



Legal Construction of Digital Literacy Policy in Realizing an Information-Savvy Society in the Era of Technological Disruption

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| ABSTRACT

The era of technological disruption has driven fundamental changes in the information ecosystem, where the production, distribution, and consumption of information are massive, rapid, and uncontrolled. This situation poses serious challenges in the form of misinformation, disinformation, social polarization, exploitation of personal data, and low public critical capacity to participate in the digital public sphere. In this context, digital literacy is a strategic instrument for building an information-savvy society capable of adapting to technological developments while maintaining democratic values and digital security. This study aims to analyze the legal construction of digital literacy policy in Indonesia, identify weaknesses in the existing regulatory framework, and formulate a legal model that is more comprehensive, integrative, and responsive to technological dynamics.

The research method uses a juridiconormative approach enriched with conceptual analysis and qualitative studies of policy documents, laws and regulations, academic literature, and international practices. The results show that digital literacy policy in Indonesia remains fragmented across various sectoral legal instruments without a strong regulatory umbrella, resulting in a lack of synchronization between institutions, weak competency standardization, and low implementation effectiveness. Analysis using good governance theory, public sphere theory (Habermas), and public policy theory reveals the need for a legal construction model that emphasizes the principles of inclusivity, multi-actor participation, privacy protection, digital security, and the fulfillment of human rights to information.

This research proposes a digital legal literacy framework model based on umbrella regulations, the establishment of a national digital literacy institution, and the integration of a digital literacy curriculum into the national education system. These findings provide theoretical contributions to the development of a digital legal paradigm and practical implications for policymakers in designing adaptive and sustainable digital literacy governance. Thus, appropriate legal construction is expected to strengthen societal resilience and ensure the creation of an information-savvy society amidst accelerating technological disruption.

| KEYWORDS

Digital literacy, legal construction, public policy, technological disruption, information-savvy society.

I. INTRODUCTION

The digital revolution, which has grown exponentially over the past two decades, has fundamentally transformed the communication, economic, social, and government landscapes. Technological developments such as artificial intelligence (AI), machine learning, big data, the Internet of Things (IoT), blockchain, and social media platforms present significant opportunities for accelerated development. However, these advances have also disrupted previously established social and information structures [5][10]. Indonesia, as one of the countries with the fastest growth in internet users in the world, faces the reality that digital transformation not only creates new public spaces but also gives rise to complex problems that directly impact the quality of information and social resilience [2][25].

Surveys by the Indonesian Association of Indonesian Journalists (APJII) and various international institutions show that internet penetration in Indonesia has exceeded 78%, yet the public's digital literacy level remains moderate and tends to stagnate. The phenomenon of information disorder, misinformation, disinformation, and malinformation, is growing along with the increasing consumption of digital media. At the same time, society faces threats from cyberbullying, online fraud, digital political propaganda, personal data exploitation, hate speech, and platform-based radicalism. This situation demonstrates that technological advances do not automatically produce an information-literate society, but rather demonstrate the urgent need for comprehensive digital literacy as a foundation for building an information-savvy society [3].

In the legal context, challenges are increasingly complex. Regulations governing the digital space, such as the Electronic Information and Transactions Law, the Personal Data Protection Law, the Ministry of Communication and Informatics' policies on cybersecurity, and regulations on the education and broadcasting sectors, have not fully addressed the needs of the ever-changing digital ecosystem. Digital literacy policies remain sectoral and fragmented, lacking a legal framework that explicitly regulates digital literacy as both a citizen's right and a state obligation to ensure the public's ability to participate safely, ethically, and critically in the digital space. This policy fragmentation has resulted in weak coordination between institutions, inconsistent digital literacy competency standards, and irregular program implementation at both the central and regional levels [25].

Digital literacy is not merely the technical ability to operate devices, but encompasses cognitive, evaluative, ethical, and participatory capacities that shape the quality of digital citizenship. Within a theoretical framework, digital literacy is a primary requirement for the stability of the modern public sphere, as proposed by Habermas through the concept of a rational and deliberative public sphere. Similarly, governance theory positions digital literacy as a crucial component for realizing transparent, accountable, and participatory information governance. Public policy studies demonstrate that policy effectiveness is highly dependent on regulatory coherence, multi-actor coordination, and institutional strengthening. This confirms that protecting the public from digital risks cannot be separated from legal construction that is clear, adaptive, and responsive to technological dynamics [10].

Based on this background, this study focuses on analyzing the legal construction of digital literacy policies in Indonesia, with the following objectives: (1) identifying the strengths and weaknesses of existing digital literacy regulations; (2) evaluating the effectiveness of the policy framework in shaping an information-savvy society; and (3) formulating a model for the legal construction of digital literacy that is integrative, adaptive, and aligned with technological developments and the needs of digital democracy. This research is expected to provide a substantive contribution to the development of the digital legal framework in Indonesia and offer policy recommendations that can strengthen the community's capacity to face the era of technological disruption.

The digital revolution of the past two decades has fundamentally transformed the communication, economic, social, and governmental landscapes. Technologies such as artificial intelligence (AI), big data, the Internet of Things (IoT), and social media platforms have opened up significant opportunities for accelerated development, connectivity, and access to information. However, these advances have also disrupted previously established socio-information structures. In Indonesia, a country with a large population and increasing internet penetration, the impact of digital transformation on information quality and social resilience is becoming increasingly apparent.

According to the latest report from the Indonesian Internet Service Providers Association (APJII), by 2025, the number of Indonesians connected to the internet will reach approximately 229.43 million of the total national population. This figure brings the national internet penetration rate to 80.66%. This growth indicates that more than 8 out of 10 Indonesians now have access to the digital world, confirming that the internet has become an integral part of everyday life (communication, social media, information, transactions, education, and work).

This phenomenon has significant consequences. With high and expanding internet penetration across all levels of society, the risk of disinformation, misinformation, cybercrime, misuse of personal data, and information polarization is increasing. More specific reports on the digital literacy index show significant disparities between regions; for example, some regions have very low digital literacy scores compared to others. This indicates differences in people's capacity to understand, process, and verify digital information.

Empirically, this development demonstrates that access alone, while important, is not enough. Widespread access without digital literacy leaves people exposed to information risks, digital crime, and other negative impacts. Therefore, digital literacy is no longer merely a technical skill, but a fundamental requirement for developing critical, adaptive, and resilient digital citizens. Digital literacy encompasses the cognitive ability to evaluate content; technical skills in using devices and applications; ethical awareness of digital footprints, privacy, and responsibility; and participatory skills in the digital public sphere.

Within the legal and policy framework, challenges are increasingly complex. Although internet access is increasingly widespread, digital literacy regulations and policies in Indonesia remain sectoral and fragmented. There is no legal framework that explicitly regulates digital literacy as a citizen's right, a prerequisite for active participation in the digital public sphere, and the responsibility of the state and relevant stakeholders to provide literacy tools. This regulatory fragmentation has the potential to lead to inconsistent digital literacy competency standards, weak inter-institutional coordination, and a lack of effectiveness evaluation at the national and regional levels.

Theoretically, digital literacy is a key requirement for maintaining the health of modern public spaces. Referring to the rational public sphere perspective as proposed by Jürgen Habermas, digital spaces require citizens who are able to think critically, communicate rationally, and participate democratically. On the other hand, good governance theory emphasizes the importance of transparency, accountability, public participation, and access to information, with digital literacy being an integral part of democratic and equitable information governance. From a public policy perspective, the effectiveness of interventions depends heavily on regulatory strength, multi-actor coordination, and the ability to adapt to technological dynamics

Based on this empirical and theoretical background, this research aims to: (1) Identify the current state of internet access and penetration in Indonesia, as well as variations in digital literacy across regions/populations; (2) Analyze the extent to which digital literacy regulations and policies in Indonesia address the needs of society in the era of technological disruption; and (3) Formulate a legal construction model for digital literacy policy that is comprehensive, integrated, responsive to dynamics, and guarantees the rights and capabilities of citizens to become an information-savvy society.

Therefore, this research is not only normative and conceptual in nature, but also rooted in real empirical conditions, so that its results and recommendations are expected to be relevant for policymakers, academics, and stakeholders in the digital and government sectors.

II. METHODOLOGY

This research uses a juridical-normative approach combined with socio-qualitative analysis, with the aim of understanding the legal construction of digital literacy policies in realizing an information-savvy society in the era of technological disruption. This approach was chosen because the issues studied are not only related to written legal norms, but also related to social dynamics, public policy practices, and community needs in the ever-evolving digital ecosystem. Thus, this research combines normative and empirical-conceptual analytical elements to gain a comprehensive understanding (Howlett & Ramesh, 2003; Dunn, 2018).

1. Types and Approaches of Research

1) Juridical-Normative Approach

A juridical-normative approach is used to analyze the laws and regulations that form the basis of digital literacy policies in Indonesia, including the 1945 Constitution, Law No. 11 of 2008 in conjunction with Law No. 19 of 2016 concerning Electronic Information and Transactions (ITE), Law No. 14 of 2008 concerning Public Information and Transactions (KIP), Law No. 27 of 2022 concerning Personal Data Protection, Presidential Regulation No. 95 of 2018 concerning SPBE, and the national digital literacy policy by the Ministry of Communication and Informatics. Normative analysis is conducted by examining the principles, rules, and legal hierarchy to understand the legal construction that forms the basis for the implementation of digital literacy.

2) Conceptual Approach

A conceptual approach is used to examine the concepts of digital literacy, information-savvy society, and technological disruption based on international literature (UNESCO, OECD, DigComp, Castells, Schwab, Christensen) as well as legal and policy theories (Friedman, Easton, Dunn, Kingdon, Ostrom, Putnam, and Akerlof). This approach allows researchers to build a solid theoretical framework as a basis for analysis.

3) Socio-Legal Approach

A socio-legal approach is used to understand the effectiveness and implementation of digital literacy policies in social practice. This approach connects legal norms with digital social realities, including societal behavior, information culture, and the challenges of technological disruption such as hoaxes, cybercrime, and digital polarization. Thus, law is understood not only as text but also as social practices influenced by digital culture.

III. RESULTS AND DISCUSSION

1. Overview of Digital Literacy Policy in Indonesia

An analysis of the national regulatory framework indicates that Indonesia has developed several legal instruments that serve as the foundation for digital literacy policies. These instruments include Law No. 11/2008 in conjunction with Law No. 19/2016 concerning Electronic Information and Transactions (ITE), Law No. 14/2008 concerning Public Information Disclosure (KIP), Law No. 23/2014 concerning Regional Government, Government Regulation No. 71/2019 concerning the Implementation of Electronic Systems and Transactions, and technical guidelines from the Ministry of Communication and Information Technology, such as the National Digital Literacy Program "Indonesia Makin Kakap Digital" (Indonesia Makin Cakap Digital).

Through document analysis and interviews, it was found that this legal framework provides a normative basis for various digital literacy programs, but has not yet established a legal structure that integratively regulates the national digital literacy ecosystem. Existing regulations remain sporadic, scattered across several sectoral regulations, and lack a consistent policy umbrella governing competency standards, inter-institutional coordination mechanisms, and a national evaluation model.

Thus, there is a need to develop policies that are more holistic, harmonious, and adaptive to changes in digital technology.

2. Digital Literacy Level of Society: Empirical Findings

Primary survey and observation data show that the digital literacy level of Indonesian society is in the middle category, but is very uneven across regions and social groups.

1) Weak Competency Dimensions

Using the UNESCO Digital Literacy Global Framework and DigComp 2.2, the most dominant weaknesses were found in the following aspects:

- **Critical Information Literacy**

The public's weak ability to verify information sources, identify hoaxes, understand algorithmic bias, and assess the credibility of digital media.

- **Digital Safety & Security**

Low awareness of data security risks, digital privacy, digital footprints, and ethics in using digital platforms.

- **Digital Content Creation**

Low ability to create, modify, and distribute content responsibly.

- **Digital Ethics**

Digital communication patterns are still influenced by a culture of aggressive communication, misinformation, and social media polarization.

The research results confirm that there is still a digital literacy gap between urban and rural communities, highly educated and low educated communities, and between digital generations (digital natives vs digital immigrants).

3. Legal Construction of Digital Literacy Policy: Analytical Findings

This research found that the legal framework for digital literacy policy in Indonesia remains fragmented. There is no single regulation or institution that serves as the lead sector or primary authority, resulting in policy implementation often being programmatic day-to-day, rather than strategic.

1) Characteristics of Current Legal Construction

Based on document studies and structural analysis, the construction of Indonesian law in the field of digital literacy has the following characteristics:

- **Dispersed Legal Framework**

The regulations are spread across various regulations without a single meta-policy that serves as a legal umbrella.

- **Weak Institutional Coordination**

There are overlapping roles between the Ministry of Communication and Information, the Ministry of Education, Culture, Research and Technology, the National Civil Service Agency (BSSN), local governments, and non-governmental organizations.

- **Non-binding Policy Tools**

Most digital literacy programs take the form of appeals, guidelines, and campaigns, not obligatory legal mandates.

- **Weakness of National Evaluation Mechanism**

The absence of legal instruments that regulate achievement indicators, training standards, accreditation of digital literacy institutions, and a national digital competency measurement system..

2) The Need for Legal Reconstruction

Through thematic content analysis, the research proposes three elements of digital literacy legal reconstruction:

- **National Digital Literacy Act**

A basic regulation that governs minimum digital competencies, strengthening the right to information, protection against misinformation, and digital ecosystem governance.

- **Collaborative Governance Model**

The government as regulator and facilitator, civil society as co-producer, and technology companies as responsible digital actors.

- **National Digital Literacy Evaluation Instrument**

A national assessment system based on DigComp and UNESCO, as a measuring tool for policy, education and industry.

4. Digital Literacy Policy Implementation: Performance and Challenges

The implementation of digital literacy policies in the “Indonesia Makin Cakap Digital” program has reached the wider community, but still faces a number of challenges:

1) Implementation Challenges

- **Inequality of Access to Technology**

The distribution of internet, devices, and digital infrastructure is still uneven.

- **Socio-Cultural Barriers**

Unstable digital culture, lack of digital ethics, and low privacy awareness.

- **Expansive Technological Change**

Regulation is not keeping pace with developments in AI, deepfakes, blockchain, and data automation.

- **Budget and Human Resource Limitations**

Policy implementation is highly dependent on the capacity of regions and partner institutions.

2) Supporting Factors

- Government support through the Ministry of Communication and Information Technology, the Ministry of Education, Culture, Research, and Technology, the National Cyber and Cyber Agency (BSSN), and various national initiatives.

- Digital Ecosystem Growth (e-commerce, e-government, fintech).

- Collaboration with Private Sector Companies such as Google, Meta, and Microsoft

5. Digital Literacy as a Prerequisite for an Information-Smart Society

Research findings show that digital literacy has a high correlation with:

- Critical thinking skills,

- Resilience against hoaxes,

- Quality of public participation,

- Digital productivity, and

- Ability to adapt to technological disruption.

The concept of an Information Smart Society emphasizes that society is not only able to access information, but also understand, evaluate, interpret, and produce information ethically and responsibly.

1) Digital Literacy Transformation towards a Smart Society

Based on theoretical analysis (Ostrom, Castells, Floridi), the transformation towards an information-smart society requires:

- Epistemic Responsibility (responsibility for knowledge).

- Data Ethics & Algorithmic Awareness.

- Digital Civic Engagement.
- Digital Empowerment, not just digital inclusion

Strong digital literacy will strengthen the nation's competitiveness in the era of technological disruption.

6. Critical Analysis: The Gap between Regulation and Reality

The study found several significant gaps, namely:

1) Data and Privacy App Gap

Personal data regulations are still relatively young (PDP Law 2022), their implementation is not optimal, and public awareness is still low.

2) The Digital Law Enforcement Gap

The enforcement of the ITE Law often causes controversy due to multiple interpretations of articles related to hate speech and defamation.

3) Digital Competency Gap among Government Institutions

Not all institutions have digital competency standards for employees, so the quality of digital services varies.

4) The Digital Literacy Gap Between Generations

The younger generation has technical skills but is weak in ethics and critical literacy; the older generation faces challenges adapting to technology.

7. The Ideal Model of Digital Literacy Legal Construction

Based on the synthesis of research results, the ideal digital literacy policy model includes:

1) Digital Literacy Master Regulation

- Establish minimum competency standards (based on DigComp).
- Regulate digital ethics, data security, and fair access.
- Regulate the roles of the state, the private sector, society, and education.

2) Ekosistem Literasi Digital Empiris

- Integration of digital literacy programs from the central government to the regions.
- Level-based training modules (basic, intermediate, and advanced).
- Digital literacy curriculum in schools and higher education.

3) Infrastruktur Kebijakan Berbasis Data

- Digital Literacy Index (DLI).
- A measurable and continuous evaluation system.
- Rewards and sanctions for institutions that achieve digital literacy targets.

8. Research Contribution

This research provides the following theoretical and practical contributions:

1) Theoretical

- Produce a conceptual model for constructing digital literacy law based on a technology governance and digital rights approach.
- Develop a comprehensive analysis of the relationship between law, digital literacy, and an information-savvy society.

2) Practical

- Provides recommendations for the establishment of a National Digital Literacy Act.
- Offers a digital literacy evaluation framework based on DigComp and UNESCO.
- Provides an alternative legal coordination model for government policy.

IV. CONCLUSION

This research shows that the legal framework for digital literacy policy in Indonesia is in a transitional phase, where a regulatory framework is in place but has not yet been integrated into a comprehensive, adaptive, and responsive policy architecture to the challenges of the era of technological disruption. Although various regulations—such as the ITE Law, the Public Information Disclosure Law, the Personal Data Protection Law, the Government Regulation on Electronic System Implementation, and programs from the Ministry of Communication and Information—have provided a normative foundation for strengthening digital literacy, the sectoral and fragmented nature of these regulations indicates the need for more targeted legal reconstruction.

Empirical findings indicate that the digital literacy level of the Indonesian public is in the middle category but is highly uneven, both geographically and demographically. Significant weaknesses exist in the dimensions of critical literacy, digital ethics, cybersecurity, and content production capabilities. Infrastructure disparities, low digital awareness, and an immature digital culture further widen the gap between understanding technology and its responsible use. This situation emphasizes that digital literacy is not only a matter of technical skills, but also cognitive, social, and ethical abilities, which are prerequisites for realizing an information-savvy society.

The policy analysis reveals that the absence of a central legal framework for digital literacy leads to weak inter-institutional coordination, overlapping institutional roles, low program implementation effectiveness, and the absence of uniform national digital competency standards. Furthermore, evaluation mechanisms and measurement indicators for digital literacy are not yet clearly regulated, making it difficult to assess the effectiveness of policies at both national and regional levels.

This research confirms that the establishment of an information-savvy society can only be achieved through legal frameworks that not only regulate digital behavior but also guarantee digital rights, increase critical information literacy, and create a safe, inclusive, and equitable ecosystem. Therefore, policy reform is needed through the establishment of a National Digital Literacy Act that regulates national digital competency standards, the roles and responsibilities of stakeholders, a collaborative governance model, and a digital literacy evaluation system based on data and measurable indicators such as DigComp and the UNESCO Digital Literacy Framework.

Thus, this study concludes that Indonesia needs a holistic, integrated, and futuristic digital literacy policy model—one that not only adapts to technological change but also shapes the character of a society capable of critical thinking, adapting to innovation, being digitally competent, and responsible in cyberspace. Strengthening the legal framework for digital literacy is essential to ensuring that Indonesians are not merely technology users but also intelligent actors capable of managing information, protecting digital rights, and participating in digital governance productively and ethically.

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