

Deconstructing the digital media divide: Stakeholder dynamics and cultural tourism in Pasanggrahan Village, Purwakarta

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ABSTRACT

This research focuses on the communication interactions between the local community and the village government in Pasanggrahan Village, Purwakarta, regarding the use of social media in ecotourism development. Using a qualitative descriptive approach with 15 key informants, the findings are categorized based on key elements of the digital divide: access, frequency, and information and communication technology (ICT) skills. The results indicate that Pasanggrahan Village faces severe digital inequalities, characterized by limited physical access, unstable network connectivity, and low digital literacy. Consequently, residents primarily use social media for passive entertainment or basic communication rather than active ecotourism promotion, heavily relying on traditional word-of-mouth from past visitors. To bridge this multidimensional digital divide, the study integrates Jan van Dijk's Resources and Appropriation Theory with a Pentahelix collaboration framework, emphasizing the collaborative roles of local government, academic institutions, community members, private sectors, and media to transform local residents from passive consumers into active digital promoters of sustainable eco-cultural tourism.

Keywords: *Digital divide, ecotourism, social media, stakeholder, pasanggrahan village*

INTRODUCTION

The rapid advancement of information and communication technology (ICT) and internet proliferation have fundamentally transformed tourism promotion and stakeholder engagement. However, these technological developments are often unevenly distributed, creating a sharp digital divide between urban centers and rural areas. While extensive research explores digital marketing in mature tourist hubs, marginalized rural destinations frequently face structural barriers—such as unstable, weather-dependent connectivity and low digital literacy—that restrict local communities to passive media consumption. With the proper use of ICT, especially access to the internet, it will be able to become a key in economic growth, social development, and the empowerment of the less fortunate and will foster integration between social development and economic growth (Tisdell, 2017) (Tri Kurniawatik et al., Khaerunnisa, & Tasya, 2021). There are 132 million active internet users or around 52% of the total population, there are 129 million who have active social media accounts and spend an average of 3.5 hours per day consuming the internet via mobile phones (Kementerian Komunikasi dan Digital, 2023).

However, these developments in Indonesia are not evenly distributed. based on research by the Association of Indonesian Internet Service Providers (APJII), the largest

use of the internet in Indonesia is recorded to be dominated by the western region, especially the island of Java (Tri Kurniawatik et al., Khaerunnisa, & Tasya, 2021)(APJII, 2025). Even so, there are still many rural areas on the island of Java that are left behind in internet access. Technological developments in the field of communication are very dependent on the internet and the latest access has created inequality between people in cities and in rural areas. Remote villages are one of the State's major concerns for running internet network technology programs (Tri Kurniawatik et al., Khaerunnisa, & Tasya, 2021).

The development of information and communication technology has made people more familiar and have a high frequency with the internet, so that the communication media used are now growing and diversifying so that it also influences the development of social media. Internet users around the world have reached 5.07 billion people in October 2022 and account for 63.45% of the global population which totals 7.99 billion people. The number of global internet users increased by 3.89% in October 2022 compared to the same period last year, when there were still

4.88 billion internet users in October 2021 (wearesocial.com, 2025)

In the era of the internet like this, it shows that people cannot be separated from the internet in their daily lives. This also affects the way people communicate, which communicates more with comments or messages on social media (Lina & Permatasari, 2020). Social media users have also increased to reach 4.74 billion people in October 2022 which is equivalent to 59.32% of the global population and there are 190 million new users joining social media between October 2021 to October 2022 (wearesocial.com, 2025).

Internet and social media play a critical role in publicizing ecotourism within modern society. Based on a survey conducted by the Katadata Insight Center (KIC) with the Ministry of Communication and Informatics (Kominfo) in 2021, it was noted that 73% of the 10,000 respondents used social media to obtain information. With easy publication, many people will get information so they can get to know and be interested in ecotourism (Kementerian Komunikasi dan Digital, 2023). Based on a survey conducted by the Katadata Insight Center (KIC) with the Ministry of Communication and Informatics (Kominfo) in 2021, it was noted that 73% of the 10,000 respondents used social media to obtain information. Rather than serving as an isolated trigger, digital platforms act as critical information conduits that align with contemporary travel behavior, enabling eco-conscious travelers to discover and engage with sustainable destinations more effectively. Beyond basic publicity, digital media functions as an integral mechanism in ecotourism development through four interconnected dimensions: information dissemination,

destination promotion, stakeholder engagement, and community participation (Anwar et al., 2023). As an information dissemination channel, digital platforms provide real-time, accessible details on conservation guidelines, biodiversity, and sustainable practices, thereby fostering environmental awareness among travelers (Oza, 2024). For destination promotion, visual-driven social media platforms leverage digital storytelling to attract eco-conscious markets without relying on traditional mass-marketing channels (Munar & Jacobsen, 2014). Furthermore, digital media facilitates multi-directional communication that bridges diverse stakeholders—including governmental bodies, non-governmental organizations, and private operators—enabling collaborative governance and transparent policy-making (Sigala, 2016). Crucially, these technologies empower local community participation by giving indigenous residents direct access to global markets, allowing them to showcase

cultural heritage, manage local enterprises, and contribute directly to sustainable tourism decision-making(Ayeh et al., 2013).

Based on a survey conducted by the Katadata Insight Center (KIC) with the Ministry of Communication and Informatics (Kominfo) in 2021, it was noted that 73% of the 10,000 respondents used social media to obtain information (Rizaty, 2023). With easy publication, many people will get information so they can get to know and be interested in ecotourism. Ecotourism was born as a form of protest the mass tourism development model with an emphasis on environmental conservation, cultural preservation, community participation, economic benefits, and empowering vulnerable groups (Kaharuddin et al., Pudyatmoko, Fandeli, & Martani, 2020). Participation is an important thing for the community so that they can benefit from ecotourism development. Community participation in the planning process of ecotourism is essential for realizing sustainability(Zheng et al., Li, Yu, & Gao, 2021).

Tourism objects that develop with community support are a guarantee that the development and quality of tourism can continue to increase. Many tourist objects in various parts of the world have turned into ecotourism areas. Ecotourism and social media have become the object of research by several experts. Social media plays a significant role in shaping visitor perceptions and meaning in ecotourism, impacting ecotourism marketing and the relationship between ecotourists and the natural environment(Cheng et al., Wong, Wearing, & McDonald, 2017). Social media influencers are crucial in promoting ecotourism by sharing personal experiences, opinions, and recommendations about eco-friendly destinations, encouraging eco-friendly travel practices, and raising awareness about environmental issues(Yasin et al., Raza, Pembecioğlu, & Khan, 2023). The use of social media marketing and tourism events can help promote luxury ecotourism destinations, enhancing their image and reaching more customers(Asnawi, 2021).

Pasanggrahan Village is a village in the Purwakarta area, West Java, which has great resource potential for ecotourism in the education sector. The people in Pasanggrahan Village generally work as farmers and can provide knowledge to tourists in the fields of agriculture, culture and local wisdom(jadesta.kemenparekraf.go.id, 2023). The Pasanggrahan Villages rely on themselves for their management and development, including in the tourism sector. The higher the quality offered through tourism, both in terms of product and experience received by tourists, the quality of life of the local community will also increase. However, the existence of ecotourism in Pasanggrahan Village has not been optimally publicized. In the digital era that utilizes social media as one of the main methods for promotion, Pasanggrahan Village still utilizes word-of-mouth media from tourists who have come(Kemenparekraf, 2021).

Pasanggrahan Village possesses strong cultural tourism credentials anchored in West Javanese Sundanese heritage. According to official data from the Ministry of Tourism and Creative Economy and the Purwakarta Regency Tourism Office (2023), Pasanggrahan was selected into the Top 100 Anugerah Desa Wisata Indonesia (ADWI) due to its unique cultural assets. The village preserves traditional Sundanese architecture (Kampung Tajur rumah panggung), local agrarian lifestyle routines (such as traditional rice planting and harvesting rituals), traditional culinary heritage, and local wisdom-based eco-farming experiences. Prior to the pandemic, cultural tourism activities in Pasanggrahan attracted over 3,000 to 5,000 educational and cultural tourists annually, particularly students and cultural researchers seeking authentic immersive rural experiences(jadesta.kemenparekraf.go.id, 2023)(Kemenparekraf,

2021). However, these rich cultural assets remain underutilized in the digital sphere due to the prevailing digital divide.

While existing literature extensively conceptualizes the theoretical dimensions of the digital divide, it often remains limited to macro-level diagnoses without offering actionable frameworks on what can be practically done to resolve digital inequalities in marginalized rural destinations. Previous studies rarely operationalize how communities trapped in passive media consumption can transition into active digital promoters. To address this gap, this study moves beyond mere conceptual elaboration by establishing an actionable linkage: diagnosing structural barriers through Jan van Dijk's Resources and Appropriation Theory and resolving them through a pragmatic Pentahelix collaboration framework. Specifically, this study outlines what stakeholders must do—empowering local governments to expand network infrastructure, academic institutions to deliver targeted digital literacy workshops, and local communities to curate cultural assets—thereby transforming digital divide theory into a concrete roadmap for sustainable ecotourism development.

Digital in general is a transition from conventional things to something new with the use of technology and the internet. The internet has become a part of everyday life so that it is now able to change the way people communicate, collect and present information, and become an integral part of social space (Kellerman, 2014). With the use of the internet, now everything can be done digitally, for example, people can communicate with other people without meeting face to face, but only digitally by utilizing certain platforms. People not only use digital developments to communicate, but now people can shop, find entertainment, and even get promotional offers including in the tourism sector. Tourism is one of the largest, most profitable, and most dynamic sectors of the global economy which also has an impact on key sectors such as the economy, communications and various other sectors which have also experienced digital developments.

This development led to the emergence of social networks - sites aimed at forming a community of internet users (Meenakshi & Gupta, 2019). Digital development includes the development of social media. In the tourism context, people can freely and actively discuss many things including their experiences when traveling which can affect other people's assessment of these tourist attractions digitally which can have a direct impact on their sustainability. Everything and information can be directly shared instantly to other parts of the world that are digitally connected to the internet.

Digital developments also play a role in the development of tourism. However, everything certainly has a positive and negative impact, including in terms of tourism. One of the negative impacts caused by tourism is on the natural environment. Ecotourism is a tourism development concept that offers forms of tourism that are friendly to natural and cultural preservation (Meenakshi & Gupta, 2019). Ecotourism is a responsible form of tourism aiming to protect natural areas, promote environmental awareness, and bring economic benefits to local communities. It is a nature-based tourism activity that ensures the sustainability of natural resources and promotes the economic development of local populations (Esposito et al., Palumbo, & Lucidi, 2020) (Baydeniz et al., Çilginoglu, & Sandikci, 2024). In general, ecotourism is a tourist destination that pays attention to natural conservation which also has an impact on the

economy of local residents (Mu'tashim & Indahsari, 2021). Based on the definition of ecotourism above, it can be concluded that there are four aspects in implementing ecotourism that need to be considered, namely natural or cultural attractions, conservation, education, and local community participation (Mu'tashim & Indahsari, 2021).

Technological advances and the increasing use of digital communications have significantly affected various aspects of society, including the ecotourism industry. Digital communication has brought about changes in the way information is disseminated and shared, especially in the context of ecotourism destinations. Through platforms such as social media, websites and mobile apps, ecotourism managers can communicate information effectively about sustainable practices, environmental education, and local community involvement. Education and interpretation are crucial elements of the ecotourism experience, provided through various types of media by industry operators, government departments, and local communities (Ahmad, 2015). Through the media, ecotourism is promoted as providing a pleasant and relaxing holiday experience while protecting the surrounding ecosystem (Go et al., & Kang, 2020). In Indonesia, ecotourism has a fairly good level of development and even has destinations that are well known in various parts of the world, such as Ijen Crater, Rubiah Island, Tanjung Putting National Park, Raja Ampat, Komodo National Park, Way Kambas National Park, and many more.

Social media is defined as "forms of electronic communication through which users create online communities to share information, ideas, messages, and other content" (Selkie & Moreno, 2016). It is often described as interactive media that promotes exchange and modification of information between creators and consumers. Social media includes social networking sites such as Facebook, Instagram, and Twitter, accessible via web browsers or dedicated mobile applications (Advani & Gokhale, 2023). Social media can be defined as a group of internet-based applications that build on the ideological and technological foundations of Web 2.0, and which enable the creation and exchange of user-generated content (Selkie & Moreno, 2016). Social media continues to grow and its uses have also undergone changes, making the definition of social media also broaden. Social media has important characteristics and properties based on this definition, namely social media as a tool or platform and online media because it relies on information technology, social media is a communication channel that enables interactive web content creation, and users of social media links to form virtual communities by utilizing cross-platform that influence people's behavior and real life (Asha John, 2023).

Social media is playing an increasingly important role in many aspects of tourism, especially in information search and decision-making aspects, promotion, also focusing on the best processes and tactics for interacting with consumers through social media channels (Asha John, 2023). Utilizing social media to market tourism products has proven to be an excellent strategy. The emergence of internet-based social media technology has enabled tourists to share their experiences, including during ecotourism. Information shared can help other people's travel plans which ultimately influence travel decision making. In addition, social media can facilitate interactions between visitors and local communities, enabling the sharing of experiences and recommendations through reviews and visual content.

Social media which has become part of everyday life now has many functions besides communicating such as gathering information, doing business, and many others. There are lots of social media platforms that are very popular and provide an opportunity for other people to communicate with each other. Everyone and every tourism stakeholder such as tour guides, managers, entrepreneurs, to tourists use social media because of various useful features to achieve their goals(Runtiko et al., 2024).

Online marketing results in positively attracting more tourists towards the destination(Asnawi, 2021). Thus, it can be said that social media has succeeded in influencing the nature and scope, including people's decisions about their destinations. Advertising on social media in ecotourism has been projected and tested empirically and shows that a product or service for tourism can be marketed when an informative advertisement on social media is used, so that it will foster an optimistic attitude towards social media advertising, which can then create a positive tourist response(Ulfy et al., Hossin, Karim, & Anis, 2021). In this study, the results were in line with the research mentioned earlier, which means that social media has an effect on a person's perception in assessing and later deciding on destinations that in this study focus on ecotourism.

To systematically evaluate the digital inequalities present in rural tourism settings, this study adopts Jan van Dijk's Resources and Appropriation Theory, which conceptualizes the digital divide not as a simple binary gap of hardware ownership, but as a sequential, multi-stage process. The concept of the digital divide can be defined as the gap between people who have and do not have access to various forms of information and communication technology. The forms of

technology are computers and the internet(van Deursen & van Dijk, 2015). Research on the digital divide is an interdisciplinary activity that began around 2000 and mainly figures in communication, sociology, psychology, economics, and education science. In communication science, the main focus is access to and use of digital media. At the beginning of research on the digital divide, it was very focused on the meaning of narrow and limited access.

In simple terms, the digital divide means the gap between people who are digitally exposed and those who are not, and the extent of that digital exposure. It is very important to overcome the digital divide that exists in the digital communication era as it is today, because this gap can have an impact on the quality of interaction and communication between people. The digital divide has implications beyond the individual level and can impact social and economic development. Inequality in access to and use of digital technology creates disparities in education, skills and economic opportunities. This results in knowledge and information gaps, limited access to digital public services, and limited social and political participation.

It is imperative to address the digital divide through inclusive policies, digital training initiatives and community empowerment. In the context of developing ecotourism in countries such as Russia and Nepal, social relations within the local community play an important role. Ecotourism encourages interaction between tourists and local communities, promotes cultural understanding and provides opportunities for local economic development. Addressing the digital divide and understanding the social dynamics in ecotourism development are critical to creating sustainable and inclusive practices in this context.

Based on the studies, it shows that the factors influencing the digital divide can be classified into nine main categories: sociodemographic, socioeconomic, personal element, social support, type of technology, digital training, rights, infrastructure, and large-scale events (Lythreath et al., Singh, & El-Kassar, 2022). In simple terms, the digital divide can be classified into three categories which are key elements, namely access, frequency, and information and communication technology.

Access includes obtaining hardware such as computers and cellphones or other gadgets, and digital media software such as internet connections. Access is correlated with general demographics such as income, education, gender, and age. It is assumed that not having access causes social disadvantage or deprivation, so there is no tradition of media effects in digital divide research (van Deursen & van Dijk, 2015). Physical access is preceded by motivation, attitudes, and expectations of getting physical access. Physical access is not a single decision to adopt and buy a particular technology but an ongoing process of gaining access to new versions of hardware and software, peripheral equipment, and subscriptions. However, gaining physical access is impossible if one cannot use or utilize technology. Competence and skills are required to gain access. Examples are perceived benefits, ease of use, and subjective norms that influence behavioral intentions to gain access to digital media (van Deursen & van Dijk, 2015).

Access will not be separated from its main purpose, namely use. This can be interpreted as how much time is used or included in the frequency level. The more frequently and high frequency a person uses the internet, the more skilled he will be in using the internet. This includes the use of social media which is also growing by presenting many features. Of course, this cannot be separated from the influence of the development of information and communication technology which is also a key element of this research.

Recent studies on the digital divide in tourism have increasingly shifted focus from basic physical access to broader dimensions of digital skills and strategic usage (van Deursen & van Dijk, 2015). Prior research has examined the integration of social media in marketing ecotourism destinations (Cheng et al., 2017) (Yasin et al., 2023), the role of user-generated content in influencing tourist behavior (Go et al., 2020), and general ICT literacy in rural communities (Kaharuddin et al., 2020). However, most existing literature primarily investigates either urban digital marketing strategies or destination branding in well-developed tourist hubs where digital infrastructure is already mature. While extensive literature has explored social media marketing for established ecotourism destinations (Cheng et al., 2017) (Yasin et al., 2023) and general ICT adoption in rural areas (Kaharuddin et al., 2020), there remains a critical empirical gap regarding actionable strategies to bridge the multi-layered digital divide in emerging eco-cultural villages. Existing studies frequently assume a baseline of digital literacy and stable infrastructure, overlooking marginalized rural destinations that rely heavily on informal word-of-mouth promotion due to network instability and passive media consumption. Furthermore, research rarely details how multi-stakeholder collaboration can operationalize digital inclusion in eco-cultural contexts. To address this gap, this study not only evaluates the structural dimensions of access, frequency, and ICT skills in Pasanggrahan Village, but also proposes a pragmatic multi-stakeholder framework to transition local communities from passive digital consumers into active promoters of sustainable ecotourism.

Despite these valuable contributions, there remains a critical research gap regarding how structural digital inequalities (spanning access, usage frequency, and technical competency) manifest within emerging rural eco-cultural tourism

destinations that rely heavily on traditional word-of-mouth promotion. Specifically, limited attention has been paid to the specific stakeholder interaction dynamics between local village governments and rural communities in navigating digital divide challenges to promote cultural heritage. Existing studies often assume a baseline level of digital literacy, overlooking rural villages in developing contexts where internet connectivity is weather-dependent and social media usage is strictly restricted to passive entertainment.

To effectively conceptualize both the structural causes of digital inequality and the actionable pathways for resolution, this study synthesizes Jan van Dijk's Resources and Appropriation Theory with the Pentahelix Collaboration Model (van Deursen & van Dijk, 2015). Van Dijk's framework posits that the digital divide is not merely a binary issue of physical access, but a sequential, four-stage process comprising motivational access, physical/material access, skills access, and ultimate usage access. In marginalized rural settings, infrastructural deficits—such as network instability and limited hardware—create a domino effect that traps local communities in passive media consumption (e.g., entertainment) while preventing them from developing advanced digital skills required for strategic destination marketing. However, diagnosing these structural barriers alone is insufficient for fostering rural development. To bridge the gap between problem identification and practical intervention, this study incorporates the Pentahelix Model, which operationalizes digital inclusion through structured multi-stakeholder collaboration among government, academia, local communities, private enterprise, and media. By aligning Van Dijk's diagnostic stages with targeted Pentahelix interventions—such as academic-led digital literacy workshops and government-supported infrastructure expansion—the framework provides both a theoretical lens to evaluate rural digital disparities and an actionable roadmap to transition community members from passive consumers into active digital promoters (Van Dijk, 2017).

To address this empirical and theoretical gap, this study investigates the digital media divide in Pasanggrahan Village, Purwakarta, by evaluating the key elements of access, frequency, and ICT literacy. Furthermore, it explores the interactive roles of local government stakeholders and community members in overcoming digital barriers to enhance eco-cultural tourism. By bridging the gap between digital divide theory and rural tourism management, this research provides actionable insights for fostering inclusive digital transition and sustainable eco-cultural tourism in marginalized rural areas.

METHOD

This study uses a descriptive qualitative approach. Sugiarto explains that the data criteria in qualitative research are actual data and are not guided by theory, but by facts discovered during the research. Sugiyono wrote, among other things, that qualitative research is suitable for understanding the meaning of social phenomena that cannot be understood based on the speech and behavior of other people and for understanding social interactions. The technique used in this study is the interview technique (Dźwigoł, 2024).

This research was conducted by focusing on communication interactions that occur between the community and the local government who utilize social media related to ecotourism, so that they can find out how inequality and the use of social media have on the development of ecotourism in Pasanggrahan Village, Purwakarta. This research was conducted using data collection techniques in the form of interviews with the local

community and government of 15 people. The resource persons consisted of eight people who were the apparatus of the Pasanggrahan Village such as the village head, treasurer, secretary, hamlet head, and 7 other people who were the people of Pasanggrahan Village. The resource person was chosen because they have the same characteristics, namely wanting to develop and optimize the resources in Pasanggrahan Village to become ecotourism.

The data analysis technique used in this study is carried out by collecting data, organizing data, reading, recording, describing, classifying, interpreting, and presenting (Ridder et al., 2014). In this study, the data analysis technique was carried out in the following stages: data collection was the collection of interview transcripts, data organization refers to the key elements of the digital divide (access, frequency, and information and communication technology), recorded results, described the results of the recording, then classify the results and interpret the research results, and the last is presenting the findings and conclusions of the research.

To ensure data trustworthiness and validity, this study employed source triangulation and member checking procedures. Source triangulation was operationalized by cross-verifying the empirical interview responses gathered from the local community members with those obtained from the Pasanggrahan Village apparatuses, as well as comparing them against official local government documents (e.g., tourism site reports and ADWI village profiles). Furthermore, member checking was conducted by returning the summarized interview transcripts and thematic classifications to key informants (both village officials and community leaders) to confirm the accuracy, plausibility, and interpretation of their statements, thereby minimizing researcher bias and enhancing the rigor of the qualitative findings.

RESULTS AND DISCUSSION

Based on the main dimensions examined in this study, namely access, frequency, and information and communication technology (ICT), the interview findings were categorized according to these aspects. Concerning the access dimension, the interviews indicate that community members have access to social media; however, such access remains limited due to unreliable internet connectivity. This restricted access to digital technologies contributes to a low level of digital literacy within the community. Although residents of Pasanggrahan Village are familiar with the internet and social media platforms, their use and understanding of these technologies are still relatively limited. Despite the village's considerable potential for ecotourism development, local residents lack the knowledge and skills required to market and promote the village effectively and efficiently through digital channels.

To systematically synthesize the empirical qualitative data gathered from 15 key informants (8 village apparatuses and 7 community members), the findings are classified based on the core dimensions of the digital divide framework: access, frequency, and ICT skills. Table 1 summarizes the qualitative findings along with representative interview excerpts illustrating the challenges faced in utilizing social media for ecotourism promotion in Pasanggrahan Village.

Table 1. Matrix of Qualitative Interview Findings on Digital Divide Elements in Pasanggrahan Village

Digital Divide Dimension	Key Empirical Findings	Direct Interview Quotes (Empirical Evidence)
Access (<i>Physical & Network Infrastructure</i>)	Social media access exists but is severely restricted due to unstable cellular signals and weather-dependent internet connectivity. Village infrastructure lacks fiber-optic coverage, forcing reliance on limited mobile data.	"Our internet signal frequently drops whenever it rains, making it very difficult for us to upload photos or videos to promote the village ecotourism." Informant 3 (Youth Organization / Karang Taruna Member)
Frequency (<i>Usage Pattern & Behavioral Habit</i>)	High frequency of social media usage is limited to passive consumption (watching videos, messaging). Active utilization for strategic destination marketing and public engagement remains virtually non-existent.	"Most residents open YouTube or WhatsApp every day, but only for entertainment or chatting. We don't really know how to use it for marketing our village." Informant 1 (Village Apparatus)
ICT & Media Skills (<i>Capacity & Digital Literacy</i>)	Low digital literacy and content creation skills among residents and local management. Promotion heavily relies on traditional word-of-mouth (WOM) from past visitors rather than targeted digital campaigns.	"So far, promotion relies on visitors who have come here and shared their experience with friends by word-of-mouth. We lack the skills to design proper promotional content." Informant 9 (Local Community Member)

The people of this village know social media as a spectator, not as an actor promoting their ecotourism. Stakeholders in the village, namely the local government and the community, clearly see that Pasanggrahan Village has high value regarding ecotourism but is constrained by low community resources with media technology due to limited access. It can also be seen from the interview results related to the second key element, namely frequency, that the people of Pasanggrahan Village are already familiar with the internet and social media but are still not skilled so that the use of social media to communicate and publish ecotourism in the village is still not optimal. The people in Pasanggrahan Village still use social media only to communicate between residents and seek entertainment, not yet at the stage of utilization to increase public awareness of their ecotourism. Frequency greatly influences skills, so if people are not used to using social media to promote and publicize ecotourism, then people's skills using social media will not be as good as other regions. The local government and the community who are aware of this have tried to overcome these problems but have not been able to work properly due to limited access.

"Mobile phones are easy, what's difficult is the internet network" (Teh Yeni – Resident) and "If we use a provider whose transmitter isn't there, it will be hard to get a signal, but there is a WiFi solution from this office, although it's not available down in the hamlets" (Kang Syarif – Village Official).

Advances in technology, especially in the field of communication and media have been very developed. Communication media are very diverse and now heavily use the internet in its use. The development of communication does not only concern the delivery of information, but can involve various other areas of life such as social, cultural, economic, political, and various other aspects which then also develop and interact with each other to create development. Every development offers change, the impact of which on one region to another may be different, because the characteristics of one region to another are different. In Pasanggrahan Village, the development of information and communication technology has begun to develop but is still not optimal. Limited access and the low frequency of people using social media, especially in the field of ecotourism, also contributed to the development of information and communication technology which was slow and had low progress.

"As for Facebook nowadays, it's just like that, just as... well, roughly a day just as long as there's a chat... sometimes it's not needed... meaning it's still limited to when there's info" (Bu Ntin – Resident).

The digital inequality that occurs in Pasanggrahan Village means that the community is not used to being exposed to technology, including communication technology, especially social media, so that in communicating even in daily life as between village communities, they still prefer face-to-face meetings. This applies not only to the topic of their daily lives, but also to ecotourism.

"...the Village Head (Kades Adam) stated that he prefers a direct door-to-door approach or community meetings (musyawarah) together with local neighborhood heads (RT/RW). Furthermore, Kang Yosep explained that community education regarding tourism is conducted gradually—starting from building awareness of economic benefits and fostering solidarity before introducing digital promotion media."

Digital inequality that occurs in Pasanggrahan Village makes the people not used to being exposed to technology, including communication technology, especially social media, so that in communicating even for daily life as between village communities, they are still prefer face-to-face contact. This applies not only to the topic of their daily lives, but also to the ecotourism that the village is currently developing.

"Helpful, Alhamdulillah. So everyone knows about Kampung Tajur basically, from everywhere they will know, like that" (Teh Eli – Resident). (Explains how social media, despite its limitations, helps introduce Kampung Tajur to a broader audience).

"That is why I give advice to them, because the existence of communication and advanced tools nowadays can ruin our culture. Therefore, I am committed with the religious figures... not to erase our culture, because our village is a cultural village... we must maintain our culture in order to keep this village pristine" (Village Head Adam). (Highlights the dilemma between adopting digital technology/social media and the village head's commitment, alongside community figures, to protect local culture from erosion).

The empirical findings in Pasanggrahan Village strongly reinforce the digital divide theoretical framework proposed by van Dijk (Van Deursen & van Dijk, 2015), which asserts that access is not merely physical, but a multi-stage process involving motivation, physical access, skills, and actual usage. Although basic physical access to social media exists among residents, it remains severely constrained by unstable telecommunication infrastructure and weather-dependent connectivity. Consequently, this infrastructural barrier creates a ripple effect: it restricts usage frequency to passive consumption (entertainment and personal communication) and prevents the local community from acquiring advanced digital media literacy required for ecotourism promotion. Rather than transitioning into active digital creators, residents remain passive observers, leaving the village's rich cultural and educational ecotourism potential largely underpromoted in the digital sphere.

With the key elements of the existing digital divide and adjusted for the results of interviews with informants, the existing digital inequality is quite large between the Pasanggrahan Village and the urban areas. The key elements that are interrelated with each other show digital inequality which is quite complicated. This digital access is very dependent on the presence of the internet, while even simple technological infrastructure just to provide internet access tends to be minimal in villages which then results in village communities being left behind in the use of technology in various fields. In the field of communication, this inequality leads to digital inequality which makes people not familiar with the latest various communication media so that they still rely heavily on communication technology that has been lagging behind for a long time or even have a preference for face-to-face communication.

Local stakeholders have seen this as a problem that must be addressed immediately. The stakeholders in Pasanggrahan have tried to introduce social media as a bridge that can help convey information and communication more optimally. This again encountered a problem, namely very limited internet access. Only a few network providers are available which are often even weather dependent. The obstruction to digital access has also hampered ecotourism in Pasanggrahan Village. People don't know how to promote and what to promote on social media. Karang cadets in the village, as a generation that is more familiar with technology, have started using social media as a place to promote, but the development is also very slow.

Local stakeholders are trying to minimize digital inequality related to ecotourism by providing counseling and providing understanding so that ecotourism can be increasingly accepted by the community, but access, frequency, and information and communication technology are the key elements of the complex. Researchers also see that the problem of digital inequality is complicated enough to be solved only by local residents, it needs cooperation from outside parties to optimize their resources in the ecotourism sector by improving the quality of the internet and other network supports so that the key elements of digital inequality can be fulfilled and inequality is not getting higher.

This comparison shows that Pasanggrahan Village has not followed trends on the internet and must immediately overcome the existing digital divide. As echoed by local informants, while external tourists utilize visual platforms, the community's limitation in producing digital content forces them to rely solely on traditional word-of-mouth promotion from past visitors, hindering their ability to align with broader digital ecotourism trends. There is also another research that is used as a comparison, namely research entitled "The traces of ecotourism in a digital world: spatial and trend analysis of geotagged photographs on social media and Google search data for sustainable development" in 2020 which focuses on the development of ecotourism in the digital world (Go et al., 2020). The research found that people search for images for ecotourism more than web searches. A correlation was also found between ecotourism and sustainable development indicating that people tend to do Web and image searches using the terms ecotourism and sustainable development on Google. Ecotourism has been promoted as an effective form of tourism that implements sustainable development, these findings indicate that tourists perceive ecotourism to go hand in hand with sustainable development. The comparison factor in this research with this research is the implementation that occurs. Ecotourism in Pasanggrahan Village is a cultural and educational tour that is not easy to package and promote through pictures. The development of ecotourism in Pasanggrahan Village is also difficult to experience sustainable development due to limited access and promotion which relies heavily on tourists who have just come to share it word of mouth. This comparison shows that Pasanggrahan Village has not followed trends on the internet and must immediately overcome the existing digital divide.

To bridge this multifaceted digital divide and unlock the village's ecotourism potential, a strategic, multi-stakeholder collaboration is essential. Local community efforts alone are insufficient to overcome systemic infrastructural and educational deficits. A Pentahelix stakeholder model must be operationalized:

1. Local Government & Infrastructure Providers: Must prioritize expanding reliable cellular networks and public Wi-Fi hubs in key village areas to guarantee stable access.
2. Academic Institutions & External Experts: Should intervene by providing structured digital literacy programs and social media marketing workshops tailored for rural youth organizations (Karang Taruna) and local entrepreneurs.
3. Community & Local Stakeholders: Can actively curate authentic local wisdom, cultural heritage, and educational farming activities into compelling digital content.

By transforming local residents from passive consumers into skilled content creators, Pasanggrahan Village can reduce its reliance on traditional word-of-mouth marketing and establish a sustainable, digitally driven ecotourism ecosystem

Comparison with the digital divide theory shows that limited access to technological infrastructure and low skills in using social media are the main factors in digital inequality in Pasanggrahan Village. In the aspect of information and communication technology, developments in Pasanggrahan Village are less than optimal. The limited access and frequency of the community in using social media, especially in the field of ecotourism, has an impact on the development of information and communication technology which is slow and has low progress. Digital inequality

in this village means that the people are not used to being exposed to technology, so their communication prioritizes face-to-face meetings. This applies not only to everyday life, but also to the development of ecotourism in the village.

Local stakeholders have tried to overcome this problem by introducing social media as a more optimal means of communication, but have been hampered by limited internet access.

Collaboration between external parties and local residents is needed to improve the quality of internet infrastructure and other network supports to optimize ecotourism development and fulfill key elements in overcoming digital inequality.

Comparison with the digital divide theory shows that digital inequality in Pasanggrahan Village is quite large compared to urban areas. Inequality in technological developments and internet access affects people's ability to take advantage of the latest communication technologies. Efforts from local stakeholders to introduce social media as a more optimal means of communication are also hampered by limited internet access.

This research also identifies digital gaps in ecotourism in Pasanggrahan Village that are not in line with their ecotourism potential. This village offers interesting nature, culture and education for tourism. This conclusion shows that digital inequality in Pasanggrahan Village is still an obstacle in the development of potential ecotourism. Efforts are needed to increase access, frequency, and skills in using social media so that village communities can make optimal use of it in the promotion and development of ecotourism. Cooperation between external parties and local residents is also needed to improve technological infrastructure and minimize existing digital inequality.

Theoretically, this research extends van Dijk's digital divide model by demonstrating how infrastructural constraints interact with usage frequency and skill deficits in rural tourism settings. Practically, the findings serve as a strategic roadmap for local policymakers and village administrators to design targeted digital literacy initiatives rather than merely focusing on physical network distribution.

CONCLUSION

It can be concluded that there is a significant digital imbalance in Pasanggrahan Village related to the use of social media in ecotourism development. Through data analysis from interviews with informants, several important findings can be identified. Even though village communities have limited access to the internet and social media, they are still lacking in skills in utilizing them optimally. First, related to the key elements of access, it was found that public access to social media is still very limited and depends on an unstable network. Even though the people in Pasanggrahan Village are familiar with the internet and social media, limited digital access means that their knowledge of digital is also limited. As a result, the community does not fully understand how to promote their village effectively and efficiently. This causes them to know social media only as spectators, not as actors who play a role in promoting their ecotourism. The local government and the community realize the high value of ecotourism in Pasanggrahan Village, but limited technological resources and access are obstacles.

This inequality is also related to the low frequency of using social media to promote and publicize ecotourism in the village. The community prioritizes direct face-to-face communication, so they are not used to using social media in their daily activities, including in ecotourism development. although the people in Pasanggrahan Village are becoming familiar with the internet and social media, their skills in utilizing these

platforms to communicate and publish ecotourism are still not optimal. Social media is used only for communication between residents and entertainment, they have not used it to increase public awareness about ecotourism. This digital inequality is not in line with the attractive ecotourism potential of Pasanggrahan Village, so efforts are needed to minimize this inequality.

This study is limited by its qualitative scope, focusing exclusively on 15 key stakeholders in Pasanggrahan Village. Future studies could employ a quantitative or mixed-methods approach involving a broader sample of eco-tourists to measure the direct statistical impact of social media campaigns on tourist visit intentions.

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