

Digital Literacy Empowers Rural Communication-regarding Guizhou Province, China

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ABSTRACT

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The study is based on analysing the impact of digital literacy impacting the rural communications of Guizhou Province. The study aimed to understand how digital skills among rural people of Guizhou Province influence their communications. The study examines the benefit of digital literacy to bridge the communication gaps of the region. Despite the inclusion of digital infrastructure, the rural areas of the province experienced the digital divide, especially among middle-aged people, as informed by the interview participants. Through the implementation of relevant secondary literature and interview-based methods, the study demonstrates how digital literacy supports the rural inhabitants to access online applications and services, engage in political discussion, raise their voice against minority issues, and promote local culture on the global platform. The study findings reveal that digital literacy not only empowers rural communication but also supports the marginalised communities to strengthen their agency in socio-political discourse.

Contribution/Originality: The study employed a qualitative methodology that increased its relevance by interviewing residents of Guizhou Province to record their unique experiences. The research findings demonstrated how digital literacy revolutionized rural residents' lifestyle, communication, and belief systems. The study contributes to the understand of how digital literacy among the rural people of Guizhou Province fosters their communication.

1. Introduction

Digital literacy has become a basic necessity in this digital age, emerging from communication to socio-economic and political development. Rural residents' availability of internet access and digital proficiency was restricted by the digital gap

between rural and urban areas (Tahmasebi, 2023). In order to solve the issue, digital literacy plays a crucial role in making a change in the transforming information landscape. From August 2017, the International Federation of Library Associations' Digital Literacy Declaration considers that the ability for individuals to utilise digital tools effectively to advance both individual and societal development is referred to as digital literacy (Yi & Siqian, 2025). Digital literacy refers to the effective use of digital tools such as smartphones, computers, and the internet, which are required in determining how individuals engage with the world. According to Braesemann (2022), if there are a stable internet network and infrastructure, the lack of digital literacy among rural people affects their chance of engaging in effective rural communication. Access to Information and Communication Technologies (ICTs) is a vital factor in enhancing digital literacy. Despite China's national advancements in digital technology, the rate of digital literacy and access to internet skills varies between rural and urban areas. According to CNNIC study conducted in June 2024, China has overall, 1.1 billion Internet users with a 63.8% internet usage rate in rural areas and an 85.3% Internet penetration rate in urban areas (Yu, 2024). This digital gap needs to be closed so that rural communication can be smooth, and rural people can use internet skills to not only empower rural communication but also enhance their healthcare and education, flourish local culture, and facilitate communal decision-making. The digital economy has grown rapidly in the underdeveloped western regions of China, including Guizhou Province, by topping the digital economic development rate for a continuous seven years (Li et al., 2025). This digital economic growth in China regarding Guizhou Province hints at how digital literacy is also improving in rural regions, empowering rural communication.

1.2 Research objectives

The aim of the research is to analyse how digital literacy empowers the rural communication system, especially in Guizhou Province, China. The research objectives of the study are listed in the following:

- i. To identify how the digital divide affects rural communication in China's Guizhou province.
- ii. To analyse the way digital literacy helped the rural populations, including Guizhou province, to improve communication.
- iii. To investigate the influence of digital literacy on empowering the marginalized, including ethnic minorities and women of Guizhou's rural areas, to participate in sociopolitical discussions.

1.2. Research Questions

- i. How did the digital divide impact rural communication in Guizhou province, China?
- ii. How has digital literacy among rural populations in Guizhou province improved their ability to enhance communication?
- iii. In what ways has digital literacy empowered the marginalized population of Guizhou's rural regions, such as ethnic minorities and women, to participate more actively in socio-political discourse?

1.3. Significance of the Study

The significance of the study lies in understanding the way digital literacy transforms the communication of rural people of Guizhou Province. The present study investigates

how digital literacy ensures fluency in rural communication in Guizhou Province, China. It argues the importance of literacy regarding usage of digital devices in enhancing communication in the rural region of Guizhou Province of China. As the rural regions of China now have more or less a stable internet connection, it influences rural communication. Understanding the way the rural people have their digital literacy and how it helps them to take an active part in community engagement, socioeconomic well-being, and political participation will be the focus of this study. Numerous studies have examined the problem of the digital divide in both urban and rural areas, and some have also discussed how China is now increasing its digital literacy in rural regions, but they have not covered how this digital literacy has enhanced rural communication, especially in Guizhou. By focusing on Guizhou Province, this study explores the impact of digital inclusion in rural regions of China and how knowledge of digital tools and communication fosters rural communication.

2. Literature Review

Without taking into account the demands of rural areas, investments in new technologies are mostly in urban China, resulting in the urban-rural digital divide. However, nowadays, the rural regions of China are experiencing digital economic growth, increasing the digital literacy among rural people, which empowers rural communication. The literature review section looks for previous relevant studies on this subject and uses a theoretical overview to make it more scientific. The current study focuses more on the Guizhou Province of China to understand digital literacy and its implications on rural communication.

2.1. Lack of digital knowledge impacting rural communication in China

When utilized effectively, technology can serve as a valuable tool for a nation's strategic development. Digital literacy enables people to use information and communication technologies in their day-to-day life on the basis of need (Mwanza, 2022). This shows that digital literacy is a requirement for using internet and technologies for meeting one's everyday target. It is also detrimental to rural development because rural people can not participate in expressing their opinions on the global stage, as they lack digital literacy. In educational settings, students lack the ability to access and use digital collaboration tools efficiently, indicating a gap in their digital literacy and skills (Silber-Varod et al., 2019). This shows that the lack of digital knowledge limits the students from using the digital tools impacting their education. Being a developing country, China needs to expand digital literacy and internet accessibility in rural regions to influence economic growth. In June 2024, the rural Internet users of China extend to 304 million that is 27.7% of the total Internet users in China while urban population has 72.3% of total users (CNNIC, 2024). This demonstrates the vast digital divide that exists in China impacts digital communication in a rural context. However, it also shows how digital skills has increased in rural areas from 2017 to 2024. Therefore, the digital gap not only impacts rural communication in China but also affects access to services, including education, healthcare, economy, politics, and so on.

2.2. The contribution of digital literacy to improving rural communication

Digital literacy takes the initiative to enhance communication and connectivity in rural regions. When considered from technological perspective, digital literacy typically emphasizes abilities like using digital devices for online communication (Godhe, 2019).

This indicates that digital literacy makes people efficient for digital communication. Which can make rural communication flexible. Digital literacy is only a further option that people can use to freely communicate our ideas on a paper or screen. This again proves that digital literacy is a more flexible way to enhance communication. If people can absorb digital skills, they can choose whether they can communicate through writing or on screen. Nowadays, digitally literate people are expected to have abilities like using smartphone messaging apps or producing digital apps with Twitter and WordPress (Mohammadyari & Singh, 2015). Furthermore, the scope of digital communication is diverse, ranging from relatively easier communication through instant messaging or email to more complicated forms such as sourcing, analysing, assessing, recombining, generating, and disseminating knowledge online (Littlejohn et al., 2012). This shows that digital literacy made people aware of the communication channels and they can use it for their everyday communication. The digital literate people can make the rural communication system diverse thereby improving the social and digital connection.

2.3. Digital literacy empowering marginalised communities and rural women

Digital literacy socially connects marginalised communities and rural women to promote their participation in a new digitalised society. Contemporary technology for communication can help older people feel less socially isolated (Bekker et al., 2015). This shows that how digital literacy can help the older generation for reducing stress with digital communication. Digital literacy has the ability to reduce socioeconomic gaps, provide access to learning and knowledge, and enable marginalized groups to participate in previously unreachable economic activities (Mosobalaje et al., 2024). The digital communication is effective enough for empowering socially marginalised people. Digital literacy made people aware of their social condition and provide them many digital options for promoting their growth. The governments and firms in China emphasize the learning of Information and Communication Technology (ICT) for rural women, elderly people, and rural children to promote inclusion (Ye & Yang, 2020). This states that governments and business firms are now focusing on the digital literacy of rural women and other rural people to foster rural communication. Thus, the social inclusion of ethnic minorities and rural women is included in the digital literacy projects of rural China.

2.4. Thematic Frameworks

A theoretical understanding of digital literacy theory is important to understand how digital tools can be used by the individual to enhance their life potential. Israeli researcher Y. Eshet-Alkalai first proposed the concept of digital literacy in 1994, which opened up a new realm of individual potential in the digital era (Julien, 2018). Digital literacy theory emphasizes the way to acquire digital content and digital information by engaging in digital communication. It also encourages the ability to enhance digital security to resolve digital issues. This theory needs to be analysed in this research to understand how the rural community of Guizhou Province becomes digitally literate. Diffusion of innovations theory, on the other hand, is useful for this research as it showcases how the digital gap can be closed through slow diffusion. By providing people more time to comprehend and learn about innovations through slow diffusion, the DOI reduces the uncertainty level of any innovation acceptance (García-Avilés, 2020). This theory is helpful in understanding how Guizhou Province increases digital literacy among its inhabitants through slow diffusion.

2.5. Research gap

The current research identified some gaps in the existing secondary literature that have been discussed. The research gaps are going to be addressed in the present study. No existing research directly links how digital literacy influences rural communication in China regarding Guizhou Province. There is no literature available exploring how the people of Guizhou Province experience digital education and how it impacts their communication. Thus, the current study aims to close these gaps and provide extensive research conducted by interviewing the rural people of Guizhou Province. Their individual experiences help the study to be more authentic by answering the research questions.

3. Methodology

The research study examines the methodological framework for reaching the hypothetical outcomes of the research. Research methodology is a scientific approach to analyse whether the research is conducted scientifically (Patel & Patel, 2019). The use of appropriate research methods, approaches, philosophy, or other components helps the researcher to attain the research aim and objectives. The present study uses a qualitative method by using semi-structured qualitative interviews to understand how digital literacy empowers rural communication in Guizhou Province.

3.1. Research Philosophy

The research philosophy is an essential component of the research methodology to provide a clear view of the research approach and the subsequent process of the research. The research philosophy provides hypotheses about the forms of reality that are used in the study and how the study itself supports that understanding of reality (Mauthner, 2020). The research philosophy is mainly of three types, namely interpretivism, pragmatism, and positivism. The study incorporates an interpretivist approach by using a qualitative method to acknowledge the opinions of inhabitants of Guizhou Province on how their digital literacy supports them in enhancing rural communication.

3.2. Research Design

An appropriate research design can ensure the growth of the research with its relevance to the research objectives and questions. The research design aims to help the researcher by providing relevant evidence within minimal time, cost, and existing resources (Patel & Patel, 2019). The research design mainly consists of three varieties, namely exploratory, explanatory, and descriptive designs. The current study uses an explanatory research design for conducting a qualitative methodological approach, as this design is appropriate for seeking answers to what and how questions. Explanatory design helps to explain the interview study to explore the influence of digital literacy on effective rural communication.

3.3. Research Approach

The research approach provides a detailed plan regarding the research topic, starting from a description of the data collection technique to the analysis method of the data. The three primary types of research approaches are inductive, deductive, and abductive

(Patel & Patel, 2019). This research study uses an inductive research approach to build specific observations in the study. This approach is ideal for analysing the influence of digital literacy on the empowerment of rural communication of the Guizhou Province people in China. The study makes use of preliminary observations based on qualitative data, which were obtained from the interviews conducted with inhabitants of Guizhou.

3.4. Sample Selection

The sample selection is essential for developing a research study, as the findings and outcomes of the study are dependent on the selected sample. The sample selection can assume expected patterns, standard deviations, or risks across different groups (Andrade, 2020). There are primarily two kinds of sample selection processes, one is probability and the other is non-probability. The non-probability sample selection, collaborating with the convenience sampling procedure, is used for collecting data from the target audience, rural people from Guizhou Province aged between 20-65. Focusing on adults of a large age group ensured that the participants were well aware of their present and past digital experiences in the area.

3.5. Data Collection and Analysis

The data collection method is essential to assess the study's growth because it informs the design and outcomes of the research. The study used a primary data collection method for incorporating a qualitative semi-structured interview. The sample selection includes Chinese rural people between the ages of 20 to 65 from Guizhou Province. The interview centred on eight relevant open-ended questions, whereas the participants were eighteen in number. There were 4 elderly people among these 18 participants to reflect the pain points of digital exclusion, whereas 5 participants were from ethnic minority groups, of which 3 people were from the Miao ethnic group and 2 people from the Yi ethnic group. There were also 3 ethnic minority women participants. The interviewees were connected via email through predetermined email addresses. In order to obtain the interviewees' consent to participate in the interview, the email included a consent form. Each participant was interviewed via the Zoom app for approximately 30 minutes. The interview was recorded in Chinese, and later translated in English. The collected information is processed through a thematic analysis to understand the digital experiences of the rural community of Guizhou Province.

3.6. Research Ethics

Research ethics maintenance is a basic necessity while conducting research. In the current research study, both the confidentiality of participants' information and the reliability of the data have been maintained. The interview was carried out safely only after obtaining permission from the interviewees. The secondary literature used for this research has given proper recognition to the authors of the books and articles. The research is original and does not support plagiarism. The paper is written following the academic integrity of the university.

4. Findings

4.1. Digital divide impacting inclusive rural communication in Guizhou Province

The Digital divide causes a gap in inclusive rural communication, impacting the everyday lives of the people of Guizhou Province. Based on the information gathered from the interview, the theme was developed to support the study's objectives. Participant 1 said, *"I did not get access to digital tools when I was in school."* Furthermore, she added, *"To get any educational information, I needed to rely only on the textbooks."* This shows that she needs to depend only on textbooks in her schooling days, as there is little access to digital education. Similarly, Participant 2 said, *"Before 7-8 years, it was difficult to connect directly with buyers for selling my crops at the best price,"* and *"I have to depend on the local buyers and middlemen only."* This reveals that he had no option except loss, while they needed to rely on locals for selling his crops. Participant 8 who is an elderly people said, *"We still depend on face-to-face communication."* This proves that older people in the community still face a digital gap, as they have not received training in digital literacy.

The interview highlights that due to the lack of digital training, the older generation is not comfortable enough to use mobile applications, which impacts their rural communication. Participant 11, a 72 years old woman, said, *"We didn't have reliable internet access in this province"* and *"I lost out on a lot of market opportunities because of my inadequate e-commerce abilities."* This indicates that being a rural shopkeeper, he missed many marketing tricks that could have led him to be more successful.

The digital divide affects rural development and communication. Participant 6 also stated, *"Yes, our generation felt a lack of digital literacy and proper training. During the COVID, we felt isolated."* This shows that a lack of digital skills and training is responsible for this kind of nervousness while using a phone. Participant 5 said, *"But my grandma is still not accustomed to the digital tools, as she only understands Yi."* This claims that as digital applications do not always provide dialectical languages as options, it impacts rural communication. The older people of ethnic minorities, most of the time, understand their community languages. This linguistic gap also creates a digital divide, as the minorities cannot understand Mandarin and do not have digital training. Participant 5 also claimed, *"In some cases, women can't take digital training sessions due to their family restrictions."* This shows how the lack of social opportunity also affects the digital literacy of rural women. The inhabitants of Guizhou Province experience social and technological inequality due to their rural settings. Therefore, a lack of digital skills affects the rural community of Guizhou Province.

4.2. Digital literacy empowering rural communication for Guizhou people

Digital literacy is the key indicator for empowering rural communication in Guizhou Province. The findings from the interview have been used to frame the above theme, which matches the research objective. Participant 2 said, *"Previously, I used to depend on the farming technique that I had learnt from my father and grandfather."* Furthermore, he added, *"But now, I check agricultural planning and techniques online."* This reveals the influence of digital literacy, which not only fosters rural communication but also improves the rural economy. Similarly, Participant 4 said, *"In my shop, my daughter installed a QR code payment system. Now, most of the rural youth pay for their products using this digital payment system."* This indicates that digital communications are now

available in Guizhou Province, and most of the people, especially rural youth, are digitally literate enough to change their communication system. They are now efficient enough to use mobile payment applications, public utility payments, and online shopping options. These improve their lifestyle and empower communication. Participant 16, a Miao male said, *"I continued to post my concern to increase the health and educational facilities for Miao community people in Guizhou province which has been discussed a lot in the national level."* Furthermore, Participant 6 also said *"We now discuss on public affairs on WeChat. Couldn't always rely on the village heads."* This proves how digital skills are used by the dwellers of Guizhou Province to solve any political issues.

Before digitalisation, rural people did not have any platform to place their opinion or protest. But now they can use digital platforms like WeChat to raise their grievances. Similarly, Participant 12 who is a Yi woman said, *"I took part in all of the online political polls that were available on WeChat groups prior to the election in order."* This indicates that digital literacy enables the rural ethnic women of Guizhou Province to take part in political matters. Participant 1 said, *"Introducing digital education in rural schools helped the students to take an active part in online quiz competitions,"* and *"The high school students are involved in an online political forum to share their views on international politics."* This proves how digital literacy exposes students to a global forum to improve their educational reach. Participant 4 said, *"Previously, I might not allow my only child to take admission in Australian colleges. But now we can video chat to connect with her."* This shows how digital literacy empowers rural communication.

The rural parents are now not limiting their lives to the small areas of Guizhou, but they dream of proper careers for improved rural communication. Participant 5 said, *"I communicate with my community people using messaging applications regarding women's and children's health services, cultural events, and vaccination drives."* He also informed, *"Previously, I felt uncomfortable in public speaking, but the continuous online campaigns I led have removed my fear."* This proves that access to digital tools and training enabled rural residents to communicate more efficiently. He also stated, *"I joined a regional volunteer training centre at 19."* This reveals that digital training is required for improving digital knowledge. Digital literacy not only supports rural inhabitants in keeping their voice on online platforms, but it also strengthens their personality. Therefore, it can be said that digital literacy transforms rural communication.

4.3. Digital literacy empowering marginalized communities for sociopolitical inclusion

Digital literacy is influential enough in empowering marginalized communities, including ethnic minorities and women, to participate in socio-political discussions. The above theme is framed to acknowledge how importance of digital literacy for marginalized communities, impacting their rural communications. Participant 5 said, *"In groups, we produced online posters and short films to connect the masses with the Yi community and their health,"* and *"People began talking about this problem."* This states that the Yi community people can now use digital platforms for presenting minorities' issues so that their voices can be heard. Participant 14, a 43 years old male from Yi community said, *"I helped the locals in our area organize digital campaigns to increase awareness of the minority community's health."* This shows that digital literacy is also used to increase health-oriented communications, which improves community health. Participant 6 said, *"Yes, one community people use the social platforms to spread their cultural ethnicity. I have noticed it."* Participant 3 also added, *"In my college, I participated*

in an online ethno-political debate where I represented my community with pride. The video got well-circulated." This proves that digital literacy not only helps the ethnic minorities of the Guizhou Province to know about their rights and politics but also helps them to represent their communal tradition and pride in the online forums to reach the whole nation.

Participant 2 said, *"A minority group posted against a linguistic abuse they faced when they attended a meeting in Beijing for conserving ethnic culture,"* and *"They have got so much support that even the newspaper came to cover the story."* Similarly, Participant 1 said, *"Now, a lot of young Yi people discuss their culture and rights on social media. It increases pride and awareness."* This shows that digital platforms transform social marginalisation to social pride for minorities. Participant 3 said, *"I personally find digital literacy very beneficial for Miao women. We are doubly jeopardised– being a woman and also from ethnic community."* Participant 18 who is a Yi woman, also added, *"If we face any gender or community bias in our society, we can now voice our complaints on the digital platforms."* This shows the importance of digital literacy for ethnic minority women to foster rural communication.

This digital literacy can remove issues of poverty by providing many opportunities to rural women for income. Participant 2 said, *"My wife is now taking courses on crop planning. She implemented her crop planting strategy in the last season, and we have made a great profit."* Similarly, Participant 4 said, *"My daughter applies for colleges in Australia and other places by checking the colleges' online sites and takes admission at the Sydney College of the Arts. It was not possible for rural women at our time."* This indicates that gender roles are changed with digital literacy. Participant 1 said, *"Women can now use the internet to get information on everything that interests them. They speak more and act more."* Furthermore, Participant 5 claimed, *"I think it helps a lot of rural women in my community to come out of their domestic life,"* and *"They use phones to get health-oriented information and take initiative to start start-up businesses."* This shows that the rural women of Guizhou Province can dream of being independent for effective rural communication, which becomes possible due to digital literacy among women. Thus, digital literacy is effective enough to empower marginalised communities through effective rural communication.

5. Discussion

The study has discussed some of the major aspects of the effect of digital literacy on the rural communication of Guizhou Province in China. The present section addresses the research questions by connecting them to the existing literature and theoretical frameworks to understand the relevance of the findings.

5.1. RQ1: How did the digital divide impact rural communication in Guizhou province, China?

The digital divide impacts the communication of the rural people of Guizhou Province, with the lack of digital skills to join the digital age. According to [Mwanza \(2022\)](#), digital literacy allows people to use ICTs in their daily lives in regard to their needs. This phenomenon is important to analyse as the importance of digital knowledge for developing daily lives. The lack of digital literacy causes disparity in the socioeconomic status between rural and urban people in China. Students' inability to effectively access and use digital collaboration tools in classroom contexts suggests a deficiency in their

digital literacy and skills (Silber-Varod et al., 2019). This demonstrates how students' use of digital technologies that affect their education is restricted by their lack of digital literacy. As Guizhou Province is situated in the southwestern part of China, it also faces the issue of poor digital infrastructure and networks. The interview participants mainly the older generation revealed that they have faced a lack of digital access and digital literacy to use digital tools for their well-being and effective communication. They need to depend on local communication from education to business, and as a result, their communication expansion is limited. In China, 72.3% urban population has good internet access, whereas just 27.3% live in rural areas with internet access (CNNIC, 2024). This finding demonstrates how the urban settings of China are provided with better networks and infrastructure access than the rural settings. In order to understand how China needs to flourish digital literacy in rural areas the understanding of digital literacy theory is valuable. As a developing nation, needs to boost internet connectivity and digital literacy in rural areas to promote economic growth. Therefore, the induction of digital literacy is important for curbing the issues of ineffective rural communication.

5.2. RQ2: How has digital literacy among rural populations in Guizhou province improved their ability to enhance communication?

Digital literacy plays an essential role in enhancing rural communication and the rural digital economy. These days, it is expected of digitally literate individuals to be able to use smartphone messaging apps or create digital apps utilizing WordPress and Twitter (Mohammadyari & Singh, 2015). This shows that digital inclusion is required for the any kind of communication. It emerges that the role of digital literacy in the province. The interviewees also confirmed that their digital skills have increased rural communication and helped them to enhance their potential. They are now using online payment options, online businesses, or digital platforms to voice their opinion. In terms of technology, digital literacy usually focuses on skills such as using digital devices to enhance online communication (Godhe, 2019). This proves that Guizhou Province need to focus on expanding internet technology. Automatically, the inhabitants of the land will get work in the data and computer service industry. This step also increases digital literacy among the rural residents of the province. According to Y. Eshet-Alkalai's proposed digital literacy theory, it created a new opportunity for personal growth in the digital age (Julien, 2018). This theory confirms how digital literacy can resolve the issues of the digital gap in a community. This theory ensures that individuals can utilise technological advancements to prosper in their own lives. It is also found out in the interview that digital literacy helped the rural community of Guizhou Province to get rid of poverty and enhance their digital economy. Therefore, it can be said that the rural inhabitants of Guizhou Province get the opportunity to go beyond their economic and social limitations through their digital literacy.

5.3. RQ3: In what ways has digital literacy empowered the marginalized population of Guizhou's rural regions, such as ethnic minorities and women, to participate more actively in socio-political discourse?

Marginalised community of Guizhou Province, including women and ethnic minorities, gets the opportunity to be empowered in socio-political discourse through effective digitalised communication. According to Mosobalaje et al. (2024), digital literacy can help to make an end to socioeconomic disparities by proving underprivileged people access to education and knowledge, and allow them to engage in previously unattainable economic activities. People who are digitally literate are more aware of their social

condition and have access to different digital resources that can help them further their development. The responses of the interviewees confirmed that digital literacy helped them to represent themselves, their traditions, culture, and also problems in the online forum. They have also become able to ensure their health safety, interdependent start-ups, and community engagement. In order to encourage digital inclusion, the Chinese government and business enterprises place a strong emphasis on training rural women, the elderly, and rural children in ICTs (Ye & Yang, 2020). This proves that the rural marginalised people, such as women, children, and the elderly generation, are targeted by the government to include all for digital inclusion. It not only helps them enhance rural communication but also ensures personality development so that they can be self-reliant and contribute to society. As they are becoming digitally literate, this innovative technology has been learnt through slow diffusion. The DOI lowers the degree of uncertainty surrounding any innovation acceptance by giving people more time to understand and learn about innovations through slow diffusion (García-Avilés, 2020). This theory helps the researchers to understand how digital technology and skills have been successfully imbibed by the rural inhabitants of Guizhou Province. Similarly, the findings of the interview also revealed how they have slowly grasped this new technology with slow diffusion. Therefore, the interaction between the existing sources, the interviews, and the DOI theory is helpful in understanding how accessing and acknowledging digital education improved rural communication among women and minorities in the province.

6. Conclusion

The study aimed to analyse how digital literacy empowers rural communication in Guizhou Province of China. The paper is divided into several sections, which were developed to meet the research objectives and questions. The first research objective focused on identifying the digital gap in the early times of digitalisation in the rural Province and how it impacted the lifestyles and communication of the inhabitants. The second objective was formulated to understand how digital literacy has made innovative changes in the rural communication of the province. Thirdly, the study explored the digital literacy helped the marginalised communities of the area, including women and ethnic minorities, to participate in the political and social discourse. The existing literature discussed the digital divide that rural China, especially the western region, has experienced, and how the Chinese government takes active steps to establish digital villages in the rural regions of China, including Guizhou Province. The study used qualitative methodology by conducting interviews with the people of Guizhou Province to capture their individual experiences, making the study more relevant. The findings of the research proved that digital literacy made revolutionary changes to the lives, communication, and belief systems of the rural inhabitants. The relevance of theoretical frameworks such as digital literacy and DOI theory was analysed to meet the research questions in the discussion section.

The major limitations of the study were found in the selection of the interviewees and their age groups. The children and elderly people were not included in the interview, and thus could not become able to capture in their responses and experiences. Another limitation is the gap in consulting secondary sources. The paper used only the existing literature that helped to justify the research objectives of the study. As the interview was arranged online, the researcher might miss the unspoken body language or any other signs relevant to the research.

The study can be arranged to identify the digital gap between urban and rural people in the provinces of China in detail. It can also provide a comparative study to identify the different levels of applications of digital skills in urban and rural life. Furthermore, a longitudinal study can be conducted to assess the influence of digital literacy on the economic and educational upliftment of Guizhou Province. The study can also assess whether technologies like artificial intelligence (AI) might help the community to initiate changes in their lifestyles.

The study would be beneficial for future research scholars who want to compare Guizhou and other rural provinces to understand the regional differences for implementing technologies. It could offer a better understanding of the impact of digital literacy on different regional people, fostering their rural communications. Furthermore, longitudinal studies could be carried out to track the impact of digital literacy on the economic, political, and cultural life of Guizhou Province.

Ethics Approval and Consent to Participate

All procedures performed in this study involving human participants were conducted in accordance with the ethical standards of the institutional research committee. Informed consent was obtained from all participants according to the Declaration of Helsinki.

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Conflict of Interest

The authors reported no conflicts of interest for this work and declare that there is no potential conflict of interest with respect to the research, authorship, or publication of this article.

References

- Andrade, C. (2020). Sample size and its importance in research. *Indian journal of psychological medicine*, 42(1), 102-103. https://doi.org/10.4103/IJPSYM.IJPSYM_504_19
- Bekker, T., Bakker, S., Douma, I., Van debekkerr Poel, J., & Scheltenaar, K. (2015). Teaching children digital literacy through design-based learning with digital toolkits in schools. *International Journal of Child-Computer Interaction*, 5(2), 29-38. <https://doi.org/10.1016/j.ijcci.2015.12.001>
- Braesemann, F., Lehdonvirta, V., & Kässi, O. (2022). ICTs and the urban-rural divide: can online labour platforms bridge the gap?. *Information, Communication & Society*, 25(1), 34-54. <https://doi.org/10.1080/1369118X.2020.1761857>.
- CNNIC. (2024). *The 54th Statistical Report on China's Internet Development*. <https://www.cnnic.com.cn/IDR/ReportDownloads/202411/P020241101318428715781.pdf>
- García-Avilés, J. A. (2020). Diffusion of innovation. *The International Encyclopedia of Media Psychology*, 1(8), 1-8. <https://www.researchgate.net/profile/Jose-Garcia->

- Aviles/publication/344338279_Diffusion_of_Innovation/links/64673ced9533894cac7c75d0/Diffusion-of-Innovation.pdf
- Godhe, A. L. (2019). Digital literacies or digital competence: Conceptualizations in Nordic curricula. *Media and Communication*, 7(2), 25-35. <https://doi.org/10.17645/mac.v7i2.1888>
- Julien, H. (2018). Digital literacy in theory and practice. In Mehdi Khosrow-Pour (Ed.), *Encyclopedia of Information Science and Technology* (4th ed., pp. 2243-2252). IGI Global. <https://doi.org/10.4018/978-1-5225-2255-3.ch195>
- Li, J., Xiang, M., & Yun, L. (2025). Development status and problems of digital economy in the context of the post-epidemic era—Take Guizhou Province as an example. *Academic Journal of Business & Management*, 7(3), 1-6. <http://dx.doi.org/10.25236/AJBM.2025.070301>
- Littlejohn, A., Beetham, H., & McGill, L. (2012). Learning at the digital frontier: A review of digital literacies in theory and practice. *Journal of Computer Assisted Learning*, 28(6), 547-556. <https://doi.org/10.1111/j.1365-2729.2011.00474.x>
- Mauthner, N. S. (2020). Research philosophies and why they matter. In Keith Townsend, Mark N.K. Saunders, Rebecca Loudoun, and Emily A. Morrison (Eds.), *How to keep your doctorate on track* (pp. 76-86). Edward Elgar Publishing.
- Mohammadyari, S., & Singh, H. (2015). Understanding the effect of e-learning on individual performance: The role of digital literacy. *Computers & Education*, 82, 11-25. <https://doi.org/10.1016/j.compedu.2014.10.025>
- Mosobalaje, R. O., Ajiteru, T. O., & Adeoti, J. O. (2024). Digital Literacy: A Catalyst for Inclusive Economic Empowerment of Marginalized Communities. *International Journal of Economics Education Research*. 7(1), 152-165.
- Mwanza, A. J. (2022). Can digital technology be used for addressing digital literacy in the dissemination of Indigenous Knowledge in rural areas?. *South African Journal of Libraries and Information Science*, 88(1), 1-11. <https://doi.org/10.7553/88-1-2137>
- Patel, M., & Patel, N. (2019). Exploring research methodology. *International Journal of Research and Review*, 6(3), 48-55. <https://doi.org/10.4324/9781351235105-3>
- Silber-Varod, V., Eshet-Alkalai, Y., & Geri, N. (2019). Tracing digital literacy skills of students in higher education using content analysis. *Education and Information Technologies*, 24(3), 1747-1768. <https://doi.org/10.1007/s10639-018-9844-4>
- Tahmasebi, F. (2023). The digital divide: a qualitative study of technology access in rural communities. *AI and Tech in Behavioral and Social Sciences*, 1(2), 33-39. <https://doi.org/10.61838/kman.aitech.1.2.6>
- Ye, L., & Yang, H. (2020). From Digital Divide to Social Inclusion: A Tale of Mobile Platform Empowerment in Rural Areas. *Sustainability*, 12(6), 1-16. <https://doi.org/10.3390/su12062424>
- Yi, W., & Siqian, W. (2025). Digital Literacy Education Among Students: Status, Pathways, and Implications in the Current Digital Era. *International Journal of Education and Teaching Zone*, 4(1), 66-85. <https://doi.org/10.57092/ijetz.v4i1.385>
- Yu, P. K. (2024). The Algorithmic Divide in China and an Emerging Comparative Research Agenda. *Automating Governance In China*, 1-25. <http://dx.doi.org/10.2139/ssrn.5002687>