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Coupling With the Digital Society:

The Conceptualizaion of GDPR and PIPL of the Digital Society as Autopoiesis Legal Systems

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Master Thesis (SOLM02)
Spring 2022

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Abstract

As information technology develops in the past decade, the digital society has affected every aspect of the social structure. The legal system faces the challenge in implementing the legal norms, yet the evolved architecture of technology in the digital society makes it difficult for the law to perform its function. One of the fields of challenge is legal protection of personal data.

Legislators in various societies have recognized the challenges posed by the digital society and have introduced new legal instruments for the regulation of the digital society. The GDPR and the PIPL are two legal instruments that address the issue of personal data protection in the EU and China.

As the benchmark laws for digital society regulation, the GDPR and the PIPL have been discussed extensively in the academia, but there have been a lack of studies from the perspective of the legal system as a whole to investigate the reasons recognized by the system that lead to the legal provisions.

This thesis aims to study the legal systems' conceptualization of the social evolution in the digital society and how such conceptualization led to the legal instruments. Its purpose is to understand how social change is perceived and processed in the legal system through analysing the laws that address the current state of society. Through understanding the process of forming and expressing the legal conceptualization of digital society, it is possible to shed light on the understanding of the dynamics within the legal system under the influence of the conditions provided by the contemporary social environment.

This study adopts Luhmann's autopoiesis systems theory extensively and uses this theoretical framework to perform content analysis and comparative law study on the legal texts of GDPR and PIPL. The study in this paper is also expected to provide a different approach to apply the theoretical framework of autopoiesis systems theory.

The results of this work show that the legal evolution represented by the GDPR and the PIPL is enabled by the potential of evolution innate to the legal system; the evolution is demand by the function of the legal system to produce stability for the social environment on the issue of personal data protection; and the need to accommodate to the dynamic of other social systems is the driving factor of the said evolution.

Key words: GDPR, PIPL, personal data protection, autopoiesis systems theory

Acknowledgement

I would like to thank the professors and colleagues for their helpful comments and reviews for this thesis, which allowed me to improve this thesis, and to become more aware of how readers other than myself receive the articles I compose. Among them I would especially like to thank my supervisor, Ole Hammerslev, for his advice and instruction for this thesis.
Thank to my family and friends for their support along the process. Their support has helped me not only to progress academically, but also to gain the emotional power to pursue this quest.
Finally, I would like to thank the outstanding professors and colleagues who shared their knowledge with me through the Master program of Sociology of Law. I would also like to thank Lund University Global Scholarship for helping to ease the financial stress of studying in a foreign country.

Abbreviation List

This list is organized in alphabetical order.

CFREU - Charter of Fundamental Rights of the European Union
China - refers to the People’s Republic of China, if not otherwise stated.
CJEU - Court of Justice of the European Union
CPC - Communist Party of China, or the Chinese Communist Party
DPD - Data Protection Directive
DPIA - Data Protection Impact Assessment
EU - European Union
Explanation of the PIPL draft - Explanation on the Draft Personal Information Protection Law of the People’s Republic of China
GDPR - General Data Protection Regulation
ICT - Information and Communication Technology
NPC - National People's Congress of China
NPCSC - Standing Committee of the National People's Congress of the People's Republic of China
PIPL - Personal Information Protection Law
TFEU - Treaty on the Functioning of the European Union

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Word Count: 21611

1. Introduction

1.1. Background: information challenge

The digital society describes the current state of the society that we live in. It can be observed that the creation, circulation, and consumption of information have become significant social activities. “Today’s technology [that changes all social relations] is the software system fueled by data and algorithmic ingenuity.” (Burrell & Fourcade, 2021) Within such a society, the application of information and communications technologies (ICT) and the Internet changes almost every aspect of social life. Humans have constructed various informational facilities in digitalized forms, which are engaged in various social activities. At first, the net of facilities was utilized as instruments for convenience in traditional forms of life; yet as the mutual connectivity among the facilities develop into online platforms its dependence on the informational facilities of the traditional offline style of life and production decreased, and developed an independent circulation of information(Van Dijk, 2005). On the contrary, the rest of society has digitalized a significant portion of its structure (Srnicek, 2017). The construction of the ICTs and their connection have demonstrated their determining effect on the superstructure as the material basis that has led to the current circumstance where flows of information within the structure of ICTs become more valuable, and more integrated with the previously non-digital social activities, such as industrial production or interpersonal communication.

The legal system upholds a unique position in the social system that maintains the norms and procedures. It operates with a specific combination of normative closure and cognitive openness and provides stability for the operation of the general social system(Luhmann, 2004; Rogowski, 2015). One presumption in traditional schools of legal theories is that the law is the regulator of every aspect of society. Until now, when each aspect of society seems to be increasingly enclosed and separated from each other because of the increasing level of the social division of labor, the law is still regarded as the source of normativity for almost all aspects of society. As a system of rules that governs all aspects of society, the law certainly also demands the regulation of the newly emerging social sphere of the Internet.

Social activities have evolved into informational operations as the digital society develops. The digital society operates in a different way than the industrial society that has been under the regulation of the modern systems of law. The material foundations of the digitalized social

activities, the servers and data centers, are separated in different locations in the world, and the social sphere that it associates with is also distributed in all aspects of society (Amoore, 2020). With its unique logic, the internet digitalizes these social spheres and operates with them under its logic of itself (Banakar, 2014).

The internet sphere is constructed by informational logic and the feature within this realm proves to be challenging to the law and its implementation. For example, the replicability and transportability of digital data make traditional protection of monetary intellectual property invalid (Rhoten & Powell, 2007); the mediation of the internet enables new models of cyber-crimes that are easier to commit, harder to track, and induce more harm (David & Eric R., 2019); the inequality of access to the digital society forms the digital divide that worsens the separation of people from different social groups (van Dijk, 2020). These problems cannot be simply attributed to the failure of law enforcement or social problems caused by the integration with the ICTs, but rather a conflict between the logic of the Internet and the law as social systems. As the Internet has become a part of practice in many aspects of society, the law must accommodate this social reality and adjust accordingly to sustain its function "to maintain normative expectations in the face of disappointment" (Nobles & Schiff, 2004) The neo-liberalism, serving as an ideological context of the digital society, where the state retreats from the character as an overwhelming protector of the orders in the society to an actor within the society where its power requires cooperation with other actors to realize, the objectivity of the law is increasingly identified to be independent of the rest of the public requirements that generally justifies the system (Banakar, 2014). The requirement by the law for cooperation and technical support from other organized social sectors may be recognized to be weakening its normativity.

Among the various fields that experiences shifting norms due to the application of ICTs, personal data protection is the most relevant to all the citizens yet going through the most dramatic changes, thus the most imminently challenging for the legal system. The use of personal information for profit has become an emerging economic practice in the digital society, and the possibility of causing harm to data subject due to misuse, abuse, dissemination, and leakage of information is also gradually increasing. The metaphor that data could be 'the new oil' (Arthur, 2013) signifies the liquidity and economic significance of digitalized data. Driven by the profit of the new resource, data becomes the most profitable mine in the digital society extracted same way as mines are extracted from the earth. Among the sea of information, the most accessible "mine" is personal data. In the digital society, the right to personal data

protection remains a sort of individual right whose importance is generally recognized in both social and legal theories. While in the social practices, developed ICTs increase the connectivity of individuals to the rest of society, and also highten the possibility of leakage of their personal data. Yet in contrast to other data subjects, individuals know very little about the online leakage of their data and often are not particularly bothered by it (van den Hoven, 2020). Less as the subjects of the data care, the harm of the misuse of personal data is no less harmful. With access of individuals' personal data, it is possible to do harm to them through accessing their financial accounts, social media profile or physical location; less directly, it is easy for the informationally advantageous party that engage in transaction with them to conduct unequally or discriminatively against them (Van Den Hoven, 2008). The most fundamental harm caused by the misuse of personal data is the harm on personal dignity, which is impaired the inability of individuals to control their image cast on other members of the society (Floridi, 2016).

The subject of personal data rights is individuals, while most of the subjects of gathering and processing are privately owned institutions: different subjects of respective legal interests are included in this issue, making it a suitable topic for investigation of the legal system on the internet environment (Crawford, 2021). While the involvement of a third party other than the citizen and the law in legal mechanisms is normal, it is particularly concerning as the legal system's the ability to grasp the principle of operation in the obligated parties is decreased. One reason for this decrease is a circumstance that is common to lawmaking in a lot of professional fields, namely that the legislator does not have the expertise in the field regulated. In this case, it would be difficult to address the nature of the problems that exist in the operation of that field (Paterson & Teubner, 1998). Experiences in resolving this challenge have been accumulated in many modern legal practices. The second comes in the features of economic actors in the digital society. Due to the clustering nature as a result of the network effect in the information economy, agents that handle large amounts of personal data have often developed into huge platform-type service providers such as Google or Amazon (Srnicek, 2017). They provide fundamental Internet services that users cannot easily give up, and often conduct their activities across borders. The fundamental social function these entities provide and the fact that they operate beyond national borders makes legal regulation of them a difficult task in regional legislation (Zuboff, 2019).

1.2. Response of the legal system: the GDPR and the PIPL

Evolutions are taking place in the legal system in response to the digitalization of the social environment. Two of the most relevant instruments are the chosen legal texts as objects of investigation in this thesis: the General Data Protection Regulation of the European Union (GDPR) and the Personal Information Protection Law of the People's Republic of China (PIPL). Both instruments are dedicated to protection of personal data from social activities under a digitalized setting. The mechanisms of protection provided are similar in structures and main contents, while their social and legal environment for jurisdiction and implementation are different.

In 2012, the European Commission published a draft General Data Protection Regulation, which significantly reformed the 1995 Data Protection Directive (DPD)[1] to respond to the emerging needs in the digital society. After rounds of discussions, the draft was adopted and promulgated in April 2016 and came into force in May 2018. The GDPR is the groundbreaking legal instrument that lays down the foundation for personal data protection. This framework regulation fulfills the aim of the European Union (EU) to establish a mechanism that guarantees the information security and development of the digital economy.

Ever since its promulgation, The GDPR has established a new ‘global benchmark’ for data privacy protection to ensure an adequate level of protection (Greenleaf, 2021b). The Regulation has provided an example for the protection of the data rights of individuals through hard law for international legislative practice. Through putting forward the unified rules for both public and private processing of data, it produced a fundamental impact on the development of digital economy in the European single market (Prasad & Perez, 2020). It bears the significance not only as a directly effective and generally applicable EU instrument engaging in data protection, but also as one of the first regulations on personal data protection since the announcement of the digital society.

On the other hand, the PIPL is one of the laws among the data protection instruments that have come into force after the GDPR. According to an official document[2] issued by the Communist

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[1] Directive 95/46/EC of the European Parliament and of the Council of 24 October 1995 on the protection of individuals with regard to the processing of personal data and on the free movement of such data

[2] Opinions of the Central Committee of the Communist Party of China State Council on Building a More Complete Institutional Mechanism for Market-Based Allocation of Factors

Party of China (CPC) Central Committee and the State Council of China in 2020 , data has been identified by the Chinese authority as one of the five major factors of production, in alignment with the factors of land, labor, capital, and technology. However, the development of the digital economy in practise is challenged by misuse of personal data and the ensuing hazards to data security. In response to such challenges, China has been transplanting foreign personal information protection instruments with the aim to formulate a legislative network of data protection. The newest outcome in this row of legislation is the PIPL that promulgated and came into effect in 2021. The PIPL is prospected to contribute to the unification of regulations on the issue of data protection and provide the demanded protection for the aspect of personal data in the said legislative network.

1.3. Aim of the study

This thesis aims to study the legal systems' conceptualization of the social evolution in the digital society and how such conceptualization led to the legal instruments. As described above, the global society where the contemporary legal systems operate in is undergoing a series of digitalization happening because of the development in the ICTs. The digitalized social activities constitute a large part of the social activities that requires legal regulation. In the past decades, changes have been made in the legal systems in order to compliment the said inability and provide legal norms for the activities in the digitalized social fields. This thesis will provide insights into how legal systems have adapted to certain evolving social contexts by investigating the legal approach to the issue of protection of personal data, which is the most imminent field of legal disposal of changes in the digital society, as stated above.

By adopting the autopoiesis systems theory proposed by Niklas Luhmann, this thesis holds the opinion that the legal system of a certain regime is a social sub-system. In such systems, change that happens in response to external stimulations is not directly caused by the stimulations, but their internal operation influenced by the external perturbation. The cognition and response of the legal system is referred to as conceptualization in this thesis.

The aim of this thesis is to investigate the legal systems' conceptualization of its external social environment in the context of digital society. Generally recognized as an unprecedented evolution, the digitalization of the society has caused the laws to change to accommodate the digitalized world. The author believes investigating the patterns of this shift of the laws would provide insights into the study of not only the contemporary legal systems, but also the

influence of the digitalization on a variety of aspects in the general social structure. Studying the novel approaches of the legal system to the data demonstrates the flexibility of the legal systems, as well as their principles to hold on to despite the social practices changes. Through the apparatus of the legal systems, it could be observed how the informational technologies, as a singular point in the development of force of production, induce the overwhelming evolution in structure of the social relationships.

For the aims stated above, the GDPR and the PIPL are selected as two of the most typical laws engaged in personal data protection for the investigation. The author believes that the approach of conceptualizing the digital society demonstrated by the two instruments reflects the way that legal systems conceptualize the issue of individual rights in the context of the mediation of the Internet.

Furthermore, this thesis will introduce a comparison of the two legal instruments under investigation. As the digitalization is a globalized process that poses similar challenges to the legal systems in different regions, it is necessary to put the legal approaches of different regions whose legal systems address similar issues through different approaches. The GDPR and the PIPL are the product of two legal systems from two regions where the societies differ in social ideologies, institutional structure, economical mechanisms, and various other aspects, yet the content of them demonstrate a certain level of similarities. Conducting comparison between these two different texts aimed at similar questions in a different context may be relevant in identifying the commonalities and differences of the legal systems' conceptualization in different societies of a globalized problem.

It is *not* the aim of this thesis to describe how the development of technology has influenced the implementation of the law and the errors in the legal system caused by such influences, but the evolvement of the legal system that responds to such lagging. Also, this thesis does not aim at investigating of the implementation of the two legal instruments due to its volume, and to the lack of material for the implementation of the PIPL, as it didn't come into force until November 2021. This thesis focuses on the process of the conceptualization, cognition and coding of the social environment of the legal system, rather than the acceptance or rejection by the internet-mediated society of the conventionally structured law.

1.4. Research questions

a) *How can the conceptualizations of the legal system of personal data protection against the*

context of digitalization be interpreted through the framework or autopoiesis systems theory?

b) *What are the differences and similarities in the internal relationship of conceptualization of the Chinese and European Union legal system?*

As stated above, this thesis aims to uncover the construction of the social world by the legal systems by analyzing the conceptualization of the legal systems of the evolving social environment. The theoretical framework of autopoiesis systems theory is adopted for the analysis. In order to extract the conceptualization of legal system, the method of content analysis is going to be used to infer from the text of the legal instruments. As he chosen legal instruments are the product of two different regional legal systems, it would be helpful to find out about the characteristics of the legal conceptualization of the digital society by putting them under comparison.

1.5. Structure of the study

The second section of this thesis is the literature review. In this section, the relevant academic field of this thesis would be examined. Existing discussions in the social and legal conceptualization of rights to data protection and the comparison of legal approaches on personal data protection, as well as a critical theorization of the digital society would be presented. The third section that follows introduces the theoretical perspective of autopoiesis system theory proposed by Niklas Luhmann, which will be the framework for analyzing the legal documents in the following sections. In the fourth section, the methods to be adopted for the analysis would be introduced, which are content analysis that inspect the relationship between studied legal documents and their social context, the themes selected as apparatus of analysis is the law, the subjects of the rights and the obligated. Another chosen method is the comparative law method, which enables the comparison between the legal documents chosen for analysis in this thesis, that explores the measures of personal data protection and their response to the globalized digitalization. The fifth section presents the analysis of the material using the theoretical framework and methods introduced in the previous sections. The analysis of each of the three themes are divided into two parts. The first part presents and compare the result of content analysis on the legal provisions in the chosen instruments, while in the second part, theoretical framework is applied to interpret the results, providing a deepened understanding. The sixth section is discussion of the results that summarizes the study

conducted for this thesis. The last section is conclusion where the aim of this study is revised and proposition for further studies are described.

2. Literature Review

The literature review of this thesis contributes both as the investigation of the academic field and a part of the analysis. In the literature review, the existing research on the chosen themes of legal measures of personal data protection, and data subject rights are going to be examined. Following is the section of the critical revision of the social context of the investigated legal instruments, the digital society. Lastly is the section where the comparative legal studies between the Chinese and EU laws about personal data protection is introduced. Literature engaging with the existing regulations as well as the theoretical reasoning that gives rise to such legal approaches both fall in the scope of this literature review.

To conduct a content analysis of the materials, the literature review includes explanations of the currently existing conceptualization in the legal instruments of the objective concept of this thesis to provide the academic background for the following analysis of the legal texts through which the conceptualization of the chosen themes developed within the legal system are justified. The literature would be utilized as an explanation of the legal texts, as well as compensate for the untold reasoning of the legislative. The analysis of the legal texts in the following section is thus going to be placed in the knowledge context demonstrated by examined literature.

To clarify the relationship between the chosen subjects, the existing comparative study of the GDPR and the PIPL would be included in the literature review, which would provide a preliminary image of the relationship and difference between the two legal instruments. The existing literature that investigates the privacy protection laws with systems theory would also be reviewed, to complement the analysis in terms of theories and methods. The literature review has also revealed a research gap in the field.

2.1. methods

The collection of reviewed literature is conducted through searching for the following relevant terms and concepts, combined, both in English and Chinese in the online databases: s*ystems theory, internet, personal data protection, General Data Protection Regulation, GDPR, Personal Information Protection Law, PIPL, data subject right, privacy right, digital society*. The search was conducted in the library catalog of Lund University, CNKI, an academical search engine in Chinese academia and the Internet search engine Google Scholar to identify the relevant literature. Also, the literature and readings from the relevant courses of the

Sociology of Law program and other sources from the author's knowledge have been included as compliment for the online search.

2.2. Data subject rights

In this section, the academical discussion on the conceptualization of the subject rights regarding personal data is investigated.

The legal system is capable of both upholding the existing norms and directing social conduct. This thesis focuses on the legal conception of protection of privacy in the digital society. It has been reiterated by the United Nation that privacy shall remain to be protected as a human right (Gstrein and Beaulieu 2022), but it has not gained such a fundamental status in the legal systems for as long a period as other basic rights such as rights to property or right to health. Much importance has not been attached to the concept of privacy before the atomic society where individuals and affiliating space are separated from the shared public space, and the consciousness of private space is aroused. In the digital society, both the value and easiness of processing private information have increased, which contributes to the increase in legal awareness of privacy protection. In the earlier period of digital society, the protection of private information and relevant data is implemented by invoking general legal principles and rules that do not engage in the digital society.

Under the informational conditions, the traditional conception and means of protection of privacy face challenges from different aspects. Among the discovered issues, personal data protection is selected to be the aim of investigation in the proposed research. Personal data is a sort of individual right whose importance is gradually recognized and conceptualized in both social and legal theories, as well as legal provisions. Following the implementation of the US Privacy Act of 1974, many scholars have interpreted the right to privacy as the right of a natural person to control his or her personal information, arguing that personal information is essentially a form of privacy (Eskens, 2020). Later, the protection of natural persons concerning the processing of personal data is a fundamental right in the CFREU and the TFEU. The significance of the protection of privacy is undoubtedly recognized as the basis of personal data regulation. The protection of natural persons concerning the processing of personal data is a fundamental right recognized by the Article 8(1) of the Charter of Fundamental Rights of the European Union (CFREU) and Article 16(1) of the Treaty on the Functioning of the European Union (TFEU) (recital (1), GDPR). The fundamental rights to privacy, freedom of

expression, security, and equality are recognized to be the basic rights that enable the protection of personal data. Among them, Eskens (2020) suggest that the essence of personal information is for the subject to control whether to participate in the processing of information; Floridi (2016) believes that human dignity for rational autonomy and self-determination need to be respected when their information is being processed, as personal information plays a constitutive role of who a person is and can become. Others believe that the improper process of information would lead to unequal treatment based on the automatic decision (Gstrein & Beaulieu, 2022).

There has been much research on the subject of personal data protection laws, most of which starts from a perspective of the legal subject, which focuses on the implementation of the laws, or the legal analysis of the digitalized concepts of privacy.

There have been two different views on the utilization of personal data in the legal sphere. One side of the debate emphasizes the individualized aspect of personal data that is related to privacy rights and calls for the protection of personal data, to prevent violation of individual interests of dignity, freedom, and privacy. The other party of the debate emphasizes on the characteristics of information and data as the basis of informational society.

The GDPR strongly emphasizes privacy and data protection as two intertwined yet fully independent human rights. This understanding gained traction with the adoption of a Charter of Fundamental Rights by the EU in the early 2000s, which became legally binding with the treaty of Lisbon that came into force on 1 December 2009 and contains both a right to the protection of privacy in Article 7 and data protection in Article 8 (González Fuster, 2014). and highlighted the new role given to the fundamental right to personal data protection in the EU in the legislative proposals made by the European Commission in 2012 to review the legal situation of personal data protection in the EU, highlighting how the new right seems ready to move "privacy" out of this legal situation.

In the face of the challenges from the information society where the free flow of data is taken as a guiding justification for infringement of personal information and privacy, Gstrein and Beaulieu (2022) summarized several new forms of privacy to be the resolution for the infringement of individual privacy. Käll (2017) proposed to reexamine the legal subjectivity in order in response to the fact of separation of personal information and its subject.

On the other hand, there exist other studies that put the personal information protection laws in a broader scope of the information society. The legislation of the said legal instruments is pointed out to be an exception from the general free flows of data in the information society.

The establishment of data protection aims not to encompass data into barriers of protection, but to establish order in the general utilization of data by including the private actors as well as the state as one of the processors of the personal data (Zhang, 2015). Theories that focus on the sharing of data as a social resource emphasize that it is impossible to exclusively possess data and information given to the nature of the ICTs and information (Gao, 2019). Also, it is suggested to be necessary for data to be shared and utilized for them to create values that industries in information society suspend themselves on (Zhang, 2018).

In summary, the conceptualization of personal information and its legal and social significance by the legal field of China and the EU both demonstrate attention to the fundamental right of privacy and established the theories of justification for the protection of personal data on this foundation.

2.3. Theorizing the digital society

The Digital Society began around the middle of the last century, with computer and network technology being the core technologies that drove it. We are still in the information age, and the so-called "big data age" is just an "updated" version of the information age. In September 2008, the journal Nature formally introduced the concept of "big data" for the first time (Frankel & Reid, 2008), and in May 2011, a McKinsey Institute study gave a relatively clear definition of big data, namely that it is a data set that exceeds the size of the data itself is very large, the exchange rate of the data is high, and the data types cover a wide range while maintaining a low numerical density (Manyika et al., 2011). This definition is more widely used. Big Data is generally understood to mean the vast and panoramic amount of information recorded, processed, and disseminated in the form of data messages, and the era in which Big Data is used so frequently that it becomes a major driver of social progress is known as the Big Data era. There is no exact point at which mankind entered the era of Big Data, but on 12 February 2012, an op-ed in the New York Times stated that the "era of Big Data" had arrived, and thus 2012 is often regarded as the first year of Big Data (Van Dijck, 2014).

The peculiarity of information resource is not only that it can be consumed without loss, but also that the process of information consumption may be the process of information production at the same time. The more people consume it, the greater the total amount of resources it contains (Crawford, 2021). The power of the Internet in this process lies not only in its ability to increase the number of consumers of information to the whole of humanity, but also in the

fact that it is an interactive medium that disseminates and feeds back at the same time, which is the most different from newspapers, radio and television. Thus, the Internet is also the site of information production (Van Dijk, 2005).

On the other hand, there exist multiple social studies that engage in the inequality faced by the information society including law as an object of analysis, and it is also worthy of notice that these justifying reasons are largely sponsored by theories in other social science realms. Extraction, profiting, flattening, foreclosure, dignity, and self-determination (Crawford, 2021). Besides the state actor, several studies have pointed to the private actors, especially technology giants to be important powers of the digital society. The power structure is largely affected by the infrastructure construction provided by the private sector. Schou and Farkas (2016) pointed out that the structure of the platform including page arrangement and algorithm push determines the way users get information.

The data controllers are also recognized as in control of the means of data collection and the platforms from which the data is sourced, and it is difficult for the law to interfere due to the secretive and rapidly evolving nature of the technology (Burrell & Fourcade, 2021) . The collective impact of algorithms has spurred discussions on the autonomy afforded to end users. The irrational behavior of individuals about privacy protection has been widely supported by evidence, including the fact that people rarely, if ever, neglect to protect their privacy by reading privacy terms, clearing their internet history, and turning off location tracking features on smart devices (van Ooijen & Vrabec, 2019).

There are three "imbalances" between users and platforms: imbalance in information collection capacity, imbalance in information processing capacity, and imbalance in social influence. The imbalance in the relationship between individuals and information processors, such as platforms, in the context of large-scale information processing, is a fundamental fact to which the personal information protection law should respond. (Wang, 2022)

Hofkirchner (2007) has conceptualized the internet in the information society as an autopoiesis social system that is constructed by the technologies and animated by society. The system of the internet operates on the informationalization of information processes in society, enabling cooperation through communication. The internet is described as a techno-social system that bears the social consciousness in physical forms and fosters both convergence and divergence in society.

2.4. Comparative legal studies of the GDPR and PDPL

The difference between Chinese and European conceptualization of the protection of personal information can be further investigated through examination of the literature that studies both legal instruments as well as the comparison provided by these studies.

International legal instruments are also a part of the evolution of the legal system towards more sophisticated personal data protection. Opened for signature in 1981, Convention 108[3] has been the only binding legal instrument on data protection. It set up a model of data protection, provided the first set of data processing principles, and continues to influence international legal practices on personal data governance (Greenleaf, 2012).

The publication of the GDPR immediately triggered discussions in Chinese legal academia. Many Chinese scholars have studied the content of the instrument and some called for similar personal information protection legislation in China following the enactment of the GDPR (Fan, 2016; Wang, 2016). Before the proposal of the PIPL, influence of the GDPR on Chinese legal practice was already apparent. Sanchez-Rola et al. (2019) illustrated the impact of GDPR beyond border. The economical activities by the Chinese companies is questioned by the GDPR even before the legislation of PIPL and has influenced the Chinese approaches on personal data protection.

Comparison have also been conducted between the personal data protection systems of China and the GDPR both on the level of content and general features. Greenleaf (2020) pays attention to the PIPL legislation in an early stage and provided a detailed review of the draft from a European perspective. It is pointed out that PIPL would be a novel framework for personal data protection based on the GDPR, and the author confirmed this evaluation in his latest address of this instrument (Greenleaf, 2021a). The amendment by PIPL to the GDPR is reviewed as beneficial for the data subjects.

More scholars venture back in time or on a general perspective. Pernot-Leplay (2020) contrasted the Chinese approach to personal data protection with the US and GDPR, pointing out that the similarity between Chinese approach to personal data protection and the European ones are not continuity from the outset. Also, the PIPL's feature of personal data protection of governmental surveillance and emphasis on sovereignty is also pointed out. Chen (2020) proposed the concept of administrative and economic of personal data protection law, and identified the GDPR as more economic, and the PIPL more administrative.

[3] Convention for the Protection of Individuals with Regard to the Processing of Personal Data

2.5. Research Gap

However, the literature review conducted within the timeframe of this thesis has not retrieved literature that analyzes the legal protection of personal data that utilizes the systems theory. In contrast, the authors of this paper argue that a systems perspective is necessary to analyze the conceptualization of law for a changing society. There has been some literature addressing the issue of privacy protection with the autopoiesis systems theory, such as Baghai (2012) has contrasted the concept of privacy as a limitation of the freedom of operation in different social systems, yet also an instrument against the totalitarianism of the communicative systems. As the concept of privacy and public attitude towards personal data has changed greatly since the digital era, it would be necessary to conduct research following this line of study to ascertain the evolution of the protection of privacy in the digital society.

Paterson and Teubner (1998) mapped the applied the autopoiesis systems theory in implementation in the regulated field of the law. The influence is not directly applied through causal chain, but is excercised through legal processes that create perturbation in the environment on the systems operating in the regulated field. This effect of indirect coupling between systems is an embodiment of the concept of structural coupling in the theory that is worth elaborating; the effect of implementation of legal systems through structural coupling is also worth examining in the digital society.

It could be seen that the disagreement in the protection of personal information between Chinese and European Union law concerns systematical differences that are embedded in the social context of the two legal instruments. To analyze the characteristics of the legal systems in different regional contexts through the systems theory and its conceptualization of the exchange between the social environment and the social systems would be of interest in further comprehension of contemporary legal systems and their operation. Therefore, this vacancy has been identified as a research gap for this thesis.

3. Theory

This thesis would refer to the autopoiesis systems theory proposed by Niklas Luhmann as the theoretical framework for analysis. This theoretical framework is suitable for the study in this thesis because it provides a holistic perspective to observe the legal system as an entity. The internal structure of the legal system is given account of, and the system is able to observe its external environment actively, while presenting its conceptualization of the external environment through legal text (King, 2013). In addition, the autopoiesis systems theory provides an approach to understand the process in which systems interact with the other parts of the society, while recognizing the independence of the systems from the environment (King, 2013).

The autopoiesis systems theory concludes the social system and its sub-systems to be enclosed systems distinct from their environment that operate on the basis of their respective binary codes (King, 2013). Luhmann took the legal system as a sampling system during the development of the autopoiesis systems theory and pointed out its feature of cognitive openness, in addition to the general feature of the other social systems which are enclosed operatively (Luhmann, 2004).

For the studies in this thesis, the nature of cognitive openness and operational closure of the legal system itself, and its systematic coupling is the most relevant among the concepts proposed in autopoiesis systems theory. The seemingly conflicting feature of cognitive openness and operational closure is the key to understanding the conceptualization of the legal system to its social context. Firstly, the summary of the autopoietic system theory on two specificities of the legal system itself frames the features of the object of study in this thesis. The openness of the legal system enables it to observe the technological and ethical evolution in the digital society, while the closure requires the system to remain loyal to its promised function to the rest parts of the society, thus integrating the observed evolution in its own operations and structures.

In addition, theorization of structural coupling in the autopoiesis systems theory provides an apparatus to study the process of communication between systems. This study attempts to identify the legal system's conceptualization of the digital society, which, put in the language of autopoietic systems theory, is the legal system's observation and interpretation of the activities of other social systems that are being transformed. The external environment of the legal system is characterized by multiple other social systems. In the case of this study, the

involved systems include at least the economic system that make profiting from personal data possible, the political system that influence the citizens' demand of protection of personal data as a fundamental right. Multiple other phenomena are also worth considering in the analysis of this thesis, for example, morality and technology: both influence the coding and characterization by the legal system of the personal data and its approaches to fulfilling the rights of the data subjects.

3.1. Autopoiesis social systems

Since the publication of Law as a Social System (Luhmann, 2004), the systems theory has become an unneglectable tool in analyzing the modern legal system. In this book, Luhmann extended the concept of the autopoiesis system to examine the modern legal systems as an example of this grand theory.

The autopoiesis systems theory is seen as as a way observing the society, rather than reflection of the reality. The idea of autopoiesis comes from the biological theory proposed by Maturana and Valera, who argued that cognition is the transformation of all environmental stimuli into information in the enclosed system of the organism (King, 2013). However, the brain selects only the information it can recognize and produces the necessary elements for the self-sustainability of life, a process of auto-creation, hence autopoiesis. Luhmann applies this concept to the creation and reproduction of meanings in social networks, recognizing a more autonomous and self-directed status of the society (King, 2013; Nobles & Schiff, 2004). Furthermore, this idea is integrated into the description of social systems, that all the operations of the social systems happen within the boundary of the system. In this way, the systems simplify the ever-more complex social environment and provide a relatively simple and stable structure for the operation within themselves.

The operation of a system is realized through communication, which is identified by the systems theory to be the basic unit of all social organizations. This basic element of society is a combination of three processes of operation: information, message, and understanding (Luhmann, 2004, p. 86). Only communication can constitute society, and there is no communication outside of the society, as the society is the collection of all the communications (King, 2013). As for individuals in the society, they are regarded as psychic systems. It is impossible for individuals to determine the meaning in the network of social communication,

as psychic system is external to other social systems. However, it is through the cognition of human of the environment through the psychic system that meanings are attributed to phenomena, hence enabling all the communications (Baraldi et al., 2021b).

The social systems establish its operational closure to distinct itself from the external environment. To explain social phenomena, where there is not an obvious boundary for the systems to segregate themselves from one another. In order to process information in the social environment, a boundary to encompass the systems needs to be drawn. When a system sustain and operate, it will constantly address its relationship with its surroundings to take in energy and information from external environment. This is because of the dependence of the system on its environment, as it cannot operate independently from the physical and social basis provided by the environment. However, the system is self-sufficient in its operation, forming an almost enclosed, end-to-end operational closure (Luhmann, 2004, p. 80).

The boundaries recognized by the autopoiesis systems theory are binary code of the systems. Each system has their respective binary code that draws the line between the information that can and cannot be processed by the system. In the case of legal systems, the system programs its environment through the binary code of legal/illegal, namely the positive or negative side of the legal system's internal rules. Only the facts that are relevant to the laws are included in the legal system, otherwise, they are rejected from being included in the operation of the legal system. Thus, the operation related to the binary code define the boundary of the social system with its external environment. Thus, autopoiesis systems theory emphasize that the changes of the systems come from the system itself and are dependent of the external environment. The elements within the systems are generated by the operation of the system yet in turn cause the other operation of the system (Jacobson, 1989, p. 1647).

Although the social systems are segregated from their environment, they serve as a part of the society. In spite of the distinction between system and environment there exist means for social systems to link internal operation to the external world (Luhmann, 2008, p. 88). Each operation involves coupling with other operations in social systems, which result in recursively of operations and enable the recognition, observation, description, and correction by the systems to themselves. Therefore, the chain of operation of autopoiesis systems become enclosed circles. Such reflexivity gives the system the ability respond to the increasing complexity and risk of change in the environment. (Luhmann, 2004, p. 159). The self-renewal of the system becomes an intrinsic, vibrant and dynamic process, and this dynamic process allows the system to maintain itself and persist in the network of social activities.

3.2. The legal system as an autopoiesis social system

In the study of legal systems, society as a whole is treated as the environment, while the legal system and other systems are treated as a sub-system, that serves certain social function (Luhmann, 2004, pp. 274-275).

Same as the other social systems, the legal system distinguishes itself from its environment by applying a set of binary code. However, the binary code itself is not sufficient for establishing the boundaries of the legal system. The code must be translated into legal programs (Rogowski, 2015). That is to say, when the legal system is trying to figure out whether a communication is part of a legal system, it must examine whether there is an attribution, i.e. whether it relates to an area of legal coding to the issue of legality in the targeted social facts (Luhmann, 2004, p. 93). While legal programs change as they respond to the external environment, the binary code remain the same. This dynamic operate towards a balance in the system: all the changes that happened in the legal programs, including the legal instruments emerged from legislation activities, follow the set rules in the coding. In the case of this thesis, the process of legislation is identified not only as a part of the legal system but also in other systems including the economic or political system, as the right to personal data protection carries no less political or economical significance than legal ones. However, due to the operational closure of social systems, the legislative processes could only be reviewed within the legal system with the perspective of legality. Correspondingly, the material to be chosen could only be limited to the facts that have passed through the filter of the binary code, and engaged in the legal system.

Another feature of the legal system is its cognitive openness. The legal system is open to its external environment because it has to take in new knowledge, information, and energy to synchronize with the social evolution (Luhmann, 2004). In this sense, the law can be described as a closed system in normative terms, but an open system in cognitive terms. The elements and reproduction of such elements of legal structure is reactive to the conditions in the external environment. The driving force of this tendency is to ensure the implementation of its norms, which serve for the social reality more than its internal operation.

The autopoiesis of a legal system give rise to its ability to the coded elements of communication legal normativity, and to intergrade these components as That is to say, the normativity of any legally relevant event arises only from the legal system and not from an external context.

When social agents use the law to resolve disputes that arise in their actions, or administrators

invoke the law to govern the society, their non-legal interests and perspectives affect the legal system, causing the recognition of the legal system of the social demand on itself through the operation of the external agents. The cognitive openness introduces asymmetrical relationships into the legal system through new cases and raises new issues of regulatory development. New social conditions require new responses to corresponding cases, which leads to constant changes in the legal system. The legal system is cognitively open to changes in social conditions and changes in reality circumstances, and the pattern of operation of the legal system will be adjusted as soon as the social facts change and the situation changes. (Luhmann, 2004, p. 106). While the system remains enclosed and autopoietic, the system remains open to changes in environmental conditions.

The validity of law arises from the legal system itself, rather than from the orders of the sovereign, basic norms, human rationality, human compliance, and other reasons proposed by other legal theories. As a form of communication within the legal system, observation produce a self-description of its values, roles, functions, and limitations; it therefore also serves the function of stabilizing the outcome of the legislation contributing to the independent status of the legal system instead of relying on pre-existing external structures, which limits the changes in the system. On the other hand, the autopoiesis systems theory suggests that the law exists not in the abstract world but comes into force together with conditional programs that act as the premises of the application of the code of legal/illegal. Different conditional programs are adopted when certain facts are determined by the legal system to be legal/illegal, which are regarded as the social dimension of the law (Luhmann, 2004, p. 196).

Since the legal system is self-observing and self-referential, its communication is also confined to the enclosed cycle of self-reproduction among the agents, elements, and variables within the system. The distinctive nature of the systems makes it impossible to communicate directly with the external environment of the system, or refer to external elements for normativity of its norm. Therefore, Luhmann refers to the law as a normatively closed system (Luhmann, 2004).

The communications associated with the law legal arguments. They have a dual function: firstly, they are constituting elements of the operations in the legal system; secondly, their circulation within the legal system maintains the structure of the system. On one hand, these communications provide the conditions for one operation to be linked to another operations and thereby confirm or modify the legal programs; on the other hand, they limit the scope and pattern of the operation. That is to say, legal arguments form the structure of the system's activities, which are the framework for the operation and lay down further conditions on the

activities (Luhmann, 2004, p. 85). Therefore, the unity of the legal system is a tautology in which the legal system generates and determines itself, but also returns to and depends on the information it generated, resulting in a complete, enclosed and coherent cycle of the legal arguments (Luhmann, 2004, p. 90).

In autopoiesis systems theory, legal systems are performative, as the legal argument constitute communication directly. Laws are communication with legal meanings that embody the operation of the legal system. However, the laws are merely one set among the mass of operations that produce and reproduce the meanings of the law. (Luhmann, 2004, p. 78). That is to say, the textual element of systematic operation have direct legal outcomes due to the reliance of the legal system on the operation of language and text (Luhmann, 2004). The legal norms are necessary for the regulation of social behavior, but it cannot be reduced to coercive order for the delegation of interests of certain social groups, or a historical, rigid reading of the legal texts.

As the positivist ensue for validity of law led to emphasis of the rationality of law, the nature of the law as agreements between social parties led to a new interpretation of the social establishment. The law as social contract became a dimension of community life that could be arranged and determined rather than principles. The social dimension of community life can not only be arranged and managed but is also shaped by the contingency of law. This form of law is no longer fixed general principles in abstract form that is not responsive to its historical and social environment. The modern system of society that responses to the flexibility of social norms (Luhmann, 2004, p. 443) .

It is provided by not only the systems theory but also the jurisprudence, that the function of the legal system in the society is stability of social expectations. The legal system ensures that all cases are processed under the same rules and yield the same result in dispute resolution. As addressed by a variety of social and legal theories, the development of rationalism has led to a shift in the law from emphasizing the substance to formalities. Through requirements of legal concepts, structure, formalities and procedural justice since modernity, the recognized feature of the structure and rigidity of the law has gained ground among the internal and external academia. The stability of law has a social establishment on long-term, extensive, reliable, and calculable expectations (Luhmann, 2004, p. 107). Such a system of law would facilitate the formation of complex relations of ends and means in the industrialized society where the demand for the social relationship be kept intact in a hastily changing network of social activities. In other words, it enables each individual, or each part of society, to be secured from

risks for development through this abstract yet predictable mechanism.

Therefore, the sole function of the legal system recognized by the autopoiesis systems theory is to maintain the stable expectations of the rest operation in society, which in general play the role of the relational structure of legal output, despite the counterfactual examples that are frequently encountered in the reality of its implementation where consistency are not sustained in different cases. This unique function makes the legal system an irreplaceable component of the general social system (Luhmann, 2004, p. 129). Institutionalization of the legislation makes expectations general and universal and stabilizes the expectations of all parties. The legal instruments are therefore implementation of the generalization of expectations, and the embodiment of social instruction for individual actors. In this sense, the legal instruments are output of the legal system for stabilization of expectation of the society.

Luhmann believes that the stability of law is to provide individuals with adaptive patterns for cooperation, and that law regulates all social operations as a coherent and universal normative set of anticipation of social activities (Luhmann, 2004, p. 471). The legal norms restrict individual freedom in order to limit the uncertainty of social activities, especially when the activities of the agents are significant for other agents. With the legal instruments the society is provided with a codebook to decipher agents' activities by simply attributing legal effect to them, thus restricting or reducing the uncertainty, risk and arbitrariness of the expectation of agents' activities.

However, it is important to note that the law is only indispensable in principle. The implementation of it varies according to the needs and conditions of each society. Therefore, the uncertainty and risks in the adaption of different formulae of contingency is also a topic to study in the legal system. (Luhmann, 2004, p. 216).

3.3. The legal system and the external environment

The concept of structural coupling is one of the central concepts for the analysis of this thesis, as it aims to investigate the legal system's changes after its social environment has become digitalized. Structural coupling is the process in which two social sub-systems operate in coordination. As the autopoiesis systems are enclosed in operation, this process is realized through systems exchanging information with the environment (King, 2013). On the one end, the system release the result of its operation into the environment; on the other end, another system takes in the produced information as the materials for its operation. "All systems are

operationally closed, but cognitively open" (Nobles & Schiff, 2004, p. 8). "Structural coupling produces irritations and perturbations inside the system that are implemented by the system through its network of operations into further operations" (Luhmann, 2004). The exchange between these sub-systems is not a literal transaction between them, nor is it an interaction in the sense that interactionists mean. It is about the preservation of the differences, the differences in the formation of the relationship of mutual dependence.

The relationship between the legal system and its social environment is often described as the system is irritated by the activities in the environment and intergrade them into conditional programs of the system. The two-way process is described as "the law provides structures that can be utilized by other systems of society while those systems provide cases, which further stimulate (irritate) the legal system, provoking further evolution."(Nobles & Schiff, 2004, p. 28) It is therefore imperative for the survival of the system that the complexity of external sis transformed into simplicity and risks and vagaries are reduced. If such reduction cannot be performed, the structure of the system will deteriorate, and may even collapse in the face of infinite changes and risks.

Therefore, structural coupling is not a idealized condition, but a part of the system activities, in the general social environment. The systems process the communication in the social environment as material for adaption of its programs, and the operation of these programs in turn emit information to the environment. If the operation of another social system contingently share the same specific communication, the structural coupling between them is then possible. Luhmann invokes the concepts of interpenetration, which is developed from Parsons' model of double interchanges, to explain the relationship between systems. Interpenetration is explained as "the law [...] reduced complexity [of its environment] and simply uses the result without [...] engaging in an analysis of how this came about (or only relying on purely legal perspectives for such an analysis)" (Luhmann, 2004, p. 116) .The operation within each autopoiesis systems are different and cannot directly communicate, yet for the society to operate, the systems need to communicate with each other. While the systems are enclosed and the operation of them is not comprehensible for each other, it is possible for the systems to relate to other systems by merely performing the operation autonomously. The social environment is intermediate in this coupling process. Information produced by various systematic operations are buffered in the environment that holds information bearing significance for multiple systems. In this way, each system take in the informational product of other systems to drive its operation, while the information taken in is the outcome of the operation of another system on their respective rules

and processes, regardless of the other systems rules of operation (Baraldi et al., 2021a; Luhmann, 2004).

The process of structural coupling doesn't end at the point when legal conclusion is adopted by other systems. The communication of information in the society is an endless cycle. The legal system and other social systems are recognized and mastered as empirically examinable variables for each other, and these variables interact with each other in the context of the legal system. The perspectives of systems outside the law will usually be refracted into the legal system, and concepts, principles, or rationale that have previously been processed by the legal system that re-entered the legal system remain to be ascertained of their legitimacy. These information may then be called into question and, through another process of reflexive unfolding, produce new concepts, principles and rationales that respond to the stimuli of the external environment (Bin, 2013). In the analysis of this thesis, this process of the personal data protection law demonstrated through the multiple revision of the instruments would be analyzed. However, such reflexive operation directed towards the external environment remain internal to the legal system that applies the legal/illegal binary code.

In socio-legal studies, the law has always been described as a stable social structure of normativity the society rather than the embodiment of the relationship between life and activities in the reality (Luhmann, 2004, p. 466). However, the ability of the legal system to remain cognitively open and coupled with the other parts of the society offered it the possibility to evolve. The socio-legal condition to be studied in this paper is regarded as another dramatic evolution, the norms derived from the social practice in the rapidly developing social environment of the digital society has become a part of the renewed environment for the law. On the other hand, social development have given rise to changes in the law at the implement level and in some legislation. This relationship of the law and the society changing in a speed faster than ever has been showcased by the changing legislations, making this period the best chance to portrait the relationship of law and the society by observation.

In this thesis, the society as a social system from different regions are treated as separate social entities with autonomy. As Glenn (2007) has introduced about social systems theory in his reflections on the comparative study of law. He advocates the use of the sociology and anthropology of law beyond the boundedness of general systems theory as an alternative to the conflicting study of legal and cultural systems that exist exclusively.

4. Method

In this section, the methodological choice of this thesis would be described. To depict the approach of the legal system to conceptualize the digital society, this thesis will adopt the methods of content analysis and comparative law. The two research questions have led to the adoption of the two methods of this thesis, as content analysis enables observers to discover the hidden relationship between the studied text and their social context, and comparative sociology of law allows us to find out shared features of different legal systems, as well as contrasting different legal systems with each other for the sake of spotting differences in their legal approach to the same issue. In the case of this study, the text for content analysis is the content of the selected legal instruments, and their social environment is the digital society as described in the previous sections. By studying similarities and differences in their approaches to the same issue of personal data protection and relating these features to their social context, this study is believed to be able to discover how the law takes in the environment, and how the legal system operates in relation to the other systems, and the formation of these conceptualizations.

4.1. Content Analysis

"Content analysis is a research technique for making replicable and valid inferences from texts (or other meaningful matter) to the contexts of their use" (Krippendorff, 2019, p. 24) . It takes content as "emerge in the process of analyzing a text relative to a particular context" (Krippendorff, 2019, p. 24). Content analysis allows researchers to discover the meanings and symbolic implications of unstructured data, and the textual re-representation of the legal system of the stimuli in the external environment enables researchers to study this process of integration through investigating the content of the legal instruments. Through extracting the text related to the context under research, the method of content analysis establishes the correlation between the selected text and the research question and reaches the answer to the research question.

The text in content analysis is more than characters in the documents. The concept refers to all the representation of the real world produced in social activities, sometimes even beyond language. The contents construct the world where users comprehend and live contents in (Krippendorff, 2019). In the analysis of this thesis, the legal documents are regarded as a sort of text available for content analysis. Through the analysis of the legal text, it is possible to

reconstruct the operation within the legal system. The legal documents as texts do not only indicate rules set down by the legislative bodies, but also construct the network of communication where the legal operation is conducted. Also, the legislative documents usually record the process of the collective composition and opinions or amendments from different relevant parties and demonstrate the so called "legislative intention". Inconsistency is also relevant as a driving force of interaction and as a cause of evolution which are less addressed in the final instrument, but could be found in the legislative documents (Krippendorff, 2019, p. 70). Through analyzing this dynamic text, one can interpret the legal instruments and its conceptualization of the society in a better depth.

This thesis adopts the question-driven content analysis. The dynamics for question-driven content analysis come from posing cognitive question about a currently inaccessible phenomenon, event, or process, which the analyst believes the text can answer (Krippendorff, 2019, p. 384). In this thesis, the question to be addressed is how the legal system conceptualizes and organizes its operation in the digital society. The legal system in this thesis is a construct delimited by autopoiesis system theory, and its operation is regarded as inaccessible and needs to be analyzed and explained by researchers who adopt this theoretical framework.

The stability of relevance between the legislative documents and the answer to the research questions remains to be clarified. The selected documents record the legal approaches and the rationale for the formulation and amendment of such provisions of the studied legal instruments. In the legislation process, the opinions arising from the various stakeholders and other social systems are expected to be balanced by the legislator in the legislative process and incorporated into the legal instruments. This process constitutes the reflexive operation of the legal system resulting in the formation of the law. As stated in section 3, the performative nature of the operation in legal system makes it possible to study its conceptualization of the social environment from the legislative communications recorded in the selected legislative documents. Such records reflect the rationale for the formation of legal texts in the legislative process. In other words, these texts represent how the social facts that are recognized and selected by the legal system as needed to regulate, and how the legal system developed its procedure of operation on this issue. By analyzing the legislative documents, it is possible to find out about how the legal system communicates with the non-legal entities outside of the system. In addition, it contributes to knowing about the internal conceptualization of the legal systems of the external actors and the social environment. On the other hand, how the legal systems engage with social entities is one of the critical differences between the social structure

in which the legal systems are embedded in.

The next step in devising content analysis is to develop coding categories for record descriptions. In order to construct an appropriate analytical procedure, one strategy is to draw from the existing literature or theories in the context of the analysis (Krippendorff, 2019). In jurisprudence, legal norms, like other social norms, are often seen as norms about three constituent elements: subject, content and object. In this thesis, this division is conceptually expanded to facilitate the analysis on the provisions of the chosen legal instruments. Three themes are proposed to code the materials according to their contents: *the law*, *the subject of the right*, and *the obligated*. The provisions and descriptions in the analyzed text are selected from the instruments and coded according to their contents into the three themes: provisions and documentation describing the legislative operation of the laws are coded as demonstration of the structure of legal system, hence *the law*; the suggested conduct, including the principles of data protection and the and other rules that protect the data subjects' rights and interests are coded as relevant to *the subjects* and their rights; the provisions that set down mechanisms for the data controllers to protect the subjects' rights are coded as related to *the obligated*. The unit of coding is paragraphs as divided formally in the laws or natural paragraphs in other legislative documents.

Content analysis is most likely to succeed when analysts relate issues for analysis to the social realities that reflect them in everyday life (Krippendorff, 2019). The aim of this thesis requires the analysis to be closely related to the social environment in which the text is situated. It is necessary for both the implementation of the theoretical framework as well as the method of content analysis for the text to be investigated in relation to the digital society. The analysis would include the legal consideration of social practices, the evolution of social consciousness as well as the legal and social institutions in which the investigated laws are embedded in. Therefore, the digital society will be the main context of the analysis of the text, with awareness of the difference between the society of the EU and China. The time of legislation of the two instruments, which stretch from 2012 to 2021, is the period where information technology and social media developed immensely, and the digital society start to take shape.

4.2. Comparative law

The second method adopted in this thesis along with content analysis is the comparative sociology of law. The legal approaches to personal data protection as well as the

conceptualization of the social environment of the two instruments would be placed under comparison. Adopting this method is fit for the purpose of this thesis to describe the responses of different legal systems to the stimulation caused by the digital development of society. Comparison plays a role in the process of judicial interpretation to discover the pattern of autopoiesis legal system response to the digital society (Örücü, 2007). In the comparison of this thesis, the chosen laws are understood as a part of the autopoiesis system of law, which plays the role as the response of the legal system of their respective regions. The presented responses are considered as based on the conceptualization of the digitalization of the external environment of the legal system of their respective region.

After putting the different systems together, it would be possible to describe, compare, and identify similarities and differences between them, before venturing into the realm of interpretation. It would also be necessary for the analysis to give account to the social context of the laws. Most differences that cannot be explained at the scale of the legal instruments can be explained through investigating their contextual reasons such as overall legal structures or digital economical practices. The concept of the institution as a macro-unit combines the legal system with the social, cultural, political, and economic systems. (Örücü, 2007). However, within the framework of the autopoiesis social system, it would not be possible to claim that the legal system is directly influenced by its social environment. The stimulation from different social factors needs to be interpreted from the perspective of legal system itself. It is equally essential that the cognitive openness of the legal system is taken into consideration, as the aim of this thesis is decoding the conceptualization of the legal system, in the process of which the internal operation of the legal system should not be neglected.

It needs to be pointed out that the respective institutional backgrounds of the chosen materials in this thesis are not directly corresponding. Similar as their social background of globalized digitalization are, the practical environment of each legal instrument differs greatly. The EU and China are two distinct social systems that differ in terms of ideologies and institutions. That is to say, the legislative implementation processes that the analyzed legal instruments have gone through and will go through are different. Such difference in procedure is the result of synergistic effective difference in legal systems and social environments for both legal instruments. However, such difference does not make the materials incomparable. As long as the listed factors are included as an aspect of comparison, it is possible to interpret the chosen material with accounts given to such legal cultural, and social aspects (Nelken, 2014). The premises of comparison of the chosen objects are going to be explained below.

In different parts of the world, legal systems develop into different forms to provide regulation for the social activities changed by the information technologies in the digital age. While the stimulation from the technological environment is similar, they result in different influence in various backgrounds, as the society of different regions in which their respective legal systems operate fostered different technical establishments. Thus, the legal systems of different society develop their distinctive response to such verified stimulation in each social environment. Konrad Zweigert and Hein Kötz argue that the fundamental methodological principle underlying all comparisons in comparative law studies is the principle of functionality. Legally, the only things that are comparable are objects that perform the same function (Zweigert & Kötz, 1998, from (Örücü, 2007). In the sense of the aims of the law, which is generally regarded as protecting the citizens' rights to personal data, the chosen subject of comparison performs the same function. The difference in their social environment is what makes the comparison meaningful for the interpretation of the legal conceptualization in such a digital society. Therefore, this thesis takes on the social environment in autopoiesis system theories as the shared context of the compared legal instruments.

Another challenge to the comparability of this thesis is comparative law approach has been questioned as being ineffective between capitalist and socialist legal systems (Örücü, 2007). The possibility of comparisons across the regimes is excluded as they are considered to be unsuitable for comparison because they are embedded in different particular histories, ethical values, ideologies, and cultures. In this thesis, the premises of comparability between the chosen laws would be constructed upon autopoiesis systems theory. The autopoiesis systems function under the condition of a modernized society. The concept of modernization refers to the fact that the processes of enactment of laws are transparent and visible, unlike the oracular conventional laws that lacked clarity and transparancy (Luhmann, 2004). It could be generally agreed that both the EU and China in the 2010s, when the legal systems started to pay attention to the digital society, can be regarded as modern legal systems in societies based on advanced industrial economies. While the EU legal system fits the requirement for autopoietic analysis of the law, as the context of the development of the autopoiesis systems theory is the European law (Luhmann, 2004), the distinct features of the autopoietic legal system (Jacobson, 1989) are also demonstrated in the Chinese legal system: it dynamically generate and transform their elements of the system and withhold unity, which allows the agents in the system to determine validity of legal actions or arguments based on whether it is generated in the operation of the system itself (Liu & Wang, 2015).

4.3. Sources of Data

The main material selected for this thesis to answer the research question is the formal legal text of the GDPR and the PIPL. For the reasons stated above, the legal documents generated during the legislation process of the two instruments are selected for auxiliary in the analysis of the formal texts. The GDPR and the PIPL were established through legislative processes in the EU and China, while the EU institutions, and the Chinese government have issued corresponding procedural documents at each procedural step. The drafts of the laws are first proposed by the representatives in the legislative institutions, then published by the institutions for recruitment and incorporation of the suggestions and amendments submitted to the institutions by the interested enterprises, social organizations, legal experts, and the general public, after several revisions. In the end, the procedures result in the final binding texts after two deliberations in the legislative bodies (Standing Committee of the National People's Congress of the People's Republic of China [NPCSC], 2021; (Kuner et al., 2020) In addition to the draft or official text of the law, these procedural documents contain explanations of the reasons for the drafting or amendment of the legal text. It would be beneficial to limit the scope of materials down to the institutional texts about the rules provided for processing personal information in the most fundamental sense, excluding the international transmission activities, which involve the elements of foreign actors; and information processing for the sake of national securities, which involve the political elements beyond the ordinary processing of personal data.

Among these procedural documents, all the drafts and their explanation or clarification provided by the NPCSC would be included for the PIPL; and the main text and the recitals of the GDPR would be adopted as the main material for analysis of the GDPR. Other important procedural materials provided in the EUR-lex database will be selected and compensate the analysis as described in this section. The documents would be only analyzed with a focus on the three selected themes of analysis under a generalized perspective.

The reason of the choice made among the available legislative documents are based on the balance of volume between the two compared subjects, as well as the nature of the involved systems. The legislative documents provided in the Gazette of NPCSC is limited to the disclosed material in the gazette, while the volume available legislative material of the GDPR is more than processible for the volume of this thesis. In addition, the procedural documents

for the GDPR published record mostly the discussion of various parties' opinions. The opinions in these procedural documents is entangled with conceptualization from the perspective of other social systems including economic systems and political systems, rather than the legislative conceptualization which is conveyed in the recital of the GDPR. On the other hand, the text of the PIPL does not include recitals but was published in the Gazette of NPCSC along with the reports made for the Committee by the legislators as a collective entity. Therefore, the text selected is limited to the main text for the GDPR, while for the PIPL the legislative reports are included for analysis.

The entire list of material selected would be provided in the Annex.

4.4. Concepts

Most of the central concepts that are going to be referred to in this thesis are drawn from the legal instrument of concern. In this part, the most relevant ones are going to be presented for the sake of consistency during analysis. The definition presented in this section is cited as a working definition and the concepts involved would be closely assessed during the process of analysis.

4.4.1. Personal data

The definition of the GDPR and the PIPL is digested as follows:

> '[P]ersonal data' means any information relating to an identified or identifiable natural person […]. (Article 4 (1), the GDPR)
>
> Personal information refers to all kinds of information related to an identified or identifiable natural person, recorded electronically or by other means, excluding information that has been anonymized. (Article 4, the PIPL)

The term *personal data* in this thesis would be referred to as an equivalence to the term personal information, as the data that can lead to the identification of a natural person.

4.4.2. Data Subject

> '[P]ersonal data' means any information relating to an identified or identifiable natural person ('data subject'); an identifiable natural person is one who can be identified, directly or indirectly, in particular by reference to an identifier such as a name, an

> identification number, location data, an online identifier or to one or more factors specific to the physical, physiological, genetic, mental, economic, cultural or social identity of that natural person […]. (Article 4 (1), the GDPR)

The PIPL has not defined a data subject. Instead, it provides that any natural person is the object of protection provided by the law:

> The personal information of natural persons is protected by law, no organization or individual may infringe upon the personal information interests of natural persons. (Article 2, the PIPL)

In this thesis, the subject of personal data rights and interests are referred to as *data subjects* if not otherwise stated.

4.4.3. Data Processor

> '[C]ontroller' means the natural or legal person, public authority, agency or other body which, alone or jointly with others, determines the purposes and means of the processing of personal data; where the purposes and means of such processing are determined by Union or Member State law, the controller or the specific criteria for its nomination may be provided for by Union or Member State law […]. (Article 4 (7), the GDPR)

> '[P]rocessor' means a natural or legal person, public authority, agency or other body which processes personal data on behalf of the controller […]. (Article 4 (8), the GDPR)

> A processor of personal information is an organization or individual who decides independently on the purpose and manner of processing in the course of personal information processing activities. (Article 73 (1), the PIPL)

For the sake of conciseness, in this thesis, the data controller and the delegate entities that process personal data in the GDPR, and the data processors in the PIPL are referred to as *data controllers* if not otherwise stated.

4.4.4. Data Processing

> '[P]rocessing' means any operation or set of operations that is performed on personal

> data or sets of personal data, whether or not by automated means, such as collection, recording, organization, structuring, storage, adaptation or alteration, retrieval, consultation, use, disclosure by transmission, dissemination or otherwise making available, alignment or combination, restriction, erasure or destruction; (Article 4 (2), the GDPR)
>
> The processing of personal information includes the collection, storage, use, adaptation, transmission, provision, disclosure, and deletion of personal information. (Article 4, the PIPL)

As the definition of data processing in both of the instruments is similar except for the range of activities, the general data processing activities that fit the description in the laws would be referred to as *data processing* if not otherwise stated.

4.4.5. Social System

This thesis adopts the autopoiesis systems theory and its definition of social systems. In this framework, a *social system* is regarded as an autopoietic, self-referential system in the society that differentiates itself from its environment. The final element of the operation of a social system is communication (Baraldi et al., 2021b, p. 221). Further description of the concept has been provided in section 3 of theories.

4.5. Coding

The chosen material is retrieved from the internet and imported into the content analytic software of NVivo. Then the material is read and coded by the author into the set of three themes. The content of the chosen legislative documents is attributed to one or more of the themes of *the law*, *the subject of the right*, and *the obligated*. The text identified and categorized in the coding process is then selected to be presented for qualitative analysis in conjunction with a comparative perspective and the theoretical framework introduced in the previous section.

4.6. Methodological Limitations

The chosen research method of this thesis is qualitative research that does not produce a numerical or statistical result. The material of this thesis is selected from a wide range of written documents released by the authorities of the studied regions. The materials may have been through revision for the sake of political or formatting by the legislative institutions, therefore may not be regarded as directly reflective of the empirical facts of the process of legislation or implementation of the studied legal systems.

In this thesis, the theories are mainly referred to as a theoretical framework to interpret the chosen material, rather than to be tested against the empirical facts. This thesis attempts to propose a novel utilization of the theory, rather than of a rectification of it.

4.7. Ethical Issues

The ethical issues are evaluated by the author herself according to the guidelines provided in the Report For Good Research Practices by Swedish Research Council (2017). The author is not aware of the involvement of sensitive ethical issues in this thesis, as the aim of this thesis is orientated towards an investigation into the conduct of the legal system as a theoretically constructed entity, which is constituted by a collection of governmental work of public servants of the EU and China, whose work ought to be justified to be publicized and reivewed. The author is not aware of any ethical problems associated with the collection of empirical data either, as the empirical material is selected from the legislative material of the EU and China, which is legally disclosed and accessible to the public for examination and researching. Therefore, the requirement to inform the creator, obtain consent, and ensure confidentiality would not be necessary. In order to remain obedient to research ethics, the data will only be utilized for research purposes.

The author is a native Chinese speaker and has been educated in Chinese law, so she is able to read and understand the content of the PIPL and associated documents, and interpret them in their legal, political, or social context. The author is fluent in English and is therefore able to convey the said interpretations in this thesis in English. The loss of meanings and context in the process of translation would be avoided in the author's best effort.

5. Analysis

In this section, the analysis of the material using the theoretical framework and methods introduced in the previous parts and the results would be presented. The analysis of all three topics is divided into two parts. The first part presents and compares the results of the content analysis of the legal provisions in the selected instruments, while in the second part, the theoretical framework is applied to interpret the results and provide a deeper understanding.

The coded text will be regarded as the embodiment of the conceptualization of the legal systems that legislate personal data protection in the process of their legislation. The provisions that provide measures in the analyzed instruments to address the protection of personal data will be interpreted as a result of the conceptualization of the digitalized social environment. Therefore, the analysis attempts to reveal the content of the conceptualization of the legal system from the text.

The selected materials are analyzed to answer the research questions under the aim of this thesis of discerning the conceptualization of legal systems in the digital society. The legal approaches are going to be examined in a way that is organized by themes of the three perspectives as presented in the fourth section, namely the perspectives from *the law*, *the subject of the right*, and *the obligated*. The perspectives are chosen following the reasoning of the structure of legal provisions: each of the legal provisions contains one or more of the three elements.

The analysis of provisions relating to the three themes points roughly to three systems engaged in the regulation of protection of personal data: the individuals as the subject of the rights and data perform as the agent-driven by their psychic system; data controllers are agents of the economic system, which is not only the context of the protection of personal data unfold but also a source of driving force where the regulated data controllers of the private sector conduct the data processing activities from which arise the necessity for legal protection of personal data; and the legal system, which provides the provisions and regulations of the operation relating to the processing of personal data. However, the analysis in this thesis only examines the economic systems and individuals from the perspective of the legal systems and considers their influence and interest conceptualized by the legal system, considering them as a part of its social environment. Taking this stance is a part of the requirement in the framework of the autopoiesis system. The operation and binary code of the economic system and individual remained unobservable from the perspective of the legal system, other than the perturbation produced by their operation that is captured by the legal system and entered the legal operations.

5.1. The Law

The legal system of China and EU has never overlooked the necessity of the protection of personal information. As presented in the previous sections, the legal instruments addressing the issue have never ceased to provide legal grounds for the demanded protection ever since the proposal of the concept of privacy and personal data. The GDPR and the PIPL are not the first instruments to address the issue and would not become the last of them. These two instruments are merely one step in the evolution of personal data protection laws, despite their significance, and more advanced legal instrument would be produced by the cycle of arguments in the legal systems.

The personal data protection legislation was demanded by the social norms that demand the protection of information in both of the regions. The conditions that gave rise to the conceptualization of the GDPR and the PIPL for personal data protection approaches are derived from already existing social and ethical concepts. In the GDPR, it is provided in the first article that the regulation aims to "[protect] fundamental rights and freedoms of natural persons"; while in the PIPL, the people and their concerns about their data were referred to be the reasons for legislation of the law in the Explanation on the Draft Personal Information Protection Law of the People's Republic of China (Explanation of the PIPL draft).

The dynamics that give rise to the GDPR and the PIPL as an evolution away from the previous legal arguments are recognized by the legal system. The multiple factors are stated in the legislative documents. As the actors in the regulated realm become less manageable under the existing law of the time, a newer, more powerful framework is needed. In the Recital (7) of the GDPR, the regulation is presented as a framework of coherent enforcement within the Union.

One of the features of the legislation in an information society would be the communication between different legislative actions in different parts of the world, brought by the openness of legislative actions in different countries and the similarity of the problems faced by the legislative bodies due to common environment brought about by globalization. Ever since the significance of personal data and its protection is proposed and growing increasingly towards an independent legal field that requires its respective instruments, a legislative attempt has been carried out among different states.

The GDPR is generally regarded as a systematic summary of the principles and measures of data protection proposed by the previous existing attempts in data protection. Before the GDPR, there were the DPD in the EU. The GDPR has inherited most of the principles and rights

endowed to the individual including the rights of notice of collection, purpose, power of consent, right to data security, disclosure, and access. These rights have later become basic rights in the GDPR and a benchmark for all the data protection laws. The DPD, in turn, stems from an unbinding convention laid down by the Council of Europe, the Convention for the Protection of Individuals with Regard to Automatic Processing of Personal Data. The inheritance and application by the GDPR of these principles make it a sample model for the succeeding legislation of data protection, including the PIPL (Greenleaf, 2019, 2021b).

There have been more sources of legislation than the previous legal provisions. Due to the relative stability of legislation, more legal argumentation has emerged from the implementation of personal data protection. Among them are case laws interpreting the previous law and accommodating to the changed social situation. The decision of the Court of Justice of the EU has had a significant impact on the development of the GDPR. It has ruled against conduct that impedes the realization of the right to personal data and has established, through its judgments, the rules of data protection for the transition period (Kuner et al., 2020).

The two legal instruments have their origins in the previous legal instruments. As the literature review section shows, the investigated legal documents come not from the void, but from the accumulation of legal arguments and concepts dealing with the evolving social environment. Before the GDPR and the PIPL, there were the Data Protection Directives (DPD) in the EU that have served as the most important instrument in personal data provided for decades (Schwartz, 2019). The first explicit definition of the right to privacy in China was Article 2 of the Law of China on Tort Liability. Ensuing is the confirmation of "the right to personal information" as an independent personality right is established in Article 1034 in the Civil Code of China. Later, there is the Cybersecurity Law of China, which commenced in 2017, and the Data Security Law of China, which commenced in 2021 provided preconditions for legal instruments that focus solely on the protection of personal information. In addition, several general definitions and basic principles on privacy and personal information are provided in the Civil Code of China. The difference is that the GDPR replaces the DPD in its effectiveness and incorporates most of the regulations of the DPD in terms of content. The PIPL, on the other hand, regulates different legal categories from the Cybersecurity Law and Data Security Law, and as there is overlap in the content, such as the definition of some concepts and principles of data processing, the PIPL is parallel to and simultaneously applicable with the Cybersecurity Law and Data Security Law, constituting a network of data protection that encompasses the realm of digital security in Chinese legislation. They did not only provide the first legal

conceptualization of the social norm of privacy and personal data protection but also provided the principles that are adopted by the studied legislation. Similar to the directives and opinions provided by the EU institutions on the relevant issues, the implementation of the PIPL is accompanied by multiple regulations issued by the implementing agencies, which provide additional details on the implementation of the law. According to pkulaw.com[4], the PIPL has been cited in 26 Chinese national legal instruments and 37 regional legal instruments. A cyber security system is being constructed and the PIPL is considered to be a node in this network. In addition to the cyber security law, the data security law, and the PIPL, some provisions of the Chinese civil law and Chinese criminal law are also referred to when dealing with the security of personal data.

On the contrary, the legislation of PIPL does not show a clear relationship to certain judicial activities, but there are cases in the referential cases issued by the Supreme People's Court before the PIPL demonstrating consistent spirit in personal data protection with the PIPL. These cases are cited in the interpretation of Chinese scholars to the legal instrument (Fang & Wang, 2022; Wang, 2022).

The legislative process differ between the PIPL and the GDPR. It could be observed that the PIPL demonstrates a feature as contingent instrument that serves the purpose in policies and governance in the Chinese policies. The highly unified political system that is oriented by the instructions of the CPC in China provides extra coherence between different social systems. The legislation reflects the political intension for policies. On the other hand, the EU legislation present more emphasis on formalities and procedural integrity. The volume of legislative procedural documents disclosed is a sort of reflection of this feature of the two instruments.

Analysis

The GDPR and the PIPL, as the most significant and influential among the newest approaches to the comprehensive protection of personal data, have their origin in the dynamics of evolution in the legal system.

The feature of cognitive openness has the irritation from the external environment recognized by the legal system. The legal system faces the challenge of social dispute on the cause of action unexpected by the legislation in every stage of social development. To solve such

[4]A widely used provider of Chinese law and regulation aggregation search services operated by the Legal Information Centre of Peking University.

disputes and provide stability as the aim of the legal system requires, the legal rules provide leeway for explanation and interpretation. The different response to the practical situations that derive from the legal texts guarantees the validity of the legal system in the changing reality (Luhmann, 2004, p. 262). As a form of communication within the legal system, observation produce a self-description of its values, roles, functions, and limitations; it therefore also serves the function of stabilizing the outcome of the legislation contributing to the independent status of the legal system instead of relying on pre-existing external structures, which limits the changes in the system. On the other hand, the autopoiesis systems theory suggests that the law exists not in the abstract world but comes into force together with conditional programs that act as the premises of the application of the code of legal/illegal. Different conditional programs are adopted when certain facts are determined by the legal system to be legal/illegal, which are regarded as the social dimension of the law (Luhmann, 2004, p. 196).

Should there be no clear explanation in the legal text for the emerging situations, the legal system can provide an outcome that conforms to the principles of the law while maintaining the logical enclosure of the system. Such an outcome is produced through the legal argumentation of the relevant parties, enabled by the possibility to interpret the law. This allows for legal argumentation in the legal practice to be integrated to respond to the new questions that arose in new situations. The legal system is thus kept alive and available despite the relevant stability of the legal text. Each case that has its origin in the changing social environment contributes to the legal system's evolution that offsets the social changes. It is in this way that the perturbation of the social evolution is reflected in the legal system.

The accumulation of such minor evolution of the legal interpretation amounts to a secondary self-observation of the legal system. As the practically recognized practices and concepts accumulate, the legal text has become another medium of interpretation (Luhmann, 2004). The interpretation may be unified or controversial, but it has become more compatible with its external environment. There may be a set of legal concepts that are not enshrined in the legal texts but are passed on in the generally accepted legal interpretation.

The legal system demonstrates the feature of cognitive openness and operational closure in the GDPR and PIPL. The law can cope with the uncertainty, impermanence, and occasional nature of changes in expectations and interactions, and to adapt to changes within and outside the system. The legal system has a special mechanism for the formulation and revision of legal decisions, resulting in procedural and procedural law, dedicated to the process of law-making, revision and use, and the operation of the law (Luhmann, 2004). In other words, the legal

system is constantly in the process of self-reflexivity. It is using the procedural law of the first level to change or amend the substantive law of the second level.

Thus, the autonomous system of law and justice constantly generates and regenerates a framework of communication in a circular, end-to-end circle, including the communication, reflection, self-correction, and self-adjustment of the legal system itself. The law and the judgments to which it applies are cyclical and mutually referential. Secondly, the legal system is a system of legal communication, in which each legal communication has to respond to the previous legal communication by reference to its provisions or precedents, and each legal communication has to bind and regulate the next, subsequent legal communication, and become the case for the next decision. The legal arguments embodied in judicial cases, the emerging legal concepts, and unbinding agreements on an emerging issue in the social environment often led to the establishment of a genuine evolutionary legal text and contribute to its content. In the case of this thesis, the GDPR and the PIPL, as a step of the legal system to claim its authority in personal data protection in the digital society, have their origins in the case laws and legal instruments exist before them that engaged in the same problem. The arguments and concepts proposed in these materials and inherited by the laws in question are important to understanding the conceptualization of society.

The legal system may take down the emerging practices through a series of legal cases and established concepts into a set of rules. This could be recognized as a process of legal operation enabled by the legal arguments. It is commonly observed in modern legal practices, that more and more legal instruments across different departments of the law are established to respond to emerging issues that require solutions yet are not recorded by the legislation for the time being. The PIPL draws to some extent on the GDPR in terms of some basic rules and the system of rights and obligations. The title of each right of the subject are very similar in the GDPR and PIPL.

The operational closure of legal systems does not only keep the legal systems in shape but also provides the potential for evolution. Between the two legal instruments studied, the GDPR bears the mission of harmonization among the national law of member states (Recital (11), GDPR) and attempted to strike a balance between the available cognitive resources and the demand from the interested parties. On the other side, the PIPL aims at approaching the edge of reality, while still providing strict protection for the citizens. The infrastructural service platform is especially written in the text of the law (Article 58, PIPL). Also, the legislators of the PIPL removed the provision of ensuring free flow of information in the first article of the

first draft, emphasizing its aim to personal data protection[5].

It should always be noted, however, that although the provisions and presentation of the provisions of the two systems are very similar, the underlying rationale of the two laws are different. The GDPR is a product of the activity of the EU legal system and its reference to Chinese legislation is of no relevance to the EU legal system. EU law would not have been meaningful for China either, but the transmission through the economic and legal theory system activities made the Chinese legal system adopt such a highly similar framework. However, in the PIPL a lot of specific substantive details were added, such as the restrictions on the platforms in Article 58. This is because the activities of the Chinese legal system, while using the GDPR as a source of information, has other sources of information, which is its awareness of its own society and the legal needs and actual conditions within that society.

The unified feature of the Chinese legal system is often regarded as a characteristic of legal system undermodernized, as the legislation is not enclosed operation and is influenced by political factors. However, on another perspective, it could be interpreted that the legal system has included a certain factor of political awareness. As the legislative documents demonstrate, the legislators of PIPL has put the emphasis of personal data protection at the center during the procedures of consultation, and thus enabling the procedures to be focused on the central issue of personal data protection of the law.

5.2. The Subjects of the Rights

As described in the previous section, the individual is the subject of rights in the legal relationship for the protection of personal data. The need for a legal regime for the protection of personal information arises from the requirement of the legal system to protect the rights of the individual. The individual is therefore at the center of the network of legal relationships constructed by the legal regime for the protection of personal data. In this network of legal relations, the rights of the individual are the focus of the legal system. In the legal system for the protection of personal information, power is the focus of this system and almost all systems are built around the right to personal information. The two legal systems that are the focus of

[5] See Report of the Constitution and Law Committee of the National People's Congress on the Revision of the Draft Personal Information Protection Law of the People's Republic of China

this thesis are a reorganization of the social relations between people and information processors and the law in the new environment of productivity and social relations, in accordance with the requirements of the development of the legal system and the realities of productivity, and recognition of the purpose of the protection of the fundamental rights of the individual in the legal system.

The constitutional law is the foundation of rights for both of the legal instruments. Article 8 of the CFREU establishes the right of citizens to privacy. The right to privacy and the right to protection of personal data is a pair of rights or interests of essentially equal rank that belong to the same category of personality rights and intersect when, and only when, the information is both private and personally identifiable. In the PIPL, the idea that the legal system should be framed in terms of fundamental constitutional rights is recognized in Article 1, and the controversy lies more in the conceptual expression. Article 1034 of the Civil Code of China understands the relationship between personal information and privacy as a cross-cutting relationship in which "private information" intersects. In brief, personal information is defined in terms of identifiability, and any information that directly or indirectly identifies a natural person is personal information, which has a wide and variable scope, while privacy is those spaces, activities, and information that are private in nature.

The individual as subject of personal data rights is generally considered passive and the protection of their data right in both of the instruments. Conventionally, the subjects are considered as in need of the protection provided by the governmental authorities as well as the provider of the services of controlling and processing their data. The principle of informed consent remains the universal norm in personal data protection to date. The principle of informed consent has its roots in the US Fair Information Practices Doctrine, which remains the empirical legal norm in several US single-issue information laws, and the EU the GDPR is a typical example of legislation that reinforces the inform - consent framework (Gstrein & Beaulieu, 2022). There are several successive existing laws in China that explicitly provide for the rule of informed consent, such as Article 12 of the Provisions on Several Issues Concerning the Application of Law in Hearing Cases of Civil Disputes on the Use of Information Networks to Infringement of Personal Rights and Interests of 2014 and Article 41 of the Network Security Law of 2017. Article 7(a) of the DPD and Article 7 in the GDPR are very detailed on the principle of informed consent.

The rights set out in the PIPL correspond to the rights set out in the GDPR, and the content of the rights is relatively similar, although the legislative model and structure are different. In

terms of the system of rights, there is a large degree of similarity between the two. Ignoring for the moment the lineage of the respective systems, the correspondence, as summarized by visual description as in table 1.

THE PIPL	**THE GDPR**
知情权(Right to be informed) (Art. 44, PIPL)	Right to be informed (Art.12, 13, 14, GDPR)
决定权(Right of decision) (Art. 44, PIPL)	Right to restriction of processing (Art. 18, GDPR) Right to object (Art. 21, GDPR)
查询权(Right of access) (Art. 45, PIPL)	Right of access (Art. 15, GDPR)
更正权(Right to rectification) (Art. 46, PIPL)	Right to rectification (Art. 16, GDPR)
删除权(Right of removal) (Art. 47, PIPL)	Right to erasure (Art. 17, GDPR)
可携带权(Right of portability) (Art. 45, PIPL)	Right to data portability (Art. 20, GDPR)

Table 1. Correspondence of data subject right between the PIPL and the GDPR

It is worth noticing that the nature of the personal data rights in the studied legal instruments involves less of the nature of the rights but endows the data subjects with the ability to intervene in the processing of their personal data. In terms of protection of the rights, the GDPR significantly expands the scope of application of the Regulation, increases the penalties for violations, and strengthens the regulatory and prosecution mechanisms for data protection. Having established in 2016 that the right to protection of personal data is distinct from the right to privacy, the Court of Justice of the European Union (CJEU) argued in ruling against the EU-Canada PNR[6] the following year that the substance of the right to protection of personal data is "to ensure the security, confidentiality, and integrity of data and to protect such data from

[6] The agreement envisaged between the EU and Canada on the transfer of Passenger Name Record

unlawful access and processing." (Vedaschi, 2018) In the PIPL, the phrase "the right to protection of personal information" is a more direct and precise reference to Article 8 of CFREU, which "does away with the implication of the individual's exclusive possession and control of information and does not refer to personal information as an object in itself, but rather to the protection that an individual should receive in the course of processing information. For example, if the infringement is of the data itself, then the infringing party would be the controller that published the data, and the remedy would be to remove the data. Instead, the remedy would be to restrict the processing of the data rather than delete it.

The rights of the subjects of personal information in China are self-contained within its systems. For example, the right to a decision includes, but is not limited to, the right to restrict processing and the right to refuse in the GDPR, but also has the task of constructing the concept of information self-determination, among others. The right to be informed is the core and foundation of the subsequent series of rights, while the right to know and the realization of the series of rights also span public and private law and are of course based to a considerable extent on the corresponding claims. The system of rights of data subjects in the GDPR is more in the scope of the EU-level directives and regulations to establish certain systems and links directly to the corresponding regulatory or private law to achieve remedies for infringement of the series of rights of personal data subjects. A number of the international conventions, including the ones protecting personal data, provide general rules for such issues. The provisions of this sort of legal establishment are usually less distinct in language than the binding legal texts, but the establishment of such provisions marks the foreshadow of the binding legal instruments.

The arrangement of categories of data subject rights is similar between the PIPL and the GDPR. Chapter 4 of the PIPL is entitled "The rights of individuals about the processing of personal data", which is similar to the precise formulation of the EU right to protection of personal data proposed. The right of individuals to protection in relation to the processing of personal data. By adopting the "right to protection of personal information", the PIPL expresses the role of the legal system behind the construction of the law and the negative non-infringement and positive protection obligations of the state in the "public power-right" and "private power-right" relationships. The implementors' negative non-aggression and positive protection obligations towards the weak in the relationship between "public power-rights" and "private power-rights". The key difference between the two lies in the distinction in the field of application - the right to privacy protects the object of data processing while the right to protection of personal data regulates the processing of data as a process. The right to protection of personal data also does

not have the legal effect of prohibiting the processing of personal data; the function of this right is to regulate the process of data processing. Personal rights do not arise from the static content of personal information, but rather from the need to regulate the processing of information. Once the processor has attempted to lawfully initiate the processing of any personal information, including private information, the subject of the information will enjoy essentially the same procedural rights.

In the studied legal instrument, the data subjects have been, and doubt given active rights for them to intervene in the processing of their personal data by the controllers in order to protect the integrity accessibility or their rights to be informed. The GDPR gives data subjects the ability to control personal data more actively. The right to informed consent is the most fundamental right to personal data, and if this right is removed, all other subsequent rights of the data subject, such as the right to access, the right to portability, and the right to erasure, will be lost. right to erasure is the right of the data subject to require the data controller to delete his or her personal data promptly under certain conditions. The right to erasure has already existed in the DPD and is now succeeded by Article 17 of the GDPR.

The Law on the Protection of Personal Information adopts a "centralized enumeration" model for the rights of personal information subjects, and the interpretation of the content of each right must be placed in the system of the Law on the Protection of Personal Information, the Civil Code, normative documents and a series of technical regulations.

The GDPR, on the other hand, provides for the rights of personal information subjects, focusing on how to promote information transparency, enhance communication between personal information subjects and information controllers, and, in particular, how ensure that personal information subjects can make more autonomous decisions in a range of information processing activities, including collection, use, and automated decision-making by personal information controllers. The purpose, circumstances of application, and limitations of each right are largely covered.

Analysis

As stated in the previous sections, the challenge of existing personal data regimes comes from the unprecedented exploitation of the economical values attributed in addition to the personality values of personal data. The economic operation extracting the said economical value has changed the legally recognized nature of personal data from personality rights and

attributed the economic interest to personal data. This transformation demands corresponding changes in legal practices. To fulfill the promise of personal data rights by the legal system, the legal system is bound to provide protection in the economical aspect of personal data, as well as adjust the approach to the personality rights aspect of the data. Therefore, it can be seen that the coupling through personal data enables the legal system to detect the transformations that happened in the social environment.

While the subject of personal data rights is individuals, data become the center of most of the economic activities by the collective subjects that gather and process data, which are mostly privately owned institutions or the state. Different subjects of respective legal interests are included in this issue, making it a suitable topic for the investigation of the legal system in the internet environment.

The irritation of the environment is recognized by the cognitive activities of psychic systems, and transmitted into the network of communication through structural coupling.

In the works of Luhmann, individuals are generally not given significance as in other social theories as the actor or subject of the operation of social systems. This concept of law has been criticized as lacking care for the individual - the user, the occupant, the possessor of the legal system - and as a legal system in which the person is not present, in which the person is absent (Jacobson, 1989, p. 1672) The individual is first and foremost a vehicle for communication, but the human being can also be seen as a point or node where biological, psychic and social systems come together.

The psychic coupling of the individual with the social systems has pointed out the status of individuals in the autopoiesis systems. For the operating social systems, the individual and their considerations can also be recognized as irritation happened in the social environment. Therefore, the social sub-systems can sense the demands of the individuals. In the case of this thesis, the data subjects' requirements, and their endowed rights for the protection of their privacy and personal data are recognized by the legal system and enshrined in the provisions.

At the outset of public discourse, privacy was seen as the right of individuals to determine the extent to which others or society would have access to and understand them. Although privacy has also been invoked in other contexts, such as the freedom of self-determination in private matters, where the individual should have control of the flow of information between him and society. The right to privacy is essentially the pursuit of control over one's information to the extent that society allows. But at the dimension of information, from the point of view of the flow of information, any social contact is accompanied by the transmission of information. In

a digital society, where information is flooding and flowing rapidly, this definition has not only not diminished but has encountered increased demands for its implementation. In this thesis, individuals are considered as a collection of the producer of personal data, which is attributed to the rights to personal data by the legal system.

Not only can information about an individual be used by a society or by others to understand a person, but information, through the profiling of big data technologies, has a direct defining effect on the person. From the post-humanistic perspective, the relationship between human and their data, the online profile of them is a digital body of people engaged in internet activities (Käll, 2017). As part of the system of the individual, personal information is dispersed in the environment, accepted, and coded by economic or other social systems, and becomes part of the coupling of the individual with other systems. In this respect, the individual's right to information requires not only the control of access to his or her information by others but also the management of the processing of his or her information, which has a direct impact on the individual's rights and is, therefore, the focus of the legal regime for the protection of personal information. The provisions on the rights of personal information subjects in the GDPR are in the vein of EU law and are closely linked conceptually and logically to freedom of personality, self-determination of information, control of personal information by personal information subjects, and the distinction between information controllers and information processors, i.e. the conceptual basis and institutional vein precede the empirical law. The relationship between personal information and human dignity was not emphasized until the codification of the Chinese Civil Code, and the concept of self-determination of information was constructed during the formulation of the PIPL, as well as in the right to decide, right to be informed and other rights in the rights system. The empirical law preceded the construction of concepts and ideas.

In the previous sub-section, it was proposed that the legal system possesses the possibility of evolution; it could be known from the analysis of the data subjects and their rights that the necessity of evolution is requested by the legal systems' pledge to the maintenance of the fundamental legal relationships in the changing environment. In the case of personal data protection law, the human right to privacy and interest in data protection has not been altered. The reality of personal data protection also poses challenges for the personal data protection regime. The irrational behavior of individuals about privacy protection has been widely supported by evidence and posed challenge to the freedom enjoyed by individuals in the inform-consent framework. This means that some of the "irrational behavior" of what

legislators presume to be "rational people" in data practices will inevitably undermine their ability to make rational choices in decisions about the collection, processing, and use of their personal data. It is the function of the legal system to produce and maintain a stable relationship in society. Whether the processing of personal information poses a privacy risk to the user is not a matter of "whether it constitutes personal information", but rather of how they are processed in a specific context and whether it meets the reasonable expectations of the user in that context. The introduction of subject participation at all stages of the process can enhance the transparency and accuracy of information processing and make information processing with an element of power more acceptable to the subject of the information in terms of process and outcome, in line with basic notions of fairness and justice.

5.3. The Obligated

In the PIPL, data controllers are in most cases third parties of the law and the protected individual. However, from the perspective of autopoiesis legal systems, any activities that are legally relevant, namely assessed through the binary code of legal/illegal, it is a part of the legal system’s operation. In both the GDPR and the PIPL, the data processing activities performed by the data controllers are attributed with legal significance by the legal texts. This makes the controller a third party outside the traditional legal-subjective relationship.

The freedom of processing data by the controllers seems generally to be oppressed by different forms of requirements. The first-order protection is the rules of conduct while processing is given by the legal instruments. The principles provided in Articles 6 and 7 of the PIPL require that the processing of personal information shall have a clear and reasonable purpose and shall be directly related to the purpose of the processing and shall be carried out in a manner that has the least impact on the rights and interests of the individual. The processing of personal information shall follow the principles of openness and transparency by disclosing the rules for processing personal information and making clear the purpose, manner and scope of the processing. For example, The GDPR and Convention 108 contain specific rules for certain types of ‘automated individual decision-making. Article 22 of the GDPR states that people have a ‘right not to be subject to certain decisions. That right can be interpreted as a prohibition of such decisions.

The second requirement of the studied instruments for data controllers is the requirement to establish an ex-ante risk control mechanism. The data subjects are also entitled to monitor the

processing of personal data. mechanisms are provided to liberate the data controllers from their obligations. For example, the data protection supervisory authority is consulted in advance on data processing practices, data protection impact assessments are conducted, and data subjects are notified of data breaches in addition to the supervisory authority. At the same time, some exemptions from the obligation to notify the supervisory authority in the event of a data breach and the appointment of a representative of the data controller in a foreign country are provided for low-risk data processing practices. In the GDPR, a data controller must conduct a Data Protection Impact Assessment (DPIA) when practice is 'likely to result in a high risk to the rights and freedoms of natural persons, especially when using new technologies. In some circumstances, the GDPR assumes a high risk, for example when the data controller takes fully automated decisions that seriously affect people. For many algorithmic systems that make decisions about people, the GDPR thus requires a DPIA. When conducting a DPIA, the controller must also consider the risk of unfair or illegal discrimination. While in the PIPL, the legislative purpose clause removes the expression "to safeguard the free flow of personal information in an orderly manner by the law" from the first instance draft, which seems to be a restriction on the use of personal information but is a clarification of the legislative purpose. The PIPL is about the protection of the rights and interests of individuals over personal information, not the construction of a data market order in the process of commercial use of personal information. However, China's legislation does not fail to consider the market order of the commercial use of personal information, but by distinguishing between personal information and personal data, it leaves the task of maintaining the order of personal data market circulation to the Data Security Law of 2021 and the Anti-Monopoly Law of 2022 of China.

Thirdly, punishment is set down once the obligation is not fulfilled. Both the Chinese Personal Information Protection Law and the GDPR provide for legal liability such as compensation for damages and administrative fines for infringement of the rights and interests of information subjects. In addition, with regard to the rights of personal information subjects to file complaints, under the GDPR, if a data subject believes that the processing of his or her personal data violates the GDPR, he or she has the right to file a complaint with the supervisory authority and, without prejudice to his or her right to file a complaint, also has the right to judicial remedies. The Chinese Personal Information Protection Law provides that individuals have the right to make complaints and reports to the department responsible for the protection of personal information, as well as the right to judicial remedies.

However, it is maintained by the legislators that the utilization of data is also aim of the instruments. The reasons for loosening the constrain on data processing are stated as well in the legislative documents. Recital (2) of the GDPR puts the economic progress and development of the internal market enabled by the regulation at the center of its contribution to the Union, along with the critical aspects of security and human rights. The scale of the collection and sharing of personal data has increased significantly. Technology allows both private companies and public authorities to make use of personal data on an unprecedented scale to pursue their activities. (Recital (6), the GDPR)

One of the most beneficial mechanisms for the utilization of personal data is the exclusion of anonymized data from the regulated processing of data. Article 4(1) of the PIPL follows the definition of personal information in the Civil Code of China and excludes anonymized personal information from the scope of restricted processing; the GDPR provides for a uniform anonymization regime and sets a high standard for anonymization, i.e. important elements must be sufficiently removed so that the data subject can no longer be identified, and anonymized information shall only be deemed to be anonymized if no person can be identified from the information based on his or her subjective conditions anonymized information is only considered to be anonymized if no one can identify a particular individual from the information based on their subjective conditions (recital (26), GDPR).

In the era of big data, the legitimate interest exemption has a wider application due to the limitations of the informed consent mechanism. Chapter 9 of the GDPR defines the legitimate basis for the processing of personal data by data controllers: consent of the data subject, based on contract, legal obligation, protection of the vital interests of the data subject or another natural person, public interest, legitimate interest of the data controller or third party. The sixth legitimate basis, "legitimate interest", is broad in scope and introduces a dynamic balancing test that leaves room for flexibility in data protection through a case-by-case approach and is an important balancer between the protection of personal information and the facilitation of information flows. The PIPL, on the other hand, expands the basis for the legitimacy of the fair use of personal information. On the one hand, Article 1 of the PIPL follows the definition of personal information in the Civil Code of China and excludes anonymized personal information from the scope of restricted processing; on the other hand, under the rule of informed consent, the PIPL also provides for six additional exceptions, including those necessary for the conclusion of a contract, in order to balance the use and protection of personal information, breaking the rule of consent in the Cyber Security Law. It also echoes the relevant

provisions of the Civil Code on the reasonable use of personal information.

The GDPR is one of the core instruments aimed at escorting the development of digital economy in the single market. While on the other hand, although the aim of economic development is weighed Chinese legislation, the consideration of economic development was suggested to yield its place to the protection of personal right protection, as stated in the report of the legislative body. This feature may have led to the different treatment of economic system between the instruments

Analysis

In the legal systems, controllers as agents perform both operative and structural coupling with the economic system. The former one, bases on synchronicity between the system and the environment. In the traditional legal settings it equals to economic transactions fulfilling legal obligations, and in the settings of digital economy, this variant of structural coupling are the economic operations of the controllers performing the legal requirements. The latter one, structural coupling, refers to the outcome of one operation stimulating operation in another system. This is corresponding to the legislation stimulated by the economic operation and norms produced in the realm of digital economy by the private actors.

Regarding the issue of governing the data controllers, the legal systems are standing between the requirements of data protection and the mandate. Along with the development of informatization in society as a whole, information resources have become an important factor in production, intangible assets, and social wealth. Informatization and economic globalization are intertwined, driving the deepening of the global industrial division of labor and economic restructuring, and reshaping the global economic competition landscape. In the course of the world's informatization, the transformation of traditional industries, the transformation of traditional services, and the development of information services all require an overall improvement in the level of exploitation of information resources, and the promotion of the exploitation of personal information is a necessary part of this. Personal information is also vital to the healthy operation of the entire business environment. The market economy is a credit economy, and all links in the social reproduction process are based on credit, which has become a key element in maintaining market order and economic development. In the context of the credit economy, the establishment of a sound and complete social credit system has a bearing on the economic operation of society as a whole, and this obviously cannot be achieved

without the collection, processing, and utilization of personal credit information on a large scale on a national or even global scale.

What is studied in the law is the content of the obligation constituted by the typology of the actions involved in the information society, considering the legal interests of the right to privacy. This obligation, which corresponds to the content of the power analysis above, has its origins in the commitments made to citizens in the social contract and the function of the law as the provider of the existing social order. The way in which the rights inherent to the citizen are expressed in the context of information technology is what the law considers when determining their content. This scenario of the information society corresponds to the inherent rights of the citizen as defined in the foundational laws and is a requirement for pulling the law through its evolution. The well-known gap problem of the failure to implement the expectations of the law in practice often arises in the application of the law and can be explained in a new way in the theory of autopoiesis systems. Paterson and Teubner (1998) It is proposed that there is no direct chain of causal relations between legal systems and their regulated areas, but rather they are connected through simultaneous events of structural coupling. Any legal provision is subject to legislation, implementation, and systematic recording in the regulated area, and is interlinked by concepts with different entailments in different systems. It is suggested that in the field of the social effects of law it is not possible to freely define a specific legislative process as a 'system'. Empirical observation divides it into four or five more or less loosely coupled processes: the political actors, the quasi-scientific policies of experts, the interest-oriented calculations of lobbyists, and theoretical arguments and constructions of lawyers. In the legal system, its conceptualization of the regulated area reflects its expectations of the regulated actors. In this thesis, the legal system is expected to influence the output of the economic system by imposing liability on data controllers, and the GDPR and the PIPL both impose strict controls on large private data controllers. By regulating the processing of personal data, the law has a disincentive effect on this node of operation and its mode of action, which is also part of the economic system.

The controllers occupy a unique place in the conceptualization of the legal system. They are the changer of the environment, the producer of dynamics, and challenge the data protection legislation. While the individual controllers are regulated elements in the law, the collection of controllers through the lens of the legal system represents the connection of the structural coupling of the legal system with the other social systems. The regulated data controllers mostly operate across the border of economic systems and legal systems. The dominant feature

of their operation is economical, of which the processing of personal data is a part. yet their processing activities of them are captured by the vision of the legal system and assessed by the binary code of legal/illegal of the system. That is because the processing involves not only economical interest but also is classified to be relevant in terms of individual rights. In this way they are included in the programs of the legal system. Therefore, the data controllers can be viewed as the envoys of the regulated systems by the data protection legal instruments.

6. Discussion

The analysis in the first part focuses on the legal status of the GDPR and the PIPL in their respective legal systems and extends to the social conditions that led to the formation of their structural features.

It is discovered that the GDPR and PIPL are both instruments laid down by their legal system to cope with the challenges to the legal system of the fastly changing digital society. Therefore, they both are nonconventional instruments that enjoy a certain leeway for innovation in the systems. The social environments that they are faced with are both recognized as digitalized societies. In this form of society where information flow through national borders and technologies develop every day, the legal conceptualization of their social context is similar: the pace of change in the society is fast, yet data subject rights are calling for protection.

Examined more closely, the innovation of the GDPR and the PIPL is not contingent, but allowed by the structural preparation in their respective legal system. Before the legislation of the two instruments, the basic laws of their legal systems are revised and provided the foundational right for the protection of personal data. Structurally, both of the legal systems provided a vacancy for the instruments in the legal architecture of the systems. The legal theoretical basis is also provided in the legal systems through other legal provisions or caselaws.

The most distinct difference between the GDPR and the PIPL under the theme of legal structure is the formalities of the two instruments. While the GDPR is strict in procedures, while the PIPL stresses the substantial mechanisms of punishment; the GDPR provisions are more abstract and general, while the PIPL mechanisms target more specific issues.

The difference is caused by the social context for the operation of the legal instruments. The EU institutions face the challenge to harmonize practise on data protection among the member states of the EU, which is not encountered by the Chinese legislators. Also, the EU legal system aims to establish a framework for future data protection, while the PIPL is aimed more at solving problems on the level of policies.

In the second part, the analysis is directed towards to the content in the GDPR and PIPL. The legal status of the data subjects and their interests to data protection are inscribed in both of the instruments in similar structure. While the data subjects are generally considered to be passive in the protection of their data, the instruments provide means for them to actively intervene in the process of data processing. The nature of the data subject rights are no longer directly

connected to privacy, but directed towards the processes of data processing.
The similarity in the provision of the categories of the rights demonstrates the benchmark effect of the GDPR. The framework of principles and rights in personal data protection that are established in the previous European legislative practices are summarised by the GDPR and exemplified for the rest of the world. The passive status of the data subjects also came from these legislative practices. However, both instruments have recognized the social fact of the demand form the data subject to take control of their personal data and attempt to extend the power of the data subjects.
As the central subject of personal data protection, the conceptualization of the legal system on the data subject rights have been entangled with the legal practices. Few legal concept have been transformed as many times in such a short period of development as the data subject rights. The process of the rights turn from informationalized privacy rights to procedural interest in various legal instruments demonstrates the process of repetitive self-observation and correction of the legal system, in response to the social demand for personal rights development and requirement from the legal system to promote digital economy development.
The similarity of the categories of rights between the GDPR and the PIPL demonstrates the similarity of legal conceptualization of personal data and means to protect individual rights in the background of digital society. The point to note in this conclusion is that such similarity is demonstrated on top of the social environment that are drastically different in social and economic mechanisms. This may prove the homogeneity of the digitalization and the extent that it penetrated into different aspects of social life in different regions.

In the third part, the legal address on the status of the data controllers are analysed. Both the GDPR and the PIPL face the task of balancing individual data protection interest, which is related to the fundamental human right of privacy, and the requirement of development of digital economy, which is one of the most prominent and profitable form of economic development. Strict obligations are imposed on data controllers in both of the systems, yet exemptions are allowed to enable the development of economy to operate smoothly on the basis of extraction from the flow of data, and of technologies on the data as training sets of artificial intelligence or big data technologies. What is different between the instruments is the PIPL emphasize on protection more, which is demonstrated in harsher punishment and emphasizes on regulation on the platforms.
The analysis points out that, apart from the different focuses on substantive and abstract of the

GDPR and the PIPL, the recognition of status economy in the legal system also plays an important role in the arrangement of the economic development in the instruments. The conceptualized status of the obligated as increasingly enclosed entities that are out of the reach of the legal system is also demonstrated in the legal provisions.

The approach to balance the interest of individual and economic development shows the awareness of legal systems of their influence to the operation of other systems through their regulations and rulings. This awareness is provoked by the entry of social opinions on regulations on the digital issues to the legal system, a result of structural coupling. Moreover, the data controllers, which are agents that operate in both economic and legal systems and their function of transmitting systematical changes between systems demonstrate the transmission of information between systems through system coupling.

The difference in emphasis between the EU and Chinese legal system on the development of economy is found out to be the result of influence of the structural responsibility in the legal system; and the extent to which the legal system couple with the other social systems.

7. Conclusion

This thesis aims to untangle the conceptualization of the legal systems of two different societies through analyzing and comparing the legal instruments chosen from the two societies. Ambiguous as the aim is, the analysis for the answer to this question is attempted to be achieved through adaption of the theoretical framework of autopoiesis systems theory and the methods of content analysis and comparative law. In the analysis conducted, the content analysis method is used to decode the legal text. The result does not only interpret the legal provisions in the prospect of legal studies, namely understanding the rules implemented; more importantly, the context of the digital society and the social facts and norms that influenced the legal system into setting down such provisions are addressed. The comparative method continues on this direction to contrast the social condition of the EU and China. This method allows the analysis to discover the neglected elements as rationale towards the implementation of the rules, and also directs the analysis into a more nuanced line of thought by proposing the negative questions: why is one mechanism is adopted in the GDPR, and not the PIPL, and vice versa?
The theoretical framework is oriented to unifying the results of the analysis and organize them into a coherent interpretation of the text that leads to the final picture of conceptualization of the personal data protection schemes in both societies and how they came into being.
It could be seen from the results and analysis that the GDPR has been significantly influenced by the institutional arrangements of the EU that puts its emphasis on harmonization between the member states; and the same is for Chinese legal systems, where the united orientation in policies provides coherence between the social systems that enable more substantive and ad-hoc provisions. The legal instruments that are analyzed are not independent social systems that are hung up in the air; on the contrary, they are associated with their legal system, which concerns legislation, implementation and judiciary. The association with other aspects of legal activities is exemplified in the text itself, even without interpretation or implementation. Each provision, not only the ones on implementation, is coupled with the social environment, by embodying the legal system's conceptualization of them. This embodiment is enabled by the circulation of legal arguments that reflect the perturbation in the society. In the digital society, this perturbation is mostly translated into the legal system by the data controllers as agent of double affiliation.
The anxiety of how the law, as a part of the society that is dedicated to the production of stability, keeps up with the object of its regulation is always present throughout the history of

legal studies. This anxiety has grown evermore from the days of the industrial revolution until now, where waves of innovation rise and fall, shaping the society without even being captured by the statutes and articles. Luhmann's systems theory provides imagery of the legal system to be an autonomous entity in the system that maintains its function by staying independent from external pre-existing beings.

This thesis has addressed the current circumstances where not only changes are taking place at a speed beyond the grasp of the legal system, but also the possibility of the barely maintained stability collapse from a single mis-response of the system about this risk society possibility Luhmann has addressed at the end of Law as a Social System. It is necessary to examine the evolution of such evolution within the legal systems as an autonomic entity, rather than merely reviewing the current legal arrangements. The evolution studied in this thesis, from a systematic theory's view, is triggered by the changes in the social environment, leading to the modern legal system in both of the studied sites, evolving to provide stability in an emerging field of social activity that requires stability or norms for operation, and equality, as it is a value the general legal system is prospected to provide.

The evolution doesn't end with the settlement of legal instruments such as the GDPR and the PIPL the center of the legal system. What follows is another operation in the legal system addressing the development of artificial intelligence, big data, and other emerging technologies that challenge the legal system and its implementation. They are the process of integration of the legal system into its immune-like process to receive stimulation from the environment and grow out a new part of itself in response to the changes in the environment. The analysis of the material in this thesis contributes to interpreting this process.

What is discussed is not the relationship between law and society, but the law in society: how law becomes a social structure, how it makes society work, how it can sustain, change, communicate, reproduce society, and what tensions exist between law and the rapidly developing technical aspects of social life, and how this relationship can be dissolved.

This paper is only the most superficial documentary analysis of the selected legal documents, and there should be a Closer analysis of the GDPR and the PIPL in the future, especially once the PIPL has been implemented in practice and chemically reacted with the Chinese social reality. In fact, at the time of writing, several representative cases have been published in the Chinese court system that has implications for the implementation and understanding of the PIPL.

Furthermore, applying the theoretical framework of autopoiesis systems to other laws is also a

possible direction for future research. As mentioned above, legislation on developing technologies is always confronted with untouchable difficulties. For the interpretation of the law and implementation of the law, the adoption of the theoretical framework of this paper may provide new inspiration. analysis of other systems as the economic systems, where most of the Analysis of other systems such as economic systems, where most of the data processing happens for the sake of economic operations is also a direction that needs attention since the current social evolution is not only necessarily about the law, but also about other social systems and the social norms that emerge from their operation as guidelines for people's behavior.

Annex: list of material for content analysis

Main materials

The following documents have been the material for the content analysis.

1. Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC ('GDPR')
Available at: http://data.europa.eu/eli/reg/2016/679/2016-05-04

2. Personal Information Protection Law of the People's Republic of China (Order of the President of the People's Republic of China No.92)
Available at:
http://www.npc.gov.cn/npc/c30834/202108/a8c4e3672c74491a80b53a172bb753fe.shtml
Translated version available at:
https://www.lawinfochina.com/display.aspx?lib=law&id=36358
(The full translated version is for information only; the author conducted the analysis using the Chinese version of text)

Auxiliary materials

The following documents have *not* been the material for the content analysis. They are referred to in the study as auxiliary material for interpretation for the main materials.

3. COM(2012)0011 - C7-0025/2012 - 2012/0011(COD)
Draft Report on the proposal for a regulation of the European Parliament and of the Council on the protection of individual with regard to the processing of personal data and on the free movement of such data (General Data Protection Regulation)
Available at: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52014AP0212

4. Other documents included in EUR-Lex Document 32016R0679, Procedure 2012/0011/COD
Available at: https://eur-lex.europa.eu/legal-content/EN/HIS/?uri=CELEX:32016R0679

5. Explanation on the Draft Personal Information Protection Law of the People's Republic of China (关于《中华人民共和国个人信息保护法（草案）》的说明)
   Available at:
   http://www.npc.gov.cn/npc/c30834/202108/fbc9ba044c2449c9bc6b6317b94694be.shtml

6. Report of the Constitution and Law Committee of the National People's Congress on the Revision of the Draft Personal Information Protection Law of the People's Republic of China (全国人民代表大会宪法和法律委员会关于《中华人民共和国个人信息保护法（草案）》修改情况的汇报)
   Available at:
   http://www.npc.gov.cn/npc/c30834/202108/a528d76d41c44f33980eaffe0e329ffe.shtml

7. Report of the Constitution and Law Committee of the National People's Congress on the Results of Its Deliberation over the Draft Personal Information Protection Law of the People's Republic of China (全国人民代表大会宪法和法律委员会关于《中华人民共和国个人信息保护法（草案）》审议结果的报告)
   Available at:
   http://www.npc.gov.cn/npc/c30834/202108/a528d76d41c44f33980eaffe0e329ffe.shtml

8. Report of the Constitution and Law Committee of the National People's Congress on the Results on Its Suggestions Regarding the Revision of the Draft Personal Information Protection Law of the People's Republic of China (Draft for Third Deliberation) (全国人民代表大会宪法和法律委员会关于《中华人民共和国个人信息保护法（草案三次审议稿）》修改意见的报告)
   Available at:
   http://www.npc.gov.cn/npc/c30834/202108/5e507c650c4147f6a600d9935868b2c5.shtml

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