Responsive Law as a Social Control Concept for Digital Society in Protecting Personal Data Against the Use of ChatGPT

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Abstract

Misuse of personal data in the use of ChatGPT, there is a leak of personal data in Indonesia as many as 2,555 accounts. The need for the role of law as a means of social control to emphasize how law can function adaptively in a digital society, thereby providing new contributions in the formulation of personal data protection strategies amidst the advancement of artificial intelligence, especially ChatGPT. The purpose of this study is to analyze the sociological study of law on the phenomenon of digital society in the use of ChatGPT and analyze how to overcome the phenomenon of artificial intelligence exploitation in the misuse of personal data in the use of ChatGPT. The type of research used in this study is normative juridical. The results of the study of the sociological study of law on the phenomenon of digital society in the use of ChatGPT are that legal sociology has the meaning as a law that responds to the phenomenon of ChatGPT use, so legal sociology plays a role in protecting public interests and maintaining justice. Referring to the development of digital technology and the increasingly widespread use of ChatGPT in people's lives, serious problems arise regarding the protection of personal data that is vulnerable to misuse. How to overcome the phenomenon of artificial intelligence exploitation in the misuse of personal data in the use of ChatGPT. In this context, responsive law is relevant because it offers openness to adapt to social dynamics and answer the needs of the digital society. As a tool of social control, law plays a role not only in maintaining security and order but also in ensuring the protection of people's rights amidst the flow of technological transformation. The conclusion of this research is the concept of social control for digital communities to ensure the protection of personal data from ChatGPT users by integrating responsive law as a basis for creating a legal system that protects the interests of digital communities in the development of artificial intelligence in social life.

Keywords*: Social Control Concept, Digital Society, Personal Data Protection.*

I. Introduction

The development of digital society is marked by the increasingly

widespread use of technology, information, and communication. Nearly every aspect of human life is inextricably linked to technology, particularly the use of Artificial Intelligence (AI). In a social context, AI has become a tool that supports automation, efficiency, and innovation in various sectors, from industry and healthcare to digital communications. However, this development also brings vulnerabilities, particularly in the area of personal data protection.

The rapid development of digital technology has shifted society towards a digital society, with almost all social, economic, and cultural activities dependent on technology (Gotama et al., 2024, p. 150). This shift also has an impact on the industrial world which is now entering the Industry 5.0 era. Industry 5.0 is a continuation of Industry 4.0 which does not only focus on automation and machine connectivity, but emphasizes close collaboration between humans and technology. In this era, humans live side by side with AI, robots, and automation systems to create more flexible, adaptive, and innovative production processes (Gotama et al., 2024, p. 150).

AI was first recognized in 1940, along with the development of computers, which then developed as a technology that mimics human intelligence through programmed systems to perform tasks like humans (Putri, 2025:2055). This technology was then widely adopted, in this case through the use of ChatGPT. This phenomenon has become a global issue, including in Indonesia, marked by the rampant leaks and misuse of personal data on the ChatGPT service. Leaked data details include email accounts, credit card data, cryptocurrency wallet information, and other types of target data. This data was obtained because many ChatGPT users come from the business sector (CNN Indonesia, 2023). Reported from the CNN Indonesia website, data ranking countries based on the number of personal data leaks on ChatGPT is as follows:

Table 1. Countries with ChatGPT User Information Leaks

No	Country	Number of data accounts stolen
1.	India	12.632
2.	Pakistan	9.217
3.	Brazil	6.531
4.	Vietnamese	4.771
5.	Egypt	4.588
6.	United States of America	2.995
7.	France	2.923
8.	Morocco	2.647
9.	Indonesia	2.555
10.	Bangladesh	2.463

Sumber: (CNN Indonesia, 2023)

The data above shows that the phenomenon of AI exploitation through ChatGPT can cause serious problems, both from a legal, social, and ethical perspective. AI works by utilizing statistical methods and automation to manage data and make intelligent decisions. In the context of a digital society, the presence of AI brings great opportunities to improve efficiency, innovation, and user experience. However, in Indonesia, regulations related to the use of AI are still limited (MA Putri, 2025, p. 2055). This creates a legal vacuum that is vulnerable to being exploited by irresponsible parties, one of which is through misuse of personal data. This condition makes the issue of protecting personal data from the advancement of AI crucial, because the public is often asked to provide sensitive information such as identity and financial data that risk violating privacy if not managed properly (MA Putri, 2025, p. 2055).

Social life is the result of relationships between members of society that form a shared order (Iriani, 2016, p. 143). In Donald Black's view, law must be understood not only rationally and abstractly, but also as part of social and humanitarian reality (Iriani, 2016, p. 143). Bredemeir emphasizes the interaction of law with social systems such as economics, science, and technology through *pattern variables* that reflect the roles, duties, and obligations of society (Iriani, 2016, p. 145). Thus, law functions as social control in the use of ChatGPT, maintaining a balance between stability and change, and forming new rules that replace old rules to create propriety in society.

The development of responsive law is the result of the evolution of legal thought in an effort to find more effective solutions to achieve the goals of the law itself (Asa et al., 2021, p. 102). Nonet and Selznick, through the concept of responsive law, view law as a tool to respond to social dynamics and societal aspirations. With its open nature, responsive law emphasizes accommodation to social change in order to realize justice and public emancipation. They also view responsive law as a continuation of *sociological jurisprudence* and *realist jurisprudence* , which essentially encourages more empirical legal studies, goes beyond formalism, and emphasizes the importance of expanding legal knowledge and the role of policy in legal decisions (Sulaiman & Nasir, 2023, p. 100).

Law functions as a means to create security and order, while also being viewed as a tool of social engineering. This aligns with the theory of *ubi societas ibi ius,* which states that where there is society, there is law. Therefore, law is a reflection of human interests (Salman Alfarisi & Muhammad Syaiful Hakim, 2022, p. 22). This view is further reinforced by Van Apeldorn, who asserts that law is not limited by space but is present in every aspect of life. Based on this description, the close relationship between humans, society, and the sociology of law is clear

(Salman Alfarisi & Muhammad Syaiful Hakim, 2022, p. 22).

This research is important because it specifically examines the relationship between the concept of responsive law and the function of law as a tool of social control in a digital society, particularly in protecting personal data from the risk of misuse by artificial intelligence. Previous research, such as Artificial Intelligence and Law When Technology Precedes Ethics by Calvin Andika Putra, focused more on the ethical dilemmas when technological developments outpace legal readiness (Putra et al., 2025).

Linda Permata Sari's research on the Urgency of *Artificial Intelligence Regulation* in Indonesia from the Perspective of Responsive Legal Theory and Sadd Al-Dzariah emphasizes the need for AI regulation with a specific theoretical approach (Permata & Jannani, 2023). Unlike both, this research combines the perspectives of responsive law, legal sociology, and the role of law as a means of social control to emphasize how law can function adaptively in a digital society, thus providing a new contribution to the formulation of personal data protection strategies amidst the advancement of AI.

2. Research Method

This research uses a normative juridical research type. Normative juridical research is a research process to examine and study law as norms, rules, legal principles, legal doctrines, legal theories and other literature to answer the legal problems being studied (Widiarty, 2024, p. 29). This type of research aims to produce new arguments, theories, or concepts as prescriptions in resolving legal problems. The approach used is a conceptual approach by utilizing secondary data (Muhaimin, 2020, p. 57). The data is then analyzed descriptively, namely by presenting an overview of the subject and object of research according to the findings (Muhaimin, 2020, p. 128).

The data analysis technique of the interaction model is that the components of data reduction, data presentation and drawing conclusions are carried out through the data collection process. After the data is collected, the three analysis components (data reduction, data presentation and drawing conclusions) interact with each other. (Miles & Huberman, 2007, p. 16). The process of data reduction, data presentation, and drawing conclusions or verification can be further described in a diagram, as follows:

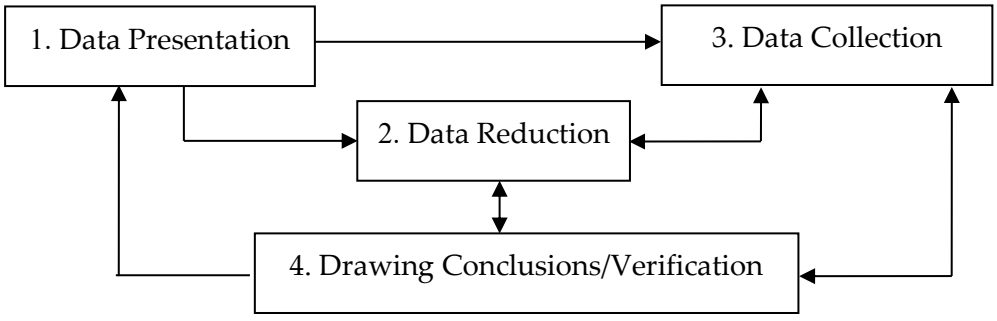


Figure 1. Data Analysis Techniques
Source: (Miles & Huberman, 2007, p. 18)

Through this method, the research aims to analyze the sociological and legal aspects of the digital society phenomenon associated with the use of ChatGPT. It also analyzes how to address the phenomenon of artificial intelligence exploitation and misuse of personal data in ChatGPT.

3. Results and Discussion

A. A Sociological Study of the Digital Society Phenomenon in the Use of ChatGPT

The era of globalization has made technology a benchmark for a country's progress. Technological developments provide various conveniences for humans, even forming new lifestyles that are highly dependent on technology (Faisal Tamimi & Siti Munawaroh, 2024, p. 67). The rapid development of technology is also difficult to control and causes major changes in people's lives. Therefore, humans continue to compete to develop technology to create innovations that can ease activities and simplify daily life (Faisal Tamimi & Siti Munawaroh, 2024, p. 72).

The use of technology in the digital age has become a necessity for various sectors and levels of society. However, the more data stored online, the greater the potential for cyberattacks, making cybersecurity a crucial factor. (Adriaansz & Nurhadiyanto, 2024, p. 346). Based on the data in Table 1, it shows that 2.555 Indonesian accounts were leaked. This data demonstrates the problem of personal information theft, making cybersecurity a crucial global issue.

Referring to existing problems, law enforcement is needed regarding personal data leaks due to AI in Indonesia. Law enforcement regarding Artificial Intelligence (AI) in Indonesia is still not optimal, partly due to the legal vacuum that clearly regulates the position and role of AI (FMYK Putri et al., 2024, p. 273). The limited understanding of law enforcement officials regarding the potential of AI and the prevailing legal culture in society further strengthens the obstacles to its implementation. Furthermore, when viewed from the theory of legal subjects, AI cannot be categorized as a legal subject, thus giving rise to legal issues regarding the responsibility and position of AI within the existing legal system (FMYK Putri et al., 2024, p. 273).

Law plays a crucial role in responding to the ever-evolving social and economic challenges in society. The concept of responsive law refers to the law's ability to adapt adaptively and inclusively to emerging dynamics, while maintaining a balance between economic and social interests (Rok Su, 2024, p. 6). In Indonesia, the issue of legal responsiveness has become increasingly pressing with the rapid pace of socio economic change, such as technological advancements,

shifting work patterns, and increasing social inequality. Within the framework of responsive legal theory, law functions not only repressively but is also required to adapt to the ever changing needs of society. This theory emphasizes the need for dialogue between the state and society so that the law can truly respond effectively to social and economic change. (Rok Su, 2024, p. 6).

The sociology of law plays a crucial role in understanding the dynamics of legal practices emerging in social life, including in the face of the development of artificial intelligence (AI). Through an empirical approach, the sociology of law can examine the extent to which existing legal regulations are relevant to technological change and predict whether a provision aligns with the needs of a digital society. The sociology of law's social control function is crucial for ensuring that state produced legal products are not unilateral but reflect the aspirations of the wider community and are used for the common good in the era of technological transformation (Moh Yusuf Daeng, Gustian, A. L., Febri, J., Afriandi, A., 2023, p. 9). Humans as social beings live in social groups that require rules to maintain balance to prevent chaos (Dharma, 2020, p. 118). Law exists with various purposes, including regulating the order of social relations by distinguishing between right and wrong, realizing social justice both physically and mentally through determining the right and wrong parties and their sanctions, being a means of driving development because of its binding nature, and establishing a clear allocation of authority in the implementation and enforcement of the law (Dharma, 2020, p. 118). In addition, law is also formed from material sources in the form of individual legal beliefs or feelings and public opinion that develops in society, so that law is always influenced by social awareness and aspirations (Dharma, 2020, p. 118).

The lifestyle patterns of modern society show that law is an important instrument in encouraging social change in various fields, such as education, transportation, energy and environmental protection (Samsir Salam, 2015, p. 167). In Eastern European countries, for example, since the end of World War II, law has played a major role in transforming society from a bourgeois system to a socialist system (Samsir Salam, 2015). This change ultimately affects values, beliefs, socialization patterns, and the structure of social relations within society.

B. How to Overcome the Phenomenon of Artificial Intelligence Exploitation in Personal Data Abuse on ChatGPT

The formation of law can occur through two approaches. First, change begins in society first and is then legalized through law (*bottom-up*) (Mustafa, 2024, p. 140). Second, law is used as a means to make changes for the better, as in Roscoe Pound's theory of *law as a tool of social engineering* (*top-down*). In practice, the formation of regulations is essentially more often *bottom-up*, because social

practices have already developed and then require appropriate legal rules to direct and organize community life (Mustafa, 2024, p. 140).

Law serves as a means of social control in human life, although other social control instruments exist, such as beliefs and moral norms (Harahap et al., 2021, p. 14). Social control itself is a normative aspect related to deviant behavior and its consequences, whether in the form of prohibitions, demands, or obligations to provide compensation. As a means of social control, law plays a role in setting limits on human behavior, particularly regarding actions that deviate from legal rules (Harahap et al., 2021, p. 14). Any violation of these rules will result in legal sanctions that must be accepted by the perpetrator.

Responsive law can be an instrument of social control. Social control in this context becomes a preventive effort to prevent injustice through regulations that align with the needs of society (Dermawan et al., 2024, p. 20). Responsive law encourages the creation of relationships between the state and society, so that the resulting regulations have social legitimacy (Dermawan et al., 2024, p. 20). Ultimately, the existence of responsive law as a social control strengthens the function of law as a means of social engineering (*law as a tool of social engineering*) that forms a social structure that is more just, inclusive, and adaptive to changing times.

Law as social control plays a role in regulating, directing, and regulating the behavior of individuals and groups in society. As a binding set of rules, law serves to maintain order and prevent actions that could potentially disrupt social balance (Ulinnuha, 2025, p. 358). The application of law as social control is not limited to the implementation of rules, but also includes efforts to establish standards of behavior that must be adhered to in social life. The concept of social control in digital society from a responsive legal perspective is as follows:

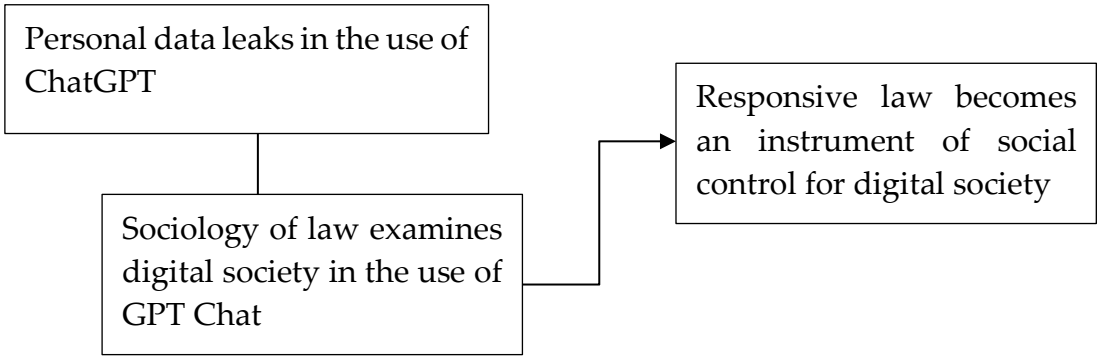


Figure 2. Concept of Social Control of Digital Society from a Responsive Legal

4. Conclusion

Based on the analysis, it can be concluded that the existence of law plays a role in anticipating the legal and legal impacts of technological developments. Legal sociology provides an analytical framework for understanding how legal practices interact with digital social dynamics, while responsive law ensures that regulations are adaptable, protect personal data, and substantively address societal needs. The combination of legal sociology and responsive law perspectives can form the basis for creating a legal system that protects societal interests amidst the development of artificial intelligence in social life.

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