
Personal Information Governance in Automated Administration

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Abstract: *The processing of data such as personal information constitute the infrastructure of automated administration. Under the multi-legal requirements for personal information protection, data security, and algorithm governance, the legal regulation of such administrative activities should pursue the value goal of balancing the use and protection of personal information, promoting the efficient, safe, and orderly flow of personal information, and forming a standardized order for the use of personal information, and build a systematic public governance mechanism. From the perspective of reflective law, the personal information governance of automated administration shall promote its self-regulation under the stimulation of external regulation. Fundamental rights are a combination of dual reflective structures of the political system and the legal system, forming the constitutional basis for the self-regulation of automated administration. The personal information protection system and digital administrative law are external regulations from the legal system, forming the legal basis and providing automated administration with scenario-based and classified governance ideas. The government data scenario focuses on the standardized governance of personal information processing activities. It takes the principles of fair information practice as its basic framework and the necessity to perform statutory duties as its legal basis. The algorithmic decision-making scenario forms its framework system based on the principle of algorithmic due process, which clarifies the information subject's right not to be subject to automated decision-making and the mechanism for exercising the rights. It establishes the information flow order in public algorithms based on the procedural law regulations of prior algorithm designs.*

Keywords: automated administration ♦ personal information protection ♦ scenario regulation ♦ government data governance ♦ algorithmic decision-making

I. Questions raised

The Report to the 20th National Congress of the Communist Party of China (CPC) made it clear in the “Modernizing China’s National Security System and Capacity” section that “tightening the protection of personal information” is important for “enhancing public security governance,” and in consequence, the protection of personal information should be given prominence in public security governance and the national security system. The personal information protection system and its paradigm shift should be improved accordingly in the macro context of the modernization of the national governance system and capacity. However, such a shift need to be achieved under scenario-based and type-based protection based on the maturing system established under the *Personal Information Protection Law of the People’s Republic of China* (PIPL).

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In the rapidly changing digital and intelligent society and its emerging scenarios, the importance of automated administration¹ for the establishment of digital government and even digital China needs no elaboration, and the underlying value of data such as personal information for automated administration has also become a consensus. The *Opinions of the CPC Central Committee and the State Council on Building a Data Infrastructure System to Better Play the Role of Data Elements*² pointed out: “Data, as a new factor of production, is the foundation of digital-driven, Internet-based, and smart growth. Data has been integrated into production, distribution, circulation, consumption and social service management, bringing profound changes in the modes of work, lifestyle, and social governance.” It has become a consensus that data empowers state governance, and its significance for empowering government management in the building of digital government has also been repeatedly emphasized. The *Guiding Opinions of the State Council on Strengthening the Building of Digital Government* (Guo Fa [2022] No. 14) issued in 2022 regard “adherence to data empowerment” as an underlying principle, stating the need to “establish a sound data governance system and standard system, strengthen data aggregation and fusion, open sharing, development and utilization, encourage the orderly flow of data in accordance with law, and give full play to the role of data as an underlying resource and innovation engine. This will put government decision-making on a scientific footing, improve the efficiency of management services, and spawn new drivers of economic and social development.” The digital government system encapsulates data resources under its framework. It is required to “build an open and shared data resource system,” and “speed the establishment of a national integrated government affairs big data system, tighten data governance, promote the efficient sharing and orderly development and utilization of data in compliance with laws and regulations, fully exploit the value of data elements, and ensure the security of all types of data and personal information.” Personal information is one of the most important data elements³, and the governance of personal information data is intimately associated with security, and has a profound influence on modernization of government governance as well as the integration of digital government and law-based government.

Throughout the history of China’s personal information protection system, the shift from “protection” to “governance” has triggered discussions in academic circles. For example, the incentive-compatible personal information governance model attracted attention and was widely recognized early.⁴ The concept, path and structure of cooperative governance have also attracted considerable attention, especially

¹ The concept “automated administration” discussed in this paper is used as a “descriptive term” by existing research. It is understood as an emerging administrative paradigm, which is not a rigorous normative concept. It is also difficult to accurately define it under the category of “administrative acts” in traditional administrative law. For related discussions, see Hu Minjie, “Legal Control of Automated Administration,” *Administrative Law Review* 2 (2019): 56-66; Zhan Penghe, “Review of the Power Legitimacy of Digital Administrative Method,” *China Legal Science* 3 (2021): 114-138; Wang Bin, “Legal Control of Algorithms in Automated Administration,” *Law and Economy* 1 (2023): 61-75.

² It is referred to as “20 Articles on data” hereunder.

³ Peng Chengxin, “The Transition of Thinking in the Digital Society and the Foundation of the Rule of Law: Centering on Personal Information Protection,” *Exploration and Free Views* 5 (2022): 117.

⁴ Zhou Hanhua, “Exploring the Path of Incentive-Compatible Personal Data Governance: The Direction of Legislation on China’s Personal Information Protection Law,” *Chinese Journal of Law* 2 (2018): 3-23; Cai Xingyue, “The ‘Weak Consent’ of Data Subject and Its Normative Structure,” *Journal of Comparative Law* 4 (2019): 71-86; Xu Ke, “The Technological Dimension of Personal Information Governance,” *Oriental Law* 5 (2021): 57-68.

discussions on the public goal of distributive justice.⁵ The normative research on the PIPL also attaches tremendous importance to the interpretation of personal information governance rules.⁶ The governance model guided by the state's obligation to protect from a holistic perspective was discussed.⁷ There are also perspectives on the personal information governance function and others of the tort law in judicial practice.⁸ The majority of relevant studies conducted from the perspective of field-specific law demonstrated a development trend from macro to micro, aligning with the perfection of the personal information protection legal system. Whether it be the shift of principle research or the transformation of the protection paradigm, the meaning of "governance" and its path are contained in the legal system of personal information protection. From the perspective of value orientation and institutional goals, the PIPL states the protection and utilization of personal information as one of its legislative objectives and sets the value orientation of taking into account both public and private interests under the standard of rights. The infrastructure for automated administration necessitates the implementation of legal regulations that govern the processing of data, including personal information, from multiple legal perspectives such as personal information protection, data security, and algorithm governance. Compared to the rights-based "protection" goal, the regulatory goal of personal information processing activities in the automated administration scenario is to balance the public value of personal information utilization and the protection of personal information's private interests under the guidance of public administration objectives, to encourage the efficient, safe, and orderly flow of personal information, and to form a standardized order for the utilization of personal information. Guided by this goal, its regulatory path is also distinguished from the integrated personal information protection paradigm. It should shift to the dimension of public governance coordinated by multiple mechanisms — or personal information governance.

However, the unique circumstances of automated administration, along with the requirements of the rule of law, continue to present challenges to practical exploration and principles research. This is particularly evident in the challenge of directly applying the general rules and mechanisms of the personal information protection system to personal information governance. The prerequisite for an answer to this difficulty lies in clarifying the logic of personal information governance under public law as well as the rule-of-law thinking in digital administrative law. From a holistic perspective of modernization of the state governance system and capacity, automated administration — as an emerging administrative paradigm — originates from algorithm-enabled government administration, which includes multiple scenarios such as digital governance, data governance and algorithmic governance. Processing data, such as personal information, constitutes its basic architecture and becomes the core and key to its law-based development. On the one hand, the external regulation of the legal system puts "pressure" on the clarification of the governance path and the building of mechanisms, that is, the interaction between the constitutive and restrictive functions of basic rights. On the other hand, it is shaped by the reflective-type digital

⁵ Guo Chunzhen, "Governance Structure and Optimization of Personal Information in the Digital Era," *ECUPL Journal* 3 (2021): 129-141; Wang Xixin, "Distributive Justice for the Individual's Right to Information Portability and Data Governance," *Global Law Review* 6 (2021): 5-22.

⁶ Gao Fuping, "Rules for Personal Information Governance Based on Normative Purposes," *China Review of Administration of Justice* 6 (2022): 111-127.

⁷ Zhang Tao, "The Holistic Governance of Personal Information Protection: The Coordination of Legislation, Administration and Justice," *E-Government* 6 (2023): 51-64.

⁸ Ding Xiaodong, "From Individual Relief to Public Governance: On the Judicial Response to Infringement of Personal Information," *Journal of National Prosecutors College* 5 (2022): 103-120.

administrative law. In view of this, this paper clarifies the constitutional and legal foundations of personal information governance in automated administration in response to the needs of the pluralistic rule of law, outlining the overall situation and specific mechanism of the public governance approach.

II. Double reflection: Constitutional basis for personal information governance in automated administration

The concept of personal information governance is fundamental to both the information society and the digital and intelligent technology-based society. Personal information processing activities constitute the basic architecture for the emerging scenario of automated administration. How to build a scenario-based personal information governance mechanism requires a rule of law response. From the perspective of system theory, the highly complex modern society presents a social structure and social order with many functional systems — in which the systems mutually agitate and co-evolve in parallel — based on the organizing principle of functional differentiation⁹. The governance of personal information in automated administration should be a shared concern between the legal and political systems. In the process of co-evolution, the legal system and the political system construct a double reflective-type structural coupling mechanism, or the political constitution of a modern society¹⁰. As structural coupling, the constitution and its basic rights system provide legitimacy and legality for automatic administration and the use of personal information in the political system, and also restrict the encroachment of its political decision-making function on other social systems and individuals, and ensure the social engagement of individuals under the premise of autonomy and self-determination¹¹. At the same time, the restrictions of the constitution and basic rights on the political system, as well as the composition, ensure the prevention of decentralization and depoliticization risk for the whole social system and maintain the functional differentiation order of a modern society.¹²

A. The right to self-determination is a constitutional basis for the protection of personal information

1. Constitutional basis for the protection of personal information

China has changed the utilization and protection of personal information at the level of the whole society through the “field-specific law” model of the PIPL,¹³ providing a general normative expectation for the whole social system. Personal information governance in automated administration requires the special rules of the legal system in response to the political system (that is, the effectiveness of the legal system), and is also integrated into the normative expectation of the legal system for the protection of personal information in the whole social system. The interaction of the two depends on institutionalized basic rights under the Constitution.

However, when it comes to the constitutional basis, the governance of personal information in automated administration lacks a clear normative basis, and the interpretative theory used to construct personal information rights is also subject to controversy. The confirmation of constitutional rights and the establishment of norms mainly depend on the legislation, implementation, and interpretation process of the PIPL. First of all, the PIPL regards the “protection of personal information rights and

⁹ Niklas Luhmann, *The Differentiation of Society* (New York: Columbia University Press, 1982).

¹⁰ Niklas Luhmann, *Law as Social System* (Oxford: Oxford University Press, 2004).

¹¹ Gunther Teubner, *Constitutional Fragments: Societal Constitutionalism and Globalization*, 2012.

¹² Niklas Luhmann, *The Differentiation of Society* (New York: Columbia University Press, 1982), 238-242.

¹³ Wang Liming and Ding Xiaodong, “On the Highlights, Characteristics and Application of the Personal Information Protection Law,” *Jurists Review* 6 (2021): 1T6.

interests” as the primary goal, and enumerates the specific rights and their functions in the personal information rights system, clearly showing its empowerment nature. At the same time, “state organs” are stipulated as a special category of “personal information processors,” providing for their corresponding legal obligations and responsibilities, and stipulating the regulatory functions of administrative organs in the protection of personal information. These clearly demonstrate the underpinnings of public law. Secondly, the constitutionality review decision in the legislative process, as well as its related explanations, can serve as reference, while the establishment of basic rights norms in principle research is also an important supplement.¹⁴ On August 17, 2021, the Constitution and Law Committee of the National People’s Congress stated in the *Report on the Results of the Deliberation of the Personal Information Protection Law of the People’s Republic of China (Draft)*: “China’s Constitution stipulates that the state shall respect and protect human rights; the personal dignity of citizens shall not be violated; freedom and confidentiality of correspondence of citizens shall be protected by law. The enactment and implementation of this law is of great significance for the protection of citizens’ personal dignity and other rights and interests.” The constitutional basis for the protection of personal information does not stem from a single constitutional norm. It is not limited to the basic rights enumerated in the Constitution, or even the clauses regarding basic rights it enumerates such as human rights, personal dignity, and confidentiality of correspondence. Instead, through the expression “protecting citizens’ personal dignity and other rights and interests,” the rights and interests contained in personal information are open to a certain extent, making room for constitutional interpretation and legal interpretation in the implementation process of the law. The constitutional provisions and basic rights mentioned in the aforesaid report are only an incomplete enumeration of the constitutional basis for personal information protection, and their structure of rights, powers, and functions needs to be further regulated.¹⁵

2. The constitutional status of the right to self-determination for personal information

“The rights and interests of personal information are a basic and critical concept in the standard system of personal information protection. The connotations of personal information rights and interests determine what kind of interests of individuals can be protected in personal information processing activities, and its denotation determines the extent to which an individual’s control over their information can be extended.”¹⁶ For the right to self-determination of personal information under China’s Constitution, the personal dignity clause should act as the core normative basis. Through its establishment as a specific personality right, it is constructed as the constitutional basis for personal information to be protected by the Constitution, and it is also the basic right under the personal information rights system. First of all, the status of the right to self-determination of personal information as a basic right is confirmed in the PIPL, which

¹⁴ For related research, see Wang Xixin and Peng Jinxiang, “The Constitutional Basis of the Legal System for Personal Information Protection,” *Tsinghua University Law Journal* 3 (2021): 6-24; Zhang Xiang, “The Constitutional Justification for the Right to Personal Information: Based on the Reflection on Distinguishing the Theory of Protection and the Theory of Right to Control,” *Global Law Review* 1 (2022): 53-68; Peng Jinxiang, “Personal Information Protection from the Perspective of the Constitution: Clarification of Nature, Intensity Setting and Mechanism Coordination,” *Law and Modernization* 4 (2022): 50-64; Liu Quan, “Differences in the Rights of Personal Information Protection and Their Resolution,” *China Law Review* 6 (2022): 107-120; Zhou Weidong, “The Constitutional Systematization of Personal Data Rights,” *Law Science* 1 (2023): 32-48.

¹⁵ Wang Xixin and Peng Jinxiang, “The Constitutional Basis of the Legal System for Personal Information Protection,” *Tsinghua University Law Journal* 3 (2021): 6-24.

¹⁶ Zhang Xinbao, “On the Construction of Personal Information Rights and Interests,” *Peking University Law Journal* 5 (2021): 1147.

clarifies the right to know and the right to consent in Chapter 4 “Individuals’ Rights in Personal Information Handling Activities.” These two fundamental rights serve as the prerequisites and basis for other rights. Second, “informed consent,” as the core connotation, is stipulated as the primary reason of legality in the “Personal Information Handling Rules.” Therefore, the legal system for the protection of personal information regards the right to self-determination for personal information as a basic right and regards the norms of rights and conduct as the basis. Its intrinsic connection with human dignity in the Constitution, as well as the aforesaid normative basis such as human rights provisions and personality clauses in the Constitution, also serve as its legal basis.

Specifically, as society and the Constitution evolve, the individualism embedded in subjectivity has further enriched the normative connotation of human dignity in the Constitution, that is, the free development of personality¹⁷. The justification for the constitutional protection of personal information lies in personality rights and interests contained in personal information. In other words, self-determination and control of personal information is a necessary condition for the respect and free development of individual personality in an information society¹⁸. The “personality” distinction between the psychological and social systems forms the foundation of modern society's systematic construction: an individual's self-described personality shapes their entry into the social system. Self-description “essentially means a person’s autonomy and the right of self-determination, that is, they can independently determine their appearance in society”¹⁹. The independent construction of an individual’s personality allows for the separation and independence of their psychological system from the social system. Therefore, the right to self-determination plays a foundational role in shaping and free development of personality, and the presentation of personality in an information society is based on the right to self-determination of personal information.

B. The right to self-determination of personal information as a system and its functions

1. Institutional right to self-determination of personal information

According to foreign experience, the status of the right to self-determination of personal information as a basic right is generally recognized, while the construction of its constitutional norms may be different. The right to information self-determination is a personality right put forward by the Constitutional Court of Germany in the 20th century to defend against the surveillance state in an information society, which strikes a balance between individual control and social control by clarifying its scope of protection and the reasons for unconstitutional obstruction.²⁰ Fair information practice, which originated in the United States, has the same goal. While it contains no corresponding expression of rights, the five basic principles contained in its initial version include the information subject’s right to know and control. The extent to which it empowers information subjects varies in its subsequent versions, but “granting

¹⁷ Zhang Xiang, “The Types of Constitutional Personal Dignity: Using Civil Law Personality Rights and Personal Information Protection as Materials,” *China Law Review* 1 (2023): 58.

¹⁸ Zhang Xiang, “The Constitutional Justification for the Right to Personal Information: Based on the Reflection on Distinguishing the Theory of Protection and the Theory of Right to Control,” *Global Law Review* 1 (2022): 53-68.

¹⁹ Li Zhongxia, “The Constitutional Construction of Right to Privacy in the Digital Age,” *ECUPL Journal* 3 (2021): 44.

²⁰ For related research, see Zhao Hong, “The Current Status of Protection of Right to Information Self-Determination in China and Its Legislative Trend,” *China Law Review* 1 (2017): 147-161; Yao Yuerong, “On the Justification of the Right to Information Self-Determination as a Basic Right in China,” *Political Science and Law* 4 (2012): 72-83; Yang Fang, “Privacy Protection in German General Personality Right: The Restriction on the Concept of “Self-Determination” under the Principle of Freedom of Information,” *Oriental Law* 6 (2016): 104-116, et al.

individuals the right to privacy self-management, that is, allowing individual citizens the choice of whether to allow information collectors to collect their personal information²¹ has always been its centerpiece and key. Fair information practice has therefore become the value idea of personal information protection widely recognized in an information society. It also affects the EU norms for the protection of personal data, which are considered fundamental rights. In particular, it sets great store by “informed consent” as the basic principle and legal system for the information subject’s independent decision-making and self-control, and this has a general impact on other countries’ legislation on personal information protection²². Going by foreign experience, there is a basic consensus and general practice regarding the functions and institutionalization of the right to self-determination of personal information. The right to self-determination of personal information under China’s Constitution also serves to defend against the state’s public power²³, but it differs significantly from the aforementioned experience in terms of the construction of the informed consent system and the clarification of the functions of other basic rights.

In a modern society, fundamental rights have specific functions for both the individual and for society. The former focuses on the two dimensions of inclusion and exclusion for the integrity of the individual’s personality and the guarantee of its free development²⁴. The latter is presented as a positive dimension for maintaining functional differentiation and as a negative dimension for resisting social risks. Personal information protection “is based on the informed consent of the information subject, and its theoretical underpinning is to regard the human being as a subject with dignity and an independent, rational subject who can set rights and obligations for themselves of their own free will”²⁵. As a basic right, the right to self-determination of personal information is directly associated with the personal dignity of individuals, that is, to ensure that the individual enters the social system independently by including functions, while excluding the “colonization” or infringement brought by the running of the social system. More importantly, it also fulfills social functions such as maintaining the organizing principles of modern society and dealing with the privacy crisis in a risky society. In the context of automated administration, the functions of personal information self-determination are realized in the individual and social dimensions simultaneously. Not only does it protect the personal dignity of individuals in personal information governance, but it also provides a legitimate basis for the running of systems such as the use of personal information in the political system in order to realize its public administrative interests. It is also necessary to control the negative externalities of the political system, such as algorithm-enabled administrative power and even the alienation of algorithmic power in the process of standardizing governance,²⁶ so as to stabilize the structure and order of the social system.

2. Inclusion function of the right to self-determination of personal information

²¹ Ding Xiaodong, “On the Ideological Origin and Basic Principles of Legal Protection of Personal Information: Analysis Based on ‘Fair Information Practices’,” *Modern Law Science* 3 (2019): 104.

²² Mariusz Krzysztofek, *The GDPR: Personal Data Protection in the European Union*, translated by Zhang Taolyue (Beijing: The Commercial Press, 2023).

²³ Yao Jia, “The Rights System of Personal Information Subjects: Multi-dimensional Observation Based on Individual Rights in the Digital Age,” *ECUPL Journal* 2 (2022): 97.

²⁴ Niklas Luhmann, *Fundamental Rights as an Institution* (Leipzig: Dunker & Humblot, 1965).

²⁵ Guo Chunzhen, “Distributive Justice for Personal Information in the Digital Era,” *ECUPL Journal* 3 (2021): 68.

²⁶ Cai Xingyue, “The Alienation and Correction of Algorithmic Decision-making Power,” *Tribune of Political Science and Law* 5 (2021): 25-37.

For individuals, the inclusion function of the right to self-determination of personal information means that the individual enters social systems or spheres, such as the political system (including automated administration system as their subsystem) through the informed consent rules and procedures. At the same time, “each system includes the entire population, which is the basic law of functional differentiation.”²⁷ The autonomous participation of individuals at the constitutional level fulfills its constitutive function by ensuring the legitimacy of social systems, such as the political system. The inclusive rules of a modern society have undergone the development process of a welfare state such as the all-inclusive model,²⁸ with a specific and scenario-based trend. It is reconstructed from the perspective of social constitution-based governance, dominated by elements of reflective-type law. The inclusion function of the right to self-determination of personal information in automated administration, as well as its specific rules are no exception.

The PIPL establishes an institutional framework that primarily ensures the protection of personal information under Chinese public law: Special provisions are made for the “handling of personal information by state organs,”²⁹ and state organs are included in the scope of regulation, which, together with general rules and legal liability clauses, constitute the regulatory framework of public law. However, specific provisions are generalized, abstract, and principled and are intended to make room for legislation on the establishment of systems and the improvement of rules in the field of public law. At the same time, the provisions on automated decision-making also have to regulate the behavior, legal obligations, and legal liabilities of personal information processors who perform automated decision-making in the context of public law. However, due to the lack of special legislation, especially administrative law, the legal basis for the handling of personal information by state organs under the PIPL means not only the principal normative basis for the right of self-determination of personal information to restrain state organs, but also an embodiment of its inclusion functions. Specifically, state organs regard “the scope and limits necessary for the performance of statutory duties” as the primary basis of legitimacy. Except for exemption matters such as “notification will hinder the performance of statutory duties by state organs,” state organs should perform their obligation to inform the information subject of matters such as the purpose and methods of handling.³⁰ Therefore, the primary inclusion rules in the political system mandate that state organs notify about the handling of personal information, including its use for automated decision-making. Special rules for notification matters and other legal obligations are subject to the corresponding scenarios.

3. Exclusion function of the right to self-determination of personal information

The exclusion function of basic rights originates from the “depoliticization” of the autonomous social space. However, the level of autonomy of each social system or field in the digital and intelligent society has soared, and its expansive self-motivation poses a challenge to the autonomy of the individual. “For the basic right as a defensive right...

²⁷ Gunther Teubner, *Constitutional Fragments: Societal Constitutionalism and Globalization*, translated by Lu Yufeng, proofread by Ji Hailong (Beijing: Central Compilation and Translation Press, 2016), 160.

²⁸ Michael King, Chris Thornhill, *Niklas Luhmann's Theory of Politics and Law* (London: Palgrave Macmillan, 2003).

²⁹ Section 3 “Special Provisions on the Processing of Personal Information by State Organs,” Chapter 2 “Personal Information Processing Rules” of the PIPL.

³⁰ See Section 3 “Special Provisions on the Processing of Personal Information by State Organs,” Chapter 2 “Personal Information Processing Rules” of the PIPL.

it all boils down to identifying frontier posts, in order to identify distinct violations of human integrity.”³¹ To maintain the integrity of personality, the right to self-determination of personal information also relies on its exclusionary function: to resist the processing of personal information in a social system or sphere without consent to any interference with the independent decision to enter or exit. Simultaneously, the right to self-determination of personal information constrains systemic forces such as digital power and intelligent Leviathan,³² curbing their external expansion and negative externalities through the implementation of basic rights in various social constitutions, thereby averting risks in modern society.

“There exists an asymmetry of power and information between the operator and the governed. Such asymmetry is the core feature of an algorithmic society. It is the asymmetry of knowledge and power between public and private managers and those they govern in algorithmic society.”³³ Given the alienation and generalization of power caused by digital technology-enabled state governance, the identification and confirmation of the individual’s autonomous space for the right to self-determination of personal information should not merely focus on the traditional distinction between politics and non-politics and power/non-power, nor can it merely rely on the “depoliticized” defense function geared to power symbols. On the one hand, the right to self-determination of personal information must be widely differentiated, and vigilance should be exercised against systematic codes that assume different forms and means (such as codes as symbols of the Internet system). On the other hand, it is essential to establish normative connotations and an exclusion function within the dual contexts of social constitutional governance and information regulation.

The PIPL incorporates different types and forms of “personal information processors” that include the public and private spheres, as well as state organs, into the scope of regulation. This means that “personal information processors” can be bound by the “rights of individuals in information processing activities” in a broad sense. This is also the origin for the information subject’s obligation to protect personal information. However, the form of the “right” in the right to self-determination of personal information has not been confirmed, and there is no clear regulation on the right in the Constitution. Further proof of the “personal information processor” as its object of restraint is required in scenario information regulations. In the automated administration scenario, the exclusion function of the right to self-determination of personal information signifies that it defends against and binds the administrative power and the algorithm at the same time. In other words, the administrative subject shall not use personal information for automated decision-making related to its rights and interests without the consent of the information subject; automated administration decision-making that uses personal information should provide the information subject with relief mechanisms such as refusal, withdrawal, explanation, and elaboration.

III. External regulation: The legal basis for personal information governance in automated administration

The right to self-determination of personal information is not only the constitutional basis for personal information governance in automated administration but also fulfills its constitutive and restrictive functions for automated administration

³¹ Gunther Teubner, *Constitutional Fragments: Societal Constitutionalism and Globalization*, translated by Lu Yufeng, proofread by Ji Hailong (Beijing: Central Compilation and Translation Press, 2016), 165.

³² Qi Yanping, “On the Changes of Legal Scenes in the Era of Artificial Intelligence,” *Science of Law (Journal of Northwest University of Political & Law)* 4 (2018): 37-46.

³³ Jack M. Balkin, “The Three Laws in the Algorithmic Society,” translated by Liu Ying and Chen Yaoyao, *Law and Modernization* 2 (2021): 191.

as a double reflective-type structural coupling. Such mechanisms and functions operate under the premise of the self-reflexive nature of the automated administration and legal systems. In other words, the standardized governance of personal information in automated administration is the legal system's external rules governing automated administration and is its specific effect on the political system. Its purpose is to bring into play the self-reflection mechanism of automated administration. It is precisely this "reflective" element contained in the legal evolution in a modern society that has spawned the reflective-type law, which is a new model of modern law.³⁴ The reflective-type law also constitutes a necessary premise for structural coupling for the external regulation of automated administration — the personal information protection law and the digital administrative law.

A. The legal system for protection of personal information as the basis for value orientation and regulation

As mentioned above, the PIPL offers a general, stable, and standardized expectation for the use and protection of personal information in the entire society. Its legislative purpose establishes the value orientation and institutional objectives of the personal information protection legal system, serving as the foundation for the external regulation of automated administration within the legal system. The main rules for protecting personal information and the special rules for regulating automated administration work together to make up the law for managing personal information in automated administration. This includes rules about people's rights, how state bodies should handle personal information, and the rules for how automated decisions should be made and what people should do.

1. The institutional objectives of personal information protection and its value orientation

The institutional objectives of personal information protection determine that specific paths are constructed independently for different fields under the same framework order. Automated administration chooses the "governance" paradigm because of the objectives of public administration and personal information protection. As a field-specific law and a basic law, the legislative purpose of the PIPL determines the institutional goals and value orientation. Article 1 of the law stipulates that "For the purposes of protecting rights and interests on personal information, regulating personal information processing activities, and promoting the reasonable use of personal information, this Law is enacted in accordance with the Constitution." However, the internal structure of the legislative purpose and its value hierarchy are interpreted differently by different interpretive methods. For example, there is a view that "protecting rights and interests on personal information" and "regulating personal information handling activities and promoting the reasonable use of personal information" are dual goals, with emphasis on the former.³⁵ Another view holds that there is an unambiguous value sequence among the three: "protecting the rights and interests on personal information" and "promoting the reasonable use of personal information" are the fundamental goals, with the former as a precondition for the latter, and "regulating personal information handling activities" is the direct purpose as a

³⁴ Lu Yufeng, "On the Reflective Law of a Highly Complex Society," *ECUPL Journal* 6 (2021): 134.

³⁵ Long Weiqiu, "On the Establishment and Realization of the Basic Legal Interests of Personal Information Subjects: The Perspective of Reflective Interests Based on the 'Personal Information Processing Rules'," *Journal of Comparative Law* 2 (2023): 152-171; Long Weiqiu, "The Positioning of Personal Information Protection Law under Basic Law and the Protection Function: Analysis of the Formation and Development of the New Legal System," *Modern Law Science* 5 (2021): 84-104.

means.³⁶ It can be seen that different views emphasize the value orientation of taking into account both “protection” and “utilization” under the standard of rights, and harmonize the inherent consistency of the legislative purpose clause and other provisions from the perspective of systematic interpretation. From an external perspective, this value orientation is consistent with the fundamental significance of data as a factor of production for the development of the digital economy and is also integrated in the digital China strategy of digital empowerment of state governance as well as the modernization of governance.³⁷

In the context of automated administration, personal information governance should take into account the rights-based orientation of individual rights and interests protection but, more importantly, rely on the public administration objectives realized through the public nature of personal information, which is in line with the functions of digital government. Therefore, the governance of personal information in automated administration should take the value orientation of striking a balance between “utilization” and “protection” as public and private interests, consider the individuality and public nature of personal information, promote the use of public interests for the benefit of individual rights and interests, and realize the common progress of digital government building and personal dignity of the individual.

2. The normative basis for personal information governance in automated administration

The administrative law system’s special legislation should serve as the direct normative basis for the governance of personal information in automated administration. However, due to a lack of legislation, it still primarily relies on the PIPL. The relevant provisions are not only external regulations governing the use of personal information in automated administration but also the basis for the regulation of information on internal scenarios by providing a legal basis for its internal governance mechanism and governance rules. In summary, the regulation of rights covers the right to self-determination of personal information as the kernel of rights as well as its specific form in the algorithm scenario — the right to be free from the constraints of automated decision-making, as well as specific rights such as the right to know, the right to refuse, the right to rectification, and the right to portability. The code of conduct includes the special rules for the handling of personal information by state organs as well as general rules in their capacity as personal information processors, while the norms of obligations are primarily the state obligations to protect personal information as information processors. Moreover, the Data Security Law and other relevant legislation are also important regulatory bases, mainly including the state obligations to protect data security and the code of conduct for state organs regarding the use of data.³⁸

B. Digital administrative law and its basic principles

As the digital government is being built, the governance practice of public power represented by administrative organs in the use of big data and corresponding technologies has shown the ambitious vision of digital administration and has also spawned a governance paradigm that combines digital power and administrative power.³⁹ Automated administration, as an update paradigm of administrative activities,

³⁶ Gao Fuping, “Rules for Personal Information Governance Based on Normative Purposes,” *China Review of Administration of Justice* 6 (2022): 113.

³⁷ Mo Jihong, “On the Constitutional Protection of Digital Rights,” *ECUPL Journal* 4 (2023): 14-16.

³⁸ Articles 27-36 and 37-43 of the *Data Security Law*.

³⁹ Wang Xixin, “Digital Governance and the Rule of Law: The Rule of Law Constraints of Digital Administration,” *Journal of Renmin University of China* 6 (2022): 17-34.

is actually a digital administrative practice for the exercise of administrative power.⁴⁰ Governance of personal information is not only a public law practice for the legal system of personal information protection, but also an important topic of administrative law.⁴¹ The two constitute its legal foundation. Automated administration, as an administrative transformation, inevitably requires a response from the law-based administration. In sum, digital administrative law is well under way. It is both confined to traditional rule-of-law thinking, and is eager to develop more reflective and responsive digital rule-of-law thinking.⁴² The evolution of automated administration coincides with the reform of administrative law in the digital era. In particular, the traditional theory of administrative act and the modern administrative law based on this foundation can hardly determine the legal nature of automated administration, and it is even difficult to effectively control the expansion of administrative discretion caused by algorithmic administrative power. The introduction of digital rule-of-law thinking is of key significance for the legality and legitimacy constraints for automated administration. Whether from the perspective of the evolution of the rule of law in digital administrative law, or the application and development of automated administration, the response of digital administrative law still requires a foundation in terms of the transformation of rule-of-law thinking, value evolution, and adjustment in the overall thinking. The key scenarios and basic elements of automated administration guide the establishment of the basic framework for legal control, which is based on fundamental principles.

1. Digital administrative law and law-based administration

The paradigm shift to digital and automated administration has yet to deconstruct the constitutional order and the principles of the rule of law. In the process of the evolution of digital administrative law, law-based administration should still be its basic principle for governing the legitimacy and legality of pluralistic administrative paradigms such as automated administration. “For discussions of algorithms in the administrative law system, the control of the algorithm-based administrative power should be realized by clarifying the administrative law attributes of algorithm under the principle of law-based administration.”⁴³ From the perspective of reflective-type law, law-based administration is the basic expression of the relationship between the legal system and the administrative system, and its core idea lies in the standardized exercise of administrative power as authorized by law, emphasizing the protection of individual rights based on the presupposition of administrative realization of public interests. The former is a direct expression of the external regulation of the administrative system by the legal system and also contains respect for the autonomy of the administrative system as well as its discretionary space, while the latter reflects the significance of fundamental rights as a reflection mechanism.

Law-based administration under digital administrative law should adhere to the same standards as traditional law-based administration, including the legality of authority, the legality of content, and the legality of procedures. This includes ensuring the legitimacy of automated administration, defining the limits of algorithm-based decision-making automation, defining the boundaries of algorithm-based

⁴⁰ Zhan Penghe, “An Examination of the Legitimacy of Power under Digital Administration Method,” *China Legal Science* 3 (2021): 115.

⁴¹ Wang Xixin, “The Analytical Framework of the Legitimacy of Processing of Personal Information by Administrative Organs,” *Administrative Law Review* 3 (2022): 96.

⁴² Yu An, “On Digital Administrative Law: Discussion from the Perspective of Comparative Law,” *ECUPL Journal* 1 (2022): 17.

⁴³ Zha Yunfei, “The Administrative Law Attributes of Algorithms and Their Norms,” *Law and Social Development* 6 (2023): 168.

administrative discretion, and upholding the principle of technical due process. Regarding the governance of the use of personal information data, these principles are manifested as follows: personal information is collected by automated administrative activities in a way consistent with the principle of proper purpose and minimum necessity; the transparency of algorithms is enhanced through technical due process such as notification, explanation, and interpretation; and the principle of openness and public participation for automated administration is implemented⁴⁴. The principle of substantiality focuses on the digital expression of the proportionality principle in personal information data processing activities and adds the principle of minimum necessary proportionality to the legality of the performance of duties, especially the review of the principle of proportionality for front-end data processing activities such as information acquisition and aggregation.

2. Digital administrative law and fair information practices

The digital administrative paradigm, which is based on data processing activities, calls for the improvement of control means and mechanisms for data elements,⁴⁵ with Fair Information Practices (FIPs) serving as the institutional cornerstone. The FIPs originated from dealing with the privacy risks caused by the government's widespread use of big data technology. For data governance and personal information governance in the context of a "data state," "surveillance state," and "digital state," its regulatory idea of concise principle and framework construction is an inspiration: Enacting modern law in response to social changes still upholds the independence of other social systems. Compared to the hard law system in which the behavioral law directly intervenes, the framework order constructed based on rights and principles can better stimulate the formation of its internal reflection mechanism.

China's *Civil Code* and PIPL adopt the individual-enabled and rights-based protection methods. However, whether based on the dynamic protection of basic rights⁴⁶ or the important value of data as a factor of production, coupled with the responsive and reflective elements of modern law, the FIPs must be adjusted in accordance with the new thinking and new proposition of digital administrative law.⁴⁷ "In order to avoid the alienation of the FIPs, the FIPs must be freed from the self-determination of individual information and the static protection of individual information and protect privacy rights and related interests of the individuals as well as eliminate related risks on the premise of recognizing the individual information's circulation value and public value."⁴⁸

The principles of public interest priority and legitimate interest immunity are the

⁴⁴ Zhang Linghan, "The Conflict between Algorithmic Automated Decision-making and the Administrative Due Process System and its Reconciliation," *Oriental Law* 6 (2020): 4-17.

⁴⁵ Wang Xixin, "Digital Governance and the Rule of Law: The Rule of Law Constraints of Digital Administration," *Journal of Renmin University of China* 6 (2022): 28.

⁴⁶ Wang Guisong, "Risk Administration and the Dynamic Protection of Basic Rights," *Studies in Law and Business* 4 (2022): 18-31.

⁴⁷ Most of the criticisms are about the empowerment model of "individual control," arguing that it is a significant constraint on the use efficiency and value of data, as well as the development of the digital economy and the digital society, and that it is inconsistent with the principle of efficiency of administrative activities and the value orientation of digital technology-enabled national governance. Instead of discussing the controversy of "personal control," this paper regards the dynamic balance between public interests and individual interests in the building of digital China and digital government as the value orientation, and makes appropriate adjustments to the FIPs, so that they are in line with the value requirements and rule-of-law thinking of the digital law-based administration and the legal system for personal information protection.

⁴⁸ Ding Xiaodong, "On the Ideological Origin and Basic Principles of Legal Protection of Personal Information: Analysis Based on 'Fair Information Practices'," *Modern Law Science* 3 (2019): 108.

core principles of the FIPs in the rule of law under digital administration. As far as the current status of legislation is concerned, the processing of personal information by state organs is based on the legitimate performance of statutory duties, and is not subject to the general rules of informed consent.⁴⁹ Simultaneously, state organs use major public interests and others as grounds for exemption from the obligation to inform. Furthermore, the paradigm of automated administration relies heavily on transparency in government affairs information and data, with system establishment serving as the fundamental principle. Administrative legislation should first clarify the use of data as a factor of production and its public value in social governance, as well as the legitimate interests of data controllers and data processors in processing personal information, and exempt them from their obligations to inform.

3. Digital administrative law and the principle of privacy protection by design

The principle of privacy protection by design is an upgrade of the FIPs in an automated administrative scenario.⁵⁰ Digital administrative law can properly integrate the risk administration functions and risk prevention principle. This principle regards the whole life cycle of data as the basis and object of governance, and runs through the process of data processing based on principled requirements. This governance philosophy can also be seen in the existing digital rule of law. For example, the *Data Security Law* regulates “data processing” and covers all aspects of the life cycle of data. The PIPL also adopts this idea. Moreover, the principle regards risk prevention as the value concept. It is required that “risk” be used as the main benchmark at the algorithm design stage to measure and even “decide whether to allow the relevant personal information processing activities and whether further legal and procedural requirements are needed to provide protection against possible harm,”⁵¹

Guided by the principle of privacy protection by design, it is the proper meaning of the code-based operation and the governance rules of “the code as law”⁵² to embed privacy governance rules in the code before the algorithm is introduced into administrative activities. Although digital administrative law is not a simple fusion of cyber law and administrative law, or the simple fusion of digital law and administrative law, the basic code and basic operation of digital administration or automated administration depend on “the code.” Therefore, it is necessary to respect, analyze, and transform the operation logic and rules of the applicable code and put right its deviation from the values and principles of the rule of law,⁵³ so as to avoid the clear distinction between digital and administration or the division of technology and law for rule. Governance of personal information in automated administration relies on algorithm technology, and also uses it as the principal scenario to confirm the legitimacy and reinforce its legality from the source of algorithm design, which is highly efficient and totally scientific in the legal control and risk regulation of the administrative process. However, the digital transformation of administration is still in its infancy, and there is yet no comprehensive replacement of traditional administrative activities and their human engagement in the era of strong artificial intelligence. Early intervention in

⁴⁹ Peng Jian, “On the Lawful Basis of the Processing of Personal Information by State Organs,” *Journal of Comparative Law* 1 (2022): 162-176.

⁵⁰ Zhang Tao, “The Basic Principles of ‘Privacy Protection by Design’ in Personal Data Protection and Institutional Construction,” *Journal of East China University of Science and Technology (Social Sciences Edition)* 6 (2020): 129-144.

⁵¹ Zhao Peng, “Risk-based Personal Information Protection?,” *Law Review* 4 (2023): 132.

⁵² Lawrence Lessig, *Code: And Other Laws of Cyberspace, Version 2.0*, translated by Li Xu and Shen Weiwei (Beijing: Tsinghua University Press, 2009).

⁵³ Zheng Zhihang, “The Dual Co-governance of Legal Governance and Technological Governance in Network Society,” *China Legal Science* 2 (2018): 108-130.

source governance and design ethics is conducive to the evolution of digital administrative law and its response.

IV. Self-regulation: The construction of the mechanism for personal information governance in automated administration

The reflective nature of the political system is the internal driving force of self-regulation for automatic administration, while the reflective nature of the legal system is the driving force as an external stimulant. For the selection of a paradigm for personal information protection in automated administration, the legal system for personal information protection plays a decisive role in value orientation and institutional objectives. For system construction, its scenario-based thinking and stereotyped thinking are also of key significance. In sum, the rule-of-law constraints of automated administration need to take into account both traditional and digital rule-of-law thinking. However, while law-based administration relies on administrative acts, accurately defining the types of acts within the automated administration paradigm in terms of substantive law can be challenging. On the other hand, digital administrative law is emerging, and the legitimacy framework of automated administration in the digital rule of law is still up in the air. In view of this, firstly, “governance” is chosen as a balance between public administration and personal information protection based on value objectives. Secondly, under the idea of the scenario regulation for personal information protection, the decisive role of personal information processing activities as an administrative act in the system construction is weakened, and the governance idea of scenario-based construction is used instead to determine the choice of institutional mechanism.

A. Scenario regulation of personal information governance in automated administration

1. Automated administration scenarios in political system

The governance of personal information in automated administration adopts the idea of scenario-based construction. The governance of personal information relies on the multiple functions of the right to self-determination of personal information, which forms the constitutional basis. Second, it is influenced by the idea of scenario regulation of personal information protection.

As a mechanism of structural coupling between the legal system and other social systems, the right to self-determination of personal information fulfills its functions on the premise of the differentiated social structure as well as the relatively closed and independent social system. The so-called scenario-based thinking is more precisely called the organizing principle of functional differentiation in a modern society. The mature functional differentiation order is manifested in the mutual differentiation of the social system created by function in a modern society, such as the separation of the main functions of society, including politics, law, economy, culture, and religion. It is also manifested in the division of subsystems in the social system: the “center-periphery” structure⁵⁴ for the separation of justice and legislation in the legal system. In the context of China’s constitutional government, “the politics, governance, and the people form a subsystem in the political system on the basis of differentiation and dependence and jointly support the operation of the political system.”⁵⁵ Automated administration is located in the “governance” of the subsystem, that is, the administrative system. As a new mode of administration for digital government, automated administration has

⁵⁴ Niklas Luhmann, *Law as a Social System*, translated by Klaus A. Ziegert (Oxford: Oxford University Press, 2004).

⁵⁵ Li Zhongxia, “China’s Path and Development of Constitutional Review System,” *Chinese Journal of Law* 6 (2019): 5.

undergone a phased evolution from partial automation to complete automation.⁵⁶ The former is limited by the technological change of the administrative system when the algorithm is just introduced, while the latter shapes the automated administrative system for administrative activities and the logical change of their power operation and even triggers the systemic risk of “algorithmic Leviathan.”⁵⁷ The shift in the underlying logic reorganizes the internal autonomy rules and the concept of external regulation, despite its relatively weak closure and independence. Consequently, it is considered a subsystem of the political system, adhering to the political system’s power code and mode of operation. Therefore, the selection and construction of a “scenario” between the system and the mechanism is appropriate in terms of regulatory strength and autonomy capacity, and it also dovetails with the legal system of personal information protection.

2. Scenario regulation in the legal system for the protection of personal information

The legal system that protects personal information influences the function of the right to self-determination of personal information. From the perspective of comparative law, the theory of scenario consistency and its regulatory thinking have a far-reaching impact on the protection system for personal information or data rights. As mentioned above, the right to self-determination of personal information in Germany has undergone a scene change from targeting a surveillance state⁵⁸ to balancing data use and its protection. The idea of protection under US departmental law is also to regulate departmental information privacy scenarios, such as the protection of consumers’ personal information.⁵⁹ The European Union’s *General Data Protection Regulation* expands the application scope of scenario regulation and explores a sound scenario system for the right to personal data protection⁶⁰. In comparison, the far-reaching influence of the theory of scenario consistency and the extensive attention to scientific principle in China have laid an important foundation for the scenario regulation path of personal information governance in automated administration. The core idea of the theory of scenario consistency is that privacy requires the reasonable flow of personal information, and the rules of flow are determined by social norms in each social scene or field (that is, norms of scene information).⁶¹ This presupposition of interdependence between individual autonomy and the public nature of personal information provides a legitimate basis for the use of personal information in automated administration⁶² and also offers a platform for the scene information norms constructed by the operation logic of its algorithm.

From the perspective of the overall context, the logic of scenario-based governance has emerged in the protection of rights in the digital age, such as the transition and rise of the “scenario-based” concept for human rights protection and the

⁵⁶ Ma Yanxin, “The Classification of Automated Administration and the Reform of Legal Control,” *Administrative Law Review* 1 (2019): 80-92.

⁵⁷ Ji Weidong, “Chinese Path to Modernization and the Reconstruction of Legal Order,” *Modern Law Science* 5 (2023): 1143.

⁵⁸ Jack Balkin, The Constitution in the National Surveillance State, 93 *Minnesota Law Review* 1 (2008).

⁵⁹ Salome Viljoen, “A Relational Theory of Data Governance,” 131 *YALE LJ*. 573 (2021).

⁶⁰ Mariusz Krzysztofek, *GDPR: Personal Data Protection in the European Union*, translated by Zhang Taolyue (Beijing: The Commercial Press, 2023).

⁶¹ Helen Nissenbaum, *Privacy in Context: Technology, Policy, and the Integrity of Social Life*, translated by Wang Yuan et al. (Beijing: Law Press-China, 2022), 1.

⁶² Hu Ling, “The Public Nature of Personal Information from the Perspective of Function and its Realization,” *Law and Social Development* 5 (2021): 176-189.

goal of scenario-based justice for privacy protection.⁶³ As far as personal information protection in China is concerned, the integrated and field-specific paradigm is also inseparable from the scenario theory and regulation thinking. The normative system within the previously mentioned legal system of personal information protection has been demonstrated, along with its specific composition. As mentioned above, automated decision-making rules are empowered and regulated in this scenario. The algorithm not only constitutes its technical architecture but also determines the underlying logic of personal information protection in this scenario. The right to freedom from the constraints of automated decision-making is an emerging form of self-determination of personal information in an algorithmic scenario. Automated administration is a meta-scenario for the governance of personal information. It is guided by the operation logic and autonomy rules for the political system and the algorithm system, which also serve as the background and field for the concept of scenario regulation. It is necessary to build a specific mechanism in the context of the legal system for personal information protection.

B. The establishment of mechanism for government affairs data governance

1. Idea of scenario regulation for government data governance

According to the scenario-based idea, personal information governance in automated administration uses the government data system as the principal scenario, with a focus on the standardized governance of personal information data handling activities. Data processing activities constitute the basic architecture of automated administration and are its basic mode of operation. It will continue to be the internal driving force for its evolution. The big data strategy and the national integrated government affairs big data system are the basis in the vision of the building of digital China and the process of digital government building. Governance of government affairs data is not only the basic scenario of digital government building but also a path for the establishment of a data foundation system. The *Circular of the General Office of the State Council on Issuing Guidelines for the Establishment of a National Integrated Government Affairs Big Data System* (Guo Ban Han [2022] No. 102) issued in 2022 states that a key point of the establishment of the government affairs big data system is to “strengthen governance of government data,” and requires that “the national government affairs big data platform should build a data governance system covering data collection, processing, sharing, openness, application, security, storage, and archiving, that data governance rules should be set forth, and that the governance of the whole life cycle of collected data should be regulated.” The primary source of government affairs data is personal information, which should guide the governance of its utilization. Based on data governance systems and platforms, governance rules and mechanisms for the entire life cycle of data are put in place to achieve “good data governance.”⁶⁴ Furthermore, the report to the 20th CPC National Congress includes “personal information protection” in the “national public security system,” requiring a coordinated approach to personal information governance and the public security governance system for information and data security.

In sum, the governance mechanism of scenario regulation follows the idea of “scenario-based general principles — rule of law for scenario-based autonomy rules.” Specifically, in the government data governance scenario, the general principles for handling personal information by state organs and the general principles for public data governance constitute their framework and boundaries (that is, external regulation),

⁶³ Ma Changshan, “The Situation of Human Rights Protection in the Digital Age and Its Response,” *Seeking Truth* 4 (2020): 110.

⁶⁴ Xu Ke, “Data Governance for Major Public Health Events,” *Jinan Journal (Philosophy & Social Science Edition)* 1 (2021): 82.

~~while the mechanism for confirming the ownership and authorizing personal information data (that is, the structural coupling mechanism) and the code of conduct for personal information data processing activities constitute the main content (that is, the scenario information regulation under internal autonomy).~~

2. Mechanism implementation for the governance of government affairs data

From a holistic perspective, the framework order of personal information governance is primarily shaped by the principle of proportionality (substance), the principle of legal reservation (form), and the principle of FIPs. The principle of proportionality is an important principle in the processing of personal information⁶⁵ and also an effective means for measuring the public interest and individual rights and interests in the law-based administration, which covers the life cycle of personal information and data, as well as the administrative process of data processing activities. Specifically, automated administration acts of personal information processing should be regulated by administrative legislation. Starting with the basis of legality, it is required that the “collection” of personal information in government affairs data governance should be subject to the scope and limits necessary for the performance of duties, and that it should be stipulated by the administrative organic law. During public data processing activities such as aggregation, sharing, storage, use, and analysis, only the principle of appropriateness is required, and it is adjusted under the internal administrative law, with precedence to public interest.

As far as specific mechanisms are concerned, the whole life cycle of data is used as the basis for the administrative process of government affairs data governance. First of all, the mechanism for confirming the ownership of and authorizing personal information data should be used as a prerequisite mechanism for the collection of government affairs data, and it is also an inclusive rule for government affairs data governance. As mentioned above, the general rules for the obligation to inform and their exceptions constitute the inclusion rules. At the same time, the administrative legislation for government affairs data should enumerate the information subject’s right to self-determination and its specific functions. In addition, according to the requirements of the data classification and protection system⁶⁶ and the impact assessment mechanism⁶⁷ for personal information protection, it should be governed in a standardized manner through administrative normative documents such as the government affairs data catalogue. Second, in terms of ongoing processing, the behavior regulation of personal information data processing is the main content of its scenario information regulation⁶⁸ and at the same time constitutes the principal part of its internal governance mechanism. Given the technical characteristics of its algorithm-based operation, the code of conduct draws its foundation from the fundamental principles of personal information processing found in legislation related to government affairs data. Finally, the information subject, as the source of personal information, should participate in the distribution of benefits accruing from public data elements, or the “cost-benefit” analysis method is introduced under the digital administrative law to construct a benefit distribution mechanism.⁶⁹

C. The establishment of mechanism for algorithm-based administrative decision-

⁶⁵ Liu Quan, “On the Principle of Legality, Legitimacy and Necessity of Personal Information Processing,” *Jurists Review* 5 (2021): 1-15.

⁶⁶ Article 30 of the *Data Security Law*.

⁶⁷ Article 55 and 56 of the *Personal Information Protection Law*.

⁶⁸ Chen Yuefeng, “Beyond the Delimitation of Rights of Data: The Dual Public Law Construction for Data Processing,” *ECUPL Journal* 1 (2022): 18-31.

⁶⁹ Zheng Yafang, “On the Principle of Cost-benefit Analysis in China’s Administrative Law: Theory Verification and Application,” *China Legal Science* 2 (2020): 201-219.

making

1. Scenario construction for algorithm-based administrative decision-making and its legal regulation

Throughout the history of automated administration, the “quantum leap”⁷⁰ from partial automation to complete automation—whether at the level of digital technology or the integration of digital power and administrative power—comes from the in-depth application of automation algorithms in different types of administrative acts. “The administrative system, originally driven by legal rules, administrative orders, and public servants, has gradually evolved into an algorithmic administrative system of ‘automated analysis, automated decision-making, and automated execution’ driven by software code and statistical operations.”⁷¹ Therefore, algorithms, as a mode of operation, should be regarded as another constitutive element of automated administration. In terms of its relationship with data processing, the two are the basic constituent units of automated administration, while data processing activities are supported by digital technologies such as big data, the Internet and algorithms, and also constitute the basic elements of algorithm operation. As a result, the two are interdependent, providing the infrastructure and underlying logic for automated administration. This makes algorithmic decision-making in automated administration a crucial scenario for personal information governance.

However, the rule of law practice and institutional foundation for personal information governance in algorithmic decision-making scenarios are weak, and the risks are growing. “Compared to the rapidly iterating data-driven technology, relevant legal norms are slow in updating, whether in the field of data governance or algorithm regulation. While large-scale and systematic algorithmic administrative practice is objective and efficient, it may discriminate against individuals, violate citizens’ privacy, and lead to the dependence of administrative organs on information.”⁷² In other words, the internal technological driving force of automated administration dominates its evolution, but the internal reflective nature — internal nature of autonomy — lacks motivation. At the same time, there is a lack of specialized norms for the legal regulation as an external stimulant and external driving force. Consequently, the system’s internal and external reflection mechanisms remain fragmented and inadequate. The internal governance mechanism severely distances itself from the external legal requirements.⁷³

⁷⁰ As mentioned above, the “automated administration” discussed in this paper is generally a “descriptive term” in the existing research, and it is mostly used to describe the emerging paradigm of administration under the application of algorithms. While the existing researches mostly divide it into partially automated (or semi-automated) and completely automated administration, the essential difference between the two is whether there is manual intervention in the administrative process. This can be covered by the legitimacy control of traditional administrative acts, without the need to introduce the regulatory mechanism of digital law-based administration. Therefore, in terms of the idea of scenario regulation, the scenario regulation of partial automated (or semi-automated) and completely automated administration at the automation stage can be subdivided in the macro-arithmetic regulation scenario, in keeping with its general regulation thinking. This paper only discusses the establishment of mechanism under the macro scenario of algorithmic administrative decision-making. The differentiated regulation under the subdivision needs to be conducted in subsequent research.

⁷¹ Zhao Hong, “Normative Analysis of Algorithmic Technology Applicable to Public Decision-making as well as Entity Boundaries,” *Journal of Comparative Law* 2 (2023): 1.

⁷² Zhang Xin, “The Principles of Architecture of Algorithmic Administration, Essential Characteristics and Rule-of-Law Path: Also on the *Personal Information Protection Law* (Draft),” *Business and Economic Law Review* 1 (2021): 22.

⁷³ Zhou Hanhua, “Exploring the Path of Incentive-Compatible Personal Data Governance: The Direction of Legislation on China’s Personal Information Protection Law,” *Chinese Journal of Law*

The trend of updating algorithms and their in-depth application cannot be halted, and the risk of power alienation faces the algorithmic administrative decision-making⁷⁴. The legal system must pay attention to and stimulate the self-reflexivity of the algorithm system and the administrative system in order to form a stable structural coupling mechanism and a sustained and stable standardized governance process. Judging from the attempts in the field of the legal system, the initial focus was on preventing discrimination risk and exclusion risk associated with the application of algorithms⁷⁵. As the algorithm is prevented from becoming functional systems in the era of weak AI, the legal regulation for the above risks is still effective⁷⁶. However, there is a fundamental difference between the legitimacy and legality of the application of algorithms in the field of public and private law. Algorithmic administrative decision-making is the deep integration of algorithmic systems and administrative systems. Whether it is fully automated or semi-automated administrative act⁷⁷, the intervention of algorithms in administrative decision-making brings great hazards to the due process and justice in the result⁷⁸. On the one hand, the administrative system avoids due process of law but expands its scope of power while circumventing the exercise of the individual's right to self-determination. On the other hand, without the regulation of legal procedure, the legal system is inclined towards generalized regulation expectations for the special regulation of the administrative system, excessively restricts the autonomous operation of the administrative system, or unduly relaxes administrative discretion. Both of these approaches run counter to the substantive rationality of contemporary law. It does not favor the stable output of reflective-type law and its social functions, nor the elimination of the risk of expansion for algorithmic administrative power under the integration of the administrative system and the algorithm system.

2. The basic framework of governance mechanism in algorithmic

2 (2018): 3.

⁷⁴ Cai Xingyue, "The Alienation and Correction of Algorithmic Decision-making Power," *Tribune of Political Science and Law* 5 (2021): 25.

⁷⁵ Cui Jingzi, "The Crisis of Protection of Right of Equality under the Challenge of Algorithmic Discrimination and Countermeasures," *Science of Law (Journal of Northwest University of Political Science and Law)* 3 (2019): 29-42; Zheng Zhihang and Xu Zhaoxi, "Legal Regulation and Judicial Review of Algorithmic Discrimination in the Era of Big Data: Case Study of American Legal Practice," *Journal of Comparative Law* 4 (2019): 111-122; Ding Xiaodong, "On the Legal Regulation of Algorithms,," *Social Sciences in China* 12 (2020): 138-159, et al.

⁷⁶ Hu Minjie, "Legal Control of Automated Administration," *Administrative Law Review* 2 (2019): 56-66.

⁷⁷ Act of completely automated administration is rare in China. Only the "health code" was used nationwide for the prevention and control of the COVID-19 and played a key role in public health governance. For related research, see Zha Yunfei, "Health Code: Automatic Rating and Utilization of Epidemic Risk of Individuals," *Zhejiang Academic Journal* 3 (2020): 28-35.

⁷⁸ Relevant academic studies fully analyzed the causes of this problem. For example, a scholar concluded that: "Algorithms contribute to information collection, processing and output in administrative activities, and change the traditional paradigm of administrative activities in two areas: First, reactive-type algorithmic automated decision-making reduces the aspects of administrative activities, directly realizing the semi-automation and automation of administrative activities. Automated administration is performed instantaneously within the system, and it is impossible to separate the procedures, steps and methods of the activities. It incorporates all the information and content into the algorithm to obtain the results. Second, predictive algorithms change the traditional cognitive paradigm and extrapolate future trends based on historical data. Algorithms can be used to predict risks, allocate administrative resources in advance, and guide and arrange administrative activities." It is not elaborated in this paper. Zhang Linghan, "The Conflict between Algorithmic Automated Decision-making and the Administrative Due Process System and its Reconciliation," *Oriental Law* 6 (2020): 4-17.

administrative decision-making

In view of this, the autonomy framework of algorithmic administrative decision-making is highly dependent on the principle of due process of algorithm and the principle of privacy protection by design in digital administrative law. In terms of the legal system, there is a strain between the regulation of algorithmic administration and its function of stabilizing expectations. A viable resolution mechanism still requires reflection mechanisms such as legal procedures and basic rights. The former constitutes the basic framework of the principle of technical due process, while the latter is realized through the scenario-based and concrete form of the right to self-determination of personal information in algorithmic administrative decision-making. Simultaneously, the right to self-determination of personal information serves as a dual structural coupling mechanism for both the political and legal systems. It assists in resolving the paradox of power legitimacy in algorithmic administration, serving both constitutive and restrictive functions.

In sum, the right to self-determination of personal information is manifested as the right of freedom from the constraints of automated decision-making in algorithmic administrative decision-making and constitutes the cornerstone of the right to personal information governance. The technical essence of algorithmic administrative decision-making is automated decision-making, and its technical characteristics directly affect and even challenge the personal dignity of the individual: weakening or even ignoring the main status of individuals in the human-computer relationship, rewriting or controlling individual behavior to affect their self-determination ability, and algorithmic discrimination caused by strong classification and screening capabilities based on machine learning as well as prediction capability that is beyond imagination.⁷⁹ Article 15 of the *Data Protection Directive* adopted in 1995 by the European Union stipulates that “Member States shall grant the right to every person not to be subject to a decision that is based solely on automated processing of data.” Its scope of application was expanded by Article 22 of the GDPR, the most systematic and targeted legal provision in the Regulation,⁸⁰ to strengthen individuals’ defenses against algorithmic risks. The core connotation of the right to self-determination of personal information is manifested in automated decision-making as being informed and independently deciding whether to provide personal information for use by algorithms and agreeing to the decision that the output has an impact on their rights and interests based on the use of personal information. Accordingly, the “right of freedom from the constraints of automated decision-making” can be understood as the manifestation of the right to self-determination of personal information in algorithmic administrative decision-making. At the same time, it is the core of the system of algorithmic rights. Its powers and functions,⁸¹ as well as the legal obligation system, are based on this. The corresponding mechanism for confirming ownership as well as the relief mechanism are also constructed on this basis.

⁷⁹ Zheng Zhihang, “The Legal Protection of Individuals’ Exemption from Automated Decision-making from the Perspective of Balance Theory,” *Journal of Political Science and Law* 4 (2022): 95.

⁸⁰ Zhang Xin, “Institutional Logic and Local Construction of the Right of Freedom from the Constraints of Automated Decision-making,” *ECUPL Journal* 5 (2021): 29.

⁸¹ In the research on the right of freedom from automated decision-making, there is a view that the GDPR stipulates the right of freedom from automated decision-making, as well as the right to object to the processing of personal data, the right to delete, the right to correct, the right to interpret algorithms, etc., protecting individuals against automated decision-making based on different links and different powers and functions. See Aziz Z. Huq., “A Right to Human Decision,” *Virginia Law Review* 106 (2020).

The mechanism is established on the basis of the principle of technical due process under digital administrative law and the principle of privacy protection by design. First, protecting privacy by design is the key to embedding due process into algorithms and shaping algorithmic procedural justice. Before automated administration activities are carried out, administrative procedures such as privacy impact assessment mechanisms and hearings at the algorithm design stage are important guards against algorithm risks and are also the basic requirements of the principle of technical legitimacy⁸². Secondly, as the cornerstone of rights, the right to freedom from the constraints of automated decision-making runs through the process of governance before, during, and after the event, and a full-coverage governance system is constructed accordingly. The algorithm design should contain a mechanism for confirming ownership in advance before the individual enters the algorithm system. This empowers the information subject to realize the individual's inclusion. It also provides a legitimate foundation for algorithmic administrative decision-making by fulfilling the obligation to inform and to explain algorithms and implements the constitutive functions of the Constitution for the administrative system. Finally, the relief mechanism is also an important part of the principle of technical due process and a fallback mechanism for individual rights and interests, including refusal, exit, correction, deletion, etc. In particular, the refusal and exit mechanism is a necessary tool for the exclusion function of basic rights, providing the last safeguard for self-determination and even human dignity of individuals.

V. Conclusion

“Under the control of big data and the internet, the autonomy of the individual is nonexistent, and information has become predominant in the matter of ‘customizing’ the world. This makes humanity arrogant in the face of the natural world and the entire history of mankind.”⁸³ The philosopher's concern may prove prophetic, but the law is still promising in the face of human subjectivity and modern social order collapse. The empowerment of national governance by automated administration is as eye-catching as its negative externalities. It is imperative that processing of personal information data, as its infrastructure, be included in the modern and law-based national governance, so as to regulate governance and achieve its pluralistic value goals. The evolution of social constitutional rule and reflective law offers a new perspective and solution, which not only dovetails with the pluralistic rule-of-law thinking for personal information protection, data security, and digital administrative law, but also conforms to the technical characteristics and independent operation of automated administration. The philosophy and values of legal governance should serve as its foundation, determining its framework, order, and mechanism. In other words, the right of self-determination relating to digital personality acts as the cornerstone. It resorts to the dual reflexivity of the automated administrative and legal systems as well as its structural coupling, that is, the institutionalization of the right to self-determination of personal information as well as its scenario regulation is guided by the simple principle of FIPs and the principle of scenario regulation, while the construction of the mechanism is ruled by the autonomous operation of the scenario information regulation, which stimulates the reflexivity of the automated administrative system. The advancement of digital administrative law will enhance scenario regulation by stereotyping automated administrative activities, classifying and hierarchically reviewing algorithms, and transforming and aligning technical due process and legal procedures. This will also

⁸² Liu Dongliang, “Technical Due Process: The Dual Variation of Procedural Law and Algorithms in the Era of Artificial Intelligence,” *Journal of Comparative Law* 5 (2020): 64-79.

⁸³ Deng Xiaomang, “The Nature of Artificial Intelligence,” *Journal of Shandong Social Sciences* 12 (2022): 42.

further drive the optimization of the path and mechanism for personal information governance.

(Translated by *NI Weisi*)