

## **Legal Regulation of Automated Administration in the Context of Digital Government**

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**Abstract.** In the context of digital government, the implementation of automated administrative construction through public-private cooperation has greatly improved the efficiency of administrative decision-making, but the risks have gradually emerged. There is a risk of alienation in the embedding of algorithms in administrative management, and there is tension between the profit-seeking nature of private subjects and public interests. In addition, the technical dependence of administrative power on algorithms leads to the expansion of administrative power and the erosion of counterpart rights. To standardize the application of automated administration, it is necessary to complete the transformation of the concept of single technical regulation to the concept of dual regulation of technology and power and the concept of phased regulation to the concept of whole-process regulation. In terms of the specific regulatory path, the design should delineate the boundaries for automated administration, guide and regulate the public-private cooperation, and strengthen the protection of the rights of the counterpart, to form a whole-process regulation before, during, and after the event.

**Keywords:** automate administration; algorithm; legal regulation; due process

### **1. Introduction**

Thanks to the rapid development of computer information technology, algorithms are not only widely used in the business field, but also gradually applied to administrative management. In 2022, China issued the State Council's Guiding Opinions on Strengthening the Construction of Digital Government, stating that it should vigorously promote the construction of digital organs and enhance the effectiveness of digital government operations. The application of digital construction in the administrative field belongs to the category of automated administration, which replaces or partially replaces manual participation in all aspects of administrative management through algorithms, and replaces manual processing to achieve partial or full unmanned administrative activities, which improves the efficiency and scientificity of administrative decision-making.

However, while improving administrative efficiency and government governance capabilities, the risks of automated administration are also gradually emerging. First, the risk comes from the algorithm technology itself. In the process of algorithms participating in

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decision-making, there are risks such as algorithmic discrimination, algorithmic black boxes, and algorithmic errors, and algorithms are embedded as technical tools to assist management, and their defects may lead to the risk of infringement and disorder in the exercise of administrative power [1]. Second, the intervention of capital forces in administrative management has shaken the legitimacy basis of automated administration. In addition, there is a tension between the profit-seeking nature of private subjects and public management, which may even infringe on the rights and interests of the counterpart. Third, the dependence of administrative organs on administrative algorithms has gradually deepened, and the expansion of algorithmic power has led to an imbalance in the "power-right" relationship, which makes it more difficult to ensure the rights and interests of counterparts who are already weak in administrative management. Therefore, to standardize the exercise of administrative power and protect the legitimate rights and interests of counterparts, it is necessary to regulate automated administration to promote the construction of digital government.

## **2. Risks and challenges of automated management in the context of digital government building**

In the process of digital government construction, algorithms are embedded in administration to improve the efficiency of administrative decision-making, capital forces are involved to inject new impetus into administration, and technology is gradually developing into a dominant force of technological change. In this process, the dependence of administrative power on algorithms and the dependence of the administration on technology companies may occur, which may create risks and challenges for the administration.

### **2.1. The alienation risk of algorithmic embedding in administrative management**

On the one hand, the flow of decision-making power from humans to algorithms in automated administration has given rise to algorithmic power. Algorithms are increasingly used in the administrative field in more and more scenarios, from the initial auxiliary administration to automated administration, algorithms not only act as simple auxiliary administrative tools, but also act as the role of decision-makers of the administration, forming a kind of discretionary power instead of human discretion, and have an important impact on the relative in the allocation of resources and the control of behaviour [2]. Algorithms are deeply embedded in administration, and with their powerful data collection and processing capabilities, they make it possible to automate a wide range of administrative tasks. In addition, the increasing sophistication and power of algorithmic technology are driving administrations towards fully automated decision-making, gradually reducing human discretion and judgment. Particularly in the use of machine learning algorithms, the power of algorithms arises as machines gradually form their own rules by analyzing input data, gradually replacing human decision-making.

On the other hand, the embedding of algorithms in automated administration may create a risk of alienation due to the nature of the algorithms themselves. First, algorithmic power is decentralized in nature, showing decentralization and mobility, which gives different subjects, including governmental subjects, the opportunity to compete, thus creating the risk of power spillovers [3]. Second, algorithms are embedded in administration, compressing the administrative chain and evading the controls of administrative due process [4]. In addition, the existence of the algorithmic black box and the opacity of the algorithmic operation process violate the requirement of administrative openness and erode the relative's right to know. Third, automated administration is geared towards an unspecified majority of people, and by using algorithms to make decisions, the decision itself will have an impact on the unspecified

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majority. Moreover, the ability of algorithms to make decisions faster than humans can easily lead to large-scale generalized aggression. As government departments increasingly rely on algorithms with high influence, if the algorithms used are flawed, the high influence of the algorithms may end up greatly amplifying the negative impact of those flaws [5].

### **2.2. The risk of introducing capital forces into the administration of the government**

For utilitarian reasons and to meet the needs of the modernization and development of the country, modern governments have either proactively or passively turned on automated management. Limited by the government's level of information technology, the design and development of automated administrative systems in practice are often carried out in the form of cooperation between the government and enterprises, whereby private enterprises are involved in public administration, and the power of capital injects a driving force into administration, but also carries risks.

First, the flow of administrative power from administrative organs to private entities such as algorithm service providers has shaken the foundation of the legitimacy of administrative acts. The principle of exclusive power is the basic principle of state power configuration, and administrative power belongs exclusively to the corresponding administrative organs. And automated administration realizes role transformation among various participating subjects, and there is an obvious tendency to transfer administrative power [6]. The administration's reliance on private technology firms has led to a gradual shift in the role of government agencies from regulators in traditional algorithmic governance to purchasers and users of algorithmic technologies. At the same time, the private technology enterprises mastering the core technology gradually transformed from the provider of algorithmic technology to the user of administrative power, and in the process of code translation, the government or invisibly ceded power, shaking the foundation of the legitimacy of administrative behaviour.

Second, the introduction of automated administration by private firms may lead to the undermining of the public interest. There is a tension between the profit-seeking nature of private enterprises and the public interest of public administration. In automated administration, private enterprises participate mainly to pursue profits, which may lead to the risk of infringement of the interests of the relative. For example, the combination of algorithms and capital may make enterprises willing to take on moral hazard and use methods such as implanting backdoors and reserving risky ports in the hope of locking in future cooperation [6].

Finally, there is a risk of blame avoidance for private firms involved in automated administration. From an objective point of view, in automated administration, it is difficult to recognize the causal relationship in tort law due to the automatic generation of decision-making by algorithms and the existence of multiple actors leading to the mixing of responsibilities. At the same time, citizens are unable to hold private technology subjects accountable because of the difficulty of breaking the relativity of contracts. From a subjective point of view, in automated administration, private enterprises often use the principle of neutrality of technology or safe haven as an excuse to avoid responsibility [7]. This leads to the fact that private enterprises contribute to the final administrative decision, but there is no corresponding mechanism to pursue responsibility after the damage has occurred.

### **2.3. The convergence of administrative power and technology leads to an imbalance in the power-right relationship**

Algorithm-driven automated administration greatly improves the efficiency of administration, and algorithmic neutrality reduces the arbitrariness of manual decision-making. However, the

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powerful data collection and processing capabilities of algorithms make the deep combination of administrative power and algorithms exacerbate the imbalance in the structure of the relationship between administrative authorities and administrative counterparts [8].

On the one hand, the embedding of algorithms in automated administration leads to a magnifying effect of administrative power. The digital divide created by the application of algorithmic technologies in automated administration deepens the inequality between public and private power. Whereas in traditional administration, decisions made by civil servants only affect specific administrative counterparts, in automated administration, algorithms can have a huge impact on everyone. Some scholars in the United States have argued that AI will further empower governments, enable surveillance that may threaten privacy and civil liberties, and further disempower marginalized groups [9]. In addition, automated administrative management with the help of algorithms to carry out administrative management, resulted in the emergence of law enforcement aberrations. For example, in automated administrative law enforcement, such as the capture of traffic violations, once the system is deployed to realize all-day monitoring, it greatly improves the probability of illegal acts being processed. However, the original penalty has not been adjusted accordingly, resulting in an imbalance in the density of penalties and an amplification effect of the enforcement power [10].

On the other hand, automated management hollows out due process and leads to the deprivation of procedural rights of the parties. First, in the construction of digital government, the design and development of automated administration is carried out through cooperation between the government and enterprises, and in the early stages of the design and development process, the needs are often put forward by the administrative authorities and solutions are provided by the enterprises. This process is closed, depriving the administrative relative of the right to administrative participation. Second, automated administrative decision-making is automatically generated by the algorithm model, and the reason for its generation is obscured by the algorithmic black box, which erodes the counterpart's right to know. Third, automated administrative decision-making is instantaneous, and the decision-making process compresses the space for the counterparty to make statements and defences.

### **3. Regulatory conceptual correction for automated administration in the context of digital government**

To standardize the application of automated administration and promote the construction of digital government, the concept of regulation of automated administration should be amended. On the one hand, the automated administration has the dual attributes of algorithmic power and administrative power, and should complete the change from a single technical regulation concept to the dual regulation concept of power and technology in the regulation concept. On the other hand, it is difficult to meet the needs of automated administrative regulation either by focusing on the ex-ante preventive path of regulation or by focusing on the ex-post accountability path of regulation, therefore, automated administrative regulation should be carried out by adopting the concept of whole-process regulation.

#### **3.1. The shift from a single concept of technology regulation to a dual concept of technology and power regulation**

Based on the notion that the potential risks of algorithms stem from their opacity, scholars have emphasized algorithmic transparency to regulate algorithms, and have proposed technical regulatory paths, such as disclosure of source code, to resolve the risks posed by algorithms. However, due to the public's lack of code parsing ability and the use of algorithmic knowledge

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to weave the fallacy of transparency by organizations in control of the technology, it is difficult to satisfy the public's right to know through the disclosure of source codes and databases [11]. It should be realized that regulating algorithms as pure technology ignores the attributes of power that distinguish algorithms from other technologies and the impact they have on the social fabric [12]. Technological instrumental rationality under the concept of technological regulation can cause the value track of automated administration, which aims at public management and service, to shift to the technological track and cause the dissolution of human subjectivity [1].

To regulate the application of automated administration, it should be carried out using the dual regulatory concept of technical regulation and power regulation. On the one hand, technical regulation has its significance, including the disclosure of source code and reverse engineering technical regulation methods, which can achieve a certain degree of algorithmic transparency in technology, enhance the security of the technology, and help the algorithm to be exercised openly and transparently. On the other hand, the design of the system based on the concept of constraints on power can fully utilize the existing resources and ensure the integrity and relevance of the system [12]. Under the regulatory concept of power constraints, there is no need to set up specialized departments to regulate or even reorganize government agencies because of the introduction of new technologies, thus avoiding the waste of resources. In addition, the distribution of power and responsibility is more rational under the concept of constraints on power. The concept of technological regulation inevitably skews responsibility in favour of the designer of the algorithm, but placing a heavier burden on the designer of the algorithm hinders technological innovation. The operation of algorithmic power is at the root of alienation, so the regulatory concept of power constraints can urge algorithm users to use algorithms more carefully, and scientifically, and to take responsibility for the deployment and application of algorithms.

#### **3.2. The shift from a staged regulation concept to a whole-process regulation concept**

On the one hand, most of the current regulatory research on automated administration focuses on ex-ante regulation, with prevention as the main focus. Strengthening ex-ante prevention of automated administration allows most risks to be taken into account before the automated administration system is put into use, enhances the awareness of administrative organs and technology enterprises of the need to protect the relevant interests, and helps to minimize the occurrence of actual damaging consequences [1]. However, algorithms are uncontrollable, and ex-ante prevention is difficult to control subsequent risks arising from machine learning-type algorithms that can evolve themselves. Yet excessive preventive governance can stifle technological innovation, which is not conducive to social development in the long run. On the other hand, the result-oriented ex-post regulation is based on the algorithmic risk is difficult to control the helpless. Due to the non-transparent process of automated administrative algorithmic decision-making, it can only be based on ex-post results of passive accountability, governance nodes lagging behind, and it is difficult to achieve the purpose of preventing the occurrence of damaging results. Whether focusing on ex-ante prevention or ex-post accountability of the stage of regulation is not a smart governance strategy.

It should be recognized that the design, deployment, and application of algorithms in automated administration are relatively opaque and scattered, and it is difficult to eliminate the occurrence of risks by relying only on ex-ante supervision, and it is difficult to achieve the purpose of risk prevention by focusing only on post-event damage accountability. The design,

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deployment, and use of algorithms should be regarded as a whole, and the concept of dynamic regulation of the whole process should be implemented from a holistic perspective. Consideration may be given to establishing a whole-process risk assessment mechanism, conducting an impact assessment of the algorithm before it is put into use, periodically updating risks during use, and promptly reviewing and correcting the damage after it occurs, to achieve whole-process risk regulation before, during, and after the event. At the same time, an accountability system is established in the occurrence of damage to hold accountable the abuse of power and inaction of various actors in automated administration, to standardize the operation of automated administration.

#### **4. Exploring the path of automated administrative-legal regulation in the context of digital government**

Under the background of digital government construction, to regulate the automated administration, the regulation path of automated administration should be explored under the regulation concepts of double constraints of technology and power and whole-process regulation. In this paper, we believe that we should construct the whole process of automated administration regulation path by delimiting the boundaries of automated administration, governing public-private cooperation in automated administration, and strengthening the protection of the rights of the administrative relative, and so on.

##### **4.1. Delineate the boundaries of the use of automated administration**

It should be made clear that the scope of application of automated administration should not be expanded indefinitely. Automated administration can be applied to matters that are simple and clear, and easy to be data-based, elemental-based, and categorized [13]. Automated administration may be applied as an aid to human decision-making in matters involving discretion, but the application of fully automated discretion should be avoided [14]. Fully automated discretion is a decision-making preference calculated by an automated administrative system based on previous decision-making data, behind which correlation is at work. Fully automated discretion means that discretion is not exercised in a specific case [15]. Matters involving discretion in individual cases require the decision-maker to exercise human subjectivity in making value judgments and require complex analysis between facts and legal norms, so automated administrative decision-making is generally not applicable. In addition, from the point of view of the division of income behaviour and profit and loss behaviour, profit and loss behaviour is directly related to the relative's free property rights and interests, for individual disputes and procedural fairness by higher requirements, will be more difficult to digitally transform the profit and loss behavior [16]. In order to protect the legitimate rights and interests of administrative counterparts, those decisions that will have a great impact on the rights and interests of administrative counterparts should not be fully applied to automated administration.

At present, the construction of digital government in China is in its infancy, and there are no clear regulations on which matters can be applied to automated administrative decision-making. The administrative power follows the operating logic of "nothing can be done without the authorization of the law", but it is difficult to delineate the scope of application of automated administration by means of positive enumeration. Therefore, consideration could be given to qualifying the scope of application of automated administration by means of a negative list enumeration. In addition, appropriate avenues for human intervention should be retained

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throughout the field of application of automated administration [1]. 2022 China issued the Administrative Provisions on Algorithmic Recommendation of Internet Information Services, of which Article 11 stipulates that algorithmic recommendation service providers establish a manual intervention mechanism. In automated administration, the purpose of retaining the manual intervention channel is to provide the relative with the opportunity for manual decision-making, as well as to minimize the possibility of machine error in the face of complexity.

### 4.2. Regulate public-private partnerships in automated administration

First of all, to clarify the legitimacy of enterprise participation in digital government construction. The current legal provisions on regulating cooperation between the government and enterprises have the problem of insufficient applicability, to effectively respond to the practical demands of government-enterprise cooperation under the construction of digital government, it is necessary to design and update the relevant laws and regulations in a timely manner, clarify the boundaries of the rights and responsibilities of the administrative organs and private enterprises, establish an authorization mechanism, make clear the authority of the enterprises to participate in all aspects of the construction of digital government, and make clear that the private enterprises participate in automated The legitimacy basis for private enterprises to participate in the construction of automated administration should be clarified [17]. In addition, to reduce the technological dependence of administrative agencies on private enterprises, it is necessary to strengthen the technical capabilities of administrative organs and ensure that they have a minimum capacity to identify, supervise and verify.

Second, establish technical standards and establish a mechanism for assessing the impact of algorithms. The construction of automated administration shall build a technical standard system, and regulate the construction of an automated administrative system through the construction of detailed procurement procedures and public-private partnership procedures. At the same time, in order to deal with the risks of data leakage, technology abuse and technology loss of control in automated administration, it is necessary to cooperate with the establishment of an algorithm impact assessment mechanism. The government and enterprises have established a joint effort to continuously consolidate the technical security foundation, conduct systematic risk assessment before the deployment of the automated administrative system, and promote regular updates according to the procedures of automated administration.

Finally, active monitoring and accountability. Avoiding technological dependence is most important to prevent unaccountable power and costless technology [18]. In order to urge administrative organs and private enterprises to design and deploy automated administrative systems that are scientific, objective and fair, and to hold administrative organs and enterprises accountable for their actions, the process of operating administrative power matters should be solidified by digital means. The targets of supervision and accountability in automated administration include not only administrative organs, but also developers, designers and operators of automated administrative systems. The division of responsibility should be carried out scientifically on the basis of such factors as the structural position of the responsible body in the automated administration and the degree of influence it has on decision-making [6]. In addition, accountability systems should be rigorously enforced, and heavier penalties should be imposed on administrations and private enterprises that violate the law, design algorithms in bad faith, and fail to fulfill their due diligence.

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### **4.3. Strengthen mechanisms for protecting the rights of administrative counterparts**

In order to protect the legitimate rights and interests of the counterpart, the substantive rights and procedural rights of the counterpart should be strengthened to counter the expansion of administrative power.

On the one hand, the due process system is used to protect the procedural rights of the counterpart. The due process system in automated administration should pay attention to the integrity of the process [6]. First of all, it is necessary to ensure the participation of citizens in the whole process of automated administration. Administrative organs may openly solicit opinions and suggestions from the public during the procurement stage, research and development stage, and application stage of automated administrative procurement, including holding hearings and opening online channels for soliciting opinions to ensure the public's participation throughout the process. Second, the right to know of the counterpart is guaranteed. Where administrative organs make decisions through automated administrative systems or use the judgment or disposition results of automated administrative systems as the key factual basis for administrative acts, they shall perform their obligation to inform the parties before taking the administrative acts [4]. Finally, citizens' right to be heard and defended should be guaranteed. Citizens' statements and defences may be moved online, and at the beginning of the design of automated administrative procedures, consideration may be given to placing this link before the final outcome output and reserving channels for offline statements, defences, or manual review for counterparts who lack the ability or conditions to make online statements or defences.

On the other hand, empowerment is used to balance the power-rights relationship. One is to give the administrative relative the right of algorithmic interpretation. Algorithmic interpretation right is through the empowerment of the subject affected by the algorithmic decision-making to rationally allocate the risk, allowing the relative to have the power to seek from the administrative organs to make the automated administrative decision-making explanation. The right to request the interpretation of automated administrative algorithms is like a private right and serves as a remedy against the correction of specific automated decisions [19]. Secondly, the right to be free from automated decision-making is given to administrative counterparts. The right to be free from automated decision-making aims to protect the subjectivity of human beings and to construct algorithmic risk mitigation mechanisms for the ex post facto stage, to serve as a bulwark for individuals against algorithmic manipulation [20]. The right to be exempt from automated decision-making is derived from Article 22 of the EU General Data Protection Regulation, which includes not only the right not to be affected by the decision but also the right to manual intervention and remedies.

### **5. Conclusion**

The construction of digital government is the trend of the times, although there is an impact on the existing legal system in the implementation of automated administration, but this is the price that the country must bear in introducing new technologies and trying to improve administrative efficiency. We cannot ignore the risks posed by automated administration, but should actively face the challenges and take regulatory measures to make the operation of automated administration in a scientific, legal and reasonable direction. At a time when the digitization of the whole society is not complete, there should be necessary limits to the digitization of administrative affairs. In order to ensure the rationality and legality of administrative decision-making in automated administration, to regulate the exercise of

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administrative power, and to safeguard the legitimate rights and interests of the relative, it is necessary to regulate the whole process of automated administration under the concept of the dual constraints of technology and power.

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