Research on Intelligent Governance of Floating Population and Modernization of Municipal Social Governance Capability

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Abstract. The emergence of intelligent governance of the floating population in the new era has achieved scientific government decision-making, early warning of social risks and improved service effectiveness, and enhanced the capacity of municipal social governance. As a province with a large floating population in China, the local governments of Jiaxing, Wenzhou, and Hangzhou have actively explored and practised intelligent governance for the floating population, accumulating many rich experiences. In order to better promote intelligent governance of the floating population, it is necessary to innovate data sharing mechanisms, firmly establish a intelligent governance mindset, and grasp the balanced relationship between governance and services.

Keywords: floating population, intelligent governance, municipal social governance capacity, population mobility.

1. Introduction

The 20th Party Congress proposed: "Accelerating the modernisation of municipal social governance and improving the capacity of municipal social governance." In the current "floating China", the governance of the floating population is an important part of municipal social governance, and the intelligent governance of the floating population is a way and means to promote the modernisation of municipal social governance, especially in the process of urbanisation. The mobility of population factors is a necessary activity for economic and social development, realising the effective transfer and optimal allocation of labour, and the resulting "demographic dividend" has become a powerful booster of economic growth, but it also comes with many potential security risks, and the act of mobility increases the probability of the emergence of risk sources. [1]

In March 2019, the government's work report for the first time explicitly proposed "Intelligent+". The rise and development of information technologies such as big data, the Internet of Things, and artificial intelligence have provided essential technical guarantees for intelligent governance of the floating population. This study aims to sort out the current logic and local practices of intelligent governance of the floating population in China, as well as to propose a practical path for optimization.

2. The logic case of Intelligent governance for floating populations

The agglomeration of people moving to cities is a common problem encountered in the process of urbanisation on a global scale. According to the push-pull theory, the purpose of population mobility is to improve living conditions, with the factors that are conducive to improving living conditions in the inflowing areas being the pulling force and the unfavourable living conditions in the outflowing areas being the pushing force. Population mobility is then determined by the interaction of these two forces, the pull and the push. [2]

The floating population is a demographic concept with Chinese characteristics and is generally known internationally as the floating population. In China, the term "floating population" refers to the population within a certain administrative area (usually a township, town, street, or county) that is not registered as a local household and has lived in its current place of residence or has left its place of registration for a certain period of time (usually six months or one year) or more. [3] As shown in Figure 1, in May 2021, data from the seventh national census showed that the current urban population

in China is 902 million, of which the floating population is 376 million, representing an increase of 69.73% compared to 2010. The floating population is a complex social group, and since reform and opening up, China's population has undergone a transformation from a "rural China" with little migration to a "migratory China" with large scale and high frequency of migration. [4] The population is a complex social group.

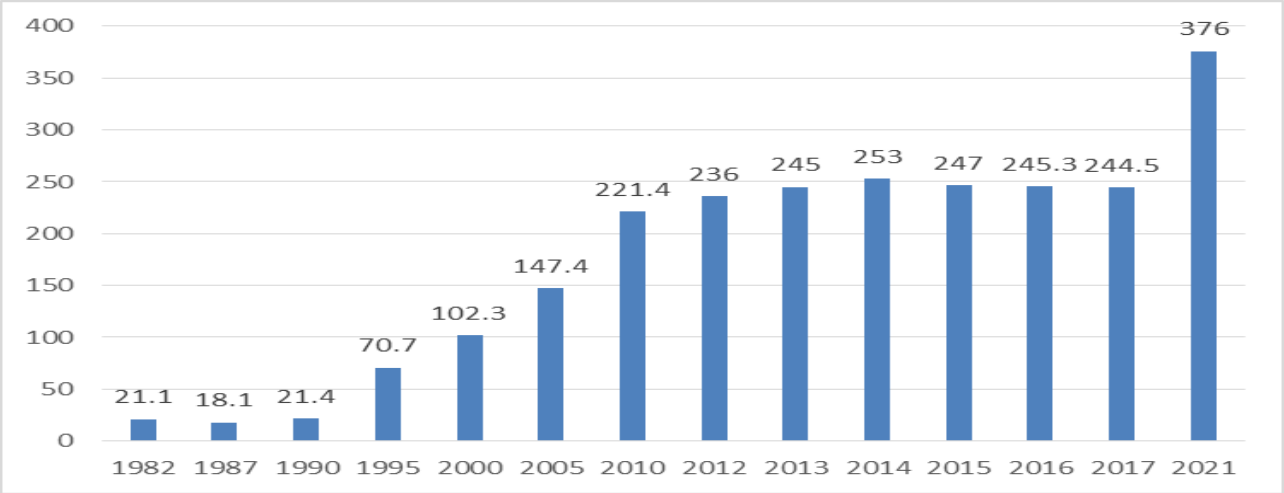


Fig. 1 National floating population scale, 1982-2021 (in millions)

Data source: Report on China's Migrant Population Development and National Population Census Data

The trajectory of policy change in the governance of China's floating population over the past 40 years has been a gradual shift from control in a general society to governance in a market society. The earliest policy to control the movement of people that has been traced by academics today is the Instruction on Preventing the Blind Outflow of Population from Rural Areas issued by the State Council in the autumn of 1956, and the Regulations of the People's Republic of China on Household Registration adopted by the Standing Committee of the National People's Congress in January 1958. The control of population movement continued thereafter until the early years of the reform. During this period, population movement could only be carried out through conventional channels such as recruitment, admission examinations, joining the army and marriage, and through unconventional channels of a political or policy nature, such as "going to the mountains and going to the countryside, decentralisation, and third-line construction. [5] Since reform and opening, the floating population, mainly floating workers, has made important contributions to the economic and social development of China. Along with the increasingly obvious role of the new generation of floating population as the main force, the current governance of China's floating population is transitioning from a security management-led type to arights and interests protection type, and local governments need to adopt a new governance model.[6]

As a new governance model in the era of artificial intelligence, intelligent governance is one of the important manifestations of "intelligence+", and its operation is based on population data. Intelligent governance of the floating population requires the deep integration of information technology and governance work, through big data, the Internet of Things, and other technical means, comprehensive collection and mastery of data resources related to the floating population, and then deep mining of population data to achieve precise and refined governance and services, so as to improve the overall effectiveness of floating population governance (see Fig.2). The emergence of intelligent governance models for floating populations has brought profound changes to the government's traditional population governance model, providing an opportunity to promote the modernisation of municipal social governance capabilities. Overall, intelligent governance for floating populations uses the concept and means of digital reform to reshape the systemic structure of floating population governance and services, improve the efficiency of social governance, reduce administrative operating costs, and enhance the interaction between the government and the people.

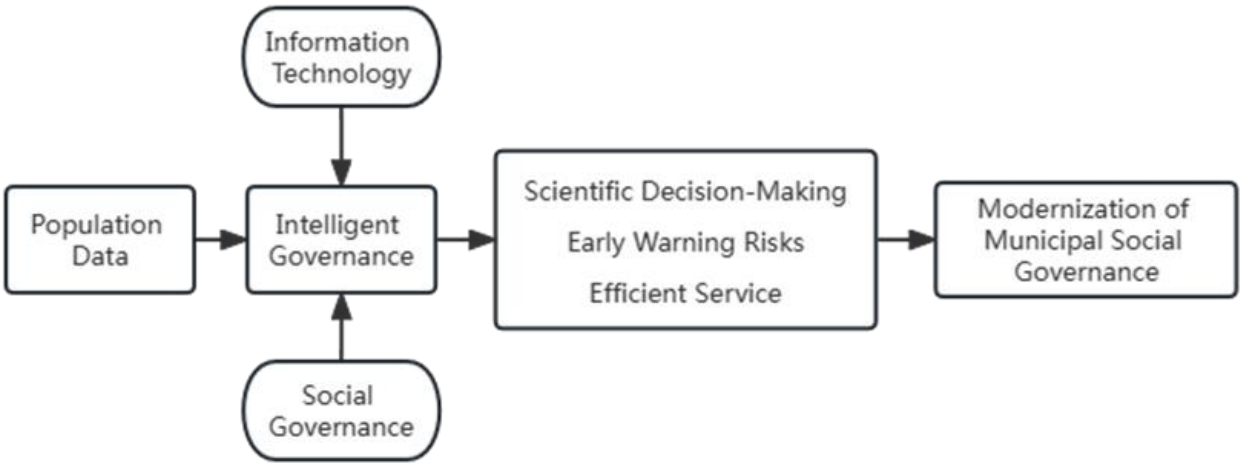


Fig. 2 Intelligent governance logic for floating populations

3. The value of Intelligent governance for floating populations

3.1. Enabling scientific decision-making

The current structure of the floating population is showing significant changes, with a significant increase in the proportion of new generation floating population, and a stronger willingness to integrate into the city, and a greater urgency to enjoy equitable services and rights. The application of big data and other technologies, real-time monitoring of changes in the floating population, data collection and analysis of the overall size of the actual population, migration characteristics, and the characteristics of the distribution of the population structure can summarise the patterns of population movement, predict the situation of population movement, and provide a strong basis for the governments in the inflow areas to formulate relevant policies on floating population services, so as to achieve scientific decision-making and provide strong support for the integration of the floating population into the city.

3.2. Social Risk Alert

Some scholars' data statistics found that each percentage point increase in population mobility will lead to a 3. 6% increase in crime rate. [7] Collision analysis based on floating population data can help public security authorities in implementing early warning of social security risks. [8] Early warning of situations that affect social security factors can minimise the social impact of social security incidents. At the same time, it can also provide timely identity verification, all-round deployment, and action trajectory query of the floating population, which can effectively save the human and material resources required for inspection, provide important reference for community governance, and become more refined and scientific in community governance and security prevention and control. [9]

3.3. Service Performance Improvement

Contemporary national governance attaches greater importance to achieving a dynamic balance between population and socioeconomic development on the basis of "comprehensive human development". [10] Intelligent governance of the floating population is based on algorithmically optimized service processes, allowing data to run more and people to run less, speeding up the process, effectively improving the effectiveness and level of services, making services more humane and better safeguarding the legitimate rights and interests of the floating population. In response to the unstable working hours and locations of the floating population, intelligent governance has promoted the creation of a "sensory service, senseless management" working model, allowing the floating population to feel the warmth of the service.

4. Local practices of Intelligent governance for floating populations

Zhejiang province is a province with a large inflow of floating population, with a total of more than 28.2 million registered floating population. [11] In recent years, Zhejiang Province has taken intelligence as a big engine to promote the innovative development of floating population management, and local governments have actively explored intelligent governance of the floating population by making full use of various means of information technology, and numerous new intelligent models of the floating population have emerged.

4.1. Jiaxing City's "Service on Code" Platform

In recent years, with the overall goal of building a model city for common prosperity, Jiaxing City has vigorously promoted the construction of "Great Peace", taken the construction of "Public Security Brain" as the traction, and insisted on "managing people by code". The floating population can use their floating phones to scan the QR codes of rental houses or enterprises, upload their ID card photos, and fill in a contact number to complete the declaration through small programs such as WeChat Wejiayuan and Zheli Office. After the platform went online, the independent declaration rate of the floating population in Pinghu has increased by 80%. The city's floating population registration rate and information accuracy rate ranked among the top in the province, and the floating population management service was rated as a good application of digital rule of law in the province. Based on the data analysis of the platform, the number of criminal police cases in the city dropped by 46.8% compared to four years ago, and the number of homicide cases dropped by 34.62% compared to the average of the previous four years; the city was awarded the title of "Safe City" for 17 consecutive years, helping the process of modernising social governance in Jiaxing. [12] The city was awarded the title of "Safe City" for 17 consecutive years, helping to modernise social governance in Jiaxing.

4.2. Wenzhou "Mingjing System" Platform

Wenzhou City has taken the lead in building a digital platform for floating population management, with the idea of "small cuts, big scenes" and "small units, micro-circulation", to promote the realization of a region-wide floating population Precise and intelligent control. In terms of information declaration, the public security authorities have integrated and consolidated, and unified the codes to form "one enterprise, one code". Through a "one-stop" sensing device, floating people can automatically enter and exit their workplaces to register their floating information. At the same time, we have taken the lead in opening up data channels for public security, housing and construction, and new residents, and have built a "one network" of data that is updated in real time and shared, and interoperable. The massive amount of data feeds the housing and construction departments in real time and relies on the "mirror system" to help deal with malicious wage claims.

4.3. Hangzhou's "New Linju" App

Hangzhou has created the "New Linju" APP, an integrated platform for floating population services and management, which enables "non-contact" collection of data and information through the scanning of codes on floating phones. The platform integrates the functions of information declaration, service maintenance, medical assistance, and legal advice, realising a high degree of integration of floating population management and services, and greatly enhancing the modernisation of floating population governance. Technology has brought about changes in the information management of the floating population, as well as a "one-stop" service experience for the floating population. Based on floating internet technology, the services of 12 government departments for the floating population have been sorted out and integrated, and the data barriers of various departments have been broken down. [13] The website has been developed to provide a one-stop service experience for the floating population.

5. Optimization path for intelligent governance of the floating population

5.1. Innovative data sharing mechanism

Take full advantage of modern technical means such as big data and cloud platforms to strengthen data interoperability and interconnection, unblock data, establish a data information database for the floating population, integrate data and information on social security, health care, tax management and resident services, and make the data in the information database more comprehensive. Strictly implement the responsibilities of data management departments, timely eliminate the mutilated, erroneous, and duplicated information that has no application value, eliminate the phenomenon of missing and omitted basic and source information, continuously expand the scope of data and information entry of other social resources, and continuously optimize the intelligent governance mode and mechanism of the floating population, so as to maximize the social benefits of floating population data services.

5.2. Establishing intelligent governance thinking

With the growth of diversity and complexity of the floating population, especially the influence of social media, there is a need to break through traditional governance dilemmas in order to achieve effective and responsible governance goals. In terms of governance thinking, it is important to change traditional governance concepts and establish intelligent governance thinking, focusing on data collection, classification, organisation and analysis of data values, protecting and sharing data well, and learning to use intelligent technology to assist government governance and improve its accuracy and efficiency. [14] However, it is also important to recognise the complex interaction between information technology and social governance, and to respect the multifaceted needs of the floating population, rather than over-rely on the convenience of information technology in management control, as an important element of governance modernisation.

5.3. Safeguarding data security

Data security is the cornerstone for the efficient operation of intelligent governance of the floating population. In June 2021, China promulgated the Data Security Law, which built a regulatory system for data security and promoted a brand new stage of data security governance in China. In addition, after the completion of the cross-sectoral data resource sharing mechanism, it is also necessary to improve the data security responsibility mechanism, so as to bind various sectors to jointly guard data security. At the same time, it is also necessary to attach great importance to the issue of citizens' privacy, strictly enforce data use norms, and increase the protection of private data to prevent the excessive collection and illegal use of citizens' information, including when transferring data across departments.

6. Conclusion

The large size of the floating population, its frequent movements and high management costs are the outstanding difficulties in managing the floating population in China at present. Special issues among the floating population also require attention, such as Tibetan separatists engaging in separatist activities within the country, and their behavioural trajectory should be monitored in a focused manner. In response to these problems, some local governments in Zhejiang province have been actively exploring intelligent governance models for the floating population, which have enabled them to improve their recognition of and satisfaction with their places of inflow, as well as provide a strong incentive for them to integrate into the city. At the same time, it is also necessary to innovate data sharing mechanisms, establish intelligent governance thinking, and grasp the balanced relationship between governance and services, focusing on both the handling of negative issues on, and services and protection for the floating population.

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