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COLLABORATIVE POLICY MODEL IN STRENGTHENING DIGITAL LITERACY FOR FAMILY RESILIENCE

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Abstract

The digital literacy gap between generations, digital communication patterns between families, and the lack of optimal coordination of the government's role in implementation are complex challenges faced in realizing family resilience in this digital era. This research was conducted to develop a collaborative policy model for increasing family resilience in the digital era, using socio legal legal through document studies to analyse laws and regulations related to digital literacy and family protection in the digital era, in-depth interview with policymakers in Brebes Regency, focus group discussions, and observations with participants representing family members. policymakers. This study provides a policy model that can be used as a reference for the development of digital literacy programs to increase family resilience, including (1) clarity of organizational structure between stakeholders, (2) measurable division of roles and responsibilities, (3) the existence of an integrated program mechanism, and (4) the existence of a continuous monitoring and evaluation system.

Keywords*: digital literacy; collabotative policy; family resilience*

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A. INTRODUCTION

The Internet Service Users Association (APJII) in 2024 states that the use of internet and gadgets will reach 79.5% of the total population in Indonesia. (APJII, 2024) This indicates that digital penetration brings changes in family life in a complex manner to changes in interpersonal dynamics, family communication patterns to family functions as a whole in Indonesia. This big change creates an opportunity for a new way as well as a challenge to family resilience.

Ease of connectivity and communication is one of the benefits that can be enjoyed in the era of digitalization, technology facilitates constant communication between family members, allowing for remote interaction and quick information sharing. (Anisti et al., 2023) Regarding this access, each family member approaches in their own way in accepting this digitalization.

Challenges arise to the dynamics of acceptance, access, and integration of different technologies in family members. (Bărbuță et al., 2023) with the average Indonesian family consisting of several different generations, this causes a gap in communication and family relationship patterns. The acceptance of digitalization in adults or parents as key figures in the family often experience obstacles in their digital engagement. The younger generation usually embraces technology quickly understands and adapts to digitalization. This is because many older adults struggle with cognitive decline and physical distractions, making it difficult to learn and use new technologies.(Wohlmacher et al., 2023) In addition, parents feel less confident in using technology, which prevents parents from engaging with digital tools.(Mohd Zaid et al., 2023)

Data from the Ministry of Women's Empowerment and Child Protection (KPPPA) shows that 65 percent of parents experience obstacles in accompanying their children using digital technology. Meanwhile, children are very vulnerable to exploitation in the use of the internet (Kementerian Pemberdayaan Perempuan dan Perlindungan Anak, 2024). This condition raises the potential to create communication and supervision gaps that can have an impact on family resilience.

Digital risks such as internet addiction, cyberbullying, online fraud, and exposure to negative content threaten the welfare of families. The lack of understanding of online risk mitigation exacerbates the disruption caused by these digital activities. Efforts to strengthen digital literacy in the family have been carried out through various government programs, such as the National Digital Literacy Movement and the Fresh and Safe Internet (INSAN) initiated by the Ministry of Information and Informatics. However, the

implementation of the program is still partially running and has not shown optimal results.

The number of cyberbullying and cybercrime is still relatively high. The United Nations International Children's Educational Fund (UNICEF) stated that as many as 45 percent of adolescents in Indonesia aged 14-24 years have experienced cyberbullying or online bullying. In detail, 45 percent experienced harassment through chat applications, 41 percent spread photos or videos without permission, and the rest were cyberbullying in other forms(UNICEF, n.d.).

Various challenges faced in the digital world require a collaborative and integrated policy approach. Meanwhile, the handling of digital literacy issues is still compartmentalized in various institutions such as Kominfo, the Ministry of Women's Empowerment and Child Protection, as well as the Ministry of Education and Culture, Research and Technology and other institutions. The lack of effective collaborative policy design has led to overlapping programs. Coordination between stakeholders, the government, the community and the private sector needs to be coordinated to achieve a significant impact.

This research is here to develop a comprehensive collaborative policy model. This model is designed to integrate the roles of various stakeholders in strengthening digital literacy. The urgency of developing this collaborative policy model is also driven by Indonesia's commitment to achieving the Sustainable Development Goals (SDGs) targets, especially related to quality education and reducing inequality. Strengthening family digital literacy is an important component in realizing an inclusive and sustainable digital society.

B. RESEARCH METHOD

This research uses a socio legal research approach that examines the relationship between legal norms and social practices in the context of digital literacy and family resilience. This method views law not merely as written rules, but as a product of dynamic and complex social interactions.

Data collection was conducted through three main methods. First, legal document studies to analyse laws and regulations related to digital literacy and family protection in the digital era. Second, in-depth interviews with stakeholders, including policy makers, legal practitioners, academics and family representatives, to understand perceptions and implementation of the law in the field. Third, field observations to see the practice of digital literacy in families and the gap between legal norms and social reality.

Data analysis uses an interpretative approach that takes into account the

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interaction between legal norms, social structures and cultural dynamics. The analysis process does not merely describe legal facts, but also interprets the social meaning behind legal practices. Data validation was conducted through triangulation of sources and methods, by comparing data from various sources and verifying findings through discussions with experts.

The research output is a policy model that is responsive to the social context, including a mapping of digital literacy practices, an analysis of the gap between norms and reality, and policy recommendations that take into account the social context.

C. DISCUSSION AND ANALYSIS

1. Digital Literacy Collaborative Policy Model

The modern digital age has caused a significant change in family communication patterns and social structures. The intricate challenges of digital literacy cannot be addressed through fragmented or isolated methods; instead, they demand a thorough, holistic, and cooperative policy framework. The collaborative digital literacy policy framework serves as a strategic tool to narrow the generational divide, harness the capabilities of information technology, and strengthen family resilience against swift and extensive digital transformation.

This model is an approach that prioritizes cooperation between various stakeholders. Starting with an analysis of the institutional structure, including the role of stakeholders, academia, civil society, and media.

The Ministry of Information and Communication plays an important role in drafting national digital literacy regulations and policies, then developing internet programs on digital tools, ethics, and security, to encourage a more informed society(SUTALHIS & NOVARIA, 2024), provide a digital education platform, and most importantly, supervise digital content.

The Ministry of Women's Empowerment and Child Protection has the authority to develop digital family protection programs, develop parenting guidelines in the digital era(S Jadimath, 2023), provide digital family assistance and help handle cases of cyber violence that occur in the family.

The Ministry of Education, Culture, Research and Technology has an important role in integrating digital literacy in the education curriculum, facilitating training for educators, developing digital learning-based materials, and continuing to conduct research and development regarding digital literacy (Fagehi & Almutairy, 2024). The

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ministry can improve students' critical thinking, creativity, and independence. This multifaceted approach is essential to prepare students to navigate the complexities of the digital age.

The Regional Government has the task of implementing programs at the local level, and then forming a digital literacy task force(Kabwe et al., 2024), in addition to facilitating digital literacy training for the community and providing supporting infrastructure.

The role of the community, especially parents, is no less important to realize digital literacy, as an agent of change, the community can make the community active in digital literacy while supervising and giving feedback on the program(Detlor et al., 2019).

Academics take on roles such as researchers and mapping. They are intellectual explorers who are constantly exploring the untouched territory of digital transformation. Their research becomes a compass that directs policy, unravels the complexity of technological change, and designs approach models that are relevant to the context of society(Hobbs & Coiro, 2016).

The private sector appears as an innovator and technology provider. They are digital artisans who create new digital tools, platforms, and spaces. Their contribution is not only technology, but also creates a digital economy ecosystem that opens up unlimited opportunities for society(Mendoza et al., 2014).

Civil society organizations play a role like a bridge between policy and grassroots reality. They are community companions, defenders of the interests of vulnerable groups, and critical voices that ensure digital transformation leaves no one behind. They create a space for dialogue, build awareness, and encourage active community participation.

The media acts as the main narrator in this digital journey. They spread narratives, create awareness, expose false information, and build critical literacy. Think of them as storytellers who help people understand and interpret digital change

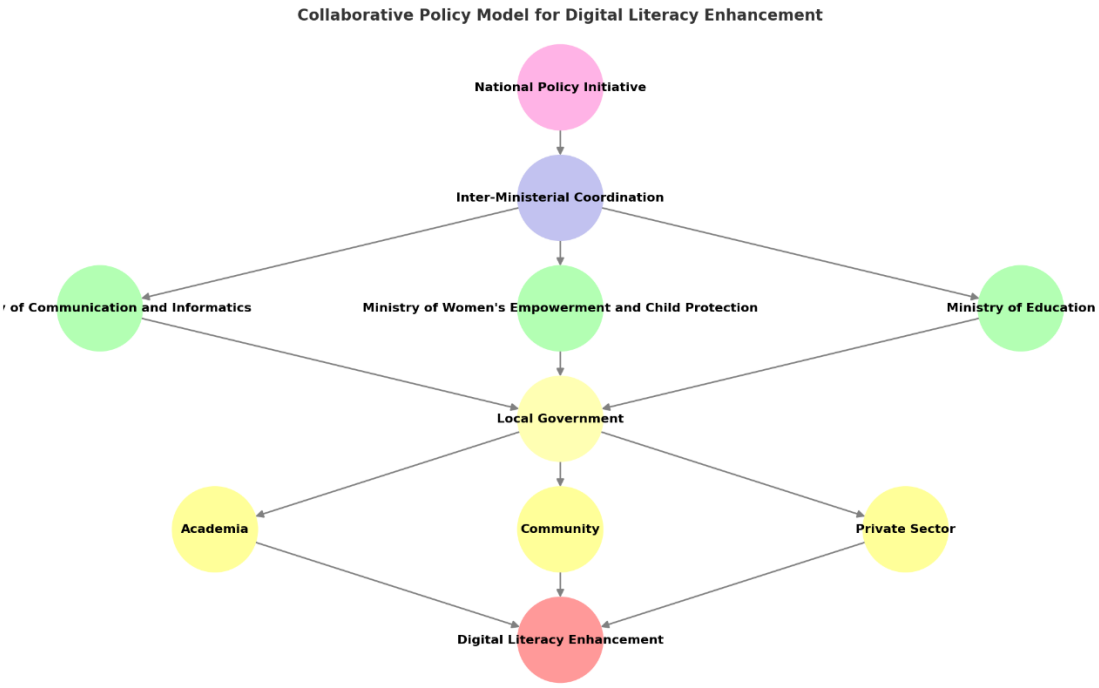
Meanwhile, the family has become the microcosmic of digital transformation. It is in these intimate spaces that digital literacy is first instilled, communicated, and inherited(Barillas & MacGillivray, 2011). Parents are no longer just supervisors, but digital mentors who accompany the younger generation in navigating the complexities of the digital world(Arifin & Asoka Niscahya Alam Mayang, 2024).

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Universities play a role as a living laboratory for digital transformation. They do not just create graduates, but build a sustainable knowledge ecosystem.

International institutions act as global facilitators. They bring a cross-border perspective, encourage the exchange of knowledge, and help develop standards that can be universally adopted.

Their collaboration is not linear, but dynamic and adaptive. Like a complex orchestra, each player plays his instrument perfectly, yet remains sensitive to the overall harmony. They do not just contribute, but strengthen each other, complement each other.



The digital literacy collaboration process starts at the national level with strategic policy initiatives involving cross-ministerial coordination. This initial stage is an important foundation where the Ministry of Communication and Information Technology, the Ministry of Women's Empowerment and Child Protection, and the Ministry of Education jointly design a comprehensive policy framework.

The Ministry of Communication and Information plays a role in developing digital regulations and information technology infrastructure, while the Ministry of PPPA focuses on child protection aspects in the digital space. The Ministry of Education contributes to designing a digital literacy curriculum that is integrated into the national education system. Each ministry brings specific perspectives and expertise that complement each other.

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At the implementation level, local governments are at the forefront of policy implementation. They are tasked with translating national policies into concrete programmes that fit the local context. Through local coordination, various stakeholders such as academics, communities and the private sector are actively involved.

Academics contribute through research and development of digital literacy models, communities play a role in programme implementation at the grassroots level, while the private sector supports through infrastructure and Corporate Social Responsibility programmes.

The evaluation stage is a critical point in the policy cycle. Findings from programme implementation are comprehensively analysed and continuous improvements are made. This process is dynamic and responsive to technological developments and community needs.

The final outcome of this collaboration is an increase in community digital literacy, especially at the family level. People are no longer just policy objects, but active subjects who are able to optimise digital technology in a smart, safe and meaningful way. This collaborative model guarantees a holistic approach in dealing with the complexity of contemporary digital challenges.

This policy model carries a deeper mission: to create a moral, critical, and sustainable digital society. A society that is not only technologically literate, but wise in using it(Goede, 2011). A digital civilization that puts humanity as a top priority(Guzdial, 2015).

2. The Program's Impact on Family Resilience

Digital transformation has brought new complexities to contemporary family dynamics(Castells, 2009). According to Dr Deborah Roedl, a family psychologist from the University of Michigan, 'Digital technology is not just a communication tool, but a new medium in shaping family relations and identity. This statement illustrates the significance of digital literacy as a key factor in building family resilience in the modern era.

The process of family adaptation to the digital ecosystem shows a complex pattern that goes beyond mere technological mastery. A concrete example can be seen in urban families, where parents not only supervise their children's use of devices, but also actively engage in digital exploration together(Livingstone & Helsper, 2008).

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Professor Urie Bronfenbrenner in his social ecology theory emphasises the importance of multisystem interactions in individual development (Urie Bronfenbrenner, 1979). In the context of digital literacy, this means that family resilience cannot be separated from the wider environmental context. Schools, communities and national digital infrastructure play a significant role in shaping families' capacity to navigate digital spaces.

Longitudinal research conducted by Dr Sherry Turkle of MIT shows that families with high levels of digital literacy have unique characteristics:(Fernández Pedemonte, 2012)

1)Expressing concerns about digital experiences

2)Share technology knowledge and skills

3)Establish collaborative monitoring mechanisms

The psychological aspects of family resilience in the digital context cannot be ignored. Dr Nancy Darling, an expert in developmental psychology, suggests that the key is to create trust and openness. Successful parents are those who are able to become ‘digital mentors’ rather than mere supervisors.

The complexity of digital risks requires a comprehensive mitigation strategy. A comparative study in three major Indonesian cities revealed that families with structured digital literacy programmes showed (Ministry of Communications and Informatics, 2022) : 67% reduced risk of exposure to negative content, 53% increase in children's ability to think critically about digital information, A 45% increase in the quality of family communication.

Professor Manuel Castells in his ‘Network Society’ theory explains that the modern family is an evolving network entity. Digital literacy is the social capital that enables families to not only survive, but thrive in a complex and dynamic digital ecosystem. The gender dimension in digital literacy is also interesting to note. Dr Lyn Mikel Brown's research shows that an inclusive digital literacy programme can(Barillas & MacGillivray, 2011): Build equal access to technology among family members; Deconstruct gender-based technology stereotypes; Create spaces for democratic digital participation

The impact of the Digital Literacy Policy Collaboration Program between Stakeholders on Family Resilience covers several fundamental dimensions that are interrelated and have a comprehensive influence on family structure, function, and dynamics. The digital literacy collaboration program significantly strengthens family

psychological resilience(Dzakiah et al., 2024). Internal communication in the family becomes more open and constructive when all family members have a common understanding of digital technology. Parents are able to create a safe dialogue space to discuss digital experiences, reduce the potential for generational conflict, and build mutual trust(Dzakiah et al., 2024).

The impact of digital literacy on socioeconomic families is profound, affecting various aspects of economic stability and growth. Digital literacy serves as a catalyst for social innovation and economic transformation, especially in low-income households. This increases access to digital resources, which can lead to increased entrepreneurial opportunities and reduced poverty risks(Sharma et al., 2023).

3. **Development Strategy**

Implementing the Collaborative Policy Model to Strengthen Digital Literacy for Family Resilience requires a comprehensive development strategy. One important step is to strengthen policies and regulations that support digital literacy among families. The government should design policies that incorporate digital literacy in education and social programmes, in order to create good digital awareness and skills at the family level (Livingstone & Helsper, 2007). These regulations should also include the protection of digital information, family privacy, and safety in children's use of technology (Chaudron et al., 2018).

In addition, collaboration between various parties including the government, the academic world, the private sector, and the community is needed to strengthen family digital literacy. The government serves as the main facilitator in infrastructure development and regulations, while academics contribute by conducting research and developing digital literacy modules that suit the needs of families (Buckingham, 2019). The private sector can contribute through technological innovation and the provision of educational platforms, while communities and non-governmental organisations (NGOs) can provide direct guidance to families in understanding how to use technology safely and effectively (Livingstone et al., 2011).

Furthermore, community capacity building is a key aspect in the success of this programme. Training and workshops need to be conducted regularly to equip families with basic digital literacy skills, including cybersecurity, information management and the use of technology in everyday life (OECD, 2019). In addition, the function of community leaders as digital literacy champions is also crucial in supporting education processes closer to the community (Hobbs, 2017).

The use of technology and digital innovation should also be an element in the development strategy of this programme. The development of educational applications and the use of social media as a tool for socialising digital literacy can expand the reach of the programme to a larger public (Martens, 2010). Engaging and interactive approaches, such as gamification and educational videos, can support increased family engagement in this digital literacy programme (Ribble, 2011).

Finally, continuous monitoring and evaluation needs to be conducted to ensure the effectiveness of the policies and programmes implemented. The government and academics can develop indicators of the success of digital literacy in families, such as the level of awareness of digital security and the ability to manage information wisely (European Commission, 2020). Regular evaluations will help adapt strategies according to technological developments and community needs. With a holistic and collaboration-based development strategy, strengthening digital literacy in families can be realised effectively and sustainably.

Another thing that must be noted is that the development of a digital literacy policy collaboration model requires a strategic approach that integrates various stakeholders and is aligned with broader educational goals. This model should focus on sustainable practices, adaptability to emerging technologies, and inclusivity in digital governance(OECD, 2023).

The government must create a coherent digital education strategy that is in line with existing policies and governance structures. A future-oriented focus is essential, given the implications of new technologies on the Education system(OECD, 2023). While a focus on collaboration and strategic alignment is essential, it is also important to consider potential challenges, such as varying levels of digital literacy.

D. CONCLUSION

The Digital Literacy Collaborative Policy Model represents a strategic breakthrough in transforming the community's digital ecosystem, especially in strengthening family resilience. Through a holistic approach involving multiple stakeholders, this model has successfully integrated various dimensions of the digital literacy complex, ranging from aspects of regulation, infrastructure, and education, to social empowerment. Systematic collaboration between government, academia, the private sector, civil society organizations, the media, and families creates a dynamic, adaptive, and sustainable transformation mechanism. This approach is not just about improving digital technical skills, but about

building critical, moral, and family resilience in the face of the complexities of the contemporary digital era.

Fundamentally, this policy model produces a new paradigm in understanding digital literacy as an entity beyond just technological capabilities. It emphasized that family resilience in the digital era requires a comprehensive approach that pays attention to psychological, social, economic, educational, and cultural aspects. The resulting transformation is not just about adapting technology, but the development of a dignified digital ecosystem, where every family member has the ability to understand, criticize, and utilize technology wisely. This model offers a strategic blueprint for policymakers, practitioners, and stakeholders in creating an inclusive, equitable, and sustainable digital society, with the family as the fundamental unit of social transformation.

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