

# Research on Deepening the Construction of the Collaborative Mechanism of Precise Social Governance in the Era of Artificial Intelligence

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**Abstract.** In the era of artificial intelligence, it is imperative that technological governance promote the transformation of government functions. In order to meet the diversified needs of citizens and improve the intelligent level of public services, it is necessary to deeply build a "three-dimensional" intelligent governance mechanism with the cooperation of government, market and citizens. Government departments should provide accurate social public services, moderate supervision of artificial intelligence, artificial intelligence technology enterprises should provide safe technical support and guarantee, and citizens should actively participate in the process of social governance, and jointly promote the continuous development and improvement of social governance precision.

**Keywords:** Artificial intelligence; Social governance; Precision; Synergy; mechanism

## 1 Introduction

With the development of The Times, the application of artificial intelligence in the field of social governance has become increasingly in-depth, providing new opportunities for the government to improve the precision level of public services. In order to meet the increasingly diverse needs of citizens, the government should establish a correct governance concept and improve governance efficiency, artificial intelligence technology enterprises should avoid risks and reduce the uncertainty of technical governance, and citizens should actively offer suggestions for social development, and deeply promote a collaborative governance mechanism featuring government, market and citizens.

## 2 Formation of coordination mechanism for precise social governance in the era of artificial intelligence

With the rapid development of artificial intelligence in the world, China's artificial intelligence technology is increasingly integrated into various fields of economy and society. In order to continuously improve the effectiveness of social governance, the government must establish and continuously improve the "three-dimensional" governance mechanism of government departments, artificial intelligence technology enterprises and citizen subjects in order to

realize the transformation from social management to social governance, improve the precision level of public services and the quality of life of citizens.

## 2.1 The opening of the era of artificial intelligence

In the 1960s, artificial intelligence emerged worldwide. After more than 60 years of continuous development, the current development of artificial intelligence in the world has reached a new height and level. Some scholars believe that human society is about to usher in the "Fourth Revolution" after the Copernican Revolution, the Darwinian Revolution and the Neuroscience Revolution.<sup>[1]</sup>With the continuous development of China's Internet and big data, artificial intelligence is playing a more and more role in China's economic and social development. In 2017, China issued the "New Generation of Artificial Intelligence Development Plan". In 2019, China's Ministry of Science and Technology issued the Guidelines for the Construction of National New Generation Artificial Intelligence Innovation and Development Pilot Zones. In 2022, the 14th Five-Year Plan for National Economic and Social Development of the State and various regions and the Outline of the 2035 Vision Goals stressed that the scenario application of artificial intelligence should be strengthened.<sup>[2]</sup>At present, artificial intelligence technology is increasingly integrated into the whole process of economic and social development, profoundly affecting the social relations and social behaviors of Chinese citizens.

## 2.2 The proposal of precision social governance

The provision of public services is one of the basic functions of the government, and the precision of public services is an important part of social precision governance. The western new public service theory emphasizes that the government is to serve rather than steer.<sup>[3]</sup>The seamless government theory points out that by providing "face to face" services, intermediate links are reduced and personalized services are provided. China has continuously promoted the modernization of its governance capacity, and its governance model has evolved from social management to social governance. The concept of governance has changed from managing the society to serving the society, the main body of governance has changed from unified government management to collaborative governance of multiple subjects, and the governance method has changed from "flood irrigation" to "precise drip irrigation", realizing the transformation from extensive to fine (the specific changes of governance mode are shown in Table 1). With the deepening development of artificial intelligence, China attaches great importance to the application and promotion of technological governance in social construction. In the "New Generation of Artificial Intelligence Development Plan", it is proposed that artificial intelligence "will greatly improve the precision level of public services and comprehensively improve the quality of people's lives". It stressed that artificial intelligence has brought new opportunities in improving the precision of social governance.

**Table 1.** The specific changes of governance model

	Social management	social governance
Governance concept	supervise	service
Governance subject	centralize	diversification
Governance way	extensive	precision

### 2.3 Formation of collaborative governance mechanism

Under the framework of the current national governance system, to deeply promote the precision of social governance, it is necessary to form a tripartite "three-dimensional" governance pattern of government, market and citizens through the collaboration of government departments, artificial intelligence technology enterprises and citizens.<sup>[4]</sup> Among them, government departments should adopt safe artificial intelligence technology to provide more convenient, efficient and accurate public services to meet the needs of citizens for high-quality life. Artificial intelligence technology enterprises should avoid potential risks in technical governance, and realize algorithm fairness and data security. Citizens should actively participate in the discussion and administration of state affairs, and improve the efficiency of government governance and the safety of artificial intelligence. Its "three-dimensional" collaborative governance mechanism is shown in Figure 1:

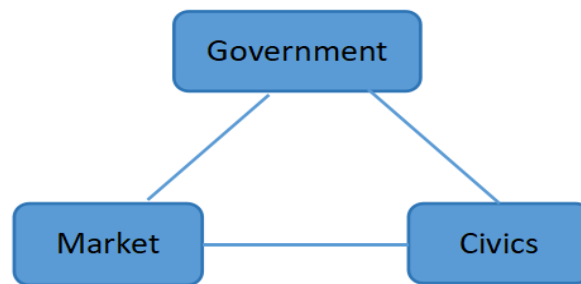


Fig.1. "Three-dimensional" collaborative governance mechanism

## 3 The necessity of deeply building a precise collaborative mechanism for social governance in the era of artificial intelligence

With the increasingly diversified and personalized needs of people, as well as the continuous improvement of the modernization level of social governance, the more broad and detailed the field of artificial intelligence applied to social governance. In the process of artificial intelligence application, there will inevitably be loopholes in technical governance. To regulate the "double-sided" nature of artificial intelligence and realize the advantages and disadvantages of technical governance, it is necessary to deeply build a collaborative governance mechanism of government, market and citizens.

### 3.1 Meeting the diverse needs of citizens

Maslow proposed that people have five different levels of needs. With the development of The Times, people pursue a higher quality of life. It is the goal and task of social governance to meet citizens' personalized, diversified and refined high level life needs. At present, artificial intelligence has been maturely applied in many areas of people's livelihood. For example, in the more than three years since the spread of the novel coronavirus pneumonia epidemic, artificial intelligence technology has provided solid and effective technical support in temperature monitoring, trajectory tracking, epidemic analysis and other aspects, effectively

guaranteeing the life, health and safety of Chinese people. However, China's current development is still unbalanced and inadequate, and its scientific and technological innovation capacity is still insufficient. In order to meet the needs of citizens for a better life in the fields of education, medical care, elderly care and other people's livelihood, we must not only rely on the precise governance of the government, but also rely on the technical support of artificial intelligence, but also need the collective wisdom of citizens.

### **3.2 Improving the modernization of social governance**

Artificial intelligence promotes scientific government decision-making, accurate social governance, and efficient public services, and is the scientific and technological support for the modernization of social governance. At present, government departments analyze and judge complex social issues through big data and intelligent technology, accurately predict public demand, integrate government information, and improve the scientific level of government decision-making and the precision of government services. By purchasing artificial intelligence technology, the government has established smart cities and provided smart services such as smart transportation, smart waste, smart tourism, and smart parking to enhance the public's satisfaction with public services. It can be said that artificial intelligence is embedded in social governance, providing citizens with efficient, convenient and precise public services, and greatly promoting the precision level of government governance.

### **3.3 Dealing with the uncertainty of technological governance**

At present, artificial intelligence promotes the precision of social governance, and while realizing its own upgrading and innovation, it inevitably faces risks in the operation of algorithms, data and other technologies. Algorithms provide people with efficient and convenient social services, such as navigation algorithms and online car booking algorithms, which have a profound impact on people's travel methods. However, the algorithm will also evolve into a kind of social dominant power, so that the rights and interests of citizens are damaged. For example, the criticized Baidu search algorithm and big data-enabled price discrimination against existing customers, etc., seriously affect People's Daily life. Moreover, as the application field of artificial intelligence becomes more and more extensive, more and more private data such as citizens' personal information is collected and collected, increasing the risk of information disclosure. At the same time, the production and operation characteristics of artificial intelligence determine the difficulties in technical supervision. Ben Oldacre, a columnist for the British newspaper The Guardian, argues that in the face of the digital world, "humans do not know what is safe and what is risky."<sup>[5]</sup> Among them, the definition of risk responsibility in technical governance is a difficult problem to be solved urgently in social governance. Avoiding many risks in technology governance requires the supervision of the government, the supervision of citizens, and the cooperation of artificial intelligence technology enterprises to form the maximum joint force of the three parties' collaborative governance.

## **4 Deepening the application of precise coordination mechanism of social governance in the era of artificial intelligence**

In order to maximize the joint construction and win-win of the three parties, it is necessary to adhere to the recognition of the concept of collaborative governance, the guarantee of the collaborative governance mechanism, the precision of the collaborative governance level, To realize the deepening application of the collaborative mechanism.

### **4.1 Establish a scientific concept of coordinated governance**

Thought is the precursor of action. To promote the precision of social governance, we must establish the governance concept of collaborative governance. At present, the relevant countries in the world have adopted two different supervisory attitudes towards artificial intelligence. The US favour "approval-less regulation", while the UK and France adopt "prudential regulation". For example, France's Artificial Intelligence Strategy, published in 2017, emphasizes "co-regulation" of new technologies.<sup>[6]</sup>The two forms of regulation have advantages and disadvantages, the former is conducive to technological innovation, the latter attaches importance to technological security. If China wants to realize the precision of social governance, it must take into account technological innovation and technological security, and establish the scientific concept of multi-subject collaborative governance. Specifically, the government should change the concept of governance, take the initiative to communicate and exchange with relevant technical experts, social organizations and the public, and conduct appropriate supervision of artificial intelligence. Artificial intelligence technology enterprises should enhance their sense of social responsibility, not only to pursue their own economic interests, but also to take into account more social responsibilities. The majority of citizens should enhance their awareness of protecting their rights, be good at using various intelligent service platforms, participate in and discuss state affairs, supervise technical governance, and be good at using laws and regulations to safeguard their own rights and interests.

### **4.2 Improve an operational mechanism for collaborative governance**

Mechanism is the institutional guarantee to achieve precise collaborative governance. In order to prevent various risks of technological governance, the government should constantly improve an algorithm accountability mechanism, a data classification governance mechanism, and an artificial intelligence application risk early warning mechanism. To solve problems such as discrimination in artificial intelligence algorithms, it is necessary to enhance the transparency and interpret ability of algorithms. The relevant government departments shall supervise and hold accountable the behaviors of artificial intelligence technology enterprises that violate the obligation to inform the application of algorithms, the reporting and disclosure of parameters, and break the "black box" characteristics of artificial intelligence operation. In order to protect the security of sensitive private information and other data, it is necessary to improve a data management system, classify and manage the data authorized by citizens, and enhance the ability to protect privacy. For the risks in the operation of artificial intelligence, the government should establish an early warning mechanism, integrate the opinions of technical experts, Internet enterprises, and citizens, and adopt targeted security protection technologies for potential risks to ensure that artificial intelligence technology is safe and controllable in the specific application of artificial intelligence technology. At the same time, it

is necessary to establish and improve the public sentiment and public opinion feedback information platform, fully absorb the reasonable suggestions of the majority of citizens and relevant experts through hearings, expert demonstration meetings and other forms, and jointly deal with the risks and challenges that may be brought by artificial intelligence with a multi-subject communication and consultation mechanism.

#### **4.3 Making coordinated governance more precise**

The ultimate goal of collaborative governance is to improve the precision level of social services, meet the diversified needs of citizens, and improve the quality of life of citizens. At present, focusing on hot and difficult issues such as administrative management, judicial management, urban management, and environmental protection, artificial intelligence platforms such as smart government affairs, smart courts, smart transportation, smart radio and television, and smart environmental protection should be built to promote the intelligence of government services and decision-making. In education, medical care, elderly care and other areas of people's livelihood, it is necessary to build smart campuses, develop intelligent education assistants, take learners as the center, provide accurate education services, and build a new education system such as intelligent learning and interactive learning. It is necessary to build a smart hospital and establish a fast and accurate intelligent medical system. It is necessary to build intelligent elderly care communities and institutions, develop mobile social and service platforms for the elderly and emotional escort assistants, especially for the needs of special groups such as the elderly and the disabled, improve online and offline service channels, effectively solve the outstanding difficulties encountered by special groups in the use of intelligent technology, and truly provide citizens with accurate, efficient and personalized services.

## **5 Conclusions**

The Times are constantly developing and progressing, and the level of human needs will be higher and higher. In order to meet people's needs and improve governance efficiency, social governance will inevitably pursue more and more precision and refinement. The precision of social governance inevitably requires the integration of artificial intelligence into social governance and people's lives to a greater extent. In technological governance, we must and can only deeply build a precise coordination mechanism for social governance, truly give play to the great wisdom of collective power, and realize the joint construction and sharing of the government, the market, and the citizens.

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