Participatory Approach in The Development of Ai-Based E-Proposals: A Case Study of the Collaborative Process Between Village Youth and Local Government

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ABSTRACT: This study examines the collaborative process between the youth of Dukuhpicung Village and the local government in the development of AI-based e-proposals as part of the village infrastructure development. The research was conducted in Dukuhpicung Village, Luragung District, Kuningan Regency, West Java Province. Using a descriptive qualitative approach, the study explores how the active participation of youth in the e-proposal training program enhanced their digital skills and strengthened synergy with the local government. The results show that the use of AI and audiovisual technology not only accelerated the planning process but also improved the effectiveness of communication through more interactive and persuasive proposals. This training successfully empowered the youth to take an active role in village development, enhancing their capacity to access funding opportunities and facilitating improvements in local infrastructure quality. These findings provide guidance for policymakers and development practitioners to support the implementation of digital technology at the village level and encourage closer collaboration between the community and the government in community-based participatory development.

KEYWORDS: Participatory Approach, Articial Intelligence, E-Proposal, Youth Empowerment, Local Government Collaboration

I. INTRODUCTION

In recent years, digital technology, particularly artificial intelligence (AI), has become one of the key instruments in accelerating development across various sectors, including rural areas. In Indonesia, digital transformation has begun to penetrate various villages with the hope of enhancing government efficiency and strengthening community participation in development. One emerging approach is the use of digital technology in the planning and proposal-making process, such as the implementation of AI-based e-proposals. Amid the rapid adoption of this technology, this research focuses on analyzing how village youth can utilize AI technology in the creation of e-proposals to support village infrastructure development, especially in Dukuhpicung Village, Luragung District, Kuningan Regency, West Java.

Previous studies have shown that community involvement in village development is often limited by a lack of access to technology and low digital literacy. For instance, Noviar & Priyanti (2023), revealed that community participation in village development planning is often hampered by limited technical skills and inadequate access to information. Furthermore, Wiyanto et al., (2023), highlighted that the implementation of e-government technology in villages still faces various challenges, such as limited infrastructure and weak synergy between the community and the government in the planning process. Additionally, Fahmi and Arifianto (2021) explained that digitalization can promote innovative practices that address local issues and contribute to social cohesion and community resilience. Therefore, this research aims to address these gaps by exploring how AI-based training can enhance youth participation in village development.

A participatory approach in development planning is the main focus of this research. Community participation, particularly from youth, in the village planning process is crucial to ensuring the sustainability and relevance of the development itself. This initiative demonstrates how digital tools can facilitate knowledge transfer and empower local communities to take an active role in their community's development (Reina-Usuga et al., 2022). This research will discuss how the youth of Dukuhpicung Village, through AI-based e-proposal training, were able to produce more interactive and persuasive proposals. Their participation not only improved their digital skills but also built stronger synergy with the local government to support village infrastructure

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development. In this context, the study offers new perspectives on how AI can serve as a tool to empower communities at the village level, encourage active participation, and accelerate more inclusive development.

Additionally, existing literature shows that the use of audiovisual technology and AI in digital content development can accelerate the planning and decision-making process. For example, Army Chella Pusfitasyari *et al.*, (2023) study revealed that AI-based platforms integrated with e-government services can improve efficiency and effectiveness at the village level. However, studies on how AI can be utilized in village development proposals are still limited, making this research a significant contribution to the growing literature on the use of digital technology for rural development.

This study aims to provide strategic insights for governments and development practitioners regarding the importance of applying AI technology in participatory village development planning processes. The findings of this research are expected to serve as a foundation for the development of training programs and the implementation of technology in other villages, particularly those facing challenges in the preparation of development proposals.

II. METHODS

This research is designed as a descriptive qualitative study aimed at exploring the collaborative process between the youth of Dukuhpicung Village and the local government in the development of AI-based e-proposals. The focus of this research is on how the e-proposal training can improve digital skills and strengthen the synergy between village youth and the government in infrastructure development.

The main sources of information in this study include the village youth who participated in the training, local government officials involved in development decision-making, and training facilitators from the field of digital technology. The active participation of the youth and the perspectives of local policymakers will serve as a foundation for gaining a comprehensive understanding of the effectiveness of using AI in village development planning.

Data collection techniques are carried out through in-depth interviews using semi-structured interview guidelines. These guidelines are designed to keep the interviews focused on the main topic while allowing flexibility to explore participants' experiences and perspectives. The interviews will facilitate the extraction of context-rich information, especially regarding the dynamics of collaboration in the e-proposal creation process.

The data obtained will be analyzed using content analysis methods, aiming to identify key themes, interaction patterns, and relationships between youth participation, local government, and the effectiveness of AI application in e-proposal development.

III. RESULTS OF RESEARCH AND DISCUSSION

In recent years, digital technology, including artificial intelligence (AI), has been widely applied in various development sectors, including rural areas. This transformation is evident in developing countries, where information and communication technology (ICT) initiatives help address existing geographical and social challenges (Onitsuka et al., 2018). AI has great potential in accelerating planning and decision-making processes, particularly in creating more effective and efficient development proposals. In Indonesia, many villages have begun to utilize this technology to strengthen community participation, especially among the youth, in the planning and development of local infrastructure. The application of AI not only streamlines administrative processes but also allows for more structured and persuasive presentation of ideas to stakeholders, such as local governments and funders. This technology provides a more efficient way of communicating while also improving the quality of development planning outcomes at the village level.

This research was conducted in Dukuhpicung Village, Luragung District, Kuningan Regency, to analyze how the application of AI and audiovisual technology in e-proposal creation can empower village youth and enhance collaboration with local governments. With a participatory approach that emphasizes youth involvement in the development proposal drafting process, this study demonstrates how digital technology can overcome resource and digital literacy limitations in the village. Through intensive training, village youth are trained to utilize AI to develop more interactive and persuasive proposals, which have a direct impact on increasing access to funding for village infrastructure projects.

3.1 Improvement of Village Youth's Digital Skills

This research found that the application of artificial intelligence (AI) in the e-proposal creation process by the youth of Dukuhpicung Village has proven effective in improving the digital skills of the local youth. One of the main objectives of this training is to empower youth to actively participate in village development, especially in more structured and professional infrastructure planning. This training also emphasizes the importance of digital technology in increasing planning efficiency and accelerating communication processes between the youth, the village government, and other stakeholders. The research results show that the

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youth who participated in the training were able to understand AI concepts well and use this technology to strengthen arguments in the proposals they drafted.

In line with Gefner (2022) research, which shows that rural youth often lag behind their urban counterparts in mastering modern competencies crucial for professional identity and self-actualization in the digital economy, community involvement in village development planning is often hampered by a lack of technical skills and inadequate access to information. However, through AI-based training, these barriers can be overcome. The youth of Dukuhpicung Village have successfully created more interactive and persuasive e-proposals, a significant achievement compared to previous traditional methods. The use of AI in this process has enhanced the quality of the content produced, making the e-proposals more easily accepted by the local government and potential funders.

From the local government's perspective, the application of digital technology, particularly AI, is seen as a strategic step to accelerate decision-making processes related to village development. The Dukuhpicung Village government highly appreciates the results of this training, where the e-proposals produced were able to convey the village's infrastructure needs more clearly and in a structured manner. This aligns with Setiadi *et al.,* (2023) research, which highlights the role of digital literacy in community organizations, showing that skill enhancement can strengthen youth development and economic opportunities. Moreover, active youth participation is essential in creating stronger synergy with the village government. Prior to this training, many youths were not involved in the village planning process, largely due to a lack of knowledge and technical skills. However, after the training, their involvement increased significantly, both in drafting proposals and in discussions with the government regarding infrastructure development priorities. This success demonstrates the importance of the participatory approach applied in the training, which effectively increased the youth's involvement and contribution to village development.

The improvement in youth digital skills was also accompanied by a deeper understanding of audiovisual technology, which is a crucial component in e-proposal creation. Through the use of AI, the training participants were able to create more engaging and informative audiovisual content. This is in line with the findings of Martens and Hobbs (2015), who argue that media literacy education supports community participation by equipping young people with skills to critically analyze information and participate in public discourse. Thus, AI plays a role in improving the quality of presentations and the youth's ability to convey their ideas more effectively.

3.2 Building Synergy Between Youth and Local Government

Moreover, the results of this research show that AI not only helps in creating better proposals but also improves the effectiveness of communication between the youth and the local government. The village government reported that the proposals produced by the training participants were easier to understand and more convincing compared to previous proposals. This indicates that AI and audiovisual technology can enhance the effectiveness of communication among the parties involved in the village development planning process.

The collaboration between the youth and the local government during this training successfully created an inclusive environment where each party could express their views and ideas equally. This aligns with the research of Bennett and Hays (2022), which emphasizes the importance of innovative engagement methods, including the use of digital platforms, that should be integrated with traditional local governance processes to prepare youth for more effective civic engagement. The village government recognized that this participatory approach not only opened up more productive discussion spaces but also resulted in solutions that were more targeted and aligned with the actual needs of the village. Thus, this collaboration successfully strengthened the synergy between the community and the government in decision-making related to village development.

One of the indicators of the success of this training is the ability of the youth to access funding opportunities. Before the training, many of them did not know how to create proposals that met the funding standards of the government or external organizations. However, after the training, they were able to draft proposals that not only met the requirements but also successfully attracted the attention of potential funders. This proves that the improvement in their digital skills has a direct impact on their capacity to support the development of village infrastructure.

3.3 Increasing Efficiency and Access to Funding

The results of this research also revealed that the application of AI in the creation of e-proposals has added value in terms of time efficiency. Before the training, the proposal drafting process was time-consuming because it had to be done manually. However, with the help of AI, this process became faster without compromising the quality of the content. This efficiency allows the youth and the village government to focus on other aspects of development, such as the implementation of planned projects.

Additionally, the results of this research show that the application of AI not only helps in creating better proposals but also strengthens communication between the youth and the local government. The village government reported that the proposals

drafted by the training participants were easier to understand and more convincing compared to previous traditional methods. This demonstrates that the use of AI and audiovisual technology can enhance the effectiveness of communication between the parties involved in the village development planning process. This aligns with Nguyen (2022) view that effective communication between local governments and citizens is crucial for raising public awareness of their rights and responsibilities, especially in the context of the Fourth Industrial Revolution.

This training also created momentum for village youth to become more involved in the development of their communities. Previously, many of them felt that they did not have a significant role in the village planning process. However, after the training, they felt more motivated to contribute, as they saw that their involvement had a direct impact on the outcomes of village development.

Thus, this research proves that the participatory approach and the application of AI in e-proposal creation have a positive impact on village infrastructure development. Active youth participation, enhanced digital skills, and closer synergy with the local government are some of the significant outcomes of this research. These findings are expected to serve as a foundation for the development of similar programs in other villages facing similar challenges in drafting development proposals.

IV. CONCLUSIONS

The participatory approach research in the creation of AI-based e-proposals in rural areas shows that the application of artificial intelligence (AI) in drafting e-proposals has significantly improved the digital skills of the youth in Dukuhpicung Village. Youth who were previously less involved in village planning are now able to create more professional and persuasive proposals. The participatory approach applied during the training also successfully strengthened the synergy between the youth and the village government, creating more productive and inclusive collaboration. Additionally, AI helped accelerate the planning and decision-making process, providing benefits in terms of time efficiency and effective communication between the various parties involved.

The application of AI technology has also proven capable of expanding access to potential funding opportunities, with better proposals attracting the attention of potential funders. This training has created momentum for village youth to become more actively involved in their community's development, motivating them to continue contributing to future development projects. The conclusion of this research emphasizes the importance of integrating digital technology into the village development planning process, and encourages the development of similar training programs in other villages to improve the quality of local infrastructure.
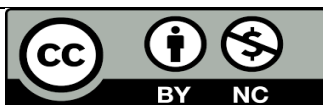
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