The Digital Village Initiative and Construction of Social Identity in Rural Communities

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ABSTRACT

In the digital era, access to information has become a fundamental aspect of daily life. However, rural communities—especially those in remote or mountainous areas—often face significant barriers in meeting this need. Melung Village, located in a mountainous region of Central Java, presents a unique case where residents independently developed internet infrastructure to improve connectivity and access to information. This grassroots initiative earned the village the nickname "Digital Village," raising questions about how such externally imposed labels influence local identity. This study investigates how the emergence of digital infrastructure in Melung Village contributes to the construction and negotiation of social identity within the community. Using an ethnographic approach, fieldwork was conducted to gather data through direct observation, interviews, and participation in everyday village life, with a focus on understanding the community's cultural perspectives. The findings reveal that while the digital infrastructure was initially built to address practical needs for communication and access to information, the external recognition of Melung as a "Digital Village" has gradually influenced how residents perceive themselves. Rather than intentionally branding themselves as digital citizens, the community has come to embrace the label as part of their collective identity—blending traditional rural values with a new sense of digital modernity. This study highlights how technological development in rural areas not only fulfills functional needs but also carries sociocultural consequences. It suggests that digital infrastructure can reshape not only village economies and governance but also local identity and self-representation in unexpected ways.

A.   INTRODUCTION

People's daily activities in the era of society 5.0 cannot be separated from digital devices. The emergence of Society 5.0 marks a significant shift in how societies conceptualize the integration of technology into daily life. Initially introduced by the Japanese government, Society 5.0 envisions a human-centered society that leverages advanced technologies—such as artificial intelligence (AI), big data, the Internet of Things (IoT), and robotics—not only to drive economic growth but also to solve complex social issues and enhance the overall quality of life. Unlike the previous stage, Society 4.0, which emphasized digital transformation and industrial automation, Society 5.0 seeks to balance

technological advancement with social well-being and inclusivity. It is marked by increasingly massive digital activity; for example, Google serves up to 5.7 million search keywords every minute, and TikTok videos are viewed by 167 million users every minute (Hutchinson, 2021). In addition, at least 500 hours of content were uploaded, and 694 thousand hours of YouTube videos were watched in one minute (Jenik, 2021). The current magnitude of digital traffic shows that people increasingly depend on digital media.

Information and communication technology development has various impacts on a community, where the presence brings every element of the community towards a change in civilization that leads to effectiveness and efficiency (Dirgatama et al., 2024). Such digital transformation has become an inevitable part of people's daily lives, bringing changes, posing new challenges, and creating opportunities for the evolution of a region. The progress of digital transformation is essential for the development of the concept of smart territories because digital technology is a core element (or meta-factor) that ensures the sustainable development of a region that makes an area more "attractive" to investors and creative and cultured human capital (Gorelova et al., 2024). Academics also understand digital transformation to be one of the steps towards improving the quality of life of the population, supporting economic development, and improving environmental sustainability in the context of the region (City, Village) (Laitinen & Piazza, 2020; Salkuti, 2021; Yigitcanlar, Han, et al., 2019).

The development of smart territories starts in urban areas, and this is because cities are extensive and permanent human ecosystems where the territory provides many services and infrastructure for its citizens. It is undoubtedly very different from the characteristics of rural areas, which greatly emphasize the use of natural resources. The availability of adequate infrastructure and various urban problems such as rapid population growth, urbanization, unemployment, and economic issues have made the development of smart territories in urban areas overgrow(Kumar et al., 2020; Yigitcanlar, Han, et al., 2019; Yigitcanlar, Kamruzzaman, et al., 2019; Zhao & Li, 2022).

The development of smart territories in urban areas is also slowly spreading to rural areas. In recent years, the concept of smart villages has received increased attention from researchers and practitioners, especially with the advancement of digital technology that allows interconnection between rural areas (Agustiono, 2022). The smart village concept is a new offer in the development of rural regions. The development of smart villages is one of the alternative village developments that has the potential to overcome village problems at least in several sectors such as government governance, village economy, village environment, energy resources, Human Resources (HR), Information and Communication Technology (ICT), village farmers and tourism (Hadian & Susanto, 2022).

An alternative smart village in solving this village problem is one of the bases for the government to create a program called Digital Village. Digital Village is a program that implements a government service system, community services, and community empowerment based on the use of technology. This program aims to develop the village's potential, market it, and accelerate access to public services. In this regard, six dimensions are the basis for preparing to become a Digital Village, namely village internet design, village internet infrastructure development, village network security, the role of the private sector in developing digital villages, the role of internet providers, and the role of local governments in distributing internet access (Antoni et al., 2023).

Several studies have examined how digital village programs are optimized in practice. For example, research in Cemani Village, Sukoharjo Regency, which is included in the 1000 Smart villages in Indonesia, explains several digitalization programs that target several aspects of people's lives, such as government administration, digital marketing, and promotion of village potential in the form of podcasts and digital studios (Mahendra et al., 2021; Puteri Eka Susilowati & Rachmawati, 2024). Another example is optimizing public services in rural areas, such as the Toba Regency, North Sumatra Province. The research explains that the use of digital media and digitization of public services are vital and urgent in the context of efficiency. However, these efforts must align with improving human resources as relevant stakeholders (Sihombing & Lumbantobing, 2024).

In another study, digitalization in rural areas also targets the economic sector. The community is increasingly familiar with and utilizes digital media to market their commodities. For example, in China, rural areas have experienced an increase in the economic field, especially in the number of sales by farmers to a broader range of consumers, so digitalization has a positive impact on the country (Liu et al., 2024). In China, the emergence of e-commerce in rural areas has been driven by two main factors: the distinct characteristics of market demand compared to conventional markets, and the transformative impact brought about by the presence of e-commerce itself (Zhang & Qiu, 2024). In some regions in Indonesia, even digitalization occurs and is practiced by the community, affecting changes in the population's livelihood. Although the changes in question have not yet occurred structurally, more or less, the livelihood of the population has shifted (Fikri Zul Fahmi & Mendrofa, 2024). In addition to affecting livelihood changes, several cases also show that digitalization affects the entrepreneurial attitude of village communities in viewing natural resources, commodities, and ethos in entrepreneurship (F Z Fahmi & Savira, 2023). The results of this research align with the research conducted in the previous year regarding e-Desa. The study explained that digitalization in the concept of a Digital Village encourages the optimization of village sustainability, increases the effectiveness of commodity marketing, and creates an intelligent economy. On the other hand, Digital Villages also promote the improvement and development of rural tourism that is developed and encourage the transformation of villages into Tourism Villages (Ermayanti et al., 2023; Fitriansyah & Nuryakin, 2021; Sudapet et al., 2023; Zulvia & Harahap, 2023).

In the sociocultural realm, transforming rural areas into smart and digital villages is a fundamental change in governance and optimization of village potential. In addition to bringing changes in government

administration, economy, and tourism, Digital Villages also bring sociocultural impacts to the community (Ermayanti et al., 2023). Research in Batang Regency, for example, explains that the concept of smart villages and digital villages brings sociocultural changes related to people's habits, such as service patterns and service requests that have shifted from analog to digital methods (Widiyarta et al., 2024). Other research, for example, emphasizes the importance of targeting local culture in developing digital villages or smart villages because each community develops typical life practices in each rural locus. This typical life practice is vital because one of the differences between urban and rural development is the involvement of community members, which is a crucial factor in rural development (Muhtar et al., 2023).

This study holds significant value in enriching both academic discourse and practical understanding of digital transformation in rural areas, particularly in the context of social identity construction among rural communities. Existing research on Digital Villages has largely focused on optimizing government administration (Mahendra et al., 2021), enhancing public services (Sihombing & Lumbantobing, 2024), developing the digital economy (Liu et al., 2024; Zhang & Qiu, 2024), shifting patterns of livelihood (Fikri Zul Fahmi & Mendrofa, 2024), and strengthening entrepreneurial ethos based on local resources (F Z Fahmi & Savira, 2023). Additionally, digitalization has been linked to promoting village sustainability, tourism development, and the transformation of rural areas into Tourism Villages (Ermayanti et al., 2023; Fitriansyah & Nuryakin, 2021; Sudapet et al., 2023; Zulvia & Harahap, 2023).

However, studies that explicitly explore how digitalization affects the construction of social identity in rural contexts remain limited. Digital transformation is not merely a technological or economic shift; it also entails changes in cultural practices, patterns of social interaction, and community members' perceptions of themselves and their environment (Muhtar et al., 2023; Widiyarta et al., 2024). Therefore, this research is crucial as it offers a new perspective — that digitalization in villages is not socially or culturally neutral, but rather deeply influences how rural communities reconstruct their social identity, roles, and internalized local values.

Considering the various dynamics, functions, and impacts present in developing digital villages as a new concept in rural areas. The researcher is interested in taking a deeper look at the significant influence of Digital Villages in the sociocultural realm, especially in forming people's sociocultural identities. Cultural elements are essential because, in many cases, culture significantly influences the growth rate and transformation of development in rural areas (Saharudin et al., 2021). Culture plays a vital role in society's rapid and slow acceptance of discoveries and development (Pudianti et al., 2016; Purnamawati et al., 2022; Rahmawati et al., 2023).

Accordingly, this study contributes theoretically to the growing body of literature on digital villages and community-based development, while also offering practical insights for policymakers and rural development actors. It highlights the importance of not only focusing on digital infrastructure and administrative efficiency, but

also on the underlying social dynamics. This research can serve as a valuable reference for designing digital village policies that are sensitive to social identity formation and rooted in local wisdom.

B. METHOD

This research uses qualitative methods, specifically ethnography, to explore the construction of social identity in rural communities affected by digital village initiatives. The research design in this study uses an ethnographic research design in one of the villages, namely Melung Village, Kedungbanteng District, Banyumas Regency, Central Jawa Province, Indonesia. Ethnography was selected for its ability to capture the lived experiences and social dynamics of Melung Village, allowing for a deeper understanding of how digitalization influences social identity formation, history, behavior, organizational functionalization, social movements, or kinship relationships (Fetterman, 2010; Strauss & Corbin, 1990; Susanto et al., 2024; Trundle & Phillips, 2023). Furthermore, with the ethnographic research design, data related to digital villages in the target villages of the research will be obtained in more depth. On the other hand, case study research design is widely believed to be helpful in the study of human affairs because the case study itself takes and pays attention to cases that naturally occur in society (Stake, 2000).

This method involves researchers directly involved in the research field with the community and actors who play an essential role in the digital village. Ethnography is intended to explore an issue with detailed boundaries, has in-depth data retrieval, and includes a variety of sources of information (Günel & Watanabe, 2024; Murdiyanto, 2020). In this case, the researcher will explore a particular phenomenon (case) in a time and activity and collect information in detail and depth using various data collection procedures during a certain period (Lincoln & Guba, 1985). In other words, researchers must observe and learn with their objects directly, listen to conversations, observe activities, understand ways of thinking, and understand data through informant narration. This is because the essence of the qualitative method itself is the use of informant knowledge, where the informant is determined purposively and interpreted by the researcher (Garna, 2009). The direct presence of researchers in the field is expected to be able to explore various data needed, especially in exploring the Digital Village in Melung Village, Kedungbanteng District, Banyumas Regency.

Informants will be selected using both purposive and snowball sampling techniques to ensure in-depth understanding from key individuals and broadened perspectives from their networks. Purposive sampling aims to target informants who are considered to know the necessary data so that the initial stage for selecting informants begins by asking for informant recommendations from the opening informant. Purposive sampling was chosen because of the ability and explicit purpose of exploring the data in depth from informants who know the data (Etikan et al., 2016).

The data in this study was collected using several techniques, such as observation and interviews. The

researcher made direct observations in the field, observing several aspects such as digitalization infrastructure facilities in the village, social interaction of the village community, people's daily lives, and the culture that was actualized in the community. The data collection technique using observation is aimed at seeing in more detail the mechanism of people's lives from an outsider's point of view with data preparation and analysis (Seim, 2021). Before making observations, the researcher gives prior approval and permission from the informants to observe; this is undoubtedly to enforce the ethical behavior of the research. As is known, in carrying out observations, researchers must also carry out ethical activities such as asking for consent, confidentiality, and privacy, complying with the principle of informant willingness, and practicing honesty and integrity (Eungoo & Hwang, 2021).

Data in this study were analyzed using a qualitative ethnographic approach, emphasizing a contextual and in-depth understanding of social dynamics in Melung Village. The analysis began with data reduction, where information obtained from observations, interviews, and field notes was selected and organized to focus on themes related to digital village practices and the construction of social identity. This was followed by data display through descriptive narratives and thematic mapping to illustrate patterns and relationships within the data. Conclusions were then drawn by interpreting these patterns and continuously verified through triangulation of sources, as well as member checking with key informants. Interpretation was carried out with strong attention to the socio-cultural context, ensuring that findings reflected the lived realities and values of the community. Throughout the process, the researcher also practiced reflexivity, acknowledging their role and positionality to maintain analytical integrity and cultural sensitivity.

C. RESULTS AND DISCUSSION

1. Melung Village as a Sociocultural Locus

Melung Village, one of the villages in Kedung Banteng District, Banyumas Regency. This village is located on the north side of Banyumas Regency and is directly faced with the geographical characteristics of the slopes of Mount Slamet, which tend to be hilly. Topographically, Melung Village has an average slope of 45% and is 400-700 meters above sea level (Pemerintah Desa Melung, 2023). The soil in Melung village has latosol characteristics and is made of andesite-type volcanic rocks. The daily climate in Melung Village tends to be chilly, with an average temperature of 20°C - 29°C. It makes the air in Melung Village feel relaxed during the day and freezes at night and in the morning. Such temperatures can be even colder during the dry season, reaching temperatures of 17°C - 21°C at night and in the morning. With low average temperatures and mountain winds blowing from Mount Slamet, it is widely known to make Melung Village shrouded in fog, especially in the morning.

Natural conditions with distinctive characteristics affect the life patterns of the people of Melung Village. Most of the residents of Melung Village make a living as farmers—

a small number of traders, private employees, and government employees. Although Melung Village is far from the traditional market, it is not uncommon for residents to bring produce to sell to the market. The existence of a tourist object initiated by the village government and the entire community in 2017, namely Pagubugan Melung, also made some residents choose to sell around the tourist object.

Every day, community members carry out their activities from morning to evening because most residents make a living as farmers, and rarely residents can be found at their homes during the day. During the day, most of the community members work on their land. As seen in Figure 1, both men and women collectively cultivate rice fields. Some residents own rice fields or fields, but some are only laborers and work in other people's fields. Agriculture in Melung Village includes rice farming, as well as most fields and yard land (moors). The yard land in Melung Village usually has plant characteristics that tend to be heterogeneous, and residents deliberately plant various types of trees with different commodities. It can be seen in Figure 1 that the residents' yard land is planted with multiple types of plants (polycultures) that have different fruiting periods. This is intended so that the produce obtained by residents can be evenly distributed throughout the year because the fruiting season or commodity harvest has a time difference. Intermediaries will sell or take most of the plants produced in the yard to the market. These plants include durian, rambutan, and cloves. Other fruits like jackfruit, bananas, and avocados will usually be sold directly to traditional markets. At certain times during the fruit season, such as durian, it is not uncommon for community members to sell it directly on the side of the road to attract buyers and tourists.

At night, Melung residents rest in their homes or participate in community activities such as RT meetings or recitations. This makes Melung Village feel very quiet at night. It is rare to see vehicles passing by at night. It differs from the daytime conditions, which tend to be crowded with residents' activities and tourist visits.

Figure 1.

Agricultural Activities and Yard Land in Melung Village. (Source: Researcher Documentation, 2023)

Most of the residents of Melung Village are Javanese. In their lives, Javanese values and culture are very attached to the Melung people. Every day, the people of Melung use the Javanese language, Penginyongan, to speak and interact with fellow residents. However, residents also use

Indonesian to communicate with tourists or residents outside Melung. Through observation, the *Penginyongan* language is also a language of familiarity, which brings together fellow community members, both the people of Melung and community members from outside Melung Village. In addition to language, some life rites are also based on Javanese traditions and customs, such as the tradition of earth alms. In this tradition, the people of Melung commemorate their ancestors' anniversary and struggle to open their village. In some places, as seen in Figure 2, there are also petilasan or traces of the ancestors of Melung Village residents who are still well-maintained and cared for. However, it does not mean the people of Melung Village cult petilasan or these old sites. For the residents of Melung, these sites are a medium to continue to remember the ancestors who have contributed to opening the village and spreading Islam in Melung Village. Some petilasan is located next to the center of residents' activities. For example, it can be seen in Figure 2 that there are two petilasan located at the Pagubugan Melung tourist site. It is a crowded place with tourists from outside the Melung area. However, there is no spooky or mystical impression surrounding the location because the residents can package it well. Residents explained that the site is a site of their ancestors' relics, so the historical element is put forward to increase the knowledge of tourists.

Figure 2.

Several Petilasan in Melung Village. (Source: Researcher Documentation, 2023)

Most Melung Village residents embrace Islam, and the spread of Islam in Melung itself has a long history. Melung residents understand that one of the founders of their village is the son of a great religious figure. One of the ancestors believed to have developed and built Melung Village in the early stages is R. Singo Guna, the son of Raden Kalioso, also known as Sheikh Abdul Djalal. Starting from that point, Islam was understood to have developed in the Melung area and continues to be practiced by the residents of the Melung community. The traditions described in the previous explanation are practiced using the breath of Islam. The chanted prayers are Islamic prayers that elders or elderly religious leaders recite. In addition, in every activity and interaction, the breath of Islam always envelopes the lives of the people of Melung. For example, when opening a meeting, it begins with a greeting or an Islamic opening. Islamic traditions such as tahlil, takbiran, maulud of the prophet, and *Isra'*

Mi'raj recitations are also carried out by the people of Melung.

However, the residents of Melung Village do not live in excessive fanaticism. This is evidenced by the openness of the Melung community to followers of other religions in the village. Near Pagubugan Melung, there is even a place of worship and pilgrimage for Catholics, namely Goa Maria. This place of worship is relatively large and is one of the centers of worship for Catholics in the Purwokerto area. Every Saturday and Sunday, this place of worship is crowded with Catholics from various regions, not only from the surrounding Melung community. Some of the met residents said they came from Karanglewas District (one of the sub-districts in the western region of the center of Purwokerto City, ± 15 km from Melung Village). The residents of Melung are so open to the conditions that occur that most of the community members take the positive side of visits from outside Melung Village. Residents think that the activities that take place can also grow the economy of the residents. Melung residents also believe everyone has the right to embrace their beliefs.

2. History of Melung Village as a Digital Village

On the other hand, the residents of Melung Village also have a progressive development outlook and are open to new things. For example, in 2007, the village head (Budi Satrio) led the installation of internet service installations that the residents of the Melung community can use. This step that year was not much thought of by other village leaders, but the head of Melung village at that time was highly concerned about access to information. Budi said that one of the reasons for installing internet installations is to open access to information from inside to outside Melung Village and vice versa. According to him, access to this information is critical to know how the development of areas outside Melung Village. Budi said:

> *"The word melung in Melung Village is interpreted far from anywhere. Now, we don't want that impression to be built by the wider community. We want to prove that even though Melung Village is far and geographically remote, we are not behind the others." (FGD for Residents of Melung Village, July 16, 2023)*

Through this understanding, the village head and residents are finally determined to set up a facility to provide them with information access. Even without formal assistance from the local government, the residents of Melung Village still try to invite technology activists and several providers willing to facilitate the needs of the residents.

Limited access to infrastructure and information sources and limited opportunities for the residents of Melung Village created collective awareness for the residents of Melung Village and the village government to start building technological facilities to access the Internet. Villagers have an intense determination to meet the need

for access to information that is so needed by the community. Within limitations, the villagers gradually built an internet network with the support of one of the largest internet service providers. However, most funding for installing this internet network is carried out independently. The Internet network installation is not easy and full of dynamics due to the hilly geographical conditions and the lack of an Internet network around the installation location. When installed, the internet speed was not as expected. The Internet network is so slow that even though citizens are starting to be able to access the Internet, it takes extra patience to open a browser or website. Sir. Budi (±63 years old), as the previous village head, revealed:

> *"We initiated the installation of the internet network independently at that time. There has been no assistance from the government. Everything is still self-help from individual funds. Installing an internet network is not as easy as we imagined due to geographical, technical, human resources, etc. At first, we installed an internet network in schools, but, generally, anyone can use it."* (Interview with Budi at FGD 1 on July 16, 2023).

The challenge that is no less complicated is the readiness of residents to use internet access at that time. Not all residents have a device to access the Internet when the Internet is installed. This initially made internet access well-used by village officials and village heads to provide information updates to residents. Information that used to be often accessed included the price of agricultural commodities, which was helpful to residents in providing bargaining value for commodities that residents would sell. Sir. Timbul, who is the village secretary and one of the people who participated in the initiation of the procurement of the internet network in Melung Village, said:

> *"The presence of the internet network at first did not change much in the lives of residents. In 2007, not many villagers had cell phones like now. So, in the past, we accessed the Internet using computers. The network is not fast, and you have to be patient. We used the Internet to find out what news was out there and the prices of vegetables and other crops because most villagers were farmers."* (Interview with Aris at FGD 1 on July 16, 2023).

In addition, other information concerns sociocultural, economic, and political news outside the village of Melung. The Internet provides open access to information for the residents of Melung Village. One of the young men said that the Internet made it easier to do lecture assignments if, in the past, the person concerned had to wait a long time to get books in the library. Internet access makes it easier and more efficient for students to access information related to assignments given by schools or colleges.

3. Digital Villages as Social Facts: A Functional Structural Analysis

The digital village, also known as the internet village in the people of Melung Village, Kedungbanteng District, Banyumas Regency, was formed from the needs of Melung residents for information. The digital village was initially a "product" of the practices carried out by the people of Melung Village. On the other hand, villagers do not necessarily name Melung village as a Digital Village or Internet Village. The naming or nickname at the next stage was pinned by the community "outside" Melung Village, which saw the social facts and uniqueness of Melung Village itself.

The social facts initiated by Emile Durkheim can be understood as various aspects of society that are outside the individual but are so influential in shaping the behavior of society itself. Social facts represent collective consciousness and group thinking (Erickson & Murphy, 2018). Furthermore, social facts are divided into two domains: material social facts and non-material social facts. Material and social facts such as architectural styles, technological forms, infrastructure, and other material elements can be understood. Meanwhile, non-material social facts can be understood by looking at the norms, values, and culture that apply to a society (Ritzer & Goodman, 2019). Although divided into two domains, material and non-material social facts are interconnected. Sociologists start their studies by focusing on material social facts, which can be understood empirically and lead to an understanding of non-material social facts (Turner, 2003).

Looking at the context of social facts from Emile Durkheim, it can be understood that Digital Villages are social facts with material and non-material dimensions. Durkheim (1892) explained that one form of material, social fact, is the form of technology and infrastructure. As previously described regarding the naming of the Digital Village, the naming of the Digital Village or Internet Village given by residents outside Melung Village is due to striking infrastructure and technology compared to the geographical conditions and surrounding villages. According to the residents of Melung Village, it is a village that is in hilly topographic conditions, so the infrastructure to capture the internet network was limited in 2007. Such conditions make Melung Village look striking when its residents succeed in building internet network infrastructure in the village.

On the other hand, the Internet network dramatically influences people's life practices and habits. Before the Internet network, the flow of information that the residents of Melung Village could receive was so limited that some community members had to go outside the village to get information about various things, such as the price of agricultural commodities. The presence of the Internet makes these habits gradually change. Community members represented by several individuals can find information about agriculture, economics, politics, and

others using the internet network. Although at the beginning of the presence of the Internet, not all residents could access it due to limited network speed, and there were still limited residents who had devices (computers, cellphones, laptops, etc.) to access the Internet. However, this infrastructure affects the pattern of practices and interactions that are built in the community. The fundamental function of meeting is the need for information forms a new collective representation of the importance of the internet network in the lives of citizens.

In another perspective, Digital Village is interpreted as a non-material social fact. It is based on several examples of non-material social facts expressed by Durkheim (1893), including morality, collective consciousness, collective representation, and group mind (Ritzer & Goodman, 2019). Although initially, the Digital Village could be referred to as a 'product', the purpose of building the Digital Village itself has aroused the collective awareness of the residents of Melung Village. The limitation of information felt by the Melung denizen then raised the residents' awareness about building facilities and infrastructure that support the availability of the internet network.

The infrastructure developed by the community has gradually generated new social impacts among the residents. One notable impact is the increased access to broader sources of information, especially from outside Melung Village. This has enhanced not only the flow of information but also contributed to greater efficiency in local governance and alignment with higher-level government policies. For residents pursuing education, the availability of digital resources has facilitated access to data and academic needs. However, these advancements have also brought unintended social consequences, particularly the rapid and uncontrolled influx of social media content from the wider society. The diverse nature of this information—ranging from credible to misleading—poses challenges to the community. Such exposure has begun to influence character development among both the mature and younger age groups within the village. This collective awareness then led to a new morality of the people of Melung Village. The rapid flow of information and the transition from the analog era to the digital age made citizens create new rules that did not exist before the Internet. The most straightforward example is awareness of information filtering. Some residents said that Melung residents were often almost deceived by hoaxes about religion. In Melung Village, there is a place of worship for Christians (Catholic and Christian), namely Maria Cave. Irresponsible individuals have used this religious sentiment several times to shake the solidarity and tolerance of the people of Melung. Finally, the residents agreed that if they get information from suspicious sources, it must be scrutinized and discussed by the residents first.

Melung Village as a "Digital Village" or "Internet Village" represents social facts that combine material and non-material dimensions in the context of the people of Melung Village. The striking internet infrastructure as a material aspect allows citizens more comprehensive access to information, meeting the basic need for previously limited information. On the non-material side, this internet network's construction awakens citizens' collective awareness to utilize technology daily, create new behavior patterns, and strengthen solidarity and tolerance, especially in responding to information. Social facts in Melung Village show that technological innovation meets practical needs and shapes new values and norms that are part of the community's collective identity.

4. Digital Village is a New Social Identity

A group or group can be understood as a collective consciousness arising from internal recognition and categories given from the outside (Jenkins, 2008). In this view, social identity is formed through individual involvement, a sense of care, and the pride felt for being part of that social group (Afif, 2012). Social identity is part of the self-concept that comes from an individual's understanding of their social group. It is formed through internalizing group values, active participation, and a sense of pride. However, in everyday life, group identity does not always require close personal relationships or getting to know each other (Afif, 2012). This reinforces this view by describing the nation as an "imagined community," where most members do not know or meet each other but share a sense of togetherness (Anderson, 2008).

In the case of Melung Village, the label "Digital Village" or "Internet Village" was initially perceived by locals as external recognition—a form of appreciation from outsiders for the village's successful grassroots efforts in establishing digital infrastructure. However, over time, this label evolved into a meaningful collective representation. While the naming did not initially carry strong cultural significance, repeated usage and reinforcement through everyday digital practices led the community to gradually accept and internalize this identity. The residents of Melung did not merely construct internet infrastructure; they began integrating digital tools into their daily lives, particularly in accessing and disseminating information. This active utilization of technology fostered a new pattern of behavior and reinforced the label they once viewed as temporary or symbolic.

This shift marks the construction of a new collective identity. Without deliberate planning, the community began to adopt new values centered on speed, connectivity, and informational literacy. The digital label became a marker of differentiation, a symbolic boundary that set Melung apart from other rural villages that lack similar infrastructure and digital engagement. In contrast to comparable villages with limited or no internet access, Melung residents demonstrated increased participation in digital communication, greater openness to external information, and stronger digital adaptation, leading to new social practices and a heightened sense of innovation and progressiveness. The identity of being part of a "Digital Village" thus not only differentiated Melung geographically but also positioned its people socially as forward-looking and connected—a key distinction in rural contexts where digital divides persist. This happens because identity directs how one identifies oneself in the process of identifying oneself with a group of people who are considered "us" and distinguishing oneself from many people who are considered "them" (Suparlan, 2005).

In summary, the social identity of Melung as a Digital Village was not imposed but evolved through repeated practice, community involvement, and gradual internalization. The process underscores how digital access can reshape self-perception, encourage collective pride, and establish a unique identity that distinguishes one community from another. The case of Melung demonstrates how digital infrastructure, when developed from within the community, can serve as both a tool for transformation and a foundation for reconstructing social identity.

D. CONCLUSIONS

The residents of Melung Village launched the Digital Village to meet the need for technology and information. However, the status of a Digital Village or Internet Village is not created by the people of Melung; it is an image built by the outside community. The outside community sees Melung Village as extraordinary because it can realize internet access in technological and geographical limitations that occurred at the time of the initial development in 2007. The social identity of Melung Village as a "Digital Village" is formed through the interaction between material and non-material social facts internalized by the community. Melung Village was initially dubbed the "Digital Village" or "Internet Village" by the outside community as an appreciation for the development of Internet technology. However, over time, the residents of Melung Village began to adopt and absorb this nickname, which can be seen not only from the development of internet infrastructure but also from integrating technology into their daily lives. This process shows that group identity can be formed from internal social dynamics supported by collective consciousness. Hence, the Melung Village residents identify as part of a community with unique characteristics that distinguish them from other groups.

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REFERENCES

Afif, A. (2012). *Identitas Tionghoa Muslim Indonesia Pergulatan Mencari Jati Diri*. Kepik.

Agustiono, W. (2022). Smart Villages in Indonesia in the Light of the Literature Review. *2022 International Conference on ICT for Smart Society (ICISS)*, 1–5. https://doi.org/10.1109/ICISS55894.2022.9915061

Anderson, B. (2008). *Imagined Communities: Komunitas-Komunitas Terbayang*. INSISTPress dan Pustaka Pelajar.

Antoni, D., Syamsuar, D., Pratiwi, M. P., & Agusman, A. (2023). Developing Conceptual Design of Internet Network for Digital Village. *2023 8th International Conference on Informatics and Computing, ICIC 2023*. https://doi.org/10.1109/ICIC60109.2023.10382101

Dirgatama, C. H. A., Permansah, S., & Rusmana, D. (2024). Understanding smart village concepts: digital literacy and mobile technology. *Journal of Education and Learning (EduLearn)*, *18*(3), 1007–1020. https://doi.org/10.11591/edulearn.v18i3.21293

Ermayanti, E., Indrizal, E., & Irwandi, A. (2023). Rural Tourism Development: Rumah Gadang As A Homestay In Traditional Village Of Nagari Sijunjung A Commodification. *Jurnal Antropologi: Isu-Isu Sosial Budaya*, *25*(1), 34–49.

Etikan, I., Musa, S. A., & Alkassim, R. S. (2016). Comparison of Convenience Sampling and Purposive Sampling. *American Journal of Theoretical and Applied Statistics*, *5*(1), 1–4. https://doi.org/10.11648/j.ajtas.20160501.11

Eungoo, K., & Hwang, H.-J. (2021). Ethical Conducts in Qualitative Research Methodology :Participant Observation and Interview Process*. *Journal of Research and Publication Ethics*, *2*(2), 5–10. http://dx.doi.org/10.15722/jrpe.2.2.202109.5

Fahmi, F Z, & Savira, M. (2023). Digitalization and rural entrepreneurial attitude in Indonesia: a capability approach. *Journal of Enterprising Communities*, *17*(2), 454–478. https://doi.org/10.1108/JEC-06-2021-0082

Fahmi, Fikri Zul, & Mendrofa, M. J. S. (2024). Digitalisation and Rural Livelihood Transformation: Evidence from Indonesia. *International Journal of Rural Management*, *0*(0). https://doi.org/10.1177/09730052231223822

Fetterman, D. M. (2010). *Ethnography: Step-by-Step*. Sage Publications.

Fitriansyah, F., & Nuryakin, C. (2021). Desa Digital dan Tingkat Literasi Keuangan Aparatur Desa: Studi Kasus Kabupaten Aceh Tamiang. *Jurnal Ekonomi Dan Pembangunan Indonesia*, *21*(2), 220–234. https://doi.org/10.21002/jepi.2021.14

Garna, J. K. (2009). *Metoda Penelitian: Kualitatif*. The Judistira Foundation dan Primaco Akademika.

Gorelova, I., Bellini, F., & D'Ascenzo, F. (2024). Understanding smart territories: A conceptual framework. *Cities*, *152*(105146), 1–13. https://doi.org/10.1016/j.cities.2024.105146

Günel, G., & Watanabe, C. (2024). Patchwork ethnography. *American Ethnologist*, *51*(1), 131–139. https://doi.org/10.1111/amet.13243

Hadian, N., & Susanto, T. D. (2022). Pengembangan Model Smart Village Indonesia: Systematic Literature Review. *Journal of Information System,Graphics, Hospitality and Technology*, *4*(2), 77–85. https://doi.org/10.37823/insight.v4i2.234

Hutchinson, A. (2021). *What Happens on the Internet Every Minute (2021 Version) [Infographic]*. SocialMediaToday.

Jenik, C. (2021). *A Minute on the Internet in 2021*. Statista.

Kumar, H., Singh, M. K., Gupta, M. P., & Madaan, J. (2020). Moving towards smart cities: Solutions that lead to the Smart City Transformation Framework. *Technological Forecasting and Social Change*, *153*(October 2017), 119281. https://doi.org/10.1016/j.techfore.2018.04.024

Laitinen, I., & Piazza, R. (2020). Smart City Community Engagement Through Learning. In M. Rehm, J. Saldien, & S. Manca (Eds.), *Project and Design Literacy as Cornerstones of Smart Education* (Vol. 158, pp. 177–180). Springer. https://doi.org/10.1007/978-981-13-9652-6_22

Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic Inquiry*. Sage Publications.

Liu, Z., Wu, H., & Badar, I. H. (2024). Impact of Rural Digital Economy Development on Rural Revitalisation—Evidence from China. *Sustainability (Switzerland)*, *16*(11), 1–20. https://doi.org/10.3390/su16114573

Mahendra, G. S., Gede, P., & Cipta Nugraha, S. (2021). Pelatihan Perangkat Desa Dalam Penggunaan Sistem Pengaduan Online Berbasis Web (Ec-Resolver) Untuk Menuju Desa Digital. *JMM (Jurnal Masyarakat Mandiri)*, *5*(3), 918–929. http://journal.ummat.ac.id/index.php/jmm/article/view/4993

Muhtar, E. A., Abdillah, A., Widianingsih, I., & Adikancana, Q. M. (2023). Smart villages, rural development and community vulnerability in Indonesia: A bibliometric analysis. *Cogent Social Sciences*, *9*(1), 1–25. https://doi.org/10.1080/23311886.2023.2219118

Murdiyanto, E. (2020). *Penelitian Kualitatif (Teori dan Aplikasi disertai contoh proposal)*. LPPM UPN "Veteran" Yogyakarta Press.

Pemerintah Desa Melung. (2023). *Profil Desa Melung*.

Pudianti, A., Syahbana, J. A., & Suprapti, A. (2016). Role of Culture in Rural Transformation in Manding Village, Bantul Yogyakarta, Indonesia. *Procedia - Social and Behavioral Sciences*, *227*(November 2015), 458–464. https://doi.org/10.1016/j.sbspro.2016.06.101

Purnamawati, I. G. A., Jie, F., & Hatane, S. E. (2022). Cultural Change Shapes the Sustainable Development of Religious Ecotourism Villages in Bali, Indonesia. *Sustainability (Switzerland)*, *14*(12), 1–15. https://doi.org/10.3390/su14127368

Puteri Eka Susilowati, A., & Rachmawati, R. (2024). Utilization of Digital Applications to Support Smart Village in Cemani Village, Grogol District, Sukoharjo Regency. *IOP Conference Series: Earth and Environmental Science*, *1310*(1), 1–12. https://doi.org/10.1088/1755-1315/1310/1/012011

Rahmawati, D. C. A., Mustofa, R. S., Damayanti, E. S., Khoiriyah, A., & Susanti, A. (2023). Digitalization of Local Culture to Build Smart Villages. *Proceedings of the International Joint Conference on Arts and Humanities 2022 (IJCAH 2022)*, 1775–1784. https://doi.org/10.2991/978-2-38476-008-4_192

Ritzer, G., & Goodman, D. J. (2019). *Teori Sosiologi Dari Teori Sosiologi Klasik Sampai Perkembangan Mutakhir Teori Sosial Postmodern*. Kreasi Wacana.

Saharudin, S., Sukri, S., & Arrozi, P. (2021). Penandaan-Kebahasaan Tentang Transformasi Sosial-Budaya Komunitas Adat Sade dan Pariwisata Selama Pandemi COVID-19. *Jurnal Antropologi: Isu-Isu Sosial Budaya*, *23*(1), 9–17.

Salkuti, S. R. (2021). Smart cities: Understanding policies, standards, applications and case studies. *International Journal of Electrical and Computer Engineering*, *11*(4), 3137–3144. https://doi.org/10.11591/ijece.v11i4.pp3137-3144

Seim, J. (2021). Participant Observation, Observant Participation, and Hybrid Ethnography. *Sociological Methods & Research*, *53*(1), 121–152. https://doi.org/10.1177/0049124120986209

Sihombing, T., & Lumbantobing, R. D. H. (2024). Digital technology adoption for village public administration—Evidence from Indonesia. *Journal of Infrastructure, Policy and Development*, *8*(4), 1–18. https://doi.org/10.24294/jipd.v8i4.3444

Stake, R. E. (2000). The Case Study Method in Sosial Inquiry. In R. Gomm, M. Hammersley, & P. Foster (Eds.), *Case Study Method* (pp. 19–26). Sage Publications.

Strauss, A., & Corbin, J. (1990). *Basics of Qualitative Research: Grounded Theory Procerdures and Techniques*. Sage Publications.

Sudapet, I. N., Sukoco, A., Setiawan, M. I., Salleh, F., & Razik, M. A. B. (2023). "e DESA, Sustainable Village, Intelligent Economy and Tourism." *ACM International Conference Proceeding Series*, 108–110. https://doi.org/10.1145/3624875.3624893

Suparlan, P. (2005). *Sukubangsa dan Hubungan antar-Sukubangsa*. YPKIK Press.

Susanto, P. C., Yuntina, L., Saribanon, E., & Soehaditama, J. P. (2024). Qualitative Method Concepts : Literature Review , Focus Group Discussion , Ethnography and Grounded Theory. *Siber Journal of Advanced Multidisciplinary*, *2*(2), 262–275.

Trundle, C., & Phillips, T. (2023). Defining focused ethnography: Disciplinary boundary-work and the imagined divisions between 'focused' and 'traditional' ethnography in health research – A critical review. *Social Science and Medicine*, *332*(May), 116108. https://doi.org/10.1016/j.socscimed.2023.116108

Turner, S. P. (2003). Emile Durkheim: Sociologist and moralist. In *Emile Durkheim: Sociologist and Moralist*. Routledge. https://doi.org/10.4324/9780203168257

Widiyarta, A., Haniyuhan, A., & Bataha, K. (2024). Transformasi Sosial Budaya Masyarakat pada Implementasi Program Smart Village dalam perspektif Smart Governance. *Reslaj : Religion Education Social Laa Roiba Journal*, *6*(4), 2030–2040. https://doi.org/10.47476/reslaj.v6i4.1903

Yigitcanlar, T., Han, H., Kamruzzaman, M., Ioppolo, G., &

Sabatini-Marques, J. (2019). The making of smart cities: Are Songdo, Masdar, Amsterdam, San Francisco and Brisbane the best we could build? *Land Use Policy*, *88*(September), 104187. https://doi.org/10.1016/j.landusepol.2019.104187

Yigitcanlar, T., Kamruzzaman, M., Foth, M., Sabatini-Marques, J., da Costa, E., & Ioppolo, G. (2019). Can cities become smart without being sustainable? A systematic review of the literature. *Sustainable Cities and Society*, *45*(June 2018), 348–365. https://doi.org/10.1016/j.scs.2018.11.033

Zhang, S., & Qiu, Z. (2024). Why is rural E-commerce successful? A sociological analysis of the mechanism for actualizing technological dividends. *Journal of Chinese Sociology*, *11*(2), 1–24. https://doi.org/10.1186/s40711-023-00205-5

Zhao, Y., & Li, R. (2022). Coupling and Coordination Analysis of Digital Rural Construction from the Perspective of Rural Revitalization: A Case Study from Zhejiang Province of China. *Sustainability (Switzerland)*, *14*(6). https://doi.org/10.3390/su14063638

Zulvia, P., & Harahap, A. S. (2023). Advokasi Digitalisasi Desa Dalam Pengembangan Potensi Desa Cibodas Lembang Sebagai Desa Digital. *RESWARA: Jurnal Pengabdian Kepada Masyarakat*, *4*(1), 518–525. https://doi.org/10.46576/rjpkm.v4i1.2501