Analyse the Protection of Human Rights in Informatization Investigation in China

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Abstract: Criminal proceedings are required to be conducted in accordance with the law. The law stipulates that the protection of human rights is one of the basic principles of criminal proceedings. At the same time, the exclusion rules of illegal evidence established after the revision of the criminal procedure law in 2012 pay more attention to the protection of human rights. The concept of information-based investigation can be traced back to the construction of "national public security information project - Golden Shield Project" proposed by the State Council in 1998. Up to now, more than 20 years of changes in the times and the development of investigation means have made information-based investigation an indispensable part of the investigation organ in discovering crime, preventing crime and solving cases. Although the concept of information-based investigation has been put forward for more than 20 years, at present, there is no specific law to authorize the investigation organ to exercise, and the laws and regulations for its implementation and supervision still need to be improved. Especially when some investigation behaviors in information-based investigation will infringe on citizens' personal and privacy rights, the protection of human rights in information-based investigation has to attract the high attention of legal circles and interdisciplinary scholars. This paper will focus on the analysis and suggestions on the regulation of information-based investigation from the perspective of human rights protection in criminal procedure.

Keywords: Informatization investigation, human rights, protectionexclusionary rules of illegal evidence

1.   Introduction

Big data investigation is a new criminal investigation mechanism under the guidance of the Internet. Internet technology has updated the means of investigation, on the other hand, it has also created great challenges: There is no specific regulations in the legislative aspect and some practical difficulties, the legitimacy locking top-level design specifications is in doubt [1].In a practical sense, it is necessary ways to protect the legal rights of criminal suspects through figuring out the concept of

Information based investigation、standardizing relevant investigation activities, in order to better implement the requirements of human rights protection in China's judicial activities.

This article will analyze the regulation of informatization investigation from the perspective of the protection of human rights in criminal proceedings and make suggestions. The basic task of criminal procedure is "to ensure accurate and timely identification of criminal facts, correct use of the law, punish criminals, and protect innocent people from criminal prosecution." Under the big data-driven investigation mode, the investigation behavior has been expanded from the traditional post-event investigation to the pre-criminal prediction investigation. This kind of prediction investigation utilizes a large number of analysis and modeling of the information elements of past cases, and compares it with the current ongoing investigation. Matching the facts that happened, so as to predict the possibility that a specific person, a specific place, or a certain criminal behavior will be committed or occurred in a specific time in the future, which can synchronize the detection activities with the occurrence of the crime or even develop it in an advanced direction [2], to achieve pre-judgment and early warning with the goal of risk control [3]. However, in order to make accurate predictions in this big data investigation mode, it is inevitable to collect and analyze a large number of citizens' personal information and privacy data, and to focus on monitoring high-risk groups who have not yet committed crimes, which easily violates citizens' privacy rights and other legal rights.

This paper will be divided into five parts. In the second part, the classic literature will be reviewed and the concept of information-based investigation will be discussed. The third part will focus on analyzing the necessity of human rights protection in informatization investigation, and the fourth part will analyze the current situation of human rights protection for criminal suspects in informatization investigation in combination with existing laws and regulations. Finally, the fifth part will put forward suggestions for improving human rights protection in China's information investigation, and the sixth part will summarize the full text.

2.   Literature Review

During the development of information-based investigation, scholars' interpretation of its concepts has gone through three stages: "tool theory", "method theory", and now "idea theory". The traditional "tool theory" and "method theory" believe that information-based investigation is an information-based platform or similar technical investigation method used to detect cases in the investigation process, while the "theoretical theory" believes that information-based investigation is not only about detecting and solving cases. Tools or platforms, methods, and more importantly, from the perspective of the overall criminal procedure, to build a building of the theory and practice of information-based investigation. Specifically, the intermediary link between theory and practice is the mode, so the information-based investigation is an investigation mode that uses various information platforms and information technology to carry out investigation activities, which includes the investigation mode dominated by business information and on this basis. The established investigation mode driven by big data is distinguished from the traditional investigation mode [4]. This article will use the "theoretical theory" to define the information-based investigation.

Some scholars have constructed the future investigation mode of big data, using the information carried by big data to find criminal suspects, and use big data to analyze various data. source, grasp the trend of crimes, and thus prevent crimes; use big data to optimize the allocation of investigation resources and improve the efficiency of investigation [5]; Some scholars believe that "big data is only a technology, and the investigation mode driven by big data is an improvement on the traditional investigation mode. However, the effective model should be the perfect combination of big data, investigation intuition and experience [6]; some scholars believe that our traditional legal framework has a certain lag in new things, which is embodied in the investigation of big data. There is no clear definition of legal attributes, and the relationship between data content and metadata cannot be

distinguished. The procedures for who will initiate the investigation have not been fully implemented. Legal control of the new thing of big data investigation requires specific standardization and investigation of investigations. Dual Paths to Data Processing Normalization [7].

From the above retrieval, the research mainly focuses on the improvement of the efficiency of big data investigation and the construction of criminal norms for big data investigation, etc., but there is less research on big data investigation and human rights protection normative system. In 2021, Professor Liu Zhiqiang from the Human Rights Research Institute of Guangzhou University proposed to build a normative system for human rights protection under big data investigation [1]. The necessity of human rights protection for suspects, the current situation in my country and reasonable suggestions are discussed.

3. Necessity of Human Rights Protection in Information-based Investigation

3.1. The Necessity of Information Investigation

Since the application of electronic products and electronic data, the investigative agencies have been studying how to make full use of the collected information by using information products. At this time, there are isolated islands of information between the investigative organs and even the judicial organs. The investigative organs in different regions collect and analyze case information on their own. There is a lack of effective information communication among the judicial organs, and more often they are collected repeatedly. depletion of national resources.

After the birth of the function of big data, the investigation agency can analyze and predict the information more conveniently. At present, a unified data storage system is gradually being established among judicial organs across the country. The second phase of the Golden Shield Project has been fully completed, and the National Public Security Quick Query Integrated Information System (CCIC) and public security business system have been improved, which can not only save manpower and material resources at all stages, but also It can standardize the litigation behavior of judicial organs through data traces. This informatization has largely replaced the previous cumbersome investigative information storage mode, and has become a future trend.

The dependence of the criminal procedure on informatization is reflected in the types of evidence and the information query of criminals. First of all, electronic data and audio-visual materials, one of the eight types of statutory evidence, can only be displayed through electronic information carriers. Secondly, in the investigation of criminal suspects and the query of past criminal history, the use of information query function can greatly increase the efficiency of litigation.

3.2. Big Data Technology Easily Infringes the Legal Rights of Criminal Suspects

Information-based investigation driven by big data is one of the key directions for investigation agencies to explore and improve investigation efficiency. However, due to its own characteristics such as large amount of data analysis, opaque algorithm, and predictability, big data technology is easy to make in criminal proceedings. The legitimate rights and interests of the accused party are infringed. Specifically, first, the use and leakage of big data can easily violate the privacy rights of criminal suspects.

In traditional investigation, the search object is often the private space where the criminal suspect enjoys the right to privacy. The investigation mode dominated by business information requires stricter approval procedures. (Such as technical investigation measures such as secret surveillance, secret mail inspection, etc.) However, under the big data technology, the public security organs will master the personal information of many citizens to establish an intelligence information system, in order to quickly mobilize information resources for investigation when a criminal case occurs, but there are no corresponding laws and regulations to restrict the storage and use of these data. For

example, in the current comprehensive information query system, as long as there is a public security digital identity certificate, you can enter the system for query, and the public security organ has not established a series of strict systems for the query, storage and use of these data information [8]. In cyberspace, if strict precautions are not taken, the theft and modification of information and data can be done in an instant. Not only is the irregular use of information by investigators suspected of infringing human rights, but the theft of private information by the outside world is also a crime.

In addition, the data stored and used by big data covers various fields. In order to predict the behavior of individuals, it is necessary to call the information of various behaviors in their lives. The sharing of data and information makes it normal for investigations to collect and share information across borders. In this way, the investigation power has been expanded to an inestimable scope from the very beginning. Such investigation power lacking the principles of due process and proportionality runs counter to the protection of the legal rights of criminal suspects.

Second, the opacity of the algorithm can easily weaken the defense's rights. Within a particular algorithm, the process from data input to output of results is agnostic. Under the technical black box with opaque algorithms, investigators are happy to use big data technology to do correlation analysis on citizens' behavior trajectories, but for the calculation results of big data, the defense can only passively accept it, and it is difficult to calculate the big data. Process and results are contested to rule out rights violations by investigators. This makes it difficult for rights to restrict power, and the principle of equal confrontation between the prosecution and the defense develops in a direction that is beneficial to the prosecution.

Third, the predictive nature of big data conflicts with the subject status of suspects in modern criminal proceedings. The subject status of criminal suspects in my country was established after the Criminal Procedure Law of 1996, and there are corresponding institutional guarantees for their subject status, including the right to defend, the right to apply for withdrawal, the principle of never suspecting a crime, and so on. Among them, the principle of no guilt is a manifestation of the spirit of the principle of presumption of innocence in modern criminal proceedings, which means that anyone should be presumed innocent before being determined to be guilty [9]. This principle is the result of human beings' long-term thinking on how to define the procedural status of criminal suspects and defendants and what legal protection should be given. The establishment of the principle of presumption of innocence enables criminal suspects and defendants to have the legal status of innocence before judgment, and at the same time gives them the status of litigation subjects, so that they can enjoy rights such as the right to defend and fight on an equal footing with state organs.

According to the principle of presumption of innocence, after the perpetrator has the identity of a criminal suspect, he should be presumed innocent before judgment. Before the facts of the case occur, when the identity of the criminal suspect does not exist, citizens should not be the object of investigation by the investigators. However, the predictability of big data technology conflicts with this principle to a certain extent. If a local crime occurs, the public security organ may directly investigate the person predicted by the big data as the perpetrator after the case is filed. In the process from being monitored to being taken investigation measures, this person lacks effective rights and the power balance of the public security organs, especially in the stage of being monitored before filing a case. This has shaken its status as the subject of criminal proceedings and cannot protect its legal rights.

4. Current Situation of Human Rights Protection of Criminal Suspects in China's Informatization Investigation

4.1. Lack of Specialized Law

The development of information-based investigation in practice is very rapid, and the actual effect is also very obvious, but its development in the legal field is far behind, weakening the legal legitimacy of information-based investigation. For the implementation of public power, it is required to "do nothing without the authorization of the law". If there are no specific laws and regulations, and only general authorization of investigation behaviors in criminal proceedings, it will easily lead to the abuse of public power.

China's macro regulations on information-based investigations are scattered in the Criminal Procedure Law, the National Security Law, the Regulations on Several Issues Concerning the Collection, Review and Judgment of Electronic Data in Handling Criminal Cases, and the Rules for Computer Crime Scene Investigation and Electronic Evidence Inspection. In the legislation of different ranks and different departments, in the legislation of these departments, these provisions are not divided into primary and secondary, and most of them exist side by side. On the one hand, these different laws have conflicting provisions on information-based investigation methods. For example, for network remote inspection technology, the Criminal Procedure Law only stipulates that it belongs to the category of technical investigation, so the methods for the initiation and implementation of technical investigation should be applied. However, according to the provisions of the Supreme People's Court and the Supreme People's Procuratorate, the applicable conditions of technical measures for network remote inquiries are looser than technical investigations [4]. On the other hand, the criminal law, civil law, administrative law and other departmental laws are a whole, and only when they are unified can the normal operation of society be maintained. However, informatization investigation lacks specialized legislation, and its various regulations are scattered in different legal norms, and none of them are specific. This can easily lead to confusion in citing legal provisions when applicable.

4.2. The Confusing Application of the Rule of Exclusion of Illegal Evidence in Practice

The Criminal Procedure Law established rules for the exclusion of illegal evidence in 2012, including the exclusion of evidence obtained from electronic data and audio-visual data collection procedures that violate the law. This problem is widely discussed in the academic circles, focusing on audio-visual materials or appraisal opinions. In the theoretical circle, Professor Zhong Mingxi of Fujian Police College believes that they should be discussed separately [10], each of which belongs to electronic data or appraisal opinions, while Professor Zhang Jianwei of Tsinghua University emphasized that "big data analysis reports must be listed separately as independent types of evidence"[11]. In practice, we searched the "China Judgment Documents Network" and found 15 valid documents, 5 of which attributed the results of big data research and judgment to documentary evidence, and the other 10 did not indicate the type of evidence, but inferred from the description that they belonged to Audiovisual evidence or only used as investigative clues (Table 1: type of evidence of Big Data Analytics report).

It can be seen that although the current scholars believe that the contentious point of information collected by big data lies in the attribution of electronic data or appraisal opinions, in the process of criminal proceedings, judicial organs try to avoid the direct use of big data research and judgment evidence, and instead convert it into existing evidence. The types of statutory evidence presented in court. The unclear attribution of the type of evidence will make the judicial authorities hesitate to use the evidence. In other words, it may be used as any kind of evidence to avoid the exclusion rule of

other evidence from being adopted by the court. As a result, it is difficult to ensure that the rights of criminal suspects and defendants will not be violated.

Table 1: type of evidence of Big Data Analytics report.

	Case type	Purpose	Types of evidence	Remark
1	Liu Jianping's crime of gathering a crowd to fight	looking for criminal suspects	documentary evidence	Information lookup
2	Yang Shaolong's crime of robbery	looking for criminal suspects	documentary evidence	Face Analysis - Photos
3	Xiang Daihong's illegal possession of drugs	looking for criminal suspects		Trajectory analysis, presumed to be audio and video evidence
4	Wang Lun's crime of intentional injury	looking for criminal suspects	documentary evidence	Trajectory analysis, presumed to be audio and video evidence
5	Lu Zhihuan's crime of transporting others to smuggle the country's border	Big data warning analysis	documentary evidence	Recorded through the case registration form
6	Ma Qing Zhu's crime of intentional injury	looking for criminal suspects		Recorded through the case registration form
7	Lin Zhenmin's crime of obstructing the prevention and treatment of infectious diseases	proving criminal conduct		Using big data results to interrogate criminal suspects
8	Guo Fuguang's crime of fraud	Big data warning analysis		Using big data results to interrogate criminal suspects
9	Tian Chengjun's crime of theft	looking for criminal suspects		Recorded through the case registration form
10	Liang Qiaoyun's crime of fraud	looking for criminal suspects		Look up address
11	He Zhaocheng crime of theft	looking for criminal suspects	documentary evidence	Described in "Capture Through"
12	Wang Conghua's crime of obstructing the prevention and treatment of infectious diseases	proving criminal conduct		Using big data results to interrogate criminal suspects
13	Xiao Zhen's crime of theft	looking for criminal suspects		Big data analysis
14	Dai Kehu and other fraud crimes	looking for criminal suspects		Recorded through the case registration form
15	Feng Lei's crime of smuggling, selling, transporting and manufacturing drugs	Big data early warning analysis		Early warning analysis

5. Suggestions on Improving Human Rights Protection in China's Informatization Investigation

5.1. Prevention in Advance: Formulate a Supporting Legal and Regulatory System

The stipulations on the macro procedures of human rights protection in Chinese laws are mainly reflected in the Criminal Procedure Law, and there are no specific laws and regulations that specify them in detail. Neil Postman once pointed out: "When a new technology appears, it is not the original world plus the new technology, but the whole world is rebuilt around the new technology." Information-based investigation is different from traditional investigation in that the technology involved and the current There are problems that cannot be completely solved with traditional thinking. Not only are they required for crime investigation, but the requirements for using procedures should also be specified in special laws and regulations in more detail.

For the legislation of information-based investigation, the principle of priority of higher law over lower law should be followed, and procedural matters should be stipulated within the framework of the Criminal Procedure Law without violating the requirements of the Constitution for the protection of human rights. At the same time, technical issues involving professional fields shall be regulated by laws and regulations of other departments. Only after there is a specific general outline can there be further detailed regulations, and coordination between civil law, criminal law, and administrative law can be done on this issue.

In addition, in view of the problem that information-based investigations easily violate privacy rights and personal information rights, it is not only necessary to formulate special laws and regulations for information-based investigations, but also to clarify the boundaries and specific contents of rights such as privacy rights. To ensure that the investigation does not cross the line, it is necessary to establish and improve the constitution and protection of citizens' personal information protection rights and privacy rights in private law as soon as possible, and at the same time, it is necessary to regulate information-based investigation in public law.

5.2. Regulation During Events: Both Internal and External Supervision

Limit internal self-regulatory controls. Because there are no new regulations for information-based investigations, a series of regulations on approval and implementation of traditional investigations are temporarily applied. With the exception of arrests and other investigative coercive measures that have strong restrictive powers, which are subject to the approval of the procuratorate and the court, other investigative measures are basically reviewed by the investigative organs themselves. This approach, which emphasizes the internal examination and approval of the investigation organ, aims to improve the investigation efficiency of the investigation organ. Through the rapid internal examination and approval, the investigation force can quickly arrest criminal suspects. However, internal self-discipline control takes solving cases as its primary purpose, and it is inevitable to relax restrictions when examining and approving applications for investigative measures. In the long run, the internal self-discipline control of the investigative organs has gradually become the personal self-discipline control of the front-line investigators, which cannot be effectively controlled.

Therefore, to limit internal self-discipline control, the first is to narrow the scope of investigation matters that can be approved by the investigative agency to a certain extent, and the subject of approval is to be released; Investigating such judicial acts that are prone to violations of human rights acts as a restraint.

Strengthen external heteronomous control. The division of labor and responsibility is the foundation of judicial review, and judicial review and power restraint are the results of the division of labor and responsibility. It is one of the principles of the Criminal Procedure Law that the public

security organs, the people's procuratorates and the people's courts cooperate with each other and check each other, and it is also the basic condition for the normal conduct of criminal proceedings. At present, the control of the investigation power has also evolved from the one-dimensional pattern of "the procuratorate as the center" to the dual pattern of "the procuratorate as the center in the pretrial stage and the court as the center in the trial stage". The investigation power is restricted by various methods such as necessity review, while the court's control of the investigation power is mainly reflected in the deterrent effect of the rule of exclusion of illegal evidence [12]. Under the current trial-centered reform situation, the courts are in the middle of adjudication, and they can revert to the approval power of severe investigative measures such as technical investigations. The right to examine and approve information-based investigative measures, thus improving the normative nature of the investigative actions of the investigative organs.

Germany's legal authorization for informatization investigation can be summarized as "threshold doctrine", that is, all investigation measures that are not mandatory are covered under the scope of Article 163 of the German Criminal Procedure Code, and no additional authorization is required. The "Revised Threshold Doctrine" derived from the "Threshold Doctrine" believes that on the basis of the "Threshold Doctrine", an exclusionary general authorization should be granted to the investigative measures that exceed the type of general investigative authority, which reconciles the conflict between the threshold doctrine and the principle of legal reservation [4]. Specifically, the formation of China's relevant system should proceed from three aspects: law-practice-society. The legal aspect is authorized by "revision threshold doctrine" and specialized legislation is the core. In practice, it has changed from a control mode dominated by internal self-discipline to a control mode dominated by external discipline. In the social aspect, a corresponding social adjustment mechanism has been established, so as to better adjust the relationship between citizens' rights and the purpose of investigation, and strengthen the inspection authority's review of the investigation power, supervision, relief, and better realize the protection of human rights.

5.3. Post-Event Relief: Hierarchical Exclusion Rules for Evidence Obtained by Information-based Investigations

The rule of exclusion of illegal evidence is an important role in criminal proceedings to protect the legitimate rights and interests of the parties and regulate the investigation behavior. However, the statutory classification of evidence obtained in information-based investigations is not yet clear. There are different opinions about the documentary evidence transformed in practice, or whether a separate classification of evidence is set up. If the type of evidence obtained by the information-based investigation cannot be accurately identified, the corresponding exclusionary rule for illegal evidence cannot be applied.

We can start from the time point of the implementation of the investigation measures, which is divided into three time points: before the case is filed, during the investigation, and after the case is solved. From the front to the back, gradually reduce the degree of restriction of the rule of exclusion of illegal evidence in information technology, such as the use of citizen information before the case is filed, requiring privacy not to be leaked and not to be used as evidence, but can be used as clues within the public security organs; the use of citizen information in the investigation should be subject to multi-layered strict approval, and can be used as evidence under the conditions of fulfilling the formalities, otherwise it will be considered illegal Evidence should be excluded; evidence obtained during interrogation of criminal suspects after the case is solved can be avoided by means of ex post facto corrections, etc.

The correct application of the rule of exclusion of illegal evidence gives criminal suspects a legal way to remedy their rights after the fact, and correctly regulates the behavior of information-based

investigation to obtain evidence. The hierarchical regulation of investigation behaviors from three time periods can supervise the lawful use of various types of information by public security organs.

6.   Conclusions

As a technical and systematic investigation mode, informatization investigation is necessary for judicial practice, and is closely related to the current legal circle's attention to the protection of human rights, so it is inevitable that jurisprudence attach great importance to it, as all parties expect to realize high-speed and efficient investigation under the framework of human rights protection in practice, and achieve the compliance and legality of technical means in theory. With such an expected goal, finding a balance between punishing crime, protecting society, paying attention to privacy and safeguarding human rights is the focus of scholars' research, and should also be the content to be considered when breaking through the involution of investigation mode.

Meanwhile, the classification of legal evidence and the exclusion rules of illegal evidence of information evidence should be determined and unified in theory and practice to enhance the effectiveness of evidence obtained through by information investigation.

Only by integrating the protection of human rights into the justice consideration, implementing the means of prevention, regulation and relief in advance in the whole process of information investigation, can we truly realize the legitimacy and protection principle of the investigation procedure, and reflect the pluralism and unity of judicial practice.

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