The Application of Non-Custodial in Pretrial Detention Procedure

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Abstract: At present, China's pretrial detention rate is high. Through studying the actual operation of the non-custodial digital supervision system, in order to avoid problems such as limited supervision scope, invasion of privacy, monitoring time vacuum and legal liability gaps, the study believes that it is necessary to expand the scope of application, clarify the principle of application proportion, build a dynamic multi-level supervision system, improve the responsibility and relief channels and other measures to meet the requirements of improving alternative custody and the value orientation of reducing the rate of pretrial detention.

1. Introduction

During the prevention and control period of the epidemic, the Hangzhou Public Security Bureau and the People's Procuratorate of Zhejiang province jointly developed a "Non-custodial Personnel Digital Monitoring System" (hereinafter referred to as the "Non-custodial code") based on the operation of the "City Brain" in police affairs, conduct digital supervision of applicable personnel on mobile phone. At present, no one has escaped supervision during the pilot operation in the whole district of Hangzhou, The non-arrest rate in the West Lake District has increased significantly from 17.1 percent in 2018 to 44.6 percent, which is regarded as an opportunity to force the innovation of procuratorial technology.But, Facing the challenge of AI technology and the reform of judicial idea in the new era, can the "Non-custodial code" effectively address the issue of pre-trial detention? This article, by investigating the construction principle and implementation status of "non-custodial code", and deep analysis its operation mechanism, studies the impact it may bring to China's criminal litigation enforcement system and the improvement path of the current "non-custodial code" technology, which will be of great benefit to the optimisation of the current criminal detention system.

2. Analysis of the Technical Principle and Application Analysis of the "Non-Custodial Code"

2.1. The Technical Principle of the "Non-Custodial Code"

The "Non-custodial code" is an abbreviation for non-custodial personnel digital monitoring system, which is based on the information from platforms such as the Public Security Bureau law enforcement and case handling platform, the unified operational system of procuratorial organs, the data from the court case handling system, the Hangzhou City Brain Data and the organization data, and is built using artificial intelligence such as big data, cloud computing, blockchain. All business data is stored in the public security intranet environment, and blockchain technology is used to encrypt the data involved in real time, and the chain is certified so that data access and log operations can be traced, preventing illegal tampering with data. In addition, the database of the "Non-custodial code" establishes many copies on many servers in the public security network cluster, in order to prevent the failure of the whole the "Non-custodial code" operation system caused by a server failure.

2.2. The Monitoring Method of the "Non-Custodial Code"

The main function of the "Non-custodial code" is supervision and quantitative assessment, on the basis of the comprehensive integration of the data of the public security law enforcement and case handling platform, the public security supervision station management platform, the public security basic management and control platform, and the case management system of the Procuratorate, by means of the comprehensive evaluation of the supervised objects, such as timing and random checking, life trace inquiry, online declaration and approval, timing and fixed-point summons, early warning for the calibration of electronic fences, and early warning for the calibration of prohibited places, carry out the "Administrators" such as police, prosecutors, judges and so on in the background management system through the intranet log on the respective background system to carry out business work such as track inquiry, integral management, abnormal early warning, examination and approval management and user management.

The "Non-custodial code" background according to the object of supervision on the completion of the assessment of the project score(in Table 1), starting from 60 points, greater than or equal to 60 points for the green code, 30 to 60 points for yellow code, and below 30 points for the red code. With the background automatic scoring as the main, artificial dynamic management as a supplement, forming a dual evaluation of the management and control mechanism. If the subject under supervision does not cooperate with the monitoring, and if the circumstances are serious or there is a risk of escape, the executive organ may take measures such as confiscating the deposit, ordering repentance and fining according to law, and the circumstances seriously affect the normal litigation of the case, they can even be detained and arrested.

The monitoring mode of "non-custodial code" l. According to whether the supervised objects are in the scope of Hangzhou city, the "Non-custodial code" monitoring mode is divided into dual-custodial monitoring mode and single-custodial monitoring mode. The dual-listing mode means that when the case is executed in Hangzhou City, the host police or the procurator can designate the police station where the case is executed, the police in the local police station shall, in accordance with legal instruments, bind the objects under supervision and assume the main management responsibilities. No matter what stage the case reaches, the authority of the enforcement organ will not be changed. The single-custodial mode means that when the police or procurator can not designate the police station outside the scope of Hangzhou City as the executive organ, the police station shall bear the administrative responsibility alone, monitoring Authority with the case process flow to the next stage of the case-handling organs.

Table 1:Non-custodial code assignment sub-items and sub-values

Quantitative evaluation items of non-custodial codes		
	Project	Points
Plus points	Pay for the loss	30
	Surrender to the police	30
	The victim forgives	25
	To denounce	20
	Turn in the stolen goods	20
	Subpoena to the case	10
	Cooperate with the work	10
	No abnormalities in the previous month	10
	Documents to be handed in	10
Minus points	Harassing the victim	35
	The accomplices gathered	35
	Witness tampering	35
	Destroy or falsify evidence	35
	Co-conspirators	35
	Leaving the area of activity without permission	30
	Access to a specific location	30
	Miss an arraignment	30
	Break the law again	25
	App exceptions (uninstall, de-locate, etc.)	25
	Other violations of the provisions on supervision and administration	20
	Not clocking in as required (within half an hour)	20
	Documents not submitted	10

According to the "Regulations on the digital monitoring of non-detained people in criminal proceedings", the applicable objects of the "Non-custodial code" mainly include:

Criminal suspects or defendants who may be sentenced to fixed-term imprisonment of not more than 3 years, criminal detention, control or a single additional sentence may be applied without the need for detention.

A criminal suspect or defendant who is likely to be sentenced to fixed-term imprisonment of not less than 3 years but not more than 10 years may be arrested or People's Court on bail pending trial under any of the following circumstances:

(1) Those who have statutory mitigating or extenuating circumstances and have shown genuine remorse or have voluntarily pleaded guilty to a crime or punishment.

(2) Elderly people over 60 years of age or disabled people who are physically unfit for detention, such as blind or deaf people.

(3) The person in charge or a technical backbone of a private enterprise of a certain scale whose criminal facts have basically been found out, who pleads guilty to the crime, accepts punishment, and actively repels the ill-gotten gains and repays compensation.

It is prohibited for criminal suspects or defendants who are likely to commit a crime again, have a strong social harmfulness, may obstruct litigation, attempt to commit suicide or escape and are necessary for their detention.

2.3. Analysis of the Application of the "Non-Custodial Code"

2.3.1. The Legitimacy of the Application of the "Non-Custodial Code"

The essence of the "Non-custodial code" is a branch system of legal artificial intelligence. The algorithm behind it is good at calculating, deducing and expressing the legal form rationally and accurately, through the behavior of the object of supervision, we assign personal risk to it, and avoid arbitrary artificial discretion, which forms the rational combination of legal form and the "Non-custodial code" technical rationality. However, in order to avoid falling into "big data-driven connectionism", the combination of artificiality and justice must recognise the limited scope of application of each.

2.3.2. Reduce the Rate of Pretrial Detention in Criminal Proceedings

The court is the subject of the right of conviction and sentencing, and the decision power of pretrial detention should also belong to the court.[1] But in practice, it is the decision of the investigating organ or the procuratorial organ, which will inevitably lead to the confusion in the system, and give birth to the phenomena of "Crime is arrest", "Arrest instead of investigation", as well as the deep-digging of the remaining crime in the detention house. Some scholars found that from 1992 to 2017, the national pretrial detention rate was between 99.75 percent and 57.11 percent of which 110.94 percent in 1993, and even more than 100 percent in seven years. The pretrial detention rate declined steadily from 2001 to 2013, the pre-trial detention rate dropped to 57.11 percent after the promulgation of the new criminal procedure law in 2012.[2] From the data alone, the degree of protection of human rights in criminal proceedings has increased, but the situation of detention is still repeated in a small range of signs of recovery. The high level of detention results in excessive overdraft of resources per person in places of detention, which leads to overcrowding and poor sanitary conditions in places of detention, and even leads to detainees having to "Plead guilty and plead guilty" as soon as possible, to an "Excellent Environment" prison.

Since the operation of the "non-custodial code", as of February, there were 1,008 people under police 2021 in Hangzhou and 258 under police control in the West Lake District Procuratorate. The court applied the measure to cases involving 322 people, and finally decided to impose "Non-custodial" numerical control on 128 of them, with a non-arrest rate of 39.75 percent, compared with the same period from July 2019 to January 2020, the detention rate dropped by 14.58 percent.[3]

2.3.3. Improve the Protection of Human Rights in Criminal Proceedings

Some commentators have investigated the rights of detainees during pre-trial detention, and the probability that detainees enjoy the assistance of lawyers in defense is only 42.8 percent. Some commentators have investigated the rights of detainees during pre-trial detention, only 42.8 percent of detainees had access to lawyers to intervene in their defense.[4] If the right to defense of criminal suspects is guaranteed, it will deal with the complaints of investigation organs and procuratorial organs effectively. For a long time, the investigative mode of "Confession-centric" and the litigation structure of "Investigation-centric" are bound to be difficult to exist, and the investigative organs must collect more effective objective evidence to force the improvement of investigative ability, the number of unjust, false and wrong cases has been greatly reduced, forging a more civilized concept of litigation. In addition, the "Non-custodial code" in almost no interference in the regulated people's normal life on the basis of background supervision instead of "Check-in", fully protect the human dignity of the supervised person.

2.3.4. Strengthen Effective Supervision of Non-Detainees

Due to the difficulty of executing and supervising bail pending trial and residential surveillance, it is difficult to solve the problems of bail without trial and bail without imprisonment, it often exists the problem of escaping during bail pending trial and being remanded in criminal custody by other units.Four. Since the operation of the "Non-custodial code", all the pilot sites in Hangzhou have not occurred one out of control of the situation. The efficiency of handling non-custodial cases in the pilot Qiantang new district branch increased by 11 percent year-on-year, while the average time spent on bail and awaiting trial dropped by 17 days. The efficiency of handling non-custodial cases in Hangzhou increased by 26 percent year-on-year.

3. The Limitation of Applying the "Non-Custodial Code" in the Pretrial Detention Procedure

The advance of the "Non-custodial code" is a battle between rational algorithmic deduction and the empirical representation of judges' discretion. There is an algorithmic black box behind artificial intelligence, as well as a specialized algorithm design. [5] How does the artificial intelligence of the deep neural network model reach the standard of the Judicial Judgment Model? A series of questions, such as how the code behind the algorithm works, have caused a lot of repercussions.

3.1. The Scope of Application of "Non-Custodial Codes"

The "Non-custodial code" monitoring is only limited to the regulated people with regular paths. For the floating people in single-row management mode, it is difficult for the algorithm to calculate their paths to control because of the lack of fixed residence and living routes. In 2020, 50 percent of people in the city who are not Hangzhou native will be subject to the "Non-custodial code". The system of "Non-custodial supervision" for such people has not been set up in their place of domicile, then the "Non-custodial code" monitoring effect has shrunk significantly.

3.2. The "Non-Custodial Code" Supervision and the Personal Privacy Dimension

The "non-custodial code" takes the form of clocking in, video and background path monitoring, so when is this type of monitoring usually carried out? Dining, showering, sleeping and other privacy-related time periods will also be suddenly required to video, clock in? It is worth discussing whether surveillance in free space is infringed upon the privacy of the person in charge and whether the suspect has no right to privacy.

In addition, when the regulated person is under 24-hour tracking, the individual's life behavior is completely in the hands of the regulator, and in some cases, it is necessary to know the information of the person who lives with him before deciding to apply the "Unfettered code", so the information of the third person who lives with the regulated person is at risk of being exposed.[6]

3.3. "Man-Machine Separation" of the Applicable Object of "NON-Constrained Code"

The ideal operation of the "Unfettered code", a digital mobile phone, is to ensure the integration of the supervised object and the supervised equipment by means of the combination of timing clock in and random real-time clock in, due to the regular timing of the way of the clock time can be followed, then the supervised can ask others to clock in on behalf of the AI face-changing technology is also a challenge for digital supervision; When the operation of the digital monitoring system is carried out on a large scale, it is difficult for the supervisors to check the status of the supervised people in real time when the number of supervised objects has increased sharply, it is

even more costly to spot-check all the people under supervision.

There is a vacuum in the supervision time. In practice, random sampling and instant clock in are seldom used, even if video spot checks are required on supervised personnel, it is also possible if relatives "Corroborate" that they have not received video calls, to be supervised after the object returned to "Did not receive video clocking-in message reminder" as a reason to deceive regulators.

3.4. The Legal Liability Gaps in the Operation of the "Non-Custodial Code"

At present, non-custodial supervision is in a legal void. If it involves the violation of personal freedom, it needs to be authorized by law, not created by itself. The **"**Regulations on digital monitoring" jointly issued by the public, procuratorial, legal and judicial departments lacks clear provisions on how to punish those who fail to clock in on time and cause the monitoring code to turn yellow or even red, the police can only take flexible measures such as telephone reminder and order to make repentance to deal with the problem. And do not clock in time or resist the clock-in violation of the code will lead to a directive "Non-custodial code" at a discount to the regulatory effect, increasing the risk of being supervised objects off the control, out of control.[7]

4. Suggestions for Improving the Application of the "Non-Custodial Code" in Pre-Trial Detention Procedure

The "non-custodial code" violates to a certain extent the fundamental constitutional rights of citizens and should be judged by an impartial third party - the judge - in the application of the decision procedure, and must be subject to an impartial adversarial process - a court hearing The decision should be made by an impartial third party - the judge - and must be subject to an impartial adversarial process - a court hearing - to arrive at a reasoned decision, rather than relying solely on a risk assessment in the background of big data. In the US judicial practice, risk assessment systems are used to assess the likelihood of an individual committing a crime again, appearing in court on the day of the trial, and so on, thereby influencing decisions on bail, sentencing, and parole.[8]

4.1. Broaden the Spatial Scope of Application of the "Non-Custodial Code"

The "Unfettered code" needs a powerful cloud server as the support to break through the network environment of multiple municipal platforms, incorporating the live detection and dynamic face comparison functions, at the same time, the information of public security illegal crimes, hotel accommodation information, travel ticket information and other data should be extracted and collected, so that in theory, an integrated data platform can be built throughout the country, step by step by step.

First of all, in the eastern developed provinces and cities to take the lead in the expansion from point to line, in Midwestern Sectional Figure Skating Championships digital technology in less developed areas, we can first promote the implementation of "Wearable" electronic monitoring instruments or electronic bracelets (electronic handcuffs). Hangzhou has carried out judicial practice, and the demand for big data platforms is low. Therefore, the small area extension operation method is gradually implemented.

After the nationwide promotion of the "Non-custodial code", the non-custodial codes can be applied to the floating population through a linkage mechanism in different places, with the corresponding regulatory authorities in the place of residence registration making an early risk assessment, the "Non-custodial code" control is carried out under conditions suitable for digital monitoring; after that, the local supervisory authority of the household registration area submits a supervision form for the period of supervision to the supervisory authority of the place where the

crime was committed, and the prosecutor will make a sentencing recommendation taking this into account, to which the judge will refer for sentencing.

4.2. Clarify the Principle of Proportionality Applicable To "Non-Custodial Codes"

The principle of proportionality is the basic principle that should be observed when the state interferes with the basic rights of citizens.[9] The protection of the right to privacy should be kept in balance with the right to freedom. For example, the privacy of a third party is affected, and even the judiciary has no right to supervise others at will, but moving around a judiciary area, making contact with suspects, is bound to be monitored. To personal privacy information in the acquisition, use and storage of these three links for a full range of protection. Prior consent must be sought from third parties outside the case whose right to privacy would be substantially infringed by regulatory measures, and strict control should be exercised over the privacy data involved, to avoid data leakage of greater privacy violations.

When the the "Non-custodial code" is applied, the personal data shall be obtained and the investigation shall be carried out by means of the supervision. The legislation should distinguish the legality of the above data in order to prevent "Electronic monitoring instead of investigation".

Although the "Non-custodial code" to take the blockchain encryption on the chain, but also difficult to ensure that the information is not stolen, I think, referring to the German regulation that "In principle, the relevant data of electronic surveillance intercepted in accordance with Article 11 shall be destroyed within one week, but on the basis of the necessity of preservation in individual cases, such as the necessity of criminal prosecution, the relevant data may be preserved" same as the preceding note. If the information of the person under supervision and of a third person outside the case does affect the conviction and sentence, it may be stored for an extended period of time until the end of the proceedings, and the results of the processing of the information must ensure that the person concerned is informed.

4.3. Construct the Dynamic and Hierarchical Supervision Mode of the "Non-Custodial Code"

The "Non-custodial code" measure should be mainly applied to suspected minor crimes, negligent criminals.

For the more serious crimes, especially those with a certain degree of violence, which are likely to be sentenced to 3 to 10 years in prison, additional measures – electronic wristbands – should be worn by the person being supervised at all times, in order to ensure the continuity and tightness of supervision, to play a non-custodial state of no dead-angle supervision effect. To ensure the smooth conduct of proceedings by upgrading non-custodial custodial measures to those who could have been subject to custodial measures and who were able to take non-custodial measures after ensuring that they were taken without detention and without problems, the premise of reducing the pretrial detention rate and ensuring the smooth conduct of litigation should be balanced between ensuring social safety and safeguarding the human rights of the supervised people.

In the case of more serious crimes, consideration may be given to establishing the necessary monitoring facilities at one's residence, while at the same time adding monitoring facilities for wearable equipment, and even using the method of family detention and release as a model to achieve strong supervision, [10]through the combination of various new non-custodial coercive measures to achieve supervision, maximum non-detention, through the formation of a cascade supervision system, as far as possible to avoid the supervision of human-computer separation of the vacuum occurred, ensure 24-hour supervision.

In addition, relevant technical and safety standards should be issued to improve the controllability and anti-interference of AI facilities such as unrestrained code, reduce its uncertainty,

and form a complete AI safety evaluation system Seeking scientific sampling frequency to optimize dynamic management and control to realize automatic prediction of risk; relying on voice print, fingerprint and face recognition technology to ensure accurate identification, a double-layer supervisory mechanism combining automatic spot-check and manual spot-check will be formed in the background of big data supervision.[11]

4.4. Improve the Legal Supporting Facilities of "Non-Custodial Codes"

What should be clear from the Digital Monitoring Regulations is that the management of persons released on bail pending trial is primarily the responsibility of the police to which they belong, and that the judiciary can assist the community in that management. The system would therefore require back-office management accounts for Public Security Bureau, Prosecutors' offices, courts and Ministry of Justice, with clear differences in the distribution of power, and management authority in line with the scope of supervision. The Public Security Department is the highest, the Procuratorate and the court only have the right to decide whether to apply the non-custodial measure of the "Non-custodial code", so the authority should be slightly lower than that of the public security department, it mainly supervises the implementation of supervision by government agencies and urges them to perform their duties. The judiciary is mainly responsible for participating in the administration and reporting to the relevant departments in a timely manner, and therefore has a relatively low level of competence and access to relevant information. The public, procuratorial, judicial and judicial departments shall cooperate and cooperate with each other in their respective areas of competence.

The Public Security Authorities should incorporate supervision into their daily assessment, set reasonable assessment rules, and prevent the relevant personnel from arbitrarily increasing the standardization and rigidity of management and control and avoiding "Autonomous discretion" in order to assess their performance.

The non-custodial decision-making authority shall change the intensity of the coercive measure, and the Act shall be listed as a statutory aggravating circumstance for sentencing, and when the the "Non-custodial code" is applied, the supervisor shall inform the supervised person orally or in writing in advance of the legal consequences of the violation.

Set an exception clause. If a person under supervision considers that the level of supervision violates his or her legitimate rights and interests and needs to be adjusted, or fails to comply with the rules in a timely manner due to special reasons, the person under supervision should coordinate with the judiciary, and make timely decisions to adjust this.

No remedy, no right. In our country, the existing three-dimensional positioning and tracing technology has not been implemented, and the concealment, defect and problem-solving ability of the algorithm inference make the relief program set-up necessary, the relief right set by the state should reflect the degree of equivalence with the right transferred by the citizen.

Clarify the period of application. Based on rational algorithmic reasoning and the empirical logic of the law, we can determine the applicable object and degree of supervision, avoid arbitrary application and late application, and if the judiciary is wrongly applied, or the improper application of regulatory measures, causing damage to the person under supervision (including moral damage), he or she shall have the right to apply for state compensation.

5. Conclusion

The "Non-custodial code" demonstrates the progress of criminal judicial idea, which is consistent with the value orientation of improving the alternative measures of custody and reducing the pretrial detention rate, and can gradually implement the criminal policy of less arrest and careful

prosecution, finally, the institutional arrangement of non-detention as the normal and detention as the exception in pretrial procedure is expected to promote the reconstruction of the system of coercive measures based on the principle of freedom and the exception of detention, and the implementation of the trial-centered reform, a new era of Chinese characteristics of the bail system. However, it should also be viewed dialectically. Before the system is "developed", we can only take auxiliary measures to help it "grow well".

At present, the trend of technology integrating justice is in full swing, and through promoting the development of science and technology, scientific and technological innovation helps to realize legal tasks; escort the freedoms of citizens; Through the integration of technology and law, the economic cost of the original compulsory measures will be reduced, and the free ride of information technology development will be implemented earlier and more widely.

The application of "non-custodial code" to pretrial detention procedures does not mean that the pretrial detention procedure is completely free of defects, on the contrary, "non-custodial code" does not have "adverse reactions" and needs to improve the pretrial detention procedure itself, this "main contradiction" is the key to solving the current judicial status quo and implementing the steps of rule of law reform, returning to the problem itself to solve the problem, otherwise there will be countless "non-custodial codes" to solve the problems caused by "non-custodial codes".

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