

Legal Protection for Vulnerable Community Groups due to Limited Digital Access

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Abstract

Digital transformation brings significant changes in various aspects of life, including education, health, economy, and public services. However, this development is not yet fully inclusive. The limited availability of digital infrastructure in certain regions has created access gaps, especially for vulnerable groups such as communities in 3T areas (frontier, outermost, and least developed), persons with disabilities, and the elderly. This research aims to analyze the existing forms of legal protection, identify implementation barriers, and offer a legal framework model that can guaranty equal rights in accessing digital technology. This research uses a normative juridical method with a statutory approach, conceptual approach, and comparative approach. The research results show that existing regulations, although they have addressed the right to access information and digital-based public services, have not fully provided effective protection for vulnerable groups due to a lack of regulatory integration, limited infrastructure, and low digital literacy. And the ideal model of a legal framework to ensure equality in accessing digital technology is a model that recognizes the right to digital access as a constitutional right and part of human rights, includes affirmative regulations that promote substantive equality, and is equipped with institutional instruments and inclusive oversight mechanisms. Without such a comprehensive legal framework, digital transformation has the potential to deepen social inequalities, rather than reduce them.

Keywords: *Legal Protection, Vulnerable Groups, Digital Transformation, Digital Divide, Inclusivity*

INTRODUCTION

Digital transformation has become one of the important pillars of national development in the era of the Fourth Industrial Revolution. The utilization of digital technology in the fields of public services, education, health, and the economy has brought significant changes to people's lives. However, the development of such technology does not automatically provide equal access and benefits to all layers of society. This phenomenon of unequal access is known as the digital divide, which poses serious problems, especially for vulnerable groups living in areas with minimal digital infrastructure [1]. Vulnerable groups such as communities in 3T areas (frontier, outermost, and least developed), persons with disabilities, the elderly, and low-income groups often face obstacles in accessing digital services due to limited infrastructure, low digital literacy, and the relatively high cost of technology devices [2].

The lack of digital availability not only limits their right to access information but also impacts access to essential public services, economic opportunities, and social participation. This has the potential to create new social injustices in the digital era if not promptly addressed with inclusive legal policies [3]. In the context of positive law in Indonesia, several regulations have actually addressed the right to information and the development of digital technology, such as Law Number 11 of 2008 on Electronic Information and Transactions as amended by Law Number 19 of 2016, Law Number 14 of 2008 on Public Information Disclosure, and Law Number 27 of 2022 on Personal Data Protection [4].

Nevertheless, the regulation has not yet comprehensively addressed the special protection for vulnerable communities marginalized due to the lack of digital infrastructure availability. The absence of a strong and integrated legal framework to ensure equitable digital access can widen social disparities. Data from the Ministry of Communication and Information in 2023 shows that the digital gap index in Indonesia is still quite high, especially in the eastern regions of Indonesia, with 12,548 villages/sub-districts not adequately covered by 4G networks [5].

This condition further emphasizes the need for the role of law in ensuring that digital transformation proceeds inclusively and non-discriminatively. Based on this background, this research aims to examine the form of legal protection for Vulnerable Community Groups due to the Lack of Digital Availability and how the ideal legal framework model can ensure equal rights in accessing digital technology.

METHOD

Type of Research

This research uses the normative legal research method. Normative legal research is a study aimed at examining legal principles, legal systematics, the level of legal synchronization, legal history, and legal comparison, with an emphasis on primary, secondary, and tertiary legal materials [6].

Research Approach

The approach used in this research consists of:

1. Statute Approach.
This research analyzes the provisions of legislation related to legal protection for vulnerable communities in the context of digital transformation, including Law Number 11 of 2008 on Electronic Information and Transactions jo. Law No. 19 of 2016, Law No. 14 of 2008 on Public Information Disclosure, and Law No. 27 of 2022 on Personal Data Protection [7].
2. Conceptual Approach
This approach is used to understand legal concepts such as legal protection, social justice, the right to information, and the digital divide. This approach helps build a normative framework relevant to the issue of inclusive digital transformation.
3. Comparative Approach
The research also compares legal protection policy models in other countries that have successfully addressed the digital divide, such as the European Union's Digital Decade Policy 2030, to provide a broader perspective and identify best practices that can be adopted in Indonesia [8].

Source of Legal Materials

1. Primary legal materials include: the 1945 Constitution, relevant national legislation, as well as international agreements or global policies related to digital inclusion.
2. Secondary legal materials Include: books, journals, scientific articles, research reports, and expert opinions discussing digital transformation and legal protection for vulnerable groups.
3. Tertiary legal materials Include: legal dictionaries, legal encyclopedias, and bibliographic indexes that help explain legal terms.

Techniques for Collecting and Analyzing

Legal Materials Legal materials are collected thru library research by inventorying and studying laws, books, journals, articles, and other scientific literature sources. The analysis of legal materials is conducted qualitatively by interpreting relevant laws, legal concepts, and legal theories, then drawing deductive conclusions to address the problem formulation [9].

RESULTS AND DISCUSSION

Forms of Legal Protection for Vulnerable Community Groups Due to Limited Digital Availability

Legal protection for vulnerable groups affected by limited digital availability can be classified into two main forms: normative legal protection (regulatory) and factual legal protection (implementative).

1. Normative Legal Protection

Normative legal protection in Indonesia has been regulated in several general and sectoral regulations, although it has not yet been specifically aimed at vulnerable groups in the context of the digital divide. Some of these provisions include:

- a. The 1945 Constitution of the Republic of Indonesia, specifically Article 28F, which states that every person has the right to communicate and obtain information to develop themselves and their social environment [10].
- b. Law Number 14 of 2008 on Public Information Disclosure (KIP), which guaranties the right of every citizen to obtain information from public bodies. This becomes important in the context of digitalization, where information is now widely available online [11].
- c. Law Number 11 of 2008 on Information and Electronic Transactions (ITE) in conjunction with Law No. 19 of 2016, which regulates the use of information technology in government activities and community life.
- d. Law Number 27 of 2022 on Personal Data Protection, which provides guaranties for the protection of personal data in digital activities, including vulnerable groups [12].

However, despite the existence of such a legal framework, there are no explicit regulations directly governing the obligation of the state or digital service providers to provide affirmative treatment to vulnerable groups in order to access digital infrastructure and services equally. This indicates the still weak substantive legal guaranties for the rights of vulnerable groups in the context of digital transformation.

2. Factual Legal Protection (Implementative)

From the implementation side, the government has initiated various programs to expand digital access thru the development of ICT infrastructure, such as the Palapa Ring project, the Digital Village Program, and the provision of internet access in public facilities like schools and community health centers. However, these programs still encounter obstacles in their implementation, such as:

- a. The disparity in infrastructure development in the eastern regions of Indonesia, particularly Papua, Maluku, and Nusa Tenggara, which makes it difficult for the communities in these areas to access digital services [13].

The development of digital infrastructure in Indonesia still shows a significant disparity between the western and eastern regions. Although the central government has launched various programs to accelerate national digital transformation, the reality is that many regions in eastern Indonesia, especially Papua, Maluku, and Nusa Tenggara, have not yet fully enjoyed access to stable and high-quality internet networks. This creates a digital divide that hinders community participation in those regions within the national digital ecosystem [2].

One of the national strategic programs aimed at addressing this disparity is the Palapa Ring Project and Bakti Kominfo, which builds the backbone of the fiber optic network from the west to the east of Indonesia. However, the report from the Ministry of Communication and Information Technology shows that by the end of 2023, there are still more than 12,000 villages/sub-districts that do not have optimal access to 4G networks, and most of them are located in the eastern part of Indonesia. Papua, for example, has complex geographical challenges, such as mountains and dense forests,

which result in very high infrastructure development costs [14].

In addition to geographical factors, another challenge is the low population density in some eastern regions, which causes telecommunications operators to be reluctant to build networks because it is considered economically unprofitable. This shows that the provision of digital services in the region is more based on market logic than on an approach of social justice and human rights [15].

This condition has a serious impact on vulnerable groups in the region. The community not only struggles to access information or digital-based public services, but also faces obstacles in accessing online education, digital business opportunities, and virtual social interactions. As a result, national digital transformation has the potential to widen socio-economic disparities between advanced and underdeveloped regions if the development approach is not inclusive and affirmative [16].

In a legal perspective, this disparity also raises questions about the fulfillment of the right to information and equitable access for all citizens as guaranteed in Article 28F of the 1945 Constitution. The state should be responsible for ensuring that every citizen, without exception, has fair access to the benefits of information and communication technology as part of their constitutional rights [10].

- b. The lack of inclusive digital literacy support, especially for people with disabilities and the elderly, means that even though the network is available, these groups are unable to utilize it optimally [17].

National digital transformation does not only depend on the availability of network infrastructure but also on the community's ability to optimally utilize that technology. In this context, digital literacy plays a central role as a bridge between physical access to technology and active participation in the digital space. Unfortunately, research results show that inclusive digital literacy support is still very minimal, especially for vulnerable groups such as people with disabilities and the elderly. Based on data from the Ministry of Communication and Information, digital literacy training programs such as Siberkreasi or the National Digital Literacy Movement have indeed reached millions of people. However, this program is still general and has not been specifically designed to meet the needs of groups with physical, sensory, or cognitive limitations [18].

Training materials are rarely presented in a disability-friendly format, such as the use of sign language, large text, audio descriptions, or interactive visual aids [19]. Similarly, among the elderly group, physical limitations, low levels of education, and social distance from technology create barriers in understanding and using digital devices. In many cases, even though internet networks are available in their environment, this group still cannot independently access digital services, such as online health services, digital banking transactions, or government applications [20].

This shows that the availability of networks does not guarantee digital participation without accompanying support and education tailored to the needs of the group. The absence of this inclusive approach leads to digital exclusion, which is a condition where individuals or groups are unable to benefit from technological advancements due to limitations in ability or access [21]. Even according to UNESCO, disabled groups are the most at risk of being left behind in the digital revolution without affirmative interventions and human rights-based policies [22].

From a legal perspective, this contradicts the principles of non-discrimination and equality of rights as stipulated in Article 5 of Law Number 8 of 2016 concerning Persons with Disabilities, which emphasizes that persons with disabilities have the right to obtain information and communication through accessible means [23]. Likewise, Law Number 13 of 1998 on Elderly Welfare mandates that the elderly have the right to adequate information and public services. However, the lack of technical implementation has

resulted in the legal protection of this group's digital rights not being substantively fulfilled. Meanwhile, the lack of inclusive digital literacy support reinforces the digital divide even tho the infrastructure is available. Without affirmative policies integrated into the national digitalization program, vulnerable groups such as people with disabilities and the elderly will continue to be marginalized from the economic and social benefits offered by digital transformation.

- c. The absence of affirmative policies encouraging digital platform providers or public institutions to offer services friendly to vulnerable groups, such as accessibility features (voice access, large text, and digital sign language)[24].

One important dimension in realizing inclusive digital transformation is the availability of accessible digital services for vulnerable groups, especially those with sensory disabilities (deaf, blind), the elderly, and other special needs communities. Unfortunately, the results of this study indicate that the absence of explicit affirmative policies is the main factor why many digital platform providers, both private and public institutions, have not yet provided accessibility features optimally. Accessibility features such as large font, voice-over navigation, high contrast mode, digital sign language, or automatic text translators are simple technologies that are commonly used in web and application design in countries with inclusive regulations. However, in Indonesia, there are no specific regulations that require digital service providers to implement these features, whether in the public or private sector. Technical provisions related to digital accessibility are currently still advisory in nature and have not yet become legally binding norms [25].

- d. The 2022 Indonesia Digital Accessibility Review report published by the Digital Inclusion Study Center of the University of Indonesia states that only 13% of central and regional government websites provide basic accessibility features for users with disabilities [25].

In fact, the majority of government digital services such as e-Dukcapil Services, e-Health, and national e-Learning applications are not yet equipped with inclusive interface designs. This situation makes it difficult for vulnerable groups to access important information or public services independently, even tho they formally have the right to information. However, normatively, the right to inclusive services has been guarantyd in various national regulations, such as Law Number 8 of 2016 on Persons with Disabilities, specifically Article 26 paragraph (2) which states that persons with disabilities have the right to obtain information thru information and communication technology in an accessible format [26]. Unfortunately, this provision has not yet been reinforced with implementing regulations that govern digital accessibility standards technically, as outlined, for example, in the Web Content Accessibility Guidelines (WCAG), which are the international standard [27].

The absence of affirmative policies is also evident in Presidential Regulation Number 95 of 2018 concerning the Electronic-Based Government System (SPBE), which does not explicitly include the principle of "universal design" or the obligation of digital accessibility for all digital-based public services. This indicates that the mainstreaming of digital inclusion has not yet become a priority in the formulation of national policies, whereas accessibility is an integral part of the principles of social justice and equal access. Preliminary Conclusion: The lack of legally binding affirmative policies has resulted in digital service providers not having a legal obligation to create inclusive and friendly systems for vulnerable groups. As a result, many digital services actually reinforce inequality rather than bridging accessibility. Therefore, the establishment of derivative regulations that mandate national digital accessibility standards, especially for public

services and essential sectors, is necessary.

The distribution of internet networks still depends on population density and economic considerations, rather than the principle of access justice. This shows that the orientation of digital development has not yet fully considered aspects of social justice. Thus, the form of legal protection for vulnerable groups in this context is still partial and not yet integrative. The absence of laws or government regulations explicitly governing digital protection for vulnerable groups causes the right to digital access to depend on sectoral policies and regional initiatives.

An Ideal Legal Framework Model to Ensure Equal Rights in Accessing Digital Technology

The availability of digital technology does not automatically guaranty that all layers of society can enjoy its benefits equally. Vulnerable groups such as people with disabilities, the elderly, indigenous communities, and residents in remote areas still often experience structural discrimination in accessing technology. Therefore, an ideal and progressive legal framework model is needed to ensure equal rights in accessing digital technology.

This research shows that the ideal legal framework model must minimally meet three main elements, namely: Recognition of the right to digital access as a human right, Affirmative regulation in the form of obligations for the state and the private sector, Effective law enforcement and oversight instruments.

1. Recognition of Digital Rights as Constitutional Rights

In the perspective of modern constitutional law, the right to access the internet and digital technology has been recognized as part of the right to information, education, public services, and freedom of expression. This is in line with Article 28F of the 1945 Constitution, which guaranties the right of every person to communicate and obtain information thru any available channels [28]. The explicit recognition of the "right to digital access" as a constitutional right needs to be affirmed thru amendments or progressive interpretations of existing laws, so that it has binding force [28].

2. Affirmative Policy within the Regulatory Framework

The ideal legal framework not only guaranties formal equality (equality before the law) but also must provide protection and special treatment (affirmative action) for vulnerable groups. For example, in the education sector, the state needs to mandate subsidies for digital devices and internet access for students in underdeveloped areas. In the public sector, government digital service providers are required to offer digital accessibility (such as large text, text-to-speech, digital sign language) for disabled groups. The European Union, in the European Accessibility Act (2019), details the obligations of companies and public institutions to provide digital services accessible to all groups. Indonesia itself does not yet have a similar legal framework, so the ideal model needs to adopt a rights-based approach in formulating laws related to national digitalization.

3. Enforcement and Supervision Mechanism

The ideal legal framework must be supported by concrete oversight and law enforcement mechanisms. An independent agency or unit for overseeing digital accessibility is needed, with the authority to impose sanctions and receive public complaints. In addition, the evaluation of digital policies by the government and the private sector must be routinely conducted based on digital inclusion indicators. Without a monitoring system, the protection of digital access rights tends to be merely symbolic.

The ideal legal framework to ensure equality in accessing digital technology is a model that recognizes the right to digital access as a constitutional right and part of human rights, includes affirmative regulations that promote substantive equality, and is equipped with

institutional instruments and inclusive oversight mechanisms. Without such a comprehensive legal framework, digital transformation has the potential to deepen social inequalities, rather than reduce them.

CONCLUSION

The research findings indicate that the existing regulations, although they have governed access to information and digital-based public services, have not fully provided effective protection for vulnerable groups due to the lack of regulatory integration, limited infrastructure, and low digital literacy.

The ideal legal framework to ensure equality in accessing digital technology is a model that recognizes the right to digital access as a constitutional right and part of human rights, includes affirmative regulations that promote substantive equality, and is equipped with institutional instruments and inclusive oversight mechanisms. Without such a comprehensive legal framework, digital transformation has the potential to deepen social inequalities, rather than reduce them.

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