

Community-Driven Digitization of Ancient Manuscripts: Communication Strategies and Organizational Practices in Wikisource Indonesia*

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Received: 13 October 2025; **Accepted:** 20 March 2026; **First Published:** 15 May 2026

ABSTRACT

This study examines the role of the Wikisource Indonesia Community, a volunteer-based organization, in digitizing ancient manuscripts. It explores the communication strategies and organizational practices that help the community manage this project. Using a qualitative approach, the research involved interviewing key members, including the founder, manuscript experts, and volunteers who are directly involved in the digitization work. Data was collected over seven months through in-depth interviews and participant observation, where the researcher attended meetings, recorded discussions, and observed digitization activities. The data was then analyzed to identify key themes and cross-checked for accuracy. The findings show that effective communication, both within the community and with external partners, is crucial for smooth coordination. The community stays connected using WhatsApp groups and Zoom meetings, even though members are spread out geographically. However, there were common challenges like miscommunication, technical issues, and leadership gaps. Despite these hurdles, a strong sense of identity and a shared commitment to preserving Indonesia's cultural heritage kept volunteers motivated. Regular updates and transparent decision-making also helped the community overcome these challenges. This study sheds light on how volunteer-driven projects can successfully preserve cultural heritage and highlights the importance of shared purpose and open communication in keeping volunteers engaged and motivated.

KEYWORDS

Community-based preservation; Digitisation; Organizational communication; Wikisource.

* Fathul Qorib was responsible for the overall research design, conceptualization, and lead writing of the manuscript. Hafidlatul Fauzuna and Noor Khalida Magfirah conducted the data collection, including the interviews with key members and participant observation of the digitization activities. Qurrotul Aini and Samia Elviria contributed to the literature review on organizational communication and the final editing of the manuscript. All authors have read and approved the final version of the paper.

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1. Introduction

Digitization of ancient manuscripts is important for preserving culture and knowledge, enabling manuscripts vulnerable to physical damage to be preserved and accessible to future generations (Fakhriati et al. 2022). Digitization expands public access to the information and knowledge in ancient manuscripts. In addition, digitization protects manuscripts from physical damage due to age and environmental conditions. The digitization of ancient manuscripts is growing rapidly in Indonesia. For example, the Aceh Library and Archives Agency has digitized 132 ancient manuscripts on various topics. The Wikisource Loves Manuscripts project has digitized more than 20,000 pages of manuscripts from Bali, Java and Sumatra. In Yogyakarta, WILMA digitized 33 manuscripts with over 8,000 pages (VOA Indonesia 2023).

In Indonesia, Wikisource plays an important role in the digitization of ancient manuscripts. Wikisource is a free library that includes source texts, translations, historical texts, and biographies, with approximately 3,955 publicly accessible texts (Wikisource Bahasa Indonesia 2024). Wikimedia and Wikisource digitize many manuscripts, including source texts, translations, historical texts, and author bibliographies. The Wikisource Loves Manuscripts (WLM) project has digitized Quranic manuscripts, gending manuscripts, and other Javanese manuscripts (VOA Indonesia 2023). By 2023, the digitization of ancient manuscripts continued to grow and involved projects across organizations and communities such as WLM, the Centre for the Study of Islam and Society (PPIM) and UNESCO, digitizing thousands of pages of manuscripts (Wikimedia Foundation 2023).

Data from the Grand Design of Nusantara Manuscript Management records 121,668 titles of Nusantara manuscripts scattered around the world, with 12,358 titles of ancient manuscripts in 23 languages in the archipelago that have been successfully digitized. This digitization effort includes digital conversion and involves physical treatment and systematic cataloguing to ensure widespread accessibility of the manuscripts (VOA Indonesia 2023). However, significant challenges still arise behind these advancements, particularly related to the lack of public interest and awareness that has led to low literacy of ancient manuscripts (Fischer et al. 2010; Sidhartani 2020). Despite the availability of digital technology, the adoption and use of digital platforms are still limited, which hinders the full utilization of digitization's potential (Arinta and Widyastuti 2024; Isnah et al. 2022). In addition, low information literacy further exacerbates the barriers to interacting with these valuable historical texts (Hadiati et al. 2024).

Several previous studies emphasize manuscript digitization's important role in protecting valuable cultural information from environmental damage and neglect. Digitization typically involves scanning, storing, and making manuscripts accessible online, thus expanding their reach to researchers and the general public (Fakhriati et al. 2022; Kuswara 2018). Libraries and museums have been key players in this effort, with institutions such as Reksa Pustaka Mangkunegaran and Museum Radya Pustaka Solo actively digitizing their collections (Marintan et al. 2024; Sadono et al. 2025). We can also see from the (Prameswari et al. 2024) works that digitization projects have grown globally, as reflected in the bibliometric analysis.

Digitization goes beyond protecting fragile documents from damage and loss; it also enables new ways of interacting with cultural materials, which supports sustainable heritage management (Abdoh 2025; Fanea-Ivanovici 2018; Kumar and Shah 2018). However, this process is not easy. It re-

quires the involvement of manuscript owners and communities to maintain cultural sustainability and knowledge transfer (Mengping 2023; Wibowo et al. 2024). Technological advances in image optimization and capture methods are improving how digitized manuscripts can be accessed and searched. However, challenges remain in preserving these manuscripts' original context and intangible cultural values (Chisita et al. 2021; Suryana et al. 2024). Successful digitization projects often rely on collaborative approaches, disaster preparedness, and effective information systems, underscoring the work's complex social and technological interactions (Che Hasssan et al. 2024; Nistane and Mishra 2024). However, the unfortunate thing about ancient manuscripts in Indonesia is that they are still stored in European institutions, so Indonesia needs to accelerate comprehensive digitization initiatives (Aimah 2021).

Despite these advances, important gaps remain, especially regarding the social dynamics and organizational processes that support digitization efforts, especially within volunteer-based communities like Wikisource Indonesia. Typically, digitization efforts succeed when the government supports them through official institutions and substantial funding (Wibowo 2023). On the other hand, community-based digitization is important to directly involve the community, which is not working as part of a job and earning money but voluntarily out of love for manuscript preservation. While many studies have focused on the technical aspects and institutional framework of digitization, little is known about how communication strategies among dispersed volunteers affect the efficiency and quality of manuscript digitization. In addition, while Indonesia's low public interest and digital literacy have been recognized as barriers to adoption, there is limited understanding of how community-driven initiatives can leverage collaborative communication and management practices to overcome these challenges.

This gap suggests the need to explore the human and organizational factors contributing to successful digitization, offering new insights to improve technology implementation and cultural engagement. Therefore, this research investigates the communication strategies and organizational practices the Wikisource Indonesia Community uses in digitizing ancient manuscripts, aiming to deepen the understanding of sustainable cultural preservation in the digital age. Specifically, this research examines how communication keeps volunteers connected and motivated during the digitization process and how day-to-day organizational practices overcome challenges to maintain smooth operations. In addition, it explores how these approaches foster cultural interest and public awareness of cultural heritage preservation in today's digital world. By focusing on these interconnected aspects, this research seeks to provide a comprehensive picture of what drives truly sustainable and meaningful digital preservation.

2. Literature Review

2.1 Digitisation of Old Manuscripts

Digitization of ancient manuscripts involves converting physical artifacts into digital formats through structured methodologies to preserve cultural heritage and increase accessibility (Sančanin and Penjišević 2023). This transformation reshapes how knowledge and culture are perceived and engaged with, giving rise to the concept of digital heritage, which supports innovative research and greater public interaction with historical documents (He et al. 2017). The initial stages typical-

ly include the selection of manuscripts for digitization, followed by high-quality scanning to produce digital images of the originals (Sporleder 2010). These images are then processed with optical character recognition (OCR) to convert into machine-readable texts, enhancing their searchability and usability in digital environments (Colavizza et al. 2019).

Following OCR, detailed metadata is created to capture visual and contextual information, ensuring effective categorization and management of digitized manuscripts (Pandey and Kumar 2020). Quality assurance through readability testing and validation by the digitization team helps maintain the integrity and accuracy of the texts. Once validated, these manuscripts are published on publicly accessible digital platforms, making them widely available for research and cultural engagement (Timofte and Van Gool 2013). Altogether, these interconnected steps represent a comprehensive process that balances preservation with accessibility, facilitating sustainable cultural heritage management in the digital age.

Significantly, digitization offers many advantages, including increased accessibility, but also presents challenges for cultural heritage institutions. According to Razali et al., the growth of community-driven initiatives emphasizes the importance of creating digital spaces that reflect the collective knowledge of local cultures (Razali et al. 2009). Such projects increase awareness and appreciation of cultural heritage and contribute to sustainable community engagement through technology-based platforms (Bruton 2011). Economic concerns remain as many digitization projects lack adequate funding, highlighting the need for a stable policy and cooperation framework to encourage digital preservation (Ahmad and Rafiq 2023; Singh 2012).

The digital preservation landscape continues to evolve with technological advances such as 3D modelling and virtual reality, which offer new ways to represent cultural heritage (Zou et al. 2024). The role of metadata systems becomes apparent as they ensure the long-term sustainability and accessibility of digitized manuscripts by organizing information for efficient searching (Hu et al. 2017; Masenya 2021). Digitization, therefore, acts as a protective measure for manuscripts and facilitates lasting engagement with the cultural narratives they contain, bridging the gap between past and present for future users.

2.2 Organizational Communications

Effective organizational communication is essential for coordination and collaboration at every stage of the digitization process. Organizational communication refers to the flow of information between different organizational levels and functions, including formal and informal channels (Bell and Leonard 2016). This communication is heavily influenced by the organization's culture, which shapes how messages are sent and received. A strong culture characterized by openness and transparency fosters an environment where employees freely share information and collaborate, which is an important factor, especially in complex digitization projects (Kocak and Pawlowski 2023; Laaksonen and Porttikivi 2021). As Kocak and Pawlowski emphasize, digitization requires collaborative engagement between different departments, which requires organizational structures to evolve and support new communication and collaboration methods.

There are two main types of organizational communication that are particularly relevant in digitalization: internal communication and strategic communication. Internal communication focuses

on interactions among employees and departments, ensuring that everyone is well-informed about digitization goals and progress, which helps drive engagement and inclusiveness (Badham et al. 2022). Meanwhile, strategic communication aligns overall organizational goals with digitization efforts, providing a framework to communicate effectively with all stakeholders and reinforcing the importance of the project (Badham et al. 2022; Mohamad et al. 2018). The increasing reliance on digital communication tools greatly affects organizational culture and communication effectiveness, requiring organizations to adopt innovative strategies to sustain meaningful dialogue and collaboration (Poltoratska et al. 2024).

Collaboration in digitalization also relies heavily on digital tools that facilitate communication and project management. Platforms like Slack, Trello, and Asana help overcome geographical barriers and enable real-time interactions among team members, streamlining workflows and increasing social capital through knowledge sharing and relationship building (Olaniyi et al. 2024). To navigate the complexities of digital communication, clear policies and guidelines must be established to organize interactions and ensure smooth project execution (Banghart et al. 2018; Knudsen and Nielsen 2019). Overcoming barriers such as organizational silos and resistance to change requires committed leadership to foster a culture that embraces innovation and values open communication (Abhari et al. 2021; Aris and Hassan 2023). Failure to integrate effective communication strategies can significantly reduce the likelihood of achieving digitization goals, highlighting the critical role of communication in this transformative process (Lock and Ludolph 2019).

3. Research Methods

This research uses a qualitative approach to explore how the Wikisource Indonesia Community communicates and organizes themselves while digitizing ancient manuscripts (Cresswell 2007). Primary data was collected through in-depth interviews with key informants, including the founder, manuscript resource persons, and community volunteers directly involved in the digitization activities. These informants were selected using a purposive sampling technique, ensuring that those interviewed were most competent and relevant to the research topic (Denzin and Lincoln 2009). The interviews provided detailed insights into the communication strategies and challenges faced by the community (Kallio et al. 2016; Rosenthal 2016).

Additionally, participatory observation was conducted over 7 months, during which the researcher actively engaged in community meetings, observed the digitization process, and documented ongoing activities. This extended observation helped the researcher understand the decision-making processes, communication flow, and collaboration dynamics within the community. Secondary data was obtained from meeting notes, event reports, and workshop summaries to triangulate the findings and ensure validity (Flick 2018). Table 1 below shows the list of informants and their roles:

Table 1. Research informants

No	Name Kode	Role
1	KAL	Founder of Wikisource Indonesia
2	DH	Wikipedia Indonesia Community Staff
3	EDN	Wikisource Community Contact Person 2023-2024
4	ARA	Volunteer 1
5	QW	Volunteer 2
6	AM	Wikisource Workshop Alumni 2023
7	SH	Wikisource Competition Participants 2024

Data analysis was performed by reviewing both primary and secondary data to gain a comprehensive understanding of the community's practices and challenges during digitization. The researcher utilized thematic analysis to examine the data, which allowed for a deeper exploration of communication patterns and insights into the decision-making processes within the community. The process began with data reduction, where the researcher sorted and condensed information to highlight key themes and relevant insights (Miles et al. 2020). Triangulation was applied to validate the findings by cross-referencing interview data with secondary documents, ensuring robustness and reliability (Flick 2018). Additionally, member checking was done by sharing interpretations with participants for feedback, and peer debriefing involved consulting with colleagues for objective critique to strengthen the trustworthiness and rigor of the findings (Elo et al. 2014).

4. Result

Digitization requires efficient workflows to manage elements in digitizing natural history collections and cultural heritage materials (Haston et al. 2012). High-yield workflows and advanced scanning tools ensure timely and accurate digitization (Hidalga et al. 2020; Willemse et al. 2020). Wikisource Indonesia is key to digitizing Indonesian literature and manuscripts, preserving documents, and making them accessible. Maintaining relevant metadata and contextual information ensures that digitized data can be correctly accessed and understood by future users (Mittal et al. 2022).

4.1 Dynamic Communication

In the study of organizational communication theory, various patterns regulate information flow within structures (Musheke and Phiri 2021). The chain pattern depicts a linear hierarchy; the Y pattern distributes from one source to branches, the wheel relies on a central individual, the circle facilitates adjacent exchanges, the all-channel allows direct interactions, and the network supports complex pathways (Joseph and Gaba 2020). In the Wikisource Indonesia community, the communication pattern resembles the all-channel pattern but with more flexibility. Members interact directly and transparently through WhatsApp groups, fostering a collaborative ecosystem based

on trust and openness. This platform allows dynamic exchanges where every voice is valued, and contributions are recognized.

“Since its inception, the Wikisource community has operated online with members from different regions collaborating on the addition and proof reading of texts. We hold monthly meetings to decide which manuscripts to digitise and initiate a wiki fund program to find and nominate manuscripts.” (Interview with EDN)

The Wikisource Community adopts a structured yet adaptive approach to manuscript digitization, enabling geographically diverse members to collaborate online. Monthly meetings serve as forums for text selection, while initiatives like the “wiki fund,” which provides cash allowances, credit replacements, activity consumption, and souvenirs, further support member participation. This flexible and supportive communication model ensures effective resource management and active involvement from all members.



Figure 1. Flowchart of dynamic communication patterns in Wikisource Indonesia

Communication in these organizations occurs dynamically through various communication technologies such as WhatsApp, Zoom, and Google Meet. Instant messaging groups allow members in remote locations to connect and collaborate effectively. In addition, video conferencing platforms such as Zoom and Google Meet are used for online meetings, which support in-depth discussions and coordination between members from different locations so that the flow of information remains smooth and volunteers can actively engage. These diverse communication technologies also create flexibility and increase efficiency in collaboration (Dornelles et al. 2022). WhatsApp groups facilitate direct and equal communication, while Zoom and Google Meet provide spaces for more structured virtual meetings. This combination strengthens members’ integration by ensuring they can participate in meetings and discussions without geographical restrictions.

The advantage of dynamic communication over other organizational communication models is its ability to effectively overcome distance and time constraints. Modern communication technologies enable real-time interaction and collaboration without the need to meet in person, which is especially important for organizations with members spread across multiple locations. This

approach speeds up the flow of information. It increases engagement and responsiveness, making it more adaptive and efficient than traditional communication models, which are often hampered by physical and temporal limitations.

“Although KWI (Wikisource Indonesia Community) has a number of social media such as Gmail, Facebook, X, Instagram, and Telegram, none has been able to replace the role of WhatsApp groups as the main medium of internal communication” (Interview with EDN)

WhatsApp is still the leading choice for internal communication in the Wikisource Indonesia Community despite the availability of various other digital platforms such as Gmail, Facebook, X, Instagram, and Telegram. This is due to WhatsApp’s ability to facilitate quick, informal, and accessible communication for almost all community members. WhatsApp groups provide a simple yet effective conversation space, allowing daily coordination, light discussions, and instant responses without technical barriers. With high user familiarity, WhatsApp creates an essential sense of closeness and connectedness within the volunteer community. However, if not accompanied by adequate structure, this highly fluid communication risks diluting the focus on task completion.

While the fluid communication at Wikimedia Indonesia supports good connectedness, it often causes members to lack focus on task completion. Organizations need to set clear goals and responsibilities and use a project management system to remedy this. Regular meetings and progress reports can increase accountability and ensure members stay on track (Oghuvbu et al. 2022). In addition, structured communication tools help to collate information better. Wikimedia Indonesia can maintain effective communication with this approach while achieving optimal work targets. Appreciation for achieving targets shows promising results from members’ collaboration and dedication.

4.2 The Manuscript Digitisation Process

The process of digitising ancient manuscripts on Wikimedia, especially within the scope of the Wikisource Indonesia community, is a structured and systematic collaborative activity. The initial stage of this process begins with scanning the selected manuscripts, which is then followed by data collection and categorisation of the manuscripts. Each scanned manuscript is uploaded to the Wikisource platform, where it is ready to be read by community members. The monthly community meeting is crucial in determining which manuscripts will be prioritised for read-testing. During the meeting, community members vote to select the manuscripts targeted for digitisation that month.

Once the text has been selected, community members jointly conduct a reading test to ensure the quality of the digitised text. This reading test process not only verifies the accuracy of the text but also ensures that it is free of typographical errors and complies with the standards set by Wikisource. This activity is reinforced by read-testing competitions, workshops, and other activities designed to increase participation and the quality of digitisation. Each member is expected to make at least two edits per week, with the contact person actively providing regular reminders and recaps of edits to ensure member engagement and project progress.

“We support manuscript conservation by proofreading and digitising ancient, copyright-free manuscripts on Wikisource, making them accessible to all. We also hold competitions, online meetings, and reading programs to speed up digitisation.” (Interview with KAL).

“The Wikisource community operates online, editing and proofreading manuscripts. We discuss and vote on monthly digitisation targets in meetings and have a wiki fund activity where participants find manuscripts to digitise.” (Interview with ARA).

As such, the manuscript digitisation process at Wikisource Indonesia reflects an efficient cooperation model where digital technology and open communication are key to preserving Indonesia’s literary heritage. Through community members’ hard work and dedication, Indonesia’s ancient manuscripts have been saved from physical damage and made more accessible to the broader community, enriching the nation’s treasure of knowledge and culture.



Figure 2. Diagram of the manuscript digitisation process

The chart above illustrates the flow of the manuscript digitisation process in the Wikisource Indonesia Community. The process begins with selecting manuscripts to be digitised; then, the manuscripts are scanned using a special scanner. The scan results are recorded and categorised based on relevant information. After that, the manuscript is read-tested and validated by the team or community involved. The final stage is the publishing and announcement of the digitisation results through a digital platform that the public can access. Each stage requires good coordination and collaboration to achieve optimal results.

Manuscript digitisation by the Wikisource Indonesia Community uses a collaborative and participatory approach. The community uses digital technology to scan, record, and categorise copyright-free ancient manuscripts. Community members conduct the reading test and validation process spread across different regions, allowing for broad and diverse engagement. WhatsApp groups and monthly online meetings facilitate communication and coordination between community members. With this approach, the Wikisource Indonesia Community accelerated the digitisation process and ensured that the public could access and utilise ancient manuscripts in digital form.

4.3 Challenges of Manuscript Digitisation

The challenges and obstacles in the management of manuscript digitisation by Wikimedia Indonesia are diverse and complex, covering technical, structural, and communication aspects between members. Technical barriers are one of the main challenges, where accounts are often difficult to log in to, and there are technical differences between one volunteer and another (Pandey and Kumar 2020). Added to this is the lack of technical knowledge of the contact person, who sometimes doesn't realise or know how to solve problems faced by members.

“Communication in the community is sometimes hindered by overlaps between the roles of Community Staff and GLAM Staff, leading to miscommunication. On the other hand, strong member-to-member communication has been supported by a consistent contact person over time. The main challenge lies in exchanging opinions and the varied response times due to members' activities and Indonesia's time zone differences,” (Interview with DH)

Communication within Wikimedia Indonesia faces particular challenges, particularly in coordinating roles between the Community and GLAM (Gallery, Library, Archive, and Museum) staff. While platforms such as WhatsApp and the existence of long-standing contact persons support member interaction, overlapping responsibilities and unclear divisions of tasks often create friction—especially when activities require collaboration across structural boundaries. This internal ambiguity becomes more pronounced in digitization projects, where differing organizational hierarchies and job descriptions between community and GLAM staff contribute to misinterpretations and delays. The situation is further complicated by Indonesia's vast geography and spread of time zones, which hinder synchronous communication and slow collective responses. As volunteers operate across islands with varying daily routines, aligning efforts in real-time is a constant coordination challenge.

The delivery of messages through contact persons, while considered good enough, also faces obstacles. The speed of response often depends on the activities of individual members and the time difference in Indonesia. This poses a challenge in ensuring that information is received and understood correctly by all members. Direct feedback from community members is very helpful in facilitating the communication process. However, challenges arise when the feedback is not responded to quickly or is not implemented properly. This can cause frustration among volunteers and hamper the digitisation workflow.

Message evaluation is crucial to avoid misunderstandings, but monthly evaluation meetings often lack follow-up, leading to repeated mistakes. Introductory media like WhatsApp, Instagram, X, and Telegram help disseminate information, but not all members are active on all platforms, causing communication gaps. While Wikimedia Indonesia's funds, allowances, and souvenirs motivate volunteers, maintaining long-term enthusiasm is challenging. To ensure smooth digitisation, the community must increase sensitivity to miscommunication and improve the communication flow, requiring joint efforts from all members.

“To reduce communication barriers, we have a strategy that we members enter the community through invitation, so when you have participated in wikisource activities and diligently edited at home, you will receive an email invitation from the contact person to join the community. So it is certain that the members

are consistent and not toxic. For the language itself, we use Indonesian, both in the WhatsApp group and during meetings.” (Interview with ARA).

To strengthen this communication ecosystem, Wikimedia Indonesia could consider developing a unified and inclusive communication framework that combines informal channels with structured documentation and more precise follow-up mechanisms. As mentioned by the informant above, an invitation-based membership system helps ensure that community members are consistent, active, and non-toxic, creating a more focused collaborative environment. Using Indonesian in WhatsApp groups and meetings also reduces potential language barriers. However, to prevent communication gaps and ensure that feedback is acted upon effectively, the community must build shared tools—such as collaborative workspaces, shared calendars, and task-tracking systems—that support transparency and sustainability. These additions can reduce over-reliance on individual contact persons and encourage a more responsive and coordinated digitalization process.

5. Discussion

The study results show that organizational communication in the Wikisource Indonesia Community plays a role beyond simply exchanging information; it is a social mechanism that maintains motivation and strengthens trust among geographically dispersed members. Democratic selection of contact persons in community meetings creates a sense of ownership and collective responsibility critical to maintaining volunteer engagement. This open and transparent organizational culture supports a smooth flow of information and inclusive decision-making, allowing the community to adapt to challenges arising during digitalization. This emphasizes that effective communication in volunteer-based communities is formal, flexible, and oriented towards close interpersonal relationships (Reed and Hagen 2025). The roles of internal and strategic communication in this community complement each other to maintain smooth operations and build a shared vision. Internal communication via WhatsApp and Telegram ensures that all members understand the goals and progress, reducing the potential for miscommunication and increasing a sense of inclusivity (Estrada Molina 2022). Meanwhile, through meetings and official announcements, strategic communication confirms long-term goals and strengthens the commitment of all members to the digitalization project. This two-way communication dynamic balances the need for technical coordination and the strengthening of shared values so the community can function effectively even though its members are widely dispersed.

Using digital collaboration tools such as WhatsApp and Telegram has proven highly effective in overcoming geographical barriers and time zone differences. These tools enable real-time interactions that accelerate workflow, fostering social capital through knowledge exchange and interpersonal relationships. Interview data reveal that these technologies do more than facilitate technical tasks; they also strengthen social bonds among members, which is crucial in volunteer-based communities. This finding supports the notion that the success of digitization initiatives heavily relies on integrating technology with a resilient and adaptive social culture (Miceli et al. 2021). Furthermore, these platforms’ ease of access and familiarity contribute to sustained engagement, allowing members to collaborate flexibly despite physical separation.

Although communication within the community functions effectively overall, several challenges remain, including miscommunication between Wikimedia and GLAM staff, delayed responses, and limitations in the leadership skills of coordinators. These obstacles highlight the need for targeted communication training and conflict management development to enhance community leadership capacities. A deep understanding of social dynamics and technical constraints is essential to ensure that the digitization process proceeds smoothly without significant disruptions. Proactive efforts to cultivate interpersonal skills and formal communication competencies are necessary for the community's resilience and growth amid the complex environment in which they operate (Hobgood et al. 2002; Zamiri and Esmaili 2024). Addressing these gaps can substantially improve decision-making efficiency and overall project outcomes.

The aspect of community identity also significantly contributes to communication effectiveness. The philosophy and symbolism embodied in the community's logo reflect shared values, strengthening a sense of togetherness and collective purpose. This shared vision motivates members to contribute consistently despite operational and geographical challenges. Effective communication within this community transcends mere functionality; it also fosters emotional bonds that enhance social cohesion and reinforce volunteers' commitment to digital cultural preservation. Moreover, the strong collective identity stabilizes during periods of uncertainty, enabling the community to navigate challenges collaboratively. Such identity-driven communication creates a resilient social fabric that sustains long-term engagement and fosters a culture of mutual support.

From a management perspective, this study confirms that the success of community-based digitization requires a combination of effective communication, collaborative technological support, and leadership that fosters a culture of innovation and openness. Organizations seeking to replicate this model must prioritize communication training and develop inclusive digital systems to ensure all stakeholders can fully participate and contribute to heritage preservation efforts (Chisita et al. 2021; Micle et al. 2023). Furthermore, cultivating leadership that embraces adaptability and encourages continuous learning is essential to navigating the evolving challenges of digital transformation. Institutional commitment to these elements is crucial in building sustainable frameworks empowering communities to manage cultural assets digitally.

6. Conclusion

Overall, organizational communication within the Wikisource Indonesia Community is a strategic element that bridges people, technology, and culture. This communication facilitates information exchange and nurtures a sense of shared purpose and collective identity crucial for volunteer engagement. The inclusive, adaptive, and participatory communication approach becomes essential in overcoming challenges and ensuring the sustainability of cultural heritage preservation in digital form. By fostering open dialogue and continuous feedback, the community can respond effectively to evolving needs and maintain cohesion despite geographical dispersion. Thus, this study reinforces that digitizing ancient manuscripts is not merely a technical transformation but a social one, requiring thoughtful communication management focused on community building. This study examines the pivotal role of the Indonesian Wikisource community in preserving national literary heritage through the digitization of ancient manuscripts. The collaborative efforts of community members demonstrate how digital technology, combined with traditional preservation

methods, can create a widely accessible digital archive that maintains the integrity of the original texts. This inclusive and participatory approach improves the quality and efficiency of digitization and strengthens community social ties, thereby fostering meaningful synergies between cultural preservation and sustainable community development. These findings underscore the importance of a well-organized community framework in addressing manuscript preservation challenges and promoting open access to cultural knowledge.

However, this study has limitations, particularly its focus on a single community, which may limit the generalizability of its findings to other social and technological contexts. The reliance on interviews and participant observation as primary data collection methods may not fully capture the complexity of communication dynamics and challenges faced during digitization. Moving forward, there is an urgent need for more comprehensive studies that build on these findings. Future research could involve comparative analysis across multiple digitizing communities, using mixed methods such as ethnographic observation and social network analysis to understand communication practices and their impacts better. Such work will help identify best practices tailored to diverse contexts, particularly for local communities seeking to preserve their cultural heritage through digital means.

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