

Digitalisation of Administrative Discretion Legal Risks and Responses

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Abstract. In the context of the construction of a digital rule of law government, the digitisation of administrative penalties has been widely used in law enforcement practice, enhancing the efficiency and objectivity of administrative penalties. However, there are certain legal risks associated with digitised discretion: the algorithmic black box contradicts the principle of administrative openness, the procedural rights of the administrative relative are ignored, justice in individual cases is sometimes difficult to be achieved as well as the definition of the responsible subject is vague. For this reason, the risk-building programme should be improved through the construction of a transparency mechanism and a dynamic adjustment mechanism, the improvement of administrative procedures, and the clarification of the subject of responsibility.

Keywords: administrative penalties; sanction benchmarks; digitisation; legal risk.

In recent years, with the updating and application of modern science and technology, the effectiveness of social governance has been significantly improved. In the digital rule of law government construction will become an important background of the current stage of administrative rule of law research, administrative discretion as the essence of administrative law, its normative connotation and external form is also quietly changing, and technological change also brings new legal risks and problems. How to identify and avoid the risk, to achieve the coupling of law and science and technology, there is an urgent need for theoretical and legal system on the response. Based on this, this paper tries to clarify the concept of administrative penalty digital discretion, after analysing its practical significance, and pointed out that in practice, digital discretion may exist in the legality of the risk, and then put forward to cope with the strategy.

1. Overview of digital discretion in administrative penalties

The digitalisation of administrative discretion, i.e. "making administrative discretionary decisions in a semi-automated or fully-automated form in accordance with certain algorithmic procedures supported by a new generation of digital technologies such as big data and artificial intelligence". With the penetration of non-manualisation and intelligence into various fields of social governance, automated administrative penalties have become one of the most important forms of administrative penalties, which are embodied in digitalisation in the operation of administrative discretion.

1.1 Rationale: Administrative Discretion and Discretionary Benchmarks

Administrative discretion is the essence of administrative law. Due to the lagging nature of legislation, the subjective factors of executives, etc. , the core of administrative discretion lies in coping with the contradiction between uncertain realities and fixed normative texts. If administrative discretion is used properly, it can realise the inherent dynamism of administrative discretion and help to realise "case-by-case justice". However, if administrative discretion is used improperly, it will go to two extremes: arbitrary abuse will lead to rent-seeking and chaotic law enforcement, affecting the fairness and accuracy of the application of the law; excessive restriction will lead to a complete loss of discretionary space, which will also impede the realisation of justice in individual cases. How to reasonably control the administrative discretion, but also leave the necessary free space, has been the administrative law research difficulties.

As a special "rule of governance", the emergence of discretionary benchmark system has its rationality and inevitability. 2022, the General Office of the State Council for the first time from the national level on the concept of administrative discretionary benchmarks to be clear. From the practical point of view, at present, China has formulated discretionary benchmarks mainly in the field of administrative penalties, the core of which is based on the harmfulness of the illegal acts will be divided into different levels, so as to set the corresponding penalty interval, in order to achieve the equivalent of the penalty. The administrative penalty discretionary benchmark has two functional paths: firstly, through the selection of discretionary factors to typify the discretionary circumstances, to play the constructive function of the administrative penalty discretionary benchmark; secondly, through the division of the penalty range in order to achieve the restriction or limitation of the exercise of discretion, to play the self-control function of the administrative penalty discretionary benchmark.

In the view of administrative law, discretionary benchmarks become a tool for balancing between the same case and individual cases. According to this logic, administrative organs operate digital equipment to make specific administrative acts can also achieve this effect. The essence of the administrative penalty digital discretion, is with the help of digital, intelligent equipment, the discretionary benchmark text set into the system's operating mechanism. The process of machine "discretion" is the process that the discretionary factor is brought into the process of calculation of the discretionary benchmark. In other words, digitised discretion is the algorithmic operation of the discretionary benchmark.

1.2 Mechanisms of operation: technical transformation of discretionary benchmarks

Discretionary behaviour arises from the process of "applying the law", the basic steps of which can be summarised as follows: firstly, clarification of the facts of the case and collection of the relevant evidence; secondly, searching for the applicable legal norms and understanding and interpreting them; lastly, taking the legal norms as the major premise and substituting the facts of the case as the minor premise, evaluating and reasoning on the legal elements; and finally, taking the legal norms as the major premise and the facts of the case as the minor premise. reasoning, and finally make a decision. This is the same procedure for digital adjudication.

Once the discretionary standards have been developed, the realisation of digital discretion in the age of automation requires the gradual completion of the conversion from natural language to computer language. Using computer languages such as code and binary, the legal rules and elements of discretion in the discretionary standards are encoded into codes, and the process of discretion is constructed as an algorithmic model between the elements of discretion, the legal rules and the facts of the case. The algorithms operate in place of subjective human judgement, thus enabling decision-making in penalty discretion.

1.3 Functional orientation: predominantly supportive

Depending on the division of labour between automated machines and humans, digitised discretion can be divided into two categories: fully automated and semi-automated. The current digitalisation of administrative discretion is mainly semi-automated, with law enforcement officers retaining the right to make the final discretionary decision. In the administrative process, law enforcement officers need to match the facts of the offence with the preset discretionary factors of the system, and the value of the discretionary result is calculated by the algorithm. However, it should be clear that the discretionary values derived from the system only have reference value, and the discretionary results still need to be reviewed by the law enforcement officers, who will make the final discretionary decisions. Therefore, the current practice of digital discretionary system is still to assist as a functional positioning, the machine can not yet completely replace the decision-making power of law enforcement officers, the formation of the "human host auxiliary" administrative penalty discretionary pattern.

In the auxiliary pattern of discretion, the judgement of the law enforcement officer on the case is the final result of discretion. If automation is fully introduced into the adjudication process, i.e., if the

entire process of administrative adjudication excludes the manual intervention of the administrative organ, then it exceeds the boundary of the auxiliary type of automated administrative punishment and forms an automated administrative punishment pattern of fully automated adjudication. The automated decision-making system makes automatic judgements on the basis of the data and information entered by the automated collection system or by human beings, and is used to assist human beings in making decisions on administrative penalties. At present, such decision-making systems are only applicable to simple administrative penalty cases and have not yet been promoted.

2. The Relevance of Digitisation of Administrative Dispositions

Administrative penalties, as a classic type of burdensome administrative behaviour, confined to the subjective factors of administrative organs, different situations and other influences, it is difficult to ensure that administrative penalties are different in the same case, and administrative penalties are abnormally heavy and other phenomena occur from time to time. The use of algorithms, big data platforms and Internet technology and other advanced scientific and technological means to implement administrative penalties on administrative counterparts, and to promote the digitisation of discretion is not only a necessary way to deepen the reform of administrative law enforcement, but also a due meaning under the wave of development in the digital era.

2.1 To demonstrating the efficiency value of administrative penalties

The digitisation of administrative penalties is in line with the trend of automation and informatisation of administrative penalties, further highlighting and bringing into play their efficiency value. In traditional administrative penalties, discretion is carried out entirely manually, resulting in higher enforcement costs. Compared with the digitisation of discretion, the ratio of manpower to workload is low, and the limited manual capacity is less efficient. However, with the introduction of the automation of administrative penalty determination, the determination link is completed by machines instead of manpower, and manpower is freed from a large amount of work, which effectively improves the efficiency of law enforcement. At present, there are normative documents confirming the promotion of the development and use of digitalised discretionary systems. In practice, a variety of government service scenarios have already achieved full automated approval, reaching a fully digitalised and intelligent level, and even "second approval". During the Xin Guan epidemic, the "Health Code" system significantly reduced the enforcement costs of administrative organs and improved the efficiency and coverage of law enforcement through resource integration and the use of big data. Another example is the "electronic police", which is widely used in people's lives as an "intelligent punishment method integrating the functions of supervision, judgement and punishment". After the electronic monitoring identifies the illegal behaviour, the signal will be transmitted to the punishment system, and after the system makes a decision on the punishment, the decision will be immediately sent to the person who committed the offence, so as to realize the comprehensive digital closed loop of punishment and discretion. This improves administrative efficiency and reduces the burden on administrative enforcers.

2.2 Promoting objectivity in administrative penalties

"For a considerable period of time, factors such as favours and relationships have played an important role in grass-roots social governance activities and have seriously affected the impartiality of grass-roots administrative governance activities". It has had a great negative impact on the credibility of administrative organs. The traditional discretionary procedure is centred on the role of people, and law enforcers tend to consider a variety of factors when making decisions on penalties, and moreover, given the variability in the academic ability, case-handling experience and experience of law enforcers, different law enforcers tend to reach different conclusions about the discretionary. In the realization of digital discretion of administrative penalty activities, algorithmic rules are fundamental, "equality of differentiated people as undifferentiated digital symbols", law enforcers

only need to analyse and deconstruct the case, the elements in the facts of the case will be entered into the corresponding discretionary factors, the machine can be algorithmically operated to arrive at the results of the discretionary results. The use of digital technology circumvents the undue subjectivity that may exist when administrative discretion is made by human beings, making the results of administrative penalties sufficiently objective and fair, maintaining "technological neutrality", and avoiding the phenomenon of "different penalties for the same case" to the maximum extent possible. "A properly designed system can eliminate conscious and unconscious bias by applying only those conditions that are truly relevant to the decision."

3. Legal risks of digital discretion in administrative penalties

The operating mechanism of digital discretion is essentially the interaction and transformation of networked algorithmic codes with written discretionary benchmarks. The introduction of digitisation has led to a change in the shape of administrative penalties compared to traditional manual discretion, and has given rise to new risks and problems.

3.1 Algorithmic black boxes are contrary to openness and transparency

Under the digitised mode of operation of discretion, the basic information of a case is input by law enforcement officials at the front end, and the decision to impose a penalty can be output by an auxiliary discretionary system at the other end, with the core of this process being an "algorithm". However, under the premise of the objectivity of the facts of the case, the public can often only observe the output of the final decision, but cannot effectively know, observe and understand the internal logic of its operation, thus creating an "algorithmic black box". How legal norms and discretionary factors are translated into codes and how the codes are calculated are hidden in the name of algorithms in a box that is invisible to the public. At the macro-government level, the lack of openness and transparency in the operation of power will inevitably lead to a loss of government credibility, contradicting the due process of administration in accordance with the law; at the micro-individual level, some of the legitimate rights of individual citizens, such as the right to information and the right to privacy, are ceded to the power of algorithms, and the subjectivity of human beings is deprived of by machines.

First, algorithmic barriers prevent openness and transparency. On the one hand, algorithms themselves are confidential, and algorithm developers lack the willingness to disclose them to the public; on the other hand, the public generally lacks the basic knowledge reserves to understand the operation mechanism of algorithms, which has become an intrinsic obstacle for algorithms to the public. China's legislation has not yet clarified the disclosure obligations of algorithm subjects. In terms of administrative punishment, this profit and loss, the burden of administrative action, the algorithm black box makes personal information subject can not get automated decision-making and complete information processing, difficult to know their own legal interests may be damaged or burden situation, which leads to a lack of acceptability of the reasons for the punishment, and often need to rely on subsequent judicial relief to maintain their legitimate rights, which invariably increases the administrative or judicial costs. And even if the flow to the follow-up relief link, the infringer can claim the judicial relief also because of the algorithm barriers to the problem of the lack of effective way in. At this time, the algorithm is submitted by the administrative organ to make the administrative act has the legality, rationality of the evidence, in fact, the judge is also difficult to its substantive review.

Second, there is a risk of rewriting through technological translation. At present, there is an inherent "semantic threshold" in the computerised "translation" of legal norms expressed in natural language through codes. Administrative authorities often use outsourcing or in-house research and development to enter laws, regulations and administrative discretionary standards into a decision-making system, and use the discretionary decision-making system to make administrative penalty decisions. However, this process presupposes that normative texts such as the discretionary

benchmarks have been transformed into algorithmic rules that can be recognised and understood by the system. As the algorithmic formulas involved in the discretionary process and the discretionary factors that may be used are closed and not publicly available, this will lead to the actual implementer of the discretionary benchmarks being transferred from the administrative organ to the algorithmic writer, which to a certain extent affects the extent of the transformation of the benchmarks, and may lead to the emergence of the phenomenon of inconsistency with the expectations. On the other hand, legal norms may be ambiguous. This ambiguity may stem from the lack of clarity or specificity in the expression of the legal text, or the possibility of different interpretations due to the complexity and variability of the specific context in which the law is applied. When discretionary benchmarks are entered into the machine, they are often directly and linearly translated into code, making it difficult to interpret and explain the legislative intent, which may lead to the wrong understanding and application of the law and trigger a crisis in the legitimacy of administrative acts.

3.2 Deprivation of procedural rights of administrative counterparts

Due process is one of the basic principles of administrative law. The Administrative Penalties Law grants the administrative relative the procedural rights of notification, hearing and statement and defence in the form of law, so that proceduralism contributes to the realization of substantive justice. However, the rapidity and technicality of digitalisation is achieved by compressing the manual law enforcement process into machines through algorithmic translation and technical rewriting, which makes the legal procedures unduly compressed, and the procedural rights and interests of the administrative counterparts are neglected.

First, the right of defence is restricted. The law grants the administrative parties the right to express their objections and plead their case, so as to prompt the administrative body to take the facts as the basis and the law as the criterion in making the penalty decision, while at the same time safeguarding to the maximum extent possible the lawful rights and interests of the parties concerned. In the digital operation of administrative penalty discretion, after the law enforcement officers input the corresponding discretionary factors and circumstances into the machine, the administrative penalty decision is generated by the algorithmic model through automatic calculation, and there is no room for negotiation. Therefore, before the decision is made, the administrative relative is in a passive position and lacks the space and process to take the initiative to request participation in the administrative procedure, and the exercise of his or her statutory procedural rights, such as the right to make a statement, to plead, to request a hearing, etc., is often ignored or even falls through.

Secondly, there is a lack of timeliness in the notification. With the "off-site" and "non-face-to-face" nature of digital discretion, the automated notification system came into being. Different from the traditional written or oral notification, with the help of automated mode, the system directly send SMS, pop-up window notification of administrative relative. However, this means that there is a space and time difference between the occurrence of the offence and the delivery of the notice. In the Du Baoliang incident, which has attracted widespread public attention, the vegetable vendor Du Baoliang's 105 violations were identical, and the traffic police department used the "electronic eye" to automatically generate penalties, but did not inform Du Baoliang in a timely manner, so that the offence continued to occur. In the case of HuangXi v suining county long shop highway overload detection station, the plaintiff in the premise of not knowing its illegal acts, naturally, also failed to the relevant facts of the statement, defence, and the defendant in the "did not inform the plaintiff for the statement of opinion, defence and the right to a hearing in the case of" made the penalty decision, and ultimately the court revoked the penalty decision. On the one hand, the automation of administrative penalties widely applied and promote the background, administrative penalties and administrative relative spatial distance brought about by the lag of the penalty decision, obviously not conducive to the timely rectification and correction of violations, and can not achieve the role of warning, criticism and education; on the other hand, for the poor use of mobile phones and other electronic devices for the technically disadvantaged groups, "e-service". On the other hand, for the technologically disadvantaged groups who are not good at using electronic devices such as mobile

phones, "e-service" can ensure that the service and its timeliness, still need to play a big question mark.

Third, the content of the information is not comprehensive. Take Shanghai "electronic police illegal capture instant notification system" as an example, the SMS content sent by the system only includes the offence and the self-help platform for payment of fines, and other information affecting the decision on administrative penalties, such as evidence, has not been clarified. Although the system has achieved immediate notification, there is also a significant lack of completeness in the content of the notification. When the administrative relative has no objection to the administrative penalty decision, he or she often does not ask the administrative organ to inform the relevant law enforcement information again. The administrative relative's right to know is invisibly restricted, and is not conducive to the self-discipline of the administrative organ's law enforcement.

The Ministry of Ecology and Environment's Guidance on Further Standardising the Application of Discretionary Environmental Administrative Penalties makes it clear that the application of discretionary powers should be notified, i.e., the administrative organ should notify the relative of the application of discretionary administrative penalties and the basis for their application, and that if the relative raises objections to the application of discretionary powers, the administrative organ should verify the objections and respond to the adoption of them. The administrative organ shall verify the objections and respond to the adoption of the objections. Different from the traditional administrative penalty mode, the reference basis is mainly "discretionary benchmark" and other normative documents, the application of which can also be made in writing; in the context of the digitalisation of discretion, the main way of applying the discretionary benchmark is algorithmic calculation, whether or not to inform, how to inform undoubtedly greatly increased the difficulty of informing.

3.3 Obstruction of justice in individual cases

"Reasonable administration" is one of the basic principles of administrative law, which requires administrative organs to treat all administrative counterparts equally. As a "self-regulatory" means within the administrative system, the formulation of discretionary benchmarks, to a certain extent, also originated from the correction of the chaotic phenomenon of "arbitrary law enforcement and unfairness in discretionary measures". Under the digitisation of discretionary measures, the machine will directly output the result of punishment through algorithmic calculations by inputting the relevant circumstances, completely avoiding the interference of "human relations" in administrative discretion and suppressing rent-seeking and corruption. However, the digitisation of discretion has, to a certain extent, facilitated the realisation of the "formal rule of law" in law enforcement, but is not conducive to the maintenance of the "substantive rule of law".

First, as the most humane discretionary activity, its soul lies in the exercise of human subjective initiative and has a "humane" colour. As the old proverb says, "the life of the law lies not in logic, but in experience". Digital discretion effectively eliminates the subjective factors of law enforcement officers on the impact of decision-making, but in this process, human subjective initiative is deprived of, and does not completely solve the problem of discretionary results of individual justice. Compared with manual discretion, digital discretion has limitations in considering the relative's affordability and specific circumstances. Traditional discretion takes into account the relative's economic conditions, repentance, etc., and follows the principle of equal punishment and punishment, ultimately achieving the purpose of combining punishment and education. The digital model is more difficult to achieve such targeted operation, resulting in the processing results are too rigid and mechanical, this "wholesale" administrative punishment is difficult to achieve the unity of the legal effect and social effect. A study through empirical analysis, concluded that "law enforcement agencies in the automation of administrative penalties in a large number of top penalties", the final amount of the determination is often taken to the critical value without further distinction. Discretionary benchmarks are not refined in "secondary discretion", but are instead limited in a more mechanical form, without achieving specific analyses of specific problems.

Secondly, it is difficult to digitise administrative penalties to deal with all cases. Given the complexity of social change and the reality of the situation, it is difficult for the discretionary

digitisation equipment to predict all types of cases and to assess and make discretionary decisions beyond the existing knowledge base; it can only operate on the basis of pre-inputting the relevant discretionary factors or the specific setting of the situation, and it cannot deviate from the track it has been set to follow. On the one hand, as mentioned above, for the legal concept of "uncertainty", such as "significant", "minor" and other words commonly found in the text that are difficult to define, the code cannot accurately capture the meaning of the legal norms. The connotation of legal norms, so that the code written by the procedural links "escape from the scope of legal norms", thus "changing the legal norms of the original setting of the constituent elements of the offence and the legal effect", resulting in the making of incorrect administrative penalties. On the other hand, independent thinking and the ability to analyse individual cases, which machines do not possess, make it possible for brand-new factors that have not been included in the scope of machine learning not to be included in the scope of discretion, which is not conducive to the full protection of the legitimate rights and interests of the parties concerned.

3.3 Ambiguity of the subject of discretionary responsibility

When the Government adopts a certain means of decision-making that involves the fundamental rights of individuals, it must be guided by the reservation and precedence of the law. Procedurally, the Government needs to consult the public or obtain the consent of the opposite party beforehand. But a certain public decision-making to algorithms, people tend to think that what has changed is only the decision-making tools, so their access is often not to do any defence, and did not set any threshold restrictions, which allows algorithms to enter the field of public management unimpeded. Technology, too, has made the leap from being an aid to public decision-making to being a decision-maker. This makes the making of administrative penalties is no longer only the operation of traditional administrative power, but become both algorithmic power involved in the composite behaviour. In the digital process of administrative penalty discretion, the participating subjects are no longer single, in addition to the administrative parties, but also includes the algorithm maker, user and so on. The traditional "administrative subject - administrative relative" model has been transformed into "law enforcement personnel - digital discretionary equipment - administrative relative" or even "digital discretionary equipment - administrative relative". However, when the legitimate rights and interests of the administrative relative are infringed upon, the current legislation does not provide a clear definition of the responsible subject, leading to ambiguity in the object for which the administrative relative is claiming responsibility, which is not conducive to the redress and defence of rights.

There are two types of risk that may exist in the process of digitising discretion: firstly, errors or anomalies in the outcome of penalties as a result of machine malfunction; at the same time, shortcomings or loopholes in the design of the system may not be detected at an early stage or may lead to malfunctions or deviations from expectations at a later stage of the system's operation. Secondly, the wrong understanding of the law leads to code translation errors, as the compiler of the algorithm is often not a professional legal personnel, there may be deviations in the understanding of the legal language, which may be manifested in the machine language, resulting in code that deviates from the intention of the legislator, leading to the application of relevant laws and regulations to illegal situations in error. For example, Jiayuguan Environmental Protection Bureau classified "the existence of refusal to rectify the behaviour" as "aggravating circumstances" and set it to the discretionary assistance system, the court held that: "the defendant ... is an expanded understanding of discretion, clearly contrary to the legislative intent of the Administrative Penalty Law." Do both of these risks need to be borne by the administrative body? Who is responsible for the results of the damage produced by the wrong punishment? The above questions need to be further responded to and clarified.

4. Digital Discretionary Adaptation Path for Administrative Penalties

Administrative penalties, as burdensome administrative activities, should be subject to strict legal restrictions and limitations. The digitalisation of discretion is in line with the background of the times when the Internet and big data are widely used, and its essence is still administrative punishment, which should adhere to the basic principles of administrative law. In order to cope with the legal risks arising from the digitisation of discretion, it is necessary to formulate a corresponding path of adaptation, so as to give full play to the positive effects of science and technology.

4.1 To build Transparency in Digital Discretion

Openness and transparency are the principles of a sunny government and a necessary means of enhancing government credibility. In order to avoid the discretionary power to digital outside the practice of "black box" operation, can build digital discretionary transparency mechanism. "Transparency" should include transparency, visibility and traceability of the entire process.

First, the scope of application of digital discretion should be clarified. The relevant departments should make known to the public the scope of administrative penalties to be imposed using digital discretion, which should be determined after rigorous argumentation, so that decision-making power is "ceded" to machines in areas where they "excel". The public should be clearly informed of the use of digital systems to assist decision-making in the imposition of penalties, either at the time of imposition or thereafter. If the public objects to the use of digital discretion, traditional manual enforcement should be used, with the enforcement officer making the penalty decision. If that penalty decision is consistent with the penalty decision made by the machine, the basis and justification for the penalty should also be stated.

Secondly, a public hearing procedure should be established. Hearings have the function of "early judicial relief" and are an important system for realising the value of the process. In the research and development stage, we should give full play to the function of social participation, and when problems are encountered, relevant organisations can be cited to carry out and supervise technical improvements. At the same time, when the algorithm is put into practical use, should be held before the public hearing, invite professional and technical personnel, legal experts, government staff, the public, etc., on the operation of digital discretionary equipment feasibility, legality, reasonableness of argumentation, the public's suggestions should be timely response and feedback. Administrative organs that are in a position to do so may also convene expert hearings and invite third-party technical experts to make suggestions and improve measures. After the digital discretionary system is put into use, hearings should also be held regularly to realise full-process supervision by the public; at the same time, the satisfaction level and opinions and suggestions of the administrative counterparts should be collected, and continuous improvement should be made to enhance the persuasiveness and acceptability of the machine's discretionary measures.

Third, the obligation of disclosure should be clarified. Technical barriers are not a reason for administrative organs to regard algorithms as "secret"; full disclosure of information is an inevitable requirement for administration in accordance with the law and the promotion of the rule of law and the construction of a sunny government. Therefore, the administrative organs have the obligation to disclose the information on the use of digital discretion, the mechanism of operation. It should be noted that the disclosure is not the code, binary algorithms and other obscure machine language directly open, but in a way that the general public can understand and track to be disclosed to explain. "Transparency is not an end in itself; it is only a stepping stone to comprehensibility." What should be explained can be broadly categorised into three areas: first, discretionary circumstances, i.e. the interpretation of the elements of the case that are fed into the system. Secondly, the application of the law, including the choice between general and special law, the choice of norms of different orders, and the question of why the relevant law does not apply. Thirdly, other discretionary factors, i.e. what circumstances, in addition to the fixed discretionary factors, were taken into account in reaching the decision.

4.2 Guarantee of procedural rights

Regardless of the method of discretion, discretion is still a part of the administrative penalty, still need to apply the provisions of the Administrative Penalty Law, the change of the administrative mode can not reduce or even exempt the administrative subject's legal obligations. The background of the rise of automated administrative law enforcement, on-site law enforcement mode has been changed, the original procedures can not continue to use, it is necessary to improve the automated law enforcement, digital discretionary supporting procedures under the guidance of the new concept, new technology.

First, the creation or innovation of systems to meet existing procedural requirements through flexible procedural provisions. Digital discretion, with its efficient and convenient features, may lead to the backward movement of procedures such as notification, statement, defence and hearing, i.e., from an ex ante preventive procedure to an ex post corrective procedure, in order to achieve a greater degree of efficiency. The administrative organ needs to decide which procedural system to apply in an alternative way, taking into account factors such as the complexity of the case, whether it affects the public interest and the degree of cooperation of the administrative relative. It should be noted that the following conditions should be met in order for the relevant procedures to be adapted: firstly, under certain circumstances, not all scenarios can be adapted; secondly, they are conducive to the protection of the legitimate rights of the administrative counterpart; thirdly, they can achieve the ultimate purpose of the administrative penalty, and achieve a favourable social effect; and lastly, they are subject to a certain number of legal procedures, for example, collective discussion, reporting to a higher authority for approval, and so on.

Secondly, the administrative relator should be informed in a timely manner. "Reasonable notification means not only that the relative should be given a reasonable account of the matter being dealt with, but also that he or she is informed within a reasonable time" . Under the digital administrative enforcement model, law enforcement officers can notify the parties of the outcome of the penalty in advance by sending SMS or other means. If the party concerned has any objection to this, he or she can obtain more information about the facts of the offence, evidential materials and other information through the website, links, public numbers, applets and other channels provided by the administrative organ, and put forward his or her own defence and request for manual intervention. This can be done to maximise the advantages of digital efficiency while ensuring the procedural rights of the administrative relative.

4.3 Establishment of a mechanism for dynamic adjustment of numerical discretion

In the established rules mode, the machine according to the pre-set algorithmic rules will be input into the discretionary factors translated into binary for computing, and can not be like human beings, to make temperature, specific, individualised decisions, contrary to the administrative law "punishment and education combined" principle. And determine the rules are difficult to adapt to the bizarre reality of the situation. Therefore, it is necessary to establish a digital discretionary dynamic adjustment mechanism, in order to prevent the obvious deviation between the automatic discretionary conclusions and the justice of individual cases.

First, the establishment of a case database. Machines lack human emotions, but have the ability to integrate data and deep learning that far exceeds that of humans. A case database can be established, and the penalty results calculated by the machine based on the public notices and codes entered can be compared with cases with similar circumstances in the database, and if the penalty results deviate significantly from the analogous cases, the case escape mechanism can be activated. Depending on the degree of deviation, a decision is made as to whether the intervention of an enforcement officer is required for reassessment and to what extent. In this case, the enforcement officer retains the final decision-making power and has the right to decide whether or not to use the machine's output.

Secondly, a dynamic adjustment mechanism for administrative penalty standards should be established. Discretionary standards to "plot refinement" and "effect grid" technology to the maximum degree of refinement of laws and regulations, however, the inherent lag of the law leads to

the existence of certain laws and regulations in the discretionary standards in the refinement of provisions of the "blind zone. However, the inherent lag in the law leads to the existence of "blind spots" in the refinement of certain laws and regulations in the discretionary benchmarks, which can lead to a lack of corresponding discretionary factors in the automated discretionary decision-making system. Therefore, when technicians enter discretionary factors into the system, in addition to the inherent elements already set in the text of the discretionary benchmarks, such as the circumstances of the offence, the circumstances of the offence, and the consequences of the harm, they can also consider adding variable indicators such as the penalty situation of the class of cases, the level of the economy, and the policies of the country, so that the administrative body, when making a decision on the penalty, can make dynamic adjustments in accordance with the different circumstances. This practice does not expand the administrative subject's discretionary space, but only on the basis of the original discretionary factors, increase the variable factors, and these variable factors at a particular time can be obtained or determined, still has stability and predictability. In the text of the discretionary benchmark, the above dynamic indicators are often not taken into account because they cannot be fixed, but the machine can establish a dynamic detection and adjustment mechanism, through the regular updating of these indicators, in order to realise the positive interaction between the automated discretionary decision-making system and the text of the benchmark for discretion.

4.4 To clarifying the subjects of responsibility and the boundaries of rights

In traditional administrative penalties, it is not difficult to identify the damage caused by an administrative act and the persons responsible for it, and this is clearly stipulated in the law. In the digital operation of administrative penalties, a wide range of subjects are involved, including, in addition to administrative subjects, the designers and developers of the system and those who operate and maintain it. It is necessary to identify the responsible parties on the issue of liability.

Firstly, clarify that digital discretionary systems are still in an auxiliary position. At present, the digital discretionary assistance system still fails to achieve the degree of completeness of replacing human beings, which determines the auxiliary position of the digital system. The output results of the discretionary assistance system have a reference role, and the ultimate decision-making power remains with the law enforcement officers. Therefore, law enforcement officers cannot be exempted from their responsibilities because discretionary decisions are made by machines, and they must still exercise their discretionary power prudently and give full play to their subjective initiative.

Secondly, the subject of external responsibility is the administrative organ. At present, the status of the legal subject of AI is not stipulated in China's laws. Some scholars believe that the ownership of electronic administrative equipment is subordinate to administrative agencies. The author agrees with the view. The administrative subject is a party of public power in the administrative legal relationship, no matter what way the administrative act is made, it does not affect its meaning on behalf of the administrative organ, in the administrative legal relationship is still the administrative law enforcement agencies with the qualification of the subject. When the lawful rights and interests of the administrative relative are harmed as a result of digital discretion, the bearer of responsibility remains the administrative organ.

Thirdly, the legal relationship formed is that of an administrative agreement. At present, China still adopts the mode of having people control or be responsible for algorithms, with the owner and direct responsible person of the algorithm being the technical subject. In fact, the technical subject to the administrative subject to provide technical legal services, the formation of the administrative agreement between the two legal relationship. If the technical subject is at fault, after the administrative subject has assumed responsibility externally, it may claim the corresponding responsibility from the technical subject according to the agreement in the administrative agreement.

5. Conclusion

Digital discretion is an important manifestation of the benign interaction between law and science and technology in the field of administrative penalties, which, while eliminating the subjective factors of law enforcement officers and enhancing the effectiveness of law enforcement, also brings more complex impacts and risk challenges in more dimensions. Regardless of the development of science and technology, the basic principles of administrative law should still be respected and complied with. Therefore, on the basis of prudent identification of the risks that may be created by technology, a sound programme of risk management rules should be gradually constructed to achieve a balance between objectivity and openness of punishment, consistency in the same case and justice in individual cases, so as to better promote the construction of a digital government based on the rule of law and the advancement of administrative concepts, methods and means.

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