

Research on Risk Early Warning of Police-involved Network Public Opinion Under the Background of the Integration of "Feeling, Pointing, and Acting"

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Abstract: In the new media era, the access threshold of the media has been greatly reduced, and the way of information dissemination has undergone profound changes. Due to the openness, real-time, diffusion, and other characteristics of the Internet, the network public opinion crisis occurs frequently. In recent times, there has been a noticeable increase in the percentage of incidents involving the police in public opinion, which is influencing the overall police public opinion environment. Based on this, the paper intends to utilize literature review and model research methods, utilizing collected relevant online information as the research foundation, to analyze and extract the concepts and characteristics of the integration of "emotion, guidance, and action," as well as the network public opinion and risks related to law enforcement. Subsequently, it will summarize the current challenges faced in law enforcement public opinion risk early warning. Then, relying on the core concept of the integration of "feeling, pointing and acting", this paper deeply combines the plane scanning technology, Textmind text processing technology, and LTSM + Attention model to reshape the risk early warning process of police-related network public opinion, and provides an effective risk early warning scheme of police-related network public opinion for police.

Keywords: Integration of Emotion; Guidance; Action; Police-related Network Public Opinion; Risk Warning; Police Data

1. Introduction

With the rapid development of the Internet in China, the number of network communication

methods and the number of Internet users have a fission growth. As a new form of information dissemination, network public opinion has a wide range of dissemination and influence, and police-related public opinion becomes more sensitive and important. The nation's determined endeavors to significantly progress digital management, while integrating "sentiment and action" to boost efficiency, have successfully portrayed a favorable image. However, due to the inaccurate warning of police-related network public opinion, there are still malignant incidents. Based on this premise, many scholars have carried out relevant research, such as using blue, yellow, orange, and red to divide the risk of network public opinion into a sensitive level, mild risk level, moderate risk level, and severe risk level, such as Liu Chang's consideration from the perspective of information ecology theory. The HHM framework for risk identification of police-related public opinion is constructed by identifying risk factors from the four dimensions of police-related public opinion actors, police-related public opinion information, police-related public opinion information environment, and police-related public opinion information technology[1]. According to the existing library, it can be concluded that the identification system of police-related network public opinion risk has a lot of experiences, and the identification mechanism is becoming more and more mature. But at present, China's police-related network public opinion research is still insufficient, most scholars tend to focus on examining risk identification from a broad perspective, and few scholars only study the early warning level. Even among those who do, their models are often built primarily on past experiences, subjective cognitive reasoning, and a disproportionate emphasis on collecting information rather than analyzing it.

Furthermore, there's a tendency to prioritize post-event management over proactive early warning measures. Sometimes they can not accurately identify and predict risks. At the same time, the public's discussion and evaluation of police image, law enforcement behavior, and public security issues may have a positive or negative impact on police work. Therefore, it is of great significance for maintaining social stability to establish a risk early warning system of police-related network public opinion and improve the sensitivity and coping ability of network public opinion. The current research on risk early warning of police-related network public opinion mainly focuses on the construction of an early warning model, the application of data mining technology, and public opinion coping strategies, and few of them provide risk early warning schemes of police-related network public opinion from the perspective of police operation process. This study intends to start from the perspective of the integration of "emotion, guidance and action", given the current characteristics of police-related network public opinion risk, reshape the police-related network public opinion risk early warning process based on a large model, aiming at providing a feasible practical scheme for public security work.

2. Core concepts

2.1 Integration of "Feeling, Pointing, and Acting"

The integration of "intelligence, command, and action" refers to the harmonious integration of the intelligence, command, and action systems, demonstrating a highly compatible, synchronous, and interactive state when achieving deep integration. From the perspective of police reform, which is through specific measures such as improving the top-level design, integrating resource elements, and improving workflow, the effective interaction among the three systems of intelligence, command, and action at all levels of public security can be realized, and the specific mechanism of action is that the intelligence chain supports the command chain and controls the action chain, to achieve the goal. To form a closed-loop working system of "intelligence data collection + decision-making command and dispatch + action follow-up and implementation". From the perspective of actual combat work, it can also be understood as a kind of system and mechanism, aiming at the

multi-integration of intelligence work, command work, and police action, to implement the reform of "centralized management of intelligence information", "great centralization, great integration, high sharing, high authority", "four investigations in one, multi-track linkage" [2]. To sum up, the integration of "intelligence, command and action" is not a simple integration of "intelligence", "command" and "action". Intelligence, command, and action should not be regarded as sequential steps, but as a mode of operation that implements the whole process and runs in parallel with time and space.

At the National Conference of Directors of Departments held on January 14, 2024, important emphasis was made on the integration of "feeling, pointing and acting": practical measures should be taken in the "mechanism" to promote the construction of a modern police operation mechanism with the construction of the integrated operation mechanism of "feeling, pointing and acting" as the traction. Currently, under the traction of the integrated reform of "intelligence, command, and action" across the country, various regions are exploring innovative paths for police operation mechanisms. However, due to differences in functions and priorities, significant disparities exist between databases, making it difficult to break down information barriers between departments and achieve data integration and resource sharing. Therefore, in the field of public security, there is still no authoritative and comprehensive systematic model or practical cases for us to reference and draw from. Through further research on the related risks of online public opinion involving law enforcement, we need to further clarify the logical framework of intelligence in the integration of "intelligence, command, and action," paving the way for a new pattern of comprehensive surveillance and three-dimensional prevention and control in future public security work.

2.2 Police-Related Network Public Opinion

Public opinion refers to the opinions, attitudes, behaviors, and intertwined analysis insights displayed by various individuals aggregated into substantive groups within a specific social scope and time frame. These expressions pertain to public affairs closely related to personal rights or touching on individual interests. We refer to this collective phenomenon as "social sentiment" or "public opinion." Public opinion may present an

optimistic trend, but may also bring pessimistic effects; it may be expressed under the autonomous will or may be caused by human manipulations. Wang Huan[3] believes that the hot police-related public opinion events in recent years have three characteristics: the clustering of police voices began to affect the direction of public opinion, the occurrence of a long tail effect caused by several outbreaks of public opinion, and the frequent reversal of public opinion made it difficult to distinguish the truth of the event. Li Yujuan[4] believes that online police-related public opinion has rapid and extensive, strong long-term influence and subjective tendency; Luo Zan[5] believes that the network public opinion has the characteristics of a large number of police-related public opinions, a majority of negative information, and rapid dissemination and influence. With the rapid rise of information technology, the transmission channels of public opinion have become more and more diversified, and the Internet has become its main carrier. People collect public opinions, spread public opinions, and share personal opinions through various network channels such as social media, news, and informational platforms, post bars, and forums. In this way, their behavior and speech will continue to affect the whole social public opinion environment.

Considering the unique nature of police identity and the politically sensitive aspects of their duties, the public naturally subjects "police" and "police work" to close scrutiny and supervision amid the increasingly complex and diverse social landscape. Consequently, topics categorized as "police-related" have gained prominence as hotly debated issues in public discourse. We call the social and political attitudes, emotional resonance, and differences of opinion of people at all levels of society on the Internet in the context of social events about public security organs and public security teams as "police-related network public opinion", which covers many aspects of public security departments, people's police, police operation, and public security.

3. Risk Characteristics of Police-Related Network Public Opinion

According to the definition of risk in GB/T23694-2013, risk refers to the impact of uncertainty on the target. Impacts are deviations from expectations and can be positive and/or

negative. Targets can be in different areas (e.g., financial, health and safety, environmental, etc.) and can be at different levels (e.g., strategy, organizational scope, projects, products, and processes). Uncertainty comes from human ignorance, and we lack enough information to speculate about the occurrence and consequences of events[6]. The definition of the concept of risk in the early academic circles focused on objective existence and subjective definition. Starr believed that risk, as an objective fact, had theoretical scientificity and material entity, and could be perceived, predicted, calculated, and relieved, while the subjective constructivism represented by Douglas believed that risk was a social process with cultural attributes. It is a theoretical system defined and constructed by human will.

Facing Beck in Risk Society defines the highly complex and highly uncertain environmental characteristics, scholars' research on risk is no longer confined to the level of virtual and real judgment. But they begin to dig deep into the connotation and extension of risk from the perspectives of economy, politics, and society. Drawing on the theory of communication, public opinion itself is mixed with many subjective emotions, which are not accurately predicted and intervened before netizens express their views, becoming an important factor leading to risk. From this, we can see that there is a close relationship between public opinion and risk, once public opinion appears, risk will exist. Wang Tianqi believes that the risk of public opinion is an important indicator to measure the degree of development of crisis events, when the risk of public opinion reaches a certain critical value, there will be a public opinion crisis[7]. Because of the uncertainty of the development of public opinion, it has the characteristics of diversity, mutation, and persistence. However, due to many influencing factors, different results will be produced under different time and environmental conditions. This paper defines the risk of police-related network public opinion as the risk brought by the dissemination and evolution of public opinion information related to public security organs and public security work in cyberspace. It can not be produced out of thin air but needs to rely on specific events. When the amount of information meets the specific conditions of "subject, accumulation, and easy dissemination", it may evolve from police-related public opinion. Drawing from the

definitions of public opinion and police-related public opinion, this paper contends that public opinion inherently encompasses emotions, which in turn influence behavior. Moreover, emotions themselves can generate uncertainty that impacts others. In the absence of events, if network users have one-sided emotional resonance and can not accurately judge the right emotions, it will cause great harm. Therefore, emotional expression without events will hurt network risk. Police-related and network are only the modification of public opinion, which defines its angle and space-time scope.

Most of the existing studies divide the police-related network public opinion into three types according to the subject and way of formation: the first is the public opinion risk caused by the fermentation on the network caused by improper behavior and poor disposal of the public security organs or ordinary police; the second is the public opinion risk caused by the cognitive bias of the masses themselves for the police force and the direct publication of improper speech on the network; Third, the risk of public opinion caused by the alienation of Internet information. Among them, the formation of the third type of public opinion risk is more special. The Internet, as the main voice position of netizens, is often in a state of uproar and the voice of the whole people. The complex network environment makes information interwoven and interspersed, and information alienation occurs with great probability, mainly through useless information, polluted information, and false information. To a certain extent, the alienation of police-related information promotes the formation of police-related network public opinion risk, which makes the development of events or things deviate from the truth and become difficult to control, thus causing incalculable harm.

3.1 Strong Political Nature

The public security contingent is the "knife handle" in the hands of the and the people and undertakes the important task of safeguarding national security and social stability. As the strong backup force of national administration, it involves national political activities, economic activities, cultural activities, social activities, and other aspects. The public opinion it generates is inevitably intertwined with "politics," necessitating that the police maintain

a heightened level of political sensitivity and vigilance in their administrative law enforcement efforts. At the same time, precisely because events related to public security are relatively sensitive, there are no shortage of individuals who exaggerate matters regarding police-related public opinion. Some offenders and suspects with a strong retaliatory mentality may have the malicious purpose of intensifying social contradictions and undermining social stability after experiencing legal sanctions. Like hostile foreign media forces, they excel at exploiting the relative freedom of expression on the internet and the rapid dissemination of information to propagate, fabricate, and distort facts, inciting conflicts between the police and civilians, and undermining societal values. Because of its confidentiality and timeliness, public security work is often unable to present the truth to the public in a timely and complete manner in the face of negative public opinion attacks, so it is easier to form time differences and information differences to bring misunderstanding to the masses.

3.2 The Antagonism of The Subject

The main body of police-related network public opinion includes mainstream media, police, and netizens. At present, the category of police-related public opinion in China can be roughly divided into two aspects. One is the positive propaganda public opinion about the police actively created and disseminated by the regular media, and the other is the free public opinion generated on the network platform, which is freely disseminated and diffused by all classes of people. these two situations may result in opposing public opinion trends, characterized by a skeptical, disdainful, or distrustful attitude of free speech towards mainstream media propaganda. Because of the anonymity of cyberspace, netizens may not be completely rational when making comments and are vulnerable to emotional influence. The collision of the two viewpoints makes the point-like risk factors in many aspects, fields, omnidirectional and across time and space infect, converge, hold together, and even ferment, thus forming huge potential risks.

3.3 The Speed of Diffusion is Very Fast.

The rapid diffusion of police-related network public opinion is mainly due to the global, borderless, and interactive characteristics of the

Internet. On the network platform, the spread of information is often transmitted by a source first, and then received by each receiver, forming a one-to-many, many-to-many communication pattern, and eventually developing into an infinite fission mode of communication. From individual instances to broader contexts, opinions converge through interactive information flows, often accompanied by emotions. The influence and reach of these flows continuously expand and spread over time and space. Faced with the severe and complex political and economic situations at home and abroad, public security organs, as one of the protagonists of the current political focus, always involve sensitive topics such as social justice, morality, and ethics, which are easy to arouse social concern and heated discussion. Once the content involving public security personnel is released, it will always be rapidly disseminated and arouse strong social concern. With the fast circulation of the network platform, when police-related incidents are exposed to the spotlight of the network media, the undercurrent is often turbulent and incidents occur frequently. At the same time, the multiple interactions on the Internet also promote the rapid dissemination of information. Netizens can express their opinions anytime and anywhere, and exchange views with other netizens, which makes the public security information further spread and enlarge, and may eventually trigger a communication storm.

3.4 Subjectivity of Judgment

With the continuous improvement of technology, big data-driven algorithms are applied to various software programs, causing netizens to be either actively or passively trapped in information bubbles. The limitation of personal vision and the aggravation of group polarization makes the dissemination of online information have a common problem, that is, both positive and negative information lack objective accuracy, the acceptance of all information has a strong subjective will, and the evaluation of events is also one-sided. This will lead to the inability of netizens to make accurate judgments before expressing their views on events, resulting in a series of subjective responses and public opinion dissemination, which will further reduce the accuracy of information dissemination.

3.5 It is Difficult to Predict Accurately.

The risk unpredictability of police-related network public opinion comes from the complexity and dynamics of the network environment. Information on the Internet is difficult to distinguish between true and false, and the public is sometimes unable to distinguish the truth from the endless false information and rumors. The development of online public opinion related to law enforcement is directly or indirectly influenced by multiple factors such as government public relations, public reactions, and social trends. The fluctuations in these factors do not follow a fixed pattern, and due to the lack of alignment between the integrated "intelligence, command, and action" system and the warning systems, accurately predicting public opinion risks becomes increasingly difficult. This uncertainty and instability make public opinion management more complex and challenging.

4. The Dilemma of Risk Early Warning of Police-Related Network Public Opinion

With the rapid development of Internet technology and the widespread use of social media, the risk of police-related public opinion has become increasingly prominent, which poses a threat to social public order and stability. Public security public opinion monitoring has become increasingly important in the Internet era, and how to effectively warn and deal with police-related public opinion has become an important task faced by public security organizations. However, there are some inappropriateness and conflicts in the current early warning work of police-related public opinion, such as improper grasp of early warning timing, lack of unified standards for early warning caliber, and inefficient early warning release channels, which need to be solved in time. At present, the main problems of early warning work exist in the following levels. Firstly, the most obvious issue is the improper timing of the alert. In some cases, the timing of alerting about certain police incidents is misjudged, which could result in either premature or delayed release of the alert, consequently missing the optimal opportunity for handling the situation. Secondly, some warnings of police-related public opinion may be inaccurate or inadequate, which will harm police work. Therefore, it is essential to enhance the grasp and control of the timing for police incident alerts to ensure the accuracy and

timeliness of the warning information. Thirdly, there is no uniform standard for early warning caliber. The lack of uniform standards for early warning caliber may lead to the difficulty of exchanging and sharing early warning information among different regions and different types of police, and affect the overall effect of early warning work. Therefore, it is necessary to establish a set of perfect early warning caliber standards to ensure the comparability and unity of early warning information among different police categories and different regions. At the same time, it is necessary to enhance the training and guidance of early warning caliber, improve the professional quality and ability of early warning personnel, and ensure the accuracy and effectiveness of early warning information. Finally, the early warning release channel is not efficient enough. As a result, the early warning information can not be transmitted to the people in need in time, which affects the early warning effect. It is necessary to establish a set of perfect early warning release channels to ensure that early warning information can be timely and accurately transmitted to people in need. It is also necessary to strengthen the management and control of early warning release channels to ensure that the release of early warning information meets the requirements of relevant laws, regulations, and policies.

Predicting public opinion related to law enforcement is a complex and vital task, requiring law enforcement agencies to continuously strengthen the construction of warning mechanisms and the development of channels for warning information dissemination. This is crucial for enhancing the overall effectiveness and response capabilities of the warning work. At the same time, we need to strengthen communication and cooperation with all sectors of society to jointly maintain social and public order and stability. The concept and risk characteristics of police-related network public opinion have been elaborated in the early stage of this paper. From the perspective of governance, the difficulties in the governance of police-related network public opinion are briefly summarized as the following three points.

4.1 The Problem of Public Opinion Data Integration Remains to be Solved.

The diverse information of various public security departments is a collection of scattered

information distributed among different networks, which used to run separately in a physically isolated way. Up to now, the public security information network, secret-related network, video network and other networks, public security units, network security units, traffic control units, population units, and other departments still have inadequate data sharing and poor business process convergence. The public security big data platform pays attention to using the external data resources of the system to establish its information base rather than to collect resources, which to some extent results in redundancy and duplication of work. The data centers of local public security organs are fighting with each other, and there are big problems in interoperability. There is no real unification in standards, and it is impossible to achieve the unified dispatch of resources and to achieve the goal of intensive management and efficient use. If public security organs want to make better use of big data to improve work efficiency, they need to further integrate the integration of "feeling, pointing and acting" into police work. By realizing the sharing of data and the connection of business processes, it avoids repeatedly extracting relevant information and accessing external data resources and reduces information confusion and data management difficulties. In the age of big data, there should be no existence of "information islands," where data cannot be effectively shared, since it leads to significant waste. By efficiently integrating data and removing information barriers, we can effectively address issues such as information clutter and redundant data management caused by repeated extraction of relevant information and accessing external data resources repeatedly.

4.2 The Early Warning Index System Needs to be Improved.

The integrated model of "emotion, guidance, and action" and the construction of an early warning index system complement each other and rely on each other. In the integration of intelligence, guidance, and action, the early warning index system can provide a scientific and accurate intelligence basis for intelligence units to improve the accuracy and reliability of intelligence, provide systematic decision support for command departments to ensure scientific and effective command and provide strong action guidance for action departments to ensure rapid and efficient action. The integration of

"situation, index, and action" can also provide good feedback and improvement measures for the evaluation and optimization of the early warning index system.

As mentioned above, when the departments of public security departments establish their information base, they do not follow the same standards, nor do they manage it in a unified way. The information barriers between the original information base formed by the traditional physical isolation among various police categories, units and departments result in the fragmentation of relevant information data, which makes it difficult to complete the construction of the early warning index system. Regarding the police-related public opinion researched by the author, in some regions, law enforcement agencies tend to adopt a passive defensive approach and respond passively. This mindset of reluctance to take initiative and explore is not entirely appropriate and fails to address fundamental issues. The imperfect construction of the integration of "emotion, guidance and action", the lack of professional and technical personnel, and the absence of management departments have built barriers to optimizing the establishment of the early warning index system. First of all, this will lead to the public security departments not accurately predicting the risk, cannot through the analysis and monitoring of data. Then it may lead to risk accumulation, diffusion, and even escalation; Secondly, it will cause an embarrassing and passive situation that can not take timely measures, affecting the image of public security organs. Finally, it also involves the evaluation of the whole process of police-related network public opinion response, specifically, it is impossible to accurately evaluate the implementation effect of relevant response measures, to determine whether the expected goals are achieved, and to timely adjust and further improve relevant policies.

4.3 The Early Warning Model Based On the Algorithm is not Yet Mature.

From the perspective of cyber violence, Shao Denghui pointed out that case relief after the event only focused on terminal governance, ignoring the dynamic evolution of cyber violence and risk prevention in advance[8]. Faced with the high risk and high harmfulness of police-related network public opinion, China still needs to concentrate on research, seeks

ways to break through data barriers, and forms an early warning index system. In addition, whether the early warning model can be successfully implemented is also a major difficulty for the current public security organs in the early warning of police-related network public opinion. In the era of big data, the traditional approach of "reusing experience" advocated by empiricism appears too primitive. The relationship between digitized, information-based individuals and big data is becoming increasingly intertwined. However, if we continue to adhere strictly to the notion of "separation between humans and machines" and fail to integrate this concept into action, it will only lead to a widening gap between the correct early warning of police-related online public opinion and the work of law enforcement agencies. To overcome governance challenges under current conditions, it is imperative to integrate existing resources and rebuild warning models. Some studies believe that the integrated operation mechanism of "intelligence" requires personnel to have certain intelligence collection, deep mining and analysis of big data, and overall management capabilities[9]. To this end, we should strengthen the work of talent security through talent selection and skill training. The recently proposed concept of "integrated intelligence, command, and action" can provide valuable insights for early warning of police-related public opinion.

5. The Remodeling of the Risk Early Warning Process of Police-Related Network Public Opinion from the Perspective of the Integration of "Emotion, Guidance and Action"

Intelligence, as an important part of the reform of the integrated police operation mechanism, plays an important role in the basic resource advantages and innovation-driven engine. The principle of combining prevention and emergency response is one of the important principles in the current police-related network public opinion response work, but in practice, intelligence analysis is usually based on incomplete, vague, and contradictory information to make judgments on the changing situation[10]. Public security organs still have some problems in the process of risk early warning of police-related public opinion, such as difficulty in data traceability and experience reference. Therefore, how to do a good job in the

acquisition and integration of multiple network data is an urgent problem to be solved to improve the risk index system of police-related public opinion.

5.1 Risk Prevention and Control Model Based on the Integration of "Sentiment, Guidance and Action"

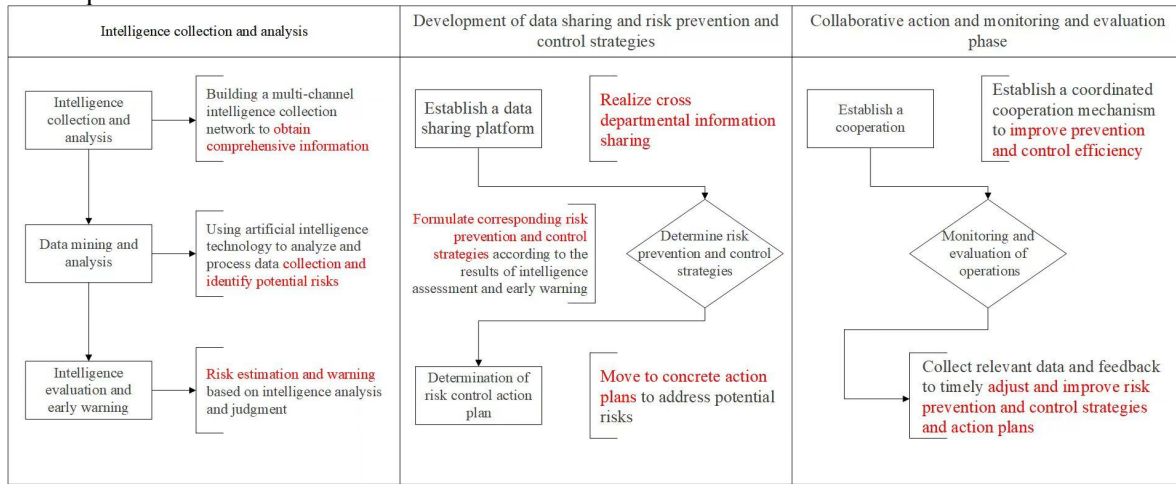


Figure 1. Risk Supplement the Description of this Model

Figure 1 shows the risk prevention and control flow chart. This risk prevention and control model consists primarily of three stages: intelligence collection and analysis, data sharing and formulation of risk prevention strategies, and coordinated action and monitoring assessment. First of all, the first step of the first stage is to establish an intelligence collection system. By building a multi-channel intelligence collection network, including social media monitoring, public opinion analysis tools, and internal and external data resources of public security, we can obtain as comprehensive information as possible. Secondly, data mining and analysis, using natural language processing, machine learning, and other generative artificial intelligence technology to process and analyze the large amount of data collected and identify potential risk factors and patterns. Third, intelligence assessment and early warning. Based on intelligence analysis and judgment, risk assessment and early warning are carried out, key objects and events are determined, and potential risks are found in time.

The first part of the second stage is to establish a data-sharing platform. Establishing an integrated platform of "information guidance and action" to realize information sharing across departments and improve comprehensive response capability. Then, the risk prevention and control strategy is determined, and the corresponding risk prevention and control strategy is formulated according to the intelligence assessment and early warning results. Finally, the formulation of a risk prevention and control action plan

transforms the risk prevention and control strategy into a specific action plan to deal with potential risks.

The third stage is divided into two steps. Firstly, through the establishment of cross-sectoral cooperation mechanisms, including regular consultation, combined operations, etc., to achieve resource sharing and coordinated operations, improve the overall effectiveness of risk prevention and control. Finally, the monitoring and evaluation of actions collect relevant data and feedback information, continuously monitor the implementation effect of risk prevention and control actions, including assessing the incidence of risk events, handling efficiency and public satisfaction, and timely adjusting and improving risk prevention and control strategies and action plans. The early warning process model aims to realize risk prevention and control under the guidance of intelligence, closely integrate intelligence collection, analysis application, and action execution, and emphasize the importance of data sharing and collaboration. Such a model can improve the ability of public security organs to perceive risks, optimize the allocation of resources, and enhance the ability of risk prevention and control.

5.2 Police-related Network Public Opinion Risk Early Warning Process from the Perspective of "Situation-oriented Action" Integration

On the basis of the existing research, combined with the risk management theory, this paper

reshaped the police-related network public opinion risk early warning process from three aspects: data collection, data processing and data

analysis and mining. The specific process is shown in Figure 2 below

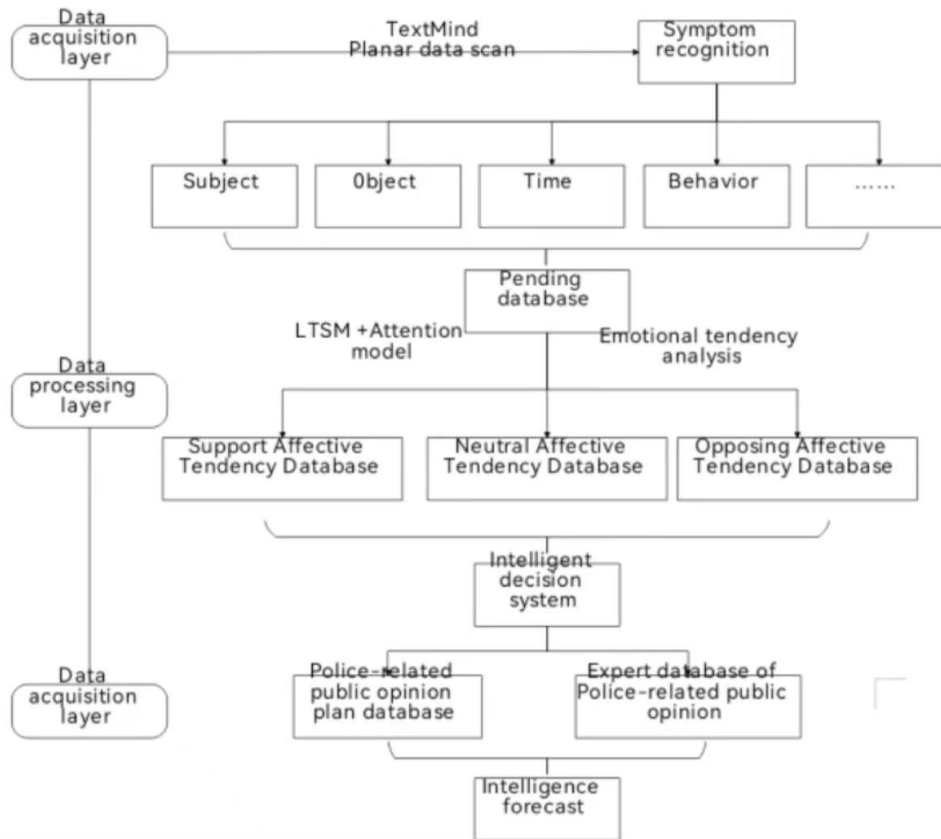


Figure 2. Police-Related Network

1. Data collection layer: improve the monitoring index system of police-related public opinion elements

As the first link of the early warning model, the data collection layer plays an important role in collecting and aggregating intelligence. To purify the cyberspace, it is essential to utilize "big data" and artificial intelligence technologies to identify and eradicate "water armies," "bot accounts," and other harmful accounts within the online sphere. These online forces are actively engaged in spreading rumors and manipulating public opinion, causing significant damage to the cyberspace. Faced with the influx of massive data from the internet, Internet of Things, and both internal and external networks of public security, the first step is to collect big data through techniques like flat data scanning and timestamping. Subsequently, leveraging platforms like TextMind for text processing enables the identification and preprocessing of data for early warning signs, facilitating the comprehensive extraction and organization of

various elements of police-related incidents such as subjects, objects, time, behavior, emotional factors, etc., thus forming a system of indicators for police-related public opinion.

2. data process layer: construct a database of the emotional tendency of police-related public opinion;

The first step involves utilizing the LSTM+Attention model to meticulously clean, organize, and analyze the data inputted from the database. This process enables a thorough understanding and management of complex language information. Subsequently, Baidu AI emotional tendency analysis and other related technologies are used to score Chinese texts, dialogues, and comments with subjective descriptions on a large scale, and the trend of network public opinion is accurately judged through multiple fields, and the emotional polarity category of the text is automatically judged and the corresponding confidence level is given. The situation of public opinion is divided into support, opposition, and two emotional

tendencies through the risk index system generated by the summary, and the relevant data that fail to judge the polarity are summarized to form a neutral point of view, and the proportion of the three data is presented intuitively and clearly through visualization technology. So far, three different emotional tendency data have been sorted out to form different intelligence databases, which are named as supporting emotional tendency database, neutral emotional tendency database, and opposing emotional tendency database.

3. Data analysis and mining layer: improve the police-related public opinion analysis and intelligent decision-making system

With the help of the text clustering method, weight calculation method, emotional orientation analysis method, keyword matching, and other network public opinion information mining technology, the early warning model quickly and comprehensively collects and collates the relevant data needed to deal with police-related network public opinion, and carries out systematic and visual analysis and screening of the intelligence based on these data. The three kinds of emotional data are collected in the intelligent decision-making system and transmitted to the police-related public opinion plan database and the police-related public opinion expert database. On the one hand, decision-makers can obtain more objective and accurate public opinion information and make correct decisions based on it. On the other hand, through the expert database, experts can more smoothly sort out or test the essential facts and trends in the information, and prompt the implicit information content contained in the information to the command and decision-making level, to predict the development of things and reduce the occurrence of unexpected hazards.

Due to the uncertainty of the risk of police-related public opinion, the potential floating "weak signal" will be mixed in the extensive and complex information data flow, so it is necessary to rely on the intelligent decision-making system, use the scenario embedding analysis rule to simulate and predict the scenario, test, and feedback the risk data, and determine the key significance. At the same time, we should respect and follow the historical risk data, take it as the research background, not be divorced from reality and violate the truth, and choose appropriate algorithms to mine the

characteristics and relationships of dispute elements. In society, improper data are regularly proofread using expert interviews and police visits. When the database is becoming more and more mature, machine learning becomes particularly important. Special technicians need to give full play to their respective strengths, familiarize themselves with computer algorithms, effectively capture anomalies through data empowerment, carry out situational awareness and efficiently identify risks, so that the early warning model can operate effectively so that intelligence can better provide data support for command and action.

6. Conclusion

This Paper takes the reform of integration of emotion, instruction, and action as the research background, takes the risk of early warning of police-related network public opinion as the research object, defines the important concepts, and analyzes the characteristics of police-related network public opinion risk and the early warning dilemma. This paper uses plane data scanning, TextMind text tool, Baidu AI public opinion analysis technology, LTSM + Attention model, emotional orientation analysis method, and data visualization technology to reshape the risk early warning process of police-related public opinion, to provide ideas for the integration reform of "emotional guidance and action" and the improvement of quality and efficiency of police work.

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References

- [1] Liu Chang. Research on Identification, Prevention, and Resolution of Network Police-related Public Opinion Risks. Hebei: School of Journalism and Communication, Hebei University, 2022, 34-40.
- [2] Lv Xuemei. Development Dilemma and Strategic Shift of Public Security Comprehensive Intelligence Department. *Journal of Intelligence*, 2015, (6): 16-19.
- [3] Wang Huan, Situation analysis of police-related public opinion: Root causes, current situation and trend. *Journal of Shandong Police University*, 2017, 29(3): 142-154.

- [4] Li Yujuan. Online police-related public opinion crisis and guidance. *China Public Security (Academic Edition)*, 2010, (2): 109-113.
- [5] Luo Zan. Characteristics of police-related public opinion in the era of We-media and its response. *Journal of Hubei Police College*, 2015, 28(9): 49-52.
- [6] General Administration of Quality Supervision, Inspection and Quarantine of the People's Republic of China, Standardization Administration of the People's Republic of China. *Risk Management Terminology: GB/T 23694-2013*. Beijing: China Standards Press, 2016:1.
- [7] Wang Tianqi. Research on risk assessment model of police-related network public opinion based on microblog. Beijing: Science of Public Security, Chinese People's Public Security University, 2019: 15-16.
- [8] Shao Denghui. Group Cyber Violence Governance: From the Perspective of Network Platform Risk Prevention Obligations. *Journal of South-Central University for Nationalities (Humanities and Social Sciences Edition)*, 2023, 43 (7): 100-101.
- [9] Zheng Lingji, Liu Jun. Practice and Reflection on the Integrated Police Mode of "Emotional Direction and Action": A Case study of the Liaison Center of the Wuxing District Branch of Huzhou Public Security Bureau. *Journal of Public Security (Journal of Zhejiang Police College)*, 2018, (4): 104-108.
- [10] Meng Yuxiao. Research on Early Warning of Individual Extreme Violent Crime Based on Intelligence Perception. Beijing: People's Public Security University of China, 2023: 24.