

Innovation of Police Model Under the Background of Big Data

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Abstract. As big data constantly penetrates into all fields of society, China's police model is also facing new opportunities and challenges. We need to set our eyes on the future, make solid and incremental progress in innovative practice and implementation from various aspects such as work concept, working mechanism, management mode and organizational structure. The new concept and new model of police development of "highly shared and in-depth application" of police information must be achieved, as it provides efficient police management tools and service modes for public security work.

Keywords: Big data, Public security work, Police model, Management innovation.

1. Preface

The development of network and public security information has accumulated a large amount of data resources for public security organs, and its in-depth application has brought unprecedented opportunities to public security work. In the context of big data, public security organs should actively adapt to the new trend of information in the era of big data, strengthen the comprehensive integration and in-depth analysis of various types of information, and optimize the structure of police organizations, the form of police processes and the police force with big data construction and application. The configuration form will promote the innovative development of the grassroots public security police model and establish a modern police management system that conforms to the characteristics of the new era. To implement the police big data strategy, strengthen the use of scientific and technological achievements, and give full use to the role of scientific and technological information in promoting the public security work system, mechanism, and management innovation, it is essential to play a driving role in continuously improving the level of information, intelligence, and modernization of public security work. To make big data truly become a public security organ an important means of preventing and controlling, promoting social management, and serving the people.

2. Police Model

The term "police model", coming from the Western police community, is a comprehensive concept, which mainly refers to the general description of the characteristics of public security work in a certain period. The study of the police model should include the work concept, working methods, working mechanism, organizational structure and institutional system of the police. At the same time, the police model is dynamic, which is constantly evolving with the needs of society in different periods, the development of science and technology, the requirements of the public security organs' own management, and the trend of global police reforms.

Since the 1990s, from information policing, community policing to smart policing, Chinese scholars and police workers have also conducted in-depth research and discussion on the innovation of police models, and have formed a large number of theoretical results and practical summaries. However, there are also problems such as simplification of research perspective and localization of research scope.

3. The Impact of Big Data on Police Model

The police model is a generalization and description of the overall characteristics of public security policing activities in a certain period. In the context of the impact of big data on today's society has spread to all areas of the society, the openness, sharing and mobility of big data will also impact China's public security police model, promote the transformation of the public security organs' combat capability generation mode, provide the most powerful support for cracking various police problems, promote the integration and integration of various police types, promote the next public security organs and surely speed up the reform and police model innovation. The impact of big data on the policing model is mainly reflected in the following four aspects:

(1) Realizing the integration and sharing of big data will help promote the synergy of social management departments and promote the transformation of social governance system from fragmentation to integration.

(2) Relying on realistic data decision-making to promote fundamental changes in the way of social governance.

(3) Providing technical support for timely and comprehensive grasp of social information, and realizing the transition from static management to dynamic management.

(4) Providing reference for final decision-making is an important starting point for realizing the transformation of social governance from simple and extensive to scientific decision-making.

The emergence and development of big data has put forward new requirements for the service mode, working methods and organization management of public security work. All of them will gradually realize the traditional service mode, police work method and police management method from the public security work. From the refined, passive way to the active.

4. Police Model Innovation under the Background of Big Data

The police model in the big data environment is based on comprehensively collecting and highly integrating massive data information, to deeply excavate and intelligently process data information, and timely generate intelligence results with policing value to guide police in this kind of work model. Innovation of police mode in the big data environment can be divided into three stages: one is to solve the known problems in the existing public security business, focus on improving the performance and work efficiency of the public security business; the second is to solve the existing public security business. New issues, focusing on improving the ability to solve new problems and new difficulties in police management; third, predicting and resolving new problems arising in the new public security business in the future. The goal is to make public security organs take precautions, take the initiative to prevent, grasp early and nip in the bud.

4.1 Requirements for Public Security Organs in the Innovation of Police Models in Big Data Environment

First, public security organs should study the integration and innovation mechanism of public security work in the context of big data, explore non-contact, off-site, safe and effective intelligent police model, and use data mining technology through timely data collection, integration, cleaning to research and judge data.

Second, promote the innovation risk mechanism, explore the risk warning model of "manpower+technology" in the big data environment, rely on the big data platform to monitor and analyze the data of important time, locations, people, and effectively predict the risks.

The third is to promote science and technology innovation mechanisms, build big data platforms, cloud computing centers, integrate public security business data, grasp crime trajectories in real time, anticipate crime hot spots, and support the precise attack on various criminal activities.

Fourth, we must improve the cooperation and negotiation mechanism. In the era of big data, social organizations have their own resource advantages. Enterprises have the advantage of big data processing technology. Therefore, public security organs should play an integrated role, actively explore cooperation with social organizations and related enterprises, and achieve win-win mode.

4.2 Innovative Content of Police Model in Big Data Environment

4.2.1 Service Model Innovation

From the perspective of the concept of public security work, the innovation of the police service model should be based on serving the people and improving the satisfaction of the people. Under the background of big data, public security organs should establish a people-oriented service concept, gradually transform the traditional police service model into a supply-oriented public service model, timely and comprehensively perceive and predict the needs of the masses, and provide high-quality and efficient public services.

For one thing, the public security organs should use network technology to classify and provide grading big data resources for social organizations and individuals. At the same time, it is necessary to summarize the appeals and suggestions of the masses, integrate the collected data, and use the data in a scientific way. That means we can make decisions to provide a higher level of service to the masses.

For another, we should use information technology to open up data protection barriers between different police, constantly optimize their organizational structure and service processes, so as to achieve the existing process of public security work reorganization and organization, providing convenient and fast services for the masses.

Finally, it is necessary to improve the evaluation indicators of services, actively build a comprehensive supervision platform for service performance evaluation which can supervise the assessment methods to improve the quality and level of services.

4.2.2 Work Model Innovation

From the perspective of public security work methods, the police model innovation should change the traditional passive policing as a data-driven active and active policing. Big data has changed completely the way of thinking. Those who perform public security work need to develop awareness of objective analysis and judgment based on data.

(1) Public security organs should study the integration and innovation mechanism of "Internet+" and public security work, and explore non-contact, off-site, safe and effective "Internet + public security administration" and "Internet + police information disclosure" to promptly, comprehensively, proactively and safely disclose police information in accordance with the public regulations. Data collection, integration, and cleaning of information such as police consultation, people's livelihood appeals, and public opinion feedback are carried out in a timely manner, and data mining techniques are used to mine and research data.

(2) Promote the innovation risk mechanism and explore the risk warning mode of "manpower + technology" and "tradition + modernity" to ensure effective response to sudden incidents. The big value of big data lies in the early warning risk, relying on the big data platform, it can monitor and analyze the data of important time periods and lots of people, and can effectively predict risks and cut off the risk chain in time.

Promote scientific and technological innovation mechanisms, build big data platforms, cloud computing centers, integrate public security business data, grasp crime trajectories in real time, prejudge crime hits, and support the precise attack on criminal activities.

4.3 Innovation of Management Mode

From the perspective of public security work methods, the innovation of police management mode should pay more attention to the diversified construction of police subjects and police services. In the context of big data, public security organs must change the traditional mode of public security governance, actively explore police management models that cooperate with relevant government departments, social organizations, industry enterprises, and the masses. To use innovative ideas to promote risk sharing will enhance social governance capabilities as well.

First of all, the public security organs should do a good job in macro-planning of big data from a strategic point of view, coordinate the work of data governance, and actively formulate rules and regulations related to the application of public security big data, which can ensure the quality and

safety of data promoting its sharing. Secondly, the public security organs should improve the cooperation mechanism. In the era of big data, social organizations have their own resource advantages. As enterprises have the advantage of big data processing technology, public security organs should play a comprehensive role, actively explore cooperation with social organizations and related enterprises, and achieve mutual benefit. Third, the masses themselves are also an important source of big data. Public security organs must actively guide the participation of the masses. In the context of big data, make full use of big data technologies such as cloud calculating and the Internet, and actively explore and construct a police management model. Police being agents, mass participating, social organizing and enterprises involving multi-governance, it can effectively improve the public security organs' society and security management ability.

4.4 Innovation of Decision-making Mechanism

The biggest value of big data lies in the prediction, cracking the long-standing, common social problems in public security work. Prediction policing has been adopted widely in the United States, Japan and other countries and regions. We should also make full use of public security big data to predict the possibility of occurrence and the trend of event changes in the massive police information, take the initiative in the work, and quickly develop countermeasures. To change the decision-making mode relying solely on intuition and experience in the past, change the working method of social management based on crowd tactics, change the way of systematic and scientific analysis and thinking, it is essential to promote the transformation of police decision-making mechanism from business-driven to data-driven.

5. Conclusion

In short, the establishment of an innovative police model in line with the characteristics of the big data in the public security organs is of high value. On the basis of data convergence and sharing, the realization of police service model innovation, work model innovation, management model innovation and innovation of decision-making mechanism has become a realistic and meaningful topic. In-depth and detailed research on the police service model innovation of public security organs under the background of big data will help promote the rapid development of public security work.

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