



Non-essential Perspective on Thinking Law of Data Protection and Utilization

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Abstract. The protection and utilization legal system of data is of fundamental importance in contemporary digital age. Existing research a have a problem of essentialism of theoretical thought, which hinders researchers and legislators from exploring the institutional framework that matches the reality of digital society according to the inherent differences of data concepts, the process of data practice, the application and value tradeoffs in this process. On the basis of criticizing the essentialism perspective taken by recent studies, this article takes non-essential Perspective for thinking legal system of data protection and utilization, and pursuits creative data utilization. It proposes a data usufruct operating within an expanded framework of right to human dignity, which might provide a new way of thinking data protection-utilization law that could balance the basic morality of the digital age and the national digital economic policy.

Keywords: Data protection–utilization · Essentialism · The management of data value production · Extended personality rights

1 Introduction

The “protection-utilization” legal system of data is the pillar of the legal governance system of digital society. People often divide the protection of data rights and interests from the rational use of data, but the two are actually the whole. It is impossible to separate the rules that protect the rights and interests of data from the rules of data sharing and utilization. The “protection-utilization” legal system of data is a rule system that discards the fundamental difference between the protection of data rights and interests and the rational use of data and provides rule of law support for data flow in the context of digital economy. The study of “protection-utilization” legal system of data is the overall investigation of this rule system.

At present, the research on the “protection-utilization” legal system of data is limited by the institutional logic of essentialism, so it is difficult to respond to the complexity of data practice. As a mode of knowledge production, “essentialism” refers to the cognitive path of obtaining conclusions, judgments or other types of knowledge by applying this “essence” to concrete experience from the “essence” of universal sharing of things. Existing studies often put the data under the existing institutional framework by defining the essential characteristics of the data. The institutional logic of “protection-utilization”

of data shows a strong tendency of essentialism. However, it is difficult for researchers to deduce “how to protect and utilize data” on the basis of scientific understanding of “what data is”.

In order to avoid the solidification of thinking caused by the institutional logic of essentialism, we need to realize that the essence of data is not in itself, but in the process of utilization. In the face of the interest pattern created by the use of data, it is considered that the legal system should proceed from the legal interests and distribute rights, obligations and responsibilities among different subjects. The legal interests of “protection-utilization” legal system of data are constructed from the evaluation of data value production. To define the legal interests arising from the use of data is to manage the production of data value. On the basis of managing data value production, construct a “data usefulness legal system that operates within the expanded personality protection framework and encourages innovative value production”, or can respond to the legal problem of constructing “protection-utilization” legal system of data.

2 Research Objects and Basic Concepts

The protection and utilization of the data contains the two aspects of value, one is the individual value that data protection points to, for instance, the protection of personal privacy, whether it regards privacy as a free right not to be peeped by the government or society, or as the individual’s freedom to choose and act independently, in essence, it points to the protection of individual values. The second is the economic value pointed by data. Economic life brought by the development and prosperity of the rich material life greatly promote the political, cultural, legal, and so on various aspects of social life of prosperity, but when too pursuit of economic value, or absolute economic value, what it brings is that capital operates out of control in accordance with its logic, which is bound to erode other social values, that is, the values of other social life will be forced to make concessions and economic values. It includes the value of the individual. Individual value and economic pursuit are in an either-or situation, but this is not what a good social development expects. Therefore, it is necessary to build a new value environment—the pursuit of multiple values, limit the disorder of utilization through protection, and promote better protection through utilization. In the multiple value evaluation system, whether to achieve the protection of individual value or the pursuit of economic value, the goal is the same, in order to pursue creative value and integrate the two or even multiple values to achieve the construction of multiple values.

Currently, a lot of studies on the “protection - utilization” legal system of data try to project its functions to the existing institutional framework by defining the essential characteristics of the data. This path of “essentialism” does not apply to the complex problems faced by the “protection-utilization” legal system of data. Before criticizing the essentialist institutional logic of “protection-utilization” of data, we need to recognize the characteristics and limitations of essentialism and its institutional logic itself. Essentialism has at least three basic presupposition: (1) the same type of things exist by some common attributes (which he attributes is incidental), is an essential part of naming, alleged or define things [1]; (2) the attribute of things there is a “hard core” of the content, will not be different with historical process and the situation changes; (3)

as to the nature of property or other *let a priori* determines the specific presentations in the experience things to rule out the unique needs of thinking “application”.

Although essentialism is an important way for people to understand the world, society and self, its effectiveness as a mode of knowledge production has been criticized by many scholars. First of all, some scholars do not believe that the concept has a general meaning. Second, the essence of things is not constant, and the “hard core” content that advocates excluding change is actually out of the wrong understanding of the concept of essence. Finally, the essential stipulation of empirical judgment is also challenged. Thus, it can be seen that the three basic presuppositions of the essentialist mode of knowledge production all have inherent limitations at the philosophical level.

3 Problems and Current Situation

As an important way of knowledge production in the study of law, essentialism can effectively maintain a stable and logical legal system, but it will also lead to the mechanical rigidity of legal practice and cannot meet the practical needs of data governance [2]. The “protection-utilization” legal system of data based on the concept, nature, basic principles and specific framework of data is inherent because it involves three propositions related to essentialism-- the universal implication of the concept, the self-referential nature of legal elements, and the inherent stipulation of the legal system.

The institutional logic based on the concept of data and its limitations. The essentialist institutional logic of data “protection-utilization” is reflected in the following belief of some scholars, that is, if the connotation of data is not defined in a scientific way, it cannot be effectively regulated at the legal level. The understanding of data in legal research mainly includes “bit theory”, “file theory” and carrier theory, only taking the carrier theory as an example. This theory defines data as a bit form represented by a combination of 0 and 1 on the basis of binary circulating on computers and networks [3]. Jurists choose this definition mainly to distinguish it from the information stored in traditional media, in order to take the data stored and processed by computer as a unique object of study. Scholars seem to explore its legal regulation from the nature and definition of data, but in fact they realize that there is a profound difference between the “protection-utilization” of data in the computer context and the privacy protection in the non-computer background. Thus, the former is treated as a new problem under the current technological conditions. Therefore, the clarification of the connotation of data science is not the logical starting point of “protection-utilization” legal system of data but is “selected” from many definitions according to the needs of legal research and legal evaluation. Thus, it can be seen that the essentialist institutional logic based on the scientific definition of data lacks a certain degree of authenticity. It is precisely because it conceals the real process of “selecting” the scientific connotation of data, the universal concept of data does not fully specify the different data that need to be treated differently in legislation. For the need of comprehensive regulation, a lot of legislation covers a wider range of objects in the definition of data, which conflicts with the theoretical starting point.

Institutional logic based on the nature of data and its limitations. The institutional logic has at least three limitations: first, the existing academic summary of the nature

of the data cannot cover any possible situation, that is to say, not all data are “non-competitive” and “non-exclusive”. Secondly, if we start from the “non-specificity” and “non-independence” of the data and deny the data as the object of civil law, this institutional logic will cover up the real process of data replication and evaluation. Finally, this essentialist institutional logic does not realize that it is the “application” that determines the nature of the data, not the nature of the data.

Institutional logic based on basic principles and its limitations. In addition to the scientific connotation and essential attribute of data, the institutional logic of essentialism may also stipulate the attribution of data rights on the premise of basic principles such as “labor empowerment theory” or “Coase theorem”. Unlike Locke’s property, people can use data without occupying the original data set by copying. Therefore, the demand of individualization or even exclusive possession is not the hard demand of using data, but more important to explore the institutional framework to promote the common prosperity of mankind through the use of data. Secondly, the application of labor empowerment theory out of context will cause researchers to ignore the real process of value production and trade-off. Without the analysis of the value production process, it is impossible to determine the applicability of the labor empowerment theory. Compared with land and other traditional property, the data does not have a relatively definite value production path. While it creates huge economic value, it also causes value derogation due to external negative effects such as consumption manipulation, privacy invasion, information cocoon house, human participation and the marginalization of decision-making [4]. Therefore, apart from the real process of value production and trade-off, the application of labor empowerment theory in an essentialist way may cover up the complexity of the problem. Finally, the institutional exploration with the labor empowerment theory as the logical starting point masks the key role of “application” in the process of theoretical construction.

The institutional logic starting from the specific legal framework and its limitations. In the face of data as a new item, the most common way of regulation is to bring it into the existing legal framework. As long as it is consistent with the constitutive elements of the regulatory object of the legal framework, the data can be regarded as the same kind of object into the scope of effectiveness of the specific legal framework. However, because legislators did not foresee the mode of production of data value in the digital age when formulating these legal frameworks, the coincidence of these constituent elements with data is only an accidental phenomenon. It is difficult to overcome the inherent limitations of essentialist institutional logic by adhering to the mode of thinking that meets the elements. On the one hand, large amounts of data can’t really meet the constituent elements required by these legal frameworks, thus can not be incorporated into the protection of specific legal frameworks. On the other hand, the constituent elements of different legal frameworks may create unnecessary internal cuts to data sets. Secondly, the practice of anchoring to a single legal framework according to the guidelines of the constituent elements may obscure the complexity of the production process of data value. Finally, from the data protection proposition of trade secrets, we can see that the key to comparing data to trade secrets is not its constituent elements, but the application focus of weighing the production of data value. Along the path of essentialism, people tend to get caught up in the laborious work of screening a large number of unstructured

data sets in experience with constitutive elements, and it is difficult to pay attention to more fundamental problems.

4 From Essentialism to Non-essential Perspective of Protection and Utilization of Data

As an important way of knowledge production in legal research, essentialism can effectively maintain a fairly stable and logical legal system, but it will also lead to the mechanical rigidity of legal practice and cannot meet the practical needs of data governance. [2].

The criticism of essentialism does not mean moving towards the position of anti-essentialism. This will destroy people's perceptions about the "protection-utilization" of data and push the legal system into an abyss of total uncertainty [5]. The serious criticism of the logic of the essentialist system is based on the needs of practical seeking to break the old, fixed formula in the formation of legal knowledge, so that people can focus on the practical form pointed to the "protection-utilization" legal system of data. The digital economy rooted in data "protection-utilization" is a creative economy, and the development of data value does not follow the past stable model. This creative value production has led to the continuous changes in the interest pattern of all parties and possible legal status. Starting from existing legal frameworks, it is either difficult to support the creative nature of the digital economy, or it is impossible to respond to complex and diverse situations. In view of this, the research "protection-utilization" legal system of data needs to anchor a new foundation to meet the needs of researchers to judge legal issues in the context of a creative economy. The institutional logic of critical essentialism is to establish this foundation or practice form: the production management of data value.

4.1 Utilization of Data: A New Perspective

Starting from the use of data is the first step to break away from the essentialist way of thinking and reconstruct the institutional logic of "protection-utilization". According to the above analysis, to think about the "protection-utilization" legal system of data from the nature of data is to make the fresh data in the process of utilization into a "mummy of data concept" [6]. This seems to be the worship and worship of the nature of data science by legal people, but it actually blots out the life shown in the process of data utilization. For example, many legal researchers believe that in order to study the ownership of data, it is necessary to clarify the difference between data and information: the exercise of similar portability belongs to the data problem, while the platform collects personal information without the consent of the user. There is a certain theoretical basis for this distinction, and "data issues" pay attention to the security of the system and the integrity of data; and "information issues" focus on reducing the scope of being known and circulating for personal information. However, this "basis" cannot be understood according to the nature of the data itself, but can only be regarded as supported, changes, or hindered some kind of data utilization, and a certain subject is necessary. In other words, the real difference is not the essence of data, but the practical form of data utilization. For the

“protection-utilization” legal system of research data, paying attention to data use is far more important than questioning its essence.

4.2 Production of Data Value: The Necessary Background

Starting from the real-life process of human material production that ensures that people can produce from the social structure [7], reconstruct the institutional logic of “protection-utilization” of data. This investigation refused to preset the premise of essentialism, but from the reality before. This premise is people. In this perspective, data utilization is not an abstract activity, but an activity that is understood in the relationship between data and people themselves. People are constantly customizing the use of data according to their own standards, and their experiences with data and the real world are also shaping the people as subjects and their scales. Thus, Data utilization is a process of constantly converging the use of data with human needs, that is, the process of producing its value. The people concerned by the “protection-utilization” legal system of data are the realistic people who live in the society. This requires researchers’ thinking must be based on the social background of realizing value production through transactions and systematic operations, and keep two insights in mind: (1) Some value mode of production in the socialization process deviation due to distorted human scale direction;(2) Differential different value production methods compete for dominant position in the social field. The “protection-utilization” legal system of data inevitably affects the distribution pattern of data value production methods.

In the most universal sense, the production can be divided into two conflicting ways: people-oriented multi-value production and economic efficiency-centered value production. The former uses “data utilization” as a means to enhance human cognition, judgment and action, and promote human development and prosperity. Because of the diversity of human existence, the use of people-oriented data requires the pursuit of different social, aesthetic or ethical values according to individual needs in different situations. The “fuzziness” and “friction” which inevitably lead to inefficiency in the use of data are essential to this value mode of production in some cases [8]. Under the social conditions where economic efficiency-centered value production occupies a dominant position in most fields, people-oriented value production is in jeopardy. However, the technical design of encryption technology and embedded value still tries to enable people to better control their own information and data by changing the mode of economic operation and technical conditions. And set up the final line of defense for people to control their lives in the control network of capital, technology and power [9].

On the other hand, although the value production centered on economic efficiency takes digital products and services as the basis to meet human needs, it does not regard this satisfaction as the goal of data utilization. The main manifestation of this value mode of production is that institutions with equipment, large databases and professional data analysis technology mine commercially valuable information in order to improve products and services. Although the economic value production of data is the social labor of users, the analysis of data engineers, and the operation and maintenance of platform corporate employees, the products and services generated in the final analysis are not available for workers and wider public, so beginning to the existence of dissidents [10]. With the development of data processing and the prosperity of platform

economy, digital capital gradually takes the lead in the whole process of data value, even by constructing false digital demand, to control users as producers of data value and consumers of data goods from the material level to the spiritual level. This kind of economic efficiency-centered data value production and people-oriented data utilization compete with each other, which together constitute the necessary background for understanding the “protection-utilization” legal system of data.

4.3 Managing Data Value Producing: The Application Focus

The “protection-utilization” legal system of data cannot only stay at the level of understanding the social process of data value production. Instead, it must be settled to a constructive and evaluated application level. As an integral part of cultural practice, the legal system cannot be satisfied with the scientific understanding of the realistic order but should integrate “interest” and “knowledge” [11]. challenge the realistic order by standardizing the existing interest pattern. The historical legitimacy of the values guaranteed and pursued by law such as justice, freedom and goodness lies in the contents that have not yet been realized in the realistic order [12]. Therefore, the “protection-utilization” legal system of data can only make a diagnosis and choice between consolidating the order dominated by digital capital and power and promoting the ideal prospect of a digital society that promotes the development of multiple endowments of human beings. And take the regulation of each data utilization behavior as an intervention in the real order, in order to construct a basic social order that meets the normative requirements in the context of the rapid development of digital technology. If we ignore the normative requirements of realizing individual autonomy, self-determination and subjectivity under the new conditions of digitalization and intelligence, and do not mention creating space for individuals to live in a fair, rational and transparent digital environment and realize the free development of personality, the personal data protection legal system is out of the question.

The application of “protection-utilization” legal system of data is to manage the production of data value, so that data utilization can produce desirable value combinations. The metaphor of management behavior means that the institutional “protection-utilization” legal system of data is regarded as an actor who promotes a specific value combination through judgment and decision-making in the ever-changing information current of complex world facts [13]. Data utilization supports a series of social processes full of liquid operation, such as flow, sharing, tracking, interaction, screen reading, remixing and so on. Legal evaluation needs to be the same dynamic and should be close to the management behavior that can respond to changes in situation. With the characteristics of liquid governance. The fact that data value production is creative means that the interest pattern may change beyond what legislators have imagined with data utilization, which requires “protection-utilization” not only to determine specific situations based on a priori rules, but to develop such rules from the reality created by data utilization actions. Norms can only be presented in the process of things [14], and the role of managers can highlight the importance of this fact more than the role of traditional legislators. Thus it can be seen that the starting point of thinking about the “protection-utilization” legal system of data is to regard society as a whole of data value production, and to support

social practices that can produce desirable value combinations by means of empowerment, licensing, supervision and judicial adjudication in the dynamic process of data utilization [15].

As the focus of application, the production management of data value integrates the legislative activities, rule interpretation and other types of institutional practice of the “protection-utilization” legal system of data into a coherent system. The protection and utilization of data in the intelligent society is not a piecemeal or trivial problem, but involves the fundamental problem of maintaining human freedom, autonomy and autonomy through subjective construction under the new technological conditions. The “protection-utilization” legal system of data is not a governance tool for competing for special goals in independent battlefields, but a grand narrative supported by several scenarios. If “protection-utilization” cannot be regarded as a “meaningful whole”, it will be impossible to construct a consistent legal system to respond to the omni-directional challenges posed by the digital society to human life at an invisible level. The application of data value production management can provide the ultimate significance for all the practices of the “protection-utilization” legal system of data. The integration of personality interests and property rights and interests, empowerment and supervision path, public law protection and private law protection, constitution and general legal framework is the key to bring digital utilization into the track of normative review and rule of law.

5 Human-Centered Innovative Value Production: The Ends

The management of data value production should be based on a belief in the legal practice of “protection-utilization” of the whole data, and [16] to prove the purpose, goal or principle of data value production management. It is hard to define this belief system from inside the legal system, and exploring this issue inevitably involves the debate on the basic principles of justice and the pursuit of values in the digital age. Before entering the discussion of the specific legal framework, it is necessary to go deep into the debate of political philosophy and clarify the belief basis of management data value production from four levels.

5.1 Maintaining Subjectivity of Human Beings

As the dominant technology category in the digital society, data utilization must first support the purpose of the technology itself. On the basis of eliminating all kinds of misunderstandings of modern social concepts, German philosopher Oswald Spengler traced technology back to the source of “survival strategy to support the will to power” [17]. As a kind of purposeful action, technology has its real existence only when it is produced creatively to counter the hostile environment. But as this action evolved from struggle and conquest with nature to plunder, enslavement and manipulation of the world, technology began to betray its purpose. Data may also be involved in the technological rebellion in new ways. As a typical way of contemporary data utilization, algorithmic governance does not regard people as practical, empirical, present individuals with complex emotions, but as fragments in a large number of scattered personal

data in an atomized way. The architecture that provides the basic conditions for the use of such data focuses on the impersonal and fragmented collection of digital traces in daily life and communication only for the sake of prediction [18]. Individuals as moral actors or subjects are in jeopardy in this digital architecture that has evolved to support the widespread use of data.

Subjectivity is a normative category that limits the destructive effects of capital control and technological betrayal in modern society. In the aspect of law, subjectivity is expressed as the basic principles of “safeguarding human dignity” and “ensuring the free development of personality”. Under the technological conditions of the digital society, the core of this personality interest is to “effectively defend against the possible personality intervention of others, so as to freely participate in social life and realize the free development of personality” The EU countries represented by Germany put the “right to self-determination of information” into the list of general personality rights, which is a typical way to protect subjectivity at the legal level [19]. Although, Although the human dominant position in the digital age can be maintained to a certain extent in the way of general personality rights and interests, the metaphor of “management” has the following additional value. (1) It can highlight the importance of value tradeoff. Even in the “inviolable areas” of “safeguarding private life”, it is a tradeoff to regard the values of “inviolable freedom” and “human dignity” as absolute priority over other competitive principles [20]. The metaphor of management is more helpful to avoid treating the “protection-utilization” of data as a simple process in which the rules apply. (2) Can understand and meet the institutional needs of maintaining subjectivity from a broader level. The digital architecture can avoid the general personality rights protection model with the rule of informed consent as the core. Regarding “maintaining the status of human subjectivity without being weakened” as the management goal is conducive to flexibly mobilizing a variety of institutional resources, making legal governance embedded in the review and supervision of architectural design, and improving the situation of human freedom and dignity in the digital age as a whole.

5.2 Encourage Pluralistic and Innovative Utilization

On the premise that the status of human subjectivity will not be weakened and the realization of internal goals in the field of maintenance, it is necessary to consider whether data practice is conducive to innovating lifestyles in a diversified way. On the one hand, the use of diversity means that, first of all, it does not follow the way customized by the existing economic system (although it needs to rely on the economic system to cash in its mechanisms). Instead, the value of data is mined in the way prescribed in the fields of social, aesthetic, justice, culture and ethics. On the other hand, the creative use of data is not primarily about technology but refers to the innovative utility of data use: it can either release a way of life suppressed by the economic system or develop unprecedented life practices. These two aspects are inseparable, and the multiple use of data value can usually enrich people’s social lifestyle. Promoting the common prosperity of mankind through the use of data is the ideal goal of the digital society [22].

If the use of data can be accompanied by the innovation of lifestyle, it should take precedence over the practice stipulated by the existing social and economic system in the tradeoff of the system of “protection-utilization” of data. This claim needs to

be morally defended. Cybernetics and complexity theory are the weakest and most defensible paths. In the view of cybernetics theorists, the world as a whole obeys the second law of thermodynamics: chaos is increasing and order is decreasing. In areas where human society can make progress, the increase of local order can always be achieved [23]. In order to maintain the order of human life in a diverse environment, social systems must have the necessary diversity [24]. The innovation of life style is the source of complexity within human society as a system, in order to provide the necessary diversity to cope with the environment. However, the dominant structure of the existing social system, such as the business model, will always inhibit the innovation of people's way of life. The Internet and digital technologies make large enterprises more capable of defining and shaping people's needs and interests, and continue to promote the colonization of business models to the living world. Even if there is data utilization beyond the established model, as long as the dominant model or framework refuses to interact with it, data utilization with the potential for innovative lifestyles can be easily excluded from the social system [25]. As an important part of the social system regulator, the "protection-utilization" legal system of data should give priority to the use of data in innovative life styles in order to weaken the exclusion of social systems and promote the diversification of life styles.

5.3 Pursuing Economic Value: Benefits Most General Ones

On the premise of meeting the above three management objectives, the economic value created by the data utilization should benefit the most general public, especially those who are most disadvantaged in the digital society. Compared with the traditional market economic system which relies on contract and competition mechanism based on clear property rights, data utilization should be regarded as a more extensive cooperative undertaking. In the process of data generation, the activities of users provide important materials and power. In allocating the value created by the data utilization, everyone's interests should be included in a mutually beneficial structure so that the results of data value production are generally shared by the public.

Levying digital service tax is an important way to achieve this goal of value distribution. The main factor that hinders the use of data to benefit the general public is the digital gap: the differences in the information and communication technology in terms of ownership, skills, and application make some groups cannot share the benefits of the development of the digital economy, resulting in serious inequality. When the inequality caused by the digital divide exceeds a certain limit, the open opportunities for some people to use data for self-development will be reduced [26], thus thwarting the management goal of developing multiple values of data through the outbreak of creativity at the micro level. Therefore, it is necessary to make use of the economic benefits created by data as the goal of public sharing and settle on the group benefits in the most disadvantageous position of the digital society. There are two institutional paths towards this goal: either to ban the use of data that is not conducive to such groups from the source of value production, or to restore competitive neutrality through the levy of digital services tax. The shaping of the redistribution of benefits can better accommodate the social environment of multiple use of data. There is no moral justification for the choice of these two paths, but only a tradeoff. Even without considering the technical difficulties in practice,

compared with the source prohibition, levying digital service tax can reduce the direct intervention of public authorities in the use of data and avoid excessive inhibition on the vitality of market subjects. Levying digital service tax is a better way to balance the moral requirements and policy objectives of value distribution.

6 Reconstruction of Data Protection - Utilization Legal System

The production of managing data value with the goal of innovation is the logical anchor of the “protection-utilization” legal system of data. The subject who practices in a playful way on the basis of autonomy is the source of innovative data value production. The intrinsic purpose of the field can provide normative guidance in the field of innovation. Tilt protection creative data utilization can provide direct institutional support for this process. Achieving universal benefits through redistribution can to some extent repair the inhibition of innovation caused by the dominant economic and social structure. In order to achieve this management goal, the specific system should create an environment that encourages innovative data value production. For this reason, this paper puts forward a kind of “data usefulness rules operating within the framework of extended personality rights and interests protection”, which promotes the realization of the goal of innovative data value production management on the basis of implementing non-essentialism institutional logic.

6.1 Extended Framework of Personality Rights

In modern society, the subject is conceived as an individual who can choose freely, act independently and assume corresponding responsibilities. This concept of subject continues to the understanding and construction of data rights and interests in the contemporary legal system. In view of the fact that creative practice usually occurs in the process of direct encounter between man and nature, under the premise that the social environment leaves room for this encounter, the autonomy of the subject will naturally be accompanied by creative achievements. Therefore, the legal system with the autonomous subject as the core can promote the prosperity of human creative practice.

If the legal system in the digital age wants to achieve the same goal, it cannot stop at ensuring the autonomy of the subject. Computer algorithms have changed the medium of human practice in the digital age. The data presented by natural facts can be converted into code into calculation only if it is neatly organized under the carefully compiled category. Even if there is the slightest cognitive inconsistency between reality and code, prediction-oriented computing can bridge this gap through selective cognition and achieve overall unity [27]. Therefore, the artificial classification scheme and ontology structure have been embedded in the algorithm. When digital devices driven by computer algorithms infiltrate into all aspects of people’s lives through interconnection, it makes code and software become the medium of cognition and action, thus cutting off people’s encounter with the physical world. The technical architecture built by digital devices has even become the law of cyberspace, determining what people can and cannot do [28]. Only by creating new measures and possibilities can we continue to create new things and values. For regulating digital technology, the system of protecting personality rights

and interests needs to shift from ensuring the autonomy of the subject to paying attention to its creative possibility.

This shift requires the “protection-utilization” legal system of data to expand the protection of personality rights and interests to supplement the shortcomings of traditional privacy protection and data self-determination. “expansion” mainly refers to the environment that gives the subject the guarantee of peace of life and the qualification of autonomy of the will to actually maintain these functions of the subject, especially to support creative practice. Subject is a completely abstract concept, which should be understood as the product of the interaction between creative self and social shaping factors. Only when this interaction can be realized without self-inhibition can creative value continue to emerge. Thus, it can be seen that the self-subject has media and social dependence. Because the algorithm logic only focuses on the statistical correlation between elements, but cannot be understood by ordinary individuals, digital media will actually affect the interaction between the self and the social environment. When people lack the understanding of digital architecture, it is difficult to bypass the restrictions imposed by the dominant value production model and creatively use data in a game way. When the digital architecture reduces the rich contingency under natural conditions because of the inherent artificial structure, the probability of people opening up new practice patterns due to the accident or accident of the environment is also reduced. Therefore, researchers should not only focus on people’s data privacy and control, but also pay attention to the conditions needed to enable subjects to innovate data value production in a game and emerging way. And make the “protection-utilization” legal system of data pay attention to the design and operation practices that realize and maintain this condition. Therefore, the protection of data personality rights and interests should move from the traditional defensive and controlling traditional means to the “expanded personality rights protection” framework of constructing the creative practice conditions of the subject.

The “protection-utilization” legal system of data can realize the attention to the technical conditions of the “extended personality rights and interests protection” in two ways: (1) the governance of the embedded technical framework, and (2) the proposition of the availability of traditional media. Embedded supervision of digital architecture is the most direct way to achieve embedded governance. In addition to this kind of embedded governance, it can also give different subjects the right to advocate traditional technological media, hinder the technology architecture to fully cover people’s daily life, reserve “breathing space” for self-development, and ensure the openness of space, information and cognition.

Although there are different possibilities in the path of the system implementation, the extended personality rights and interests protection of digital society serves the same purpose: to accommodate non-linear data value production. This framework does not directly adjust the behavior of data utilization, but to adjust the environment in which the data flow operates. The establishment of a good pipeline will not directly optimize the water quality but can improve the supply of water. Similarly, a healthy data transmission environment can make room for the subject’s gameplay and self-development and establish the foundation for creative practice. Extended personality protection cannot replace

data privacy protection and data autonomy based on informed consent rules, but to create conditions for the effectiveness of these traditional mechanisms. This framework which integrates the protection and use of data is more developed from the provisions of human dignity and freedom in the Constitution than from the personality right system in the Civil Code, so it takes precedence over the data usefulness system with the rights and interests of private law as the core. As the regulation of environmental or practical premise, expanding the protection of personality rights and interests should also have absolute priority over specific data utilization rules. Therefore, the extended protection of personality rights and interests has a lexicographic priority in the “protection-utilization” legal system of data: only on the premise of exhaustion of this framework can we enter into the tradeoff and application of data usefulness rules, or usefulness rules operate within the framework of extended personality rights and interests.

6.2 Data Utilization Framework with Goal of Promoting Value Production

The existing economic model takes the market as the core mechanism of resource allocation, and the “protection-utilization” legal system of data should ensure the effectiveness of the market mechanism in this field, especially in order to encourage the production of data value. Respect the productive input of data processors in data collection and processing. Under the premise of significant difficulties in the allocation of data property rights, data usefulness rules can meet the processing, control, research and development, license and even transfer of data ownership needs, protect and promote the production of data value. Most importantly, the “protection-utilization” legal system of data should accommodate developments and changes, and uniform rules for the use of data cannot be determined in advance. In view of the fact that the productive input of data processors is related to the meaning, determination and even planning of the value of their production data. In order to encourage the maximum development of data value, different usefulness rules should be set up according to this meaning to form a differential order pattern. The specific analysis is as follows:

6.2.1 Small Amounts of Productive Input Lacking a Clear Utilization Plan

The labor input in advance may change the moral status of the subject and enable it to obtain the legitimacy of monopolizing the use of data. At the same time, the establishment of exclusive ownership on data will increase the cost of data circulation, is not conducive to the free flow and access of information and has a negative impact on the production of data value. In order to optimize data value production, exclusive data rights should only protect productive inputs that demonstrate a determination to use the data or have a clear plan, rather than any effort made in the data collection process. Considering that the number of productive costs invested in collecting data can to some extent indicate the collector’s determination to use the data, low productive inputs cannot provide any support for this subjective state. Therefore, the lack of low productive input in a clear utilization plan is not enough to constitute that the market subject has priority over the data controlled by himself. Other subjects do not need to obtain their own permission to use the data independently without violating other restrictions of laws and regulations (for example, the crime of trespassing into computer information systems). Even if the

data controllers take corresponding confidentiality measures, they cannot regard this part of the data as trade secrets and resist the use of others. Although this regulation affects the supply side of the data industry due to the derogation of the value of data controlled by market entities specializing in data collection, it can still be effectively defended by reducing speculation in the data market and promoting the healthy flow of data from the source.

6.2.2 Moderate Productive Inputs or with a Plan that May Support Production of Desirable Value

The second case, the market subject actions show that they are willing to continue to invest in mining the value of data. The subjective will of the market subject can still be distinguished from the two aspects of labor achievement and the quantity of productive input. In terms of labor results, the market subject has left significant processing traces on the data set through selection and arrangement, although it has not yet reached the originality required by the compilation works. However, it may support the desirable plan for the market subject to continue to create the value of the relevant data. In terms of cost input, operators have obvious productive input, although they have not paid a lot of cost, but it is enough to show their determination to continue to mine the value of relevant data. These two aspects are usually closely related, and a certain scale of productive input can usually make the original data reflect the possibility of supporting certain desirable value combinations through collection and arrangement. In the case of meeting any kind of conditions, the market subject can be regarded as the willingness to continue to invest to create a desirable value combination, but it is not enough to guarantee to support this kind of data value production in a stable way. As a manager, arrangements should be made according to the development of the situation with a wait-and-see attitude.

In terms of system, this kind of “wait-and-see” is embodied in that it does not protect the original data collected by operators, but it makes the market subject in a specific legal position and can obtain some degree of monopoly through “further action”. There are at least two situations of “further action”: (1) data sets can be defended in the form of trade secrets under the premise of confidentiality measures; and (2) through further production inputs, develop data products or provide data services on the basis of relevant data sets. Under these conditions, market subjects enjoy competitive property rights and interests in respect of their products and services, which are protected by the general provisions of the Anti-unfair Competition Law. It can be seen that as the “further action” shows the determination and plan of the operator’s production data value more and more clearly, the stronger the monopoly protection given by the legal system on the corresponding data controlled by the operator.

6.2.3 Large Amount of Productive Input or with a Specific Plan to Support Production of Desirable Value

In the third case, the actions of market players show that they have a strong desire to mine the value of data. Similarly, the subjective will of the market subject can be distinguished from the two aspects of labor achievement and the quantity of productive input. In terms of labor results, the data set processed by the operator can “obviously support a clear

plan for the desired value combination”. In terms of cost input, operators have invested a lot of labor and resources. Both aspects show that operators (compared with market players who are not willing to pay such investment) are likely to know how to use these data to create greater value and can support the production of relevant data value in a stable way. In this case, monopoly should be established through the legal system to create scarcity, and the data set controlled by the operator should be separated from the data Commons in a significant way. The most valuable system is the special rights rule of the EU Database Protection Directive, which gives database makers certain exclusive rights, which not only prohibit others from using and disseminating all or substantive parts of the database without permission, but also prohibit others from repeatedly and systematically using and disseminating the non-substantive contents of the database. The term of this exclusive right is fifteen years from the date of completion of the database. Considering that the purpose of establishing the exclusive right is to protect the realization of the operator’s data value production goal, the period of monopoly protection should be commensurate with the reasonable cycle of data product or service innovation. It can be seen that the period of fifteen years is obviously too long, and the period of exclusive rights should be defined in the light of the stage of technological development.

During the period of this exclusive right, the development of events may present two situations. The first is that operators do not continue to make substantial use of the data and fail to further tap the value of the data. In this case, the special right status of the operator is lost with the end of the exclusive period. The second is that the operator makes the database or intelligent algorithm reach the standard of compiling works or patents by mining the value of the data, and the operator enjoys the copyright or patent right with reference to the intellectual property Law. The acquisition of copyright or patent does not lead to the loss of the exclusive right of the operator. The law should also encourage operators to continue to make productive inputs and create more value through continuous monopoly protection. There are at least two exceptions to the exclusive rights during this period of protection: (1) usefulness exhaustion: if an operator uses his exclusive right to data to seek a market monopoly, his exclusive use of the relevant data should be terminated;(2) Originality confrontation: other subjects obtain data controlled by exclusive rights subjects through web crawlers, but if their use of relevant data can produce multiple values and enrich people’s social life style, it should be supported by the “protection-utilization” legal system of data. However, other subjects who cause damage to the competitive interests of exclusive owners while making use of the relevant data can request compensation, but this kind of compensation does not affect the legitimacy of data use behavior.

7 Conclusion

The new technological practice is constantly impacting the traditional ways of social life. In this context, emancipating the mind is inevitable to understand and reshape the current legal system and better respond to the reality. To emancipate the mind, there is great need to break the old ways of thinking and taking new perspectives.

By criticizing essentialism, the self-sustaining boring decoration of the old ways of thinking has fallen off, revealing the fundamental relationship between technology, legal

system and human beings: (1) Technology is a survival strategy for people to releasing their own creative power in a cruel environment. (2) The key function of a Legal system is always to establish an appropriate social condition for creation. If human beings must be cruel and barbaric, it is necessary to return this barbaric creativity to mankind.

The anchor of data protection-utilization legal system is to release this creativity. On the basis of the application fulcrum of managing data value production, this article proposes a legal system of data usufructuary rules that operating within the framework of expanded personality rights protection.

Perhaps this kind of institutional conception is just the insignificant place, on which Marx or other great thinkers has set out. Every step forward is a major institutional project to reorganize a society that is splitting up in digital technology and redeem future of human beings from a gloomy prospect caused by restraining creativity.

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