support for building new competitive advantages of the country.[8]

Digitalization is the forerunner of Chinese-style modernization. Modernization, Western developed countries with more than 200 years of history, roughly experienced a series of development process, so today we have to go a parallel development process, a superimposed development process, in this process, information is the pilot and support, played an important role in the entire process of modernization. Digitalization has accelerated the development of Chinese modernization, and has fundamentally and profoundly influenced and changed the multiple dimensions of Chinese modernization. In addition to finding that digital technology is helping to modernize China's material and spiritual civilization, we should also pay attention to the central Government's proposal to build a community of shared future in cyberspace, including the modernization of digital technology to help take the path of peaceful development, and the modernization of digital technology to help harmonious coexistence between man and nature. Digital economy as a low-carbon economy, environmental economy, ecological economy and the real economy complement each other, we also believe that digital economy based on the next generation of big data, artificial intelligence and biotechnology, energy science is expected to establish a new circular economy model, help to achieve the coordinated development of technological progress and ecological civilization society civilization. Of course, we should also see the digital society superimposed risk society, for example, political security risk, network security risk, ideological security risk, financial capital security risk, data security risk, equipment security risk and so on. Today, we are experiencing unprecedented changes in the world, times and history, the interaction between traditional geopolitics and emerging digital politics, and the coexistence of new traditional security risks and new security risks. The power balance between traditional state actors and new non-state actors represented by super platforms has changed, traditional governance problems and governance deficits have not been well solved, and new topics and tasks such as digital governance are facing us again. Therefore, we must support and lead the modernization of governance with digital governance empowerment. As an emerging productive force, digital technology has been fully and deeply integrated into human production and life, political economy, social culture, national defense and military. In today's human society in the wave of digital revolution, faced with the impact and challenge of subversive technology, we have to undergo changes and adjustments in the structure of social relations and engage in cultural values and ethical concepts. It also faces new opportunities and challenges in national and social governance.

China has a sound political foundation, cultural tradition and sound legal foundation for the development of digital governance. Under the system of global governance, we will find that there are

many aspects of social governance system that can accommodate digital technology. At present, China is at the forefront of digital applications in the world. From the perspective of China's development, it is entirely possible to promote the development of social governance by vigorously developing digital technologies, which can not only protect the rights of our own citizens, but also lead the formulation of global rules in the digital era. Many universities in China have set up special institutes for Digital Rule of Law in Social governance, providing more platforms for academic exchange and interaction in digital governance, so that we can jointly promote the development of digital governance. Studies on digital rule of law, such as those in the fields of constitution, administrative law and civil law, are relatively prosperous, but relevant social law studies, both in China and other countries, have the defect of lag. From this perspective, we may need to strengthen exchanges and interactions in the field of social law in order to better promote the process of digital rule of law and better safeguard the rights and well-being of citizens in the digital age.

Digital technology gives grassroots governance a new institutional vitality and governance efficiency, and realizes the modernization of grassroots governance by strengthening the construction of grassroots smart governance capacity, which is not only a key way to eliminate the structural obstruction of grassroots governance system, but also the latest development trend of grassroots governance reform in the new era.[9] The rise of digital governance in China has brought us new opportunities to practice the rule of law, so that we can have greater experience to face the problems we encounter in governance. Now, China has more than 30 million cases every year, which is a huge database of rule of law governance data. We can sum up enough abundant and regular reproducible judicial experience from simple cases, and we can also find the wisdom of handling rare and difficult cases from a large number of cases, which greatly improves our rule of law governance experience. Because of this, we can have the opportunity to create a theory applicable to Chinese characteristics, with the help of this general theory to guide practice is more targeted, the formation of a two-wheel drive structure in theory and practice, which is an important embodiment of our advantages.

We simply rely on the richness of China's digital scene is not enough to support the construction of China's independent digital knowledge system. Experts and scholars should actively refine and process the rich digital scene, and gradually build a Chinese independent knowledge system with Chinese characteristics. To build China's independent digital knowledge system, we must not only stay in practical productivity, we must realize the transformation from theory to productivity. First, the construction of knowledge discourse system. We want to form an iconic discourse of digital society in China. First, strengthen the ability to explain China's digital life. We can succinctly summarize the social reality scenes to adapt to the development needs of China's digital scene. Second, discourse and concept are not individual will, they should be universal, they are a rational discourse system and concept system chosen collectively by all. Third, the structure of discourse can stand the test of time and still have considerable explanatory power in the future. By doing the above aspects, we can extract and summarize the corresponding concepts and discourse, in order to support the proper solution of China's digital scene and digital society governance issues. However, discourse structure alone is not enough to form China's independent digital knowledge system, we should also form a corresponding academic atmosphere on the basis of discourse structure, which depends on the increasing academic theoretical interpretation formed based on discourse. We need to form a digital knowledge system atmosphere circle, and then form an aggregation effect here, gather the wisdom of experts and scholars from all walks of life in the academic circle, form an influential and constantly developing academic increment, and gradually form a fixed academic group to carry out continuous inheritance research.

The application of digital technology promotes the development of digital economy represented by digital industrialization and industrial digitalization, the digital transformation of social governance accelerates the construction of order in a digitalized society, and the integration of digital technology and administrative methods is comprehensively strengthening the construction of digital government. The development of new technologies such as artificial intelligence, big data, cloud computing and blockchain is an important driving force in the process of national governance modernization, and has also brought about a new topic of national governance rule of law.[10] China's independent digital knowledge system has been gradually improved through the construction of discourse, academics and disciplines, which can well correspond to the governance of various scenarios in China's digital society. In addition, two key elements of building a digital knowledge system cannot be ignored. First, knowledge production. Second, the form of knowledge. Knowledge production mainly emphasizes that we can produce some effective knowledge means, or produce some new knowledge, new concepts, new methods, and new ways to help update our knowledge system in this way. Knowledge form is a change of digital knowledge layout and square structure. Our existing knowledge structure can be updated by changing its composition without changing the elements with the help of a new

combination form. Therefore, whether it is replacing new elements or updating the overall structure, it can improve our existing digital social system to a certain extent. Our digital knowledge system practice is "indomitable" development, but our theory relative to the interpretation of the digital society is not perfect, the gap between the two should be further shortened, to achieve the theory and practice of the same frequency resonance, in order to comprehensively improve the effectiveness of China's digital governance. On the one hand, in the development of China's digital governance, we should transplant and integrate the existing advantages of social governance into the digital governance scene and incorporate the experience of digital social governance. On the other hand, we can learn from the excellent digital experience of other countries, and our experience in digital governance can be learned and respected by other countries in the world. Only in this way can we form China's unique wisdom and influence in the field of digital governance and maintain China's voice in the future global governance.

4. Conclusion

Digital technology has a significant impact on the improvement of productivity and the transformation of production relations, the adjustment of international political and economic patterns, the security and interests of national sovereignty, and the exchange of different cultures and values in the world. Digital and information technology has profoundly influenced and changed the multiple dimensions of Chinese modernization, which helps all the people achieve common prosperity and modernization, and promotes the modernization of material and spiritual civilization. In the context of the promotion of Chinese-style modernization by digital governance, the significance of digital governance is more to emphasize the empowering effect of digital technology. In addition, we must deeply recognize that digital technology, like other technologies, is a double-edged sword, and the digital empowerment effect is risky. In the Chinese-style modernization drive, we need to optimize the digital empowerment side, but also to minimize and avoid the risks generated by the application of digital technology. The rise of digital governance in China has also brought us new opportunities to practice the rule of law. China has a huge database of rule of law governance data, and we can sum up enough regular and reproducible judicial experience from simple cases to greatly improve our rule of law governance experience. Therefore, we strengthen the refining and processing of rich digital scenarios, gradually build China's independent knowledge system with Chinese characteristics, form our unique wisdom and influence in the field of digital governance, and maintain our Chinese voice.

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