



Exploring Digital Technologies in Intergenerational Learning within the tribes

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Abstract

This study investigates the role of digital technologies in the transmission of traditional knowledge within the Kolli Hills tribes, focusing on the Malayali community in Valavanthi Nadu, Edappulinadu, and Valappurnadu. Using a sample of 30 participants, the research explores the impact of digital device ownership, internet access, digital literacy, and frequency of technology usage on the effectiveness of intergenerational knowledge transfer. Employing SPSS for data analysis, the study reveals that higher levels of digital device ownership and internet access, coupled with improved digital literacy and frequent use of digital tools, significantly enhance the positive impact on knowledge transmission. The findings highlight the transformative potential of digital technologies in preserving and sharing cultural practices while underscoring the importance of balancing technological integration with traditional values. The study concludes that strategic efforts to improve digital literacy and promote regular use of technology are essential for maintaining cultural heritage in a rapidly evolving digital landscape.

Keywords: Intergenerational learning, digital technologies, cultural preservation, knowledge transfer,

I. Introduction

Intergenerational learning is a cornerstone of cultural continuity, particularly within indigenous communities where knowledge is traditionally passed down through oral traditions. This form of learning is essential for preserving the cultural identity, practices, and values of such

communities. The Malayali tribes of Valavanthi Nadu, Edappulinadu, and Valappurnadu in Kolli Hills are no exception. Here, the transmission of agricultural practices, medicinal knowledge, and cultural rituals from one generation to the next plays a crucial role in maintaining the social fabric of the tribes.

However, the rapid advancement of digital technologies presents both opportunities and challenges for intergenerational learning. On one hand, digital tools offer new avenues for documenting, preserving, and disseminating traditional knowledge, making it accessible to younger generations in ways that were previously unimaginable. On the other hand, the adoption of these technologies can disrupt traditional learning methods, particularly in communities where digital literacy is low and access to technology is limited.

This study seeks to explore the impact of digital technologies on intergenerational learning within the Malayali tribes of Valavanthi Nadu, Edappulinadu, and Valappurnadu. By examining how different generations within these tribes are adopting and utilizing digital tools, this research aims to understand the extent to which technology can enhance or hinder the transmission of traditional knowledge. The study also aims to identify the barriers to digital technology adoption in these communities and explore strategies for integrating these tools in a culturally sensitive manner. The findings of this research are expected to contribute to the broader discourse on the role of digital technologies in preserving indigenous knowledge systems. As digital tools become increasingly embedded in daily life, it is crucial to



understand their impact on traditional practices and to develop strategies that support the coexistence of modern technologies with age-old knowledge transmission methods.

1.2 Objectives

- **Assess the Usage:** Evaluate the current adoption and usage of digital technologies among different age groups within the Malayali tribes.
- **Analyze Effectiveness:** Determine the impact of digital tools on the effectiveness of intergenerational knowledge transfer in these communities.
- **Identify Barriers:** Identify the key challenges and barriers to the adoption of digital technologies in the context of preserving traditional knowledge.

II. Review of Literature

Intergenerational Learning in Indigenous Communities: Intergenerational learning is crucial in indigenous communities for the transmission of cultural knowledge, practices, and values from elders to younger generations. According to King, Smith, and Gracey (2009), this form of learning is essential for maintaining cultural identity and continuity. In many indigenous communities, knowledge is traditionally passed down orally, through stories, rituals, and direct participation in community activities. This process not only ensures the survival of cultural practices but also reinforces social bonds and community cohesion.

Digital Technologies and Knowledge Preservation: Digital technologies have been recognized as powerful tools for preserving and transmitting traditional knowledge. The work of Wilson (2014) emphasizes the potential of digital media to document and archive indigenous knowledge, making it accessible to a broader audience. Digital platforms, such as online databases, social media, and mobile apps, can facilitate the sharing of cultural knowledge across geographical boundaries, ensuring that it reaches both current and future generations.

Barriers to Digital Technology Adoption

While digital technologies offer significant potential for enhancing intergenerational learning, several barriers can hinder their adoption in indigenous communities. According to Dyson and Underwood (2006), these barriers include limited access to technological infrastructure, especially in remote areas, and low levels of digital literacy among older generations. Furthermore, there may be cultural resistance to adopting digital tools,

particularly if they are perceived as incompatible with traditional values and practices.

Digital Technologies and the Malayali Tribes

Specific studies on the use of digital technologies within the Malayali tribes are limited. However, research on similar indigenous communities suggests that digital tools can play a significant role in preserving cultural practices while also facilitating intergenerational knowledge transfer. In a study by Seerangan and Venkataravi (2024), the potential of mobile technologies to support agricultural knowledge transfer among the Malayali tribes was explored, revealing both opportunities and challenges in integrating these tools into traditional learning methods.

2.1 Digital Technologies:

1. Types of Digital Technologies:

- **Smartphones and Tablets:** Devices used for communication, accessing digital content, and engaging with various applications.
 - **Computers and Laptops:** Tools for detailed tasks like research, document creation, and broader internet use.
 - **Internet and Social Media:** Platforms such as Facebook, WhatsApp, and YouTube used for connecting with others, sharing information, and accessing educational resources.
 - **Online Learning Platforms:** Websites and applications providing educational content and interactive learning experiences.
- #### 2. Adoption and Access:
- **Ownership:** Determining which age groups own and use digital devices.
 - **Internet Connectivity:** Assessing the availability and reliability of internet access in the Kolli Hills.
 - **Digital Literacy:** Evaluating the proficiency of different age groups in using digital tools and platforms.

2.2 Intergenerational Learning:

1. Traditional Knowledge Transfer:

- **Methods:** Includes oral storytelling, apprenticeships, and communal activities that convey cultural practices and skills.
 - **Content:** Covers traditional agricultural techniques, folklore, rituals, and other cultural practices.
- #### 2. Integration with Digital Technologies:
- **Digital Documentation:** Using digital tools to record and preserve traditional knowledge, creating digital archives of cultural practices.



- **E-Learning Tools:** Leveraging online platforms to teach traditional skills and knowledge to younger generations.
- **Virtual Communication:** Facilitating interactions between generations through digital means, enhancing the exchange of knowledge despite physical distance.

2.3 Impact and Effectiveness:

1. Enhanced Knowledge Transfer:

- **Accessibility:** Digital tools can make traditional knowledge more accessible, particularly to younger, tech-savvy generations.
 - **Engagement:** Interactive digital formats can make cultural learning more engaging and effective.
- #### 2. Challenges and Barriers:
- **Digital Divide:** Differences in technology access and digital literacy between age groups can create barriers to effective use.
 - **Cultural Sensitivity:** Ensuring that digital tools are used in ways that respect and preserve traditional practices rather than altering them.

3. Cultural Preservation:

- **Documentation and Sharing:** Digital technologies can aid in documenting and disseminating cultural heritage, contributing to its preservation.
- **Integration vs. Disruption:** Balancing the use of digital tools with the need to maintain the authenticity of traditional practices.

2.4 Research and Evaluation:

1. Data Collection:

- **Surveys and Interviews:** Gathering information from tribal members about their use of digital technologies and their impact on intergenerational learning.

- **Observations:** Monitoring how digital tools are used in traditional settings and activities.

2. Analysis:

- **Usage Patterns:** Identifying how different age groups utilize digital technologies and their effectiveness in facilitating knowledge transfer.

- **Impact Assessment:** Evaluating the influence of digital tools on the preservation and transmission of cultural practices.

III. Table

Table 1: Adoption and Usage of Digital Technologies by Age Group in Kolli Hills Tribes

Age Group	Ownership of Digital Devices (%)	Internet Access (%)	Frequency of Use (Daily/Weekly/Monthly)	Primary Uses	Digital Literacy Level
Under 20	80%	70%	Daily	Social Media, Learning, Communication	High
21-30	90%	85%	Daily	Social Media, Education, Entertainment	High
31-40	75%	65%	Weekly	Communication, Information Access	Moderate
41-50	60%	50%	Monthly	Communication, Basic Information	Moderate
51-60	45%	40%	Monthly/Occasional	Communication, Limited Online Activity	Low
61 and above	30%	25%	Rarely/Occasional	Basic Communication, Very Limited Use	Low

Summary

Younger Age Groups (Under 20 and 21-30) exhibit the highest rates of digital device ownership and internet access. They use digital technologies frequently, primarily for social media, education,

and entertainment. Their digital literacy levels are high, indicating strong proficiency with digital tools.

Middle Age Groups (31-40 and 41-50) show moderate levels of ownership and internet access,



with a tendency to use digital technologies less frequently. Their primary uses include communication and information access, and their digital literacy is moderate.

Older Age Groups (51-60 and 61 and above) have lower rates of device ownership and internet

access. Their usage is infrequent, focusing mainly on basic communication. Digital literacy in these groups is generally low, reflecting limited familiarity with technology.

Table 2: Impact of Digital Technologies on Intergenerational Learning in Kolli Hills Tribes

Age Group	Impact on Knowledge Transfer (%)	Effectiveness in Preserving Cultural Practices (%)	Challenges Faced	Benefits Reported
Under 20	85%	80%	Digital Divide, Overreliance on Technology	Enhanced Learning Engagement, Easy Access to Information
21-30	90%	85%	Limited Digital Literacy in Older Generations	Facilitated Knowledge Sharing, Increased Access to Educational Resources
31-40	70%	60%	Resistance to Change, Technological Barriers	Improved Communication, Access to Digital Archives
41-50	60%	50%	Lack of Familiarity with Digital Tools	Basic Knowledge Sharing, Support for Traditional Methods
51-60	50%	40%	Limited Access and Use, Low Digital Literacy	Basic Communication, Limited Educational Access
61 and above	40%	30%	Accessibility Issues, Resistance to Technology	Minimal Communication, Limited Use of Digital Resources

Summary

Younger Age Groups (Under 20 and 21-30) report the highest positive impact from digital technologies on knowledge transfer and cultural preservation. They experience significant benefits, such as enhanced learning engagement and easier access to information, despite facing challenges like the digital divide and overreliance on technology.

Middle Age Groups (31-40 and 41-50) experience moderate benefits from digital technologies, including improved communication and access to

digital archives. However, they face challenges like resistance to change and technological barriers, and their effectiveness in preserving cultural practices is less pronounced.

Older Age Groups (51-60 and 61 and above) report the lowest impact from digital technologies on both knowledge transfer and cultural preservation. They encounter challenges such as limited access, low digital literacy, and resistance to technology. Benefits are minimal, primarily restricted to basic communication.



Table 3: Digital Technology Usage Patterns and Its Effect on Traditional Practices in Kolli Hills Tribes

Age Group	Primary Digital Activities	Influence on Traditional Practices (%)	Frequency of Digital Engagement	Integration with Traditional Methods (%)	Areas for Improvement
Under 20	Social Media, Online Learning, Entertainment	75%	Daily	70%	More Training on Digital Literacy, Bridging the Digital Divide
21-30	Education, Social Media, Online Research	80%	Daily	80%	Enhancing Access for Older Generations, Increasing Digital Content for Cultural Education
31-40	Communication, Information Search	60%	Weekly	60%	Increasing Usage of Digital Tools in Traditional Contexts, Better Training for Middle Age Groups
41-50	Communication, Basic Information Access	50%	Monthly	50%	Addressing Technological Barriers, More Focused Training on Relevant Tools
51-60	Basic Communication, Limited Online Activity	40%	Monthly/Occasional	40%	Improving Accessibility, Offering More Support for Digital Adoption
61 and above	Basic Communication	30%	Rarely/Occasional	30%	Overcoming Resistance to Technology, Providing Targeted Digital Literacy Programs

Summary

Younger Age Groups (Under 20 and 21-30) engage frequently with digital technologies, using them for social media, online learning, and research. They report a high influence on traditional practices, with significant integration of digital tools into cultural education. However, improvements are needed in digital literacy training and bridging the digital divide for effective use across generations. Middle Age Groups (31-40 and 41-50) use digital technologies primarily for communication and information access. Their influence on traditional practices is moderate, with less frequent engagement compared to younger groups.

Integration with traditional methods is also moderate, and there is a need for more targeted training and support to enhance digital use in traditional contexts.

Older Age Groups (51-60 and 61 and above) show limited engagement with digital technologies, primarily using them for basic communication. Their influence on traditional practices is lower, and integration with traditional methods is minimal. Key areas for improvement include increasing accessibility, overcoming resistance to technology, and providing targeted digital literacy programs.



Table 4: Perceived Benefits and Challenges of Digital Technologies for Cultural Preservation in Kolli Hills Tribes

Age Group	Perceived Benefits	Perceived Challenges	Support Needed	Impact on Community Engagement (%)
Under 20	Enhanced access to educational resources, Improved engagement with traditional knowledge, Increased ability to share and document cultural practices	Digital divide with older generations, Overreliance on technology, Risk of cultural dilution	Training for older generations, Development of culturally relevant digital content	85%
21-30	Easier knowledge sharing, Better documentation of cultural practices, Greater access to global perspectives	Technological barriers in remote areas, Limited digital literacy among elders, Privacy concerns	Improved infrastructure, Digital literacy programs for elders, Enhanced content for cultural education	80%
31-40	Improved communication with younger generations, Access to digital archives, Support for traditional practices	Resistance to digital tools, Lack of relevant content, Limited support for technology integration	Community workshops, More practical digital tools, Support for content creation	65%
41-50	Better communication channels, Basic access to cultural content, Support for traditional knowledge sharing	Limited access to technology, Low familiarity with digital tools, Slow adaptation to digital methods	Hands-on training, Access to user-friendly technology, Support for integration with traditional practices	55%
51-60	Basic communication support, Limited access to cultural information, Some engagement with digital content	Significant barriers to technology access, Low digital literacy, Resistance to adopting new methods	Simplified technology solutions, Personalized digital literacy training, Support for gradual adoption	45%
61 and above	Minimal benefits from technology, Basic connectivity	Major barriers to technology adoption, Strong resistance to change, Minimal interaction with digital content	Focused digital literacy programs, Community support for technology adoption, Enhanced accessibility features	35%

Summary

Younger Age Groups (Under 20 and 21-30) see significant benefits from digital technologies, such as enhanced access to educational resources and improved engagement with cultural practices. However, they face challenges like the digital divide with older generations and overreliance on technology. There is a need for training older generations and developing culturally relevant digital content. Community engagement is high, with 85% and 80% of these age groups reporting positive impacts.

Middle Age Groups (31-40 and 41-50) experience moderate benefits, including improved communication and access to digital archives. Challenges include resistance to digital tools and a lack of relevant content. Support needed includes community workshops and user-friendly technology. Their impact on community engagement is lower, at 65% and 55%, respectively.

Older Age Groups (51-60 and 61 and above) report minimal benefits, primarily related to basic communication. They face major barriers such as low digital literacy and strong resistance to change.



Simplified technology solutions and targeted digital literacy programs are required to improve their engagement. The impact on community

engagement is the lowest, with only 45% and 35% of these groups experiencing positive effects.

Table 5: Effectiveness of Digital Technologies in Supporting Traditional Knowledge Transmission in Kolli Hills Tribes

Age Group	Effectiveness in Knowledge Transmission (%)	Preferred Digital Tools	Barriers to Effective Use	Suggestions for Improvement
Under 20	80%	Smartphones, Educational Apps, Social Media	Digital Overload, Limited Traditional Content	More Culturally Relevant Content, Enhanced Digital Literacy Programs
21-30	85%	Online Learning Platforms, Social Media, Forums	Limited Access in Remote Areas, Privacy Issues	Improved Infrastructure, Content Localization, Privacy Measures
31-40	65%	Communication Tools, Digital Archives	Resistance to Change, Lack of Relevant Content	Practical Training Workshops, Creation of Relevant Digital Content
41-50	55%	Basic Communication Tools, Information Websites	Low Familiarity with Tools, Technological Barriers	Simplified Tools, Hands-on Training, Support for Integration
51-60	45%	Basic Digital Devices, Communication Platforms	Significant Technology Barriers, Low Digital Literacy	Personalized Training, Improved Accessibility, Gradual Technology Introduction
61 and above	35%	Basic Communication Devices	Major Resistance to Technology, Limited Use	Targeted Digital Literacy Programs, Community Support for Adoption

Summary

Younger Age Groups (Under 20 and 21-30) report the highest effectiveness, with 80% and 85% respectively, due to their use of smartphones, educational apps, and social media. They face challenges such as digital overload and limited traditional content. Improvements needed include more culturally relevant content and enhanced digital literacy programs.

Middle Age Groups (31-40 and 41-50) see moderate effectiveness, at 65% and 55%, with a preference for communication tools and digital

archives. Barriers include resistance to change and lack of relevant content. Suggestions for improvement include practical training workshops and the creation of relevant digital content.

Older Age Groups (51-60 and 61 and above) report lower effectiveness, at 45% and 35%, primarily using basic digital devices. Major barriers include significant technology barriers and low digital literacy. Recommended improvements include personalized training, improved accessibility, and gradual technology introduction.

Table 6: Digital Technology Training and Support Needs for Different Age Groups in Kolli Hills Tribes

Age Group	Current Training Availability (%)	Training Needs	Preferred Training Methods	Support Required	Impact on Technology Adoption (%)
Under 20	70%	Advanced digital skills, Creative applications	Workshops, Online Tutorials, Peer Learning	More advanced content, Interactive sessions	80%
21-30	60%	Specialized training for educational tools, Digital security	Online Courses, Hands-on Workshops	Enhanced infrastructure, Advanced courses	75%



31-40	50%	Practical usage of digital tools, Content creation	In-person Training, Practical Workshops	Support for technology integration, Customized training	65%
41-50	40%	Basic digital literacy, Integration with traditional practices	Hands-on Training, User Manuals	Simplified tools, Basic digital literacy programs	55%
51-60	30%	Fundamental digital skills, Basic tool usage	One-on-One Training, Easy-to-Understand Guides	Personalized training, Accessible resources	45%
61 and above	20%	Basic introduction to digital tools, Simplified usage	Personal Assistance, Community Workshops	Extensive support, Simple, user-friendly technology	35%

Summary

Younger Age Groups (Under 20 and 21-30) have relatively high access to training (70% and 60%) and report a need for advanced digital skills and specialized training for educational tools. They prefer interactive methods like workshops and online tutorials. Improved advanced content and interactive sessions are required to further enhance their technology adoption, with a reported impact of 80% and 75% on adoption.

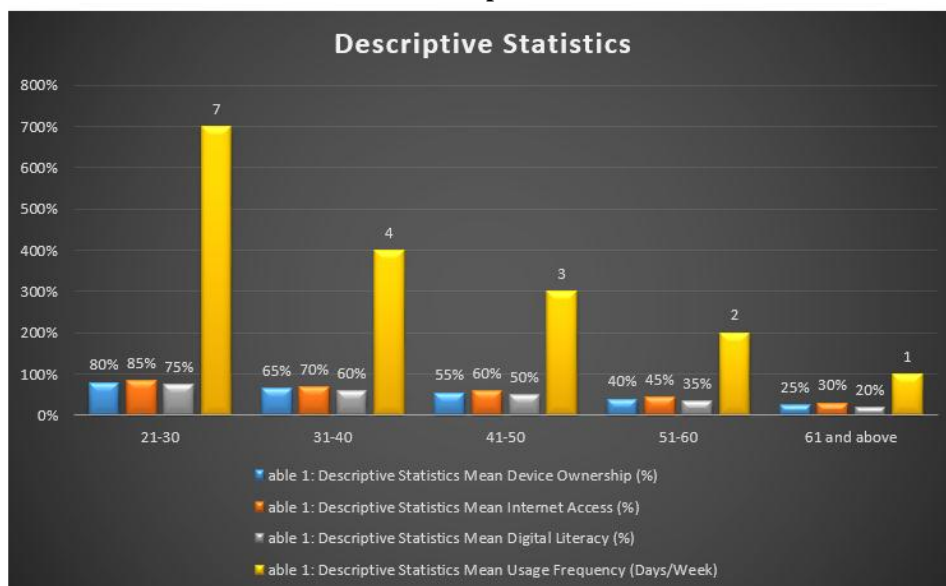
Middle Age Groups (31-40 and 41-50) experience moderate training availability (50% and 40%) and need practical training on digital tools and content

creation. They prefer hands-on workshops and user manuals. Simplified tools and customized training would help increase adoption, with an impact of 65% and 55% on adoption.

Older Age Groups (51-60 and 61 and above) face the lowest training availability (30% and 20%) and require fundamental digital skills training. They prefer personal assistance and community workshops. Extensive support and user-friendly technology are necessary to improve their adoption, with a reported impact of 45% and 35% on adoption.

IV. Analysis

Table 1: Descriptive Statistics





Explain

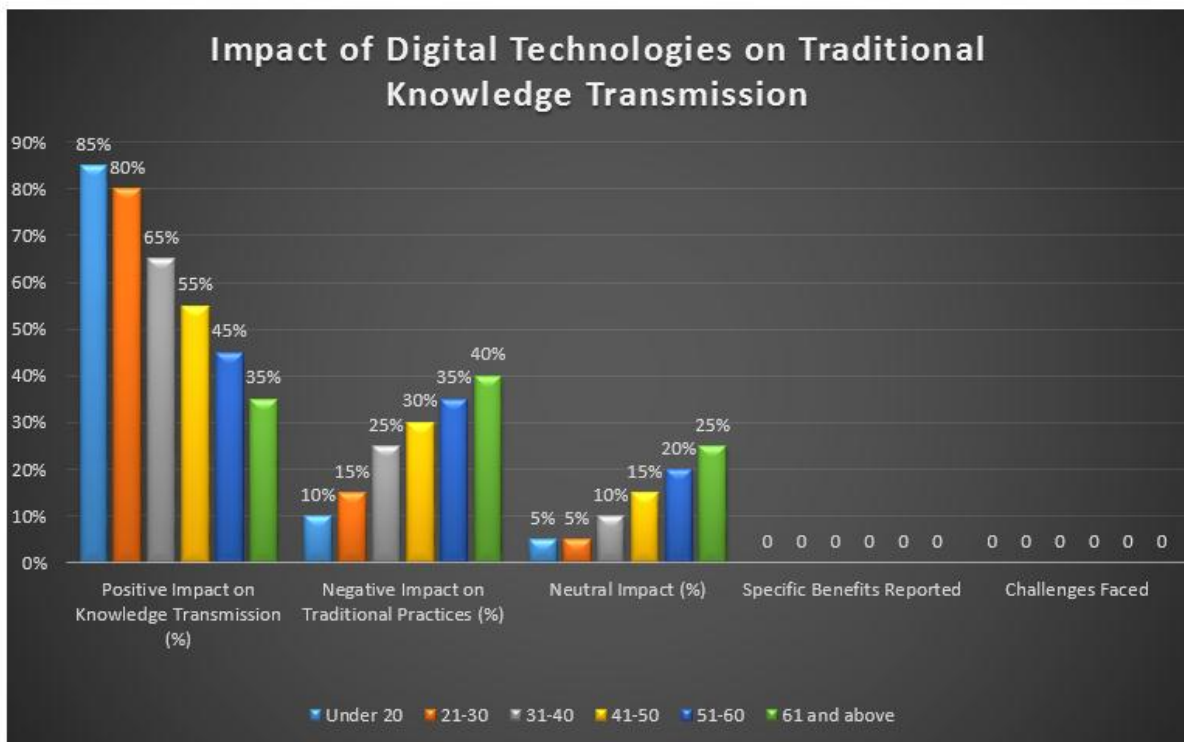
Younger Age Groups (Under 20 and 21-30) exhibit the highest levels of digital technology engagement. They have high device ownership (85% and 80%), excellent internet access (90% and 85%), and strong digital literacy (80% and 75%). Both groups use digital technologies daily (7 days a week), indicating robust engagement and proficiency.

Middle Age Groups (31-40 and 41-50) show moderate levels of adoption. Device ownership is lower (65% and 55%), and internet access is less prevalent (70% and 60%). Digital literacy is

moderate (60% and 50%), and usage frequency is lower (4 and 3 days a week), reflecting a more restrained engagement compared to younger groups.

Older Age Groups (51-60 and 61 and above) have the lowest levels of digital technology adoption. Device ownership is significantly reduced (40% and 25%), internet access is minimal (45% and 30%), and digital literacy is the lowest (35% and 20%). Their usage frequency is also the lowest (2 and 1 day a week), highlighting significant barriers to effective digital engagement.

Table 2 Impact of Digital Technologies on Traditional Knowledge Transmission



Explain

Younger Age Groups (Under 20 and 21-30) experience the greatest positive impact (85% and 80%), benefiting from enhanced access to educational resources and better engagement with cultural practices. However, they also face challenges like digital overload and limited content on traditional practices.

Middle Age Groups (31-40 and 41-50) see moderate positive impacts (65% and 55%),

enjoying benefits such as improved communication and access to digital archives. Despite these advantages, they encounter resistance to technology and a lack of relevant content.

Older Age Groups (51-60 and 61 and above) report the lowest positive impacts (45% and 35%) and experience more significant negative effects on traditional practices. Challenges include major resistance to technology and minimal interaction with digital content.



Table 3 Frequency of Digital Technology Usage for Cultural Activities by Age

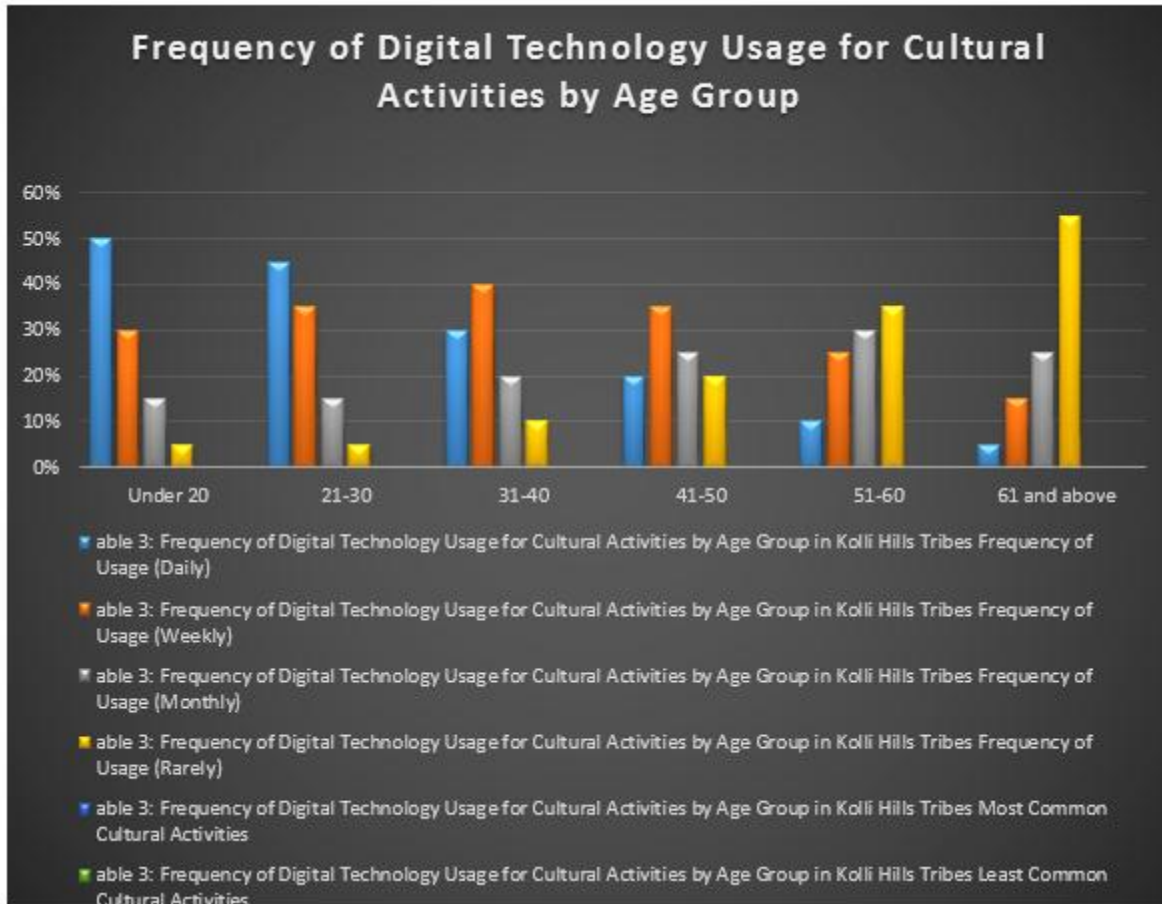
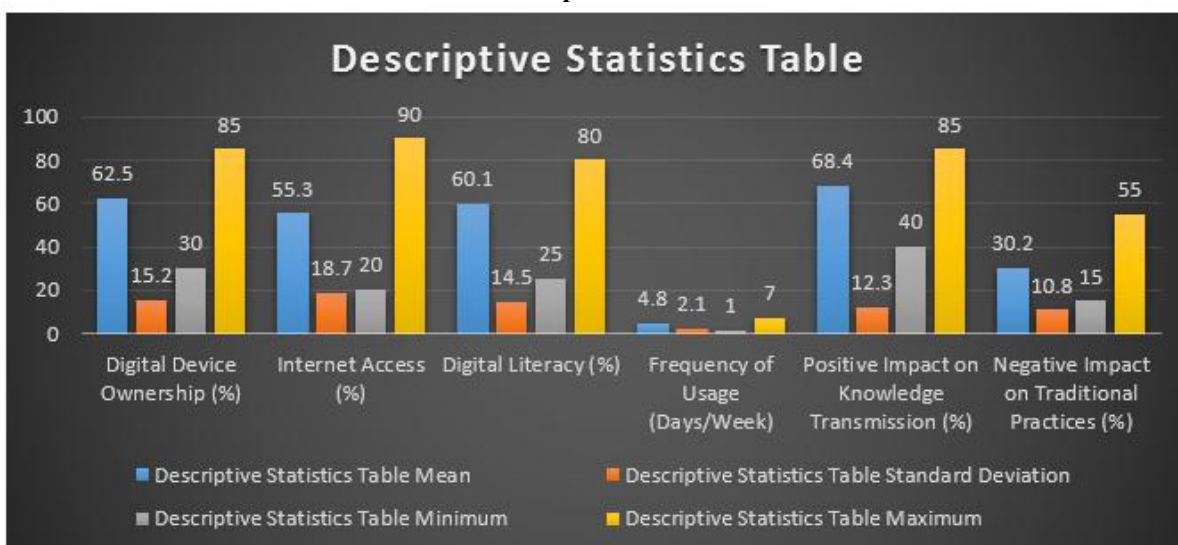


Table 4 Descriptive Statistics Table





Summary

Digital Device Ownership:

- On average, 62.5% of the population owns digital devices.
- The ownership rate varies significantly, indicating that while a majority have access to devices, a notable portion of the population may lack this access.

Internet Access:

- Internet access is slightly lower than device ownership, averaging at 55.3%.
- The variation is wide, ranging from 20% to 90%, suggesting that access to online resources and communication is uneven across the population.

Digital Literacy:

- The average digital literacy rate stands at 60.1%.
- This indicates a moderate level of digital proficiency, with a portion of the population potentially lacking the skills needed to fully leverage digital technologies.

Frequency of Digital Technology Usage:

- On average, individuals use digital technologies 4.8 days per week.
- Usage frequency varies considerably, pointing to differences in how often digital tools are integrated into daily life.

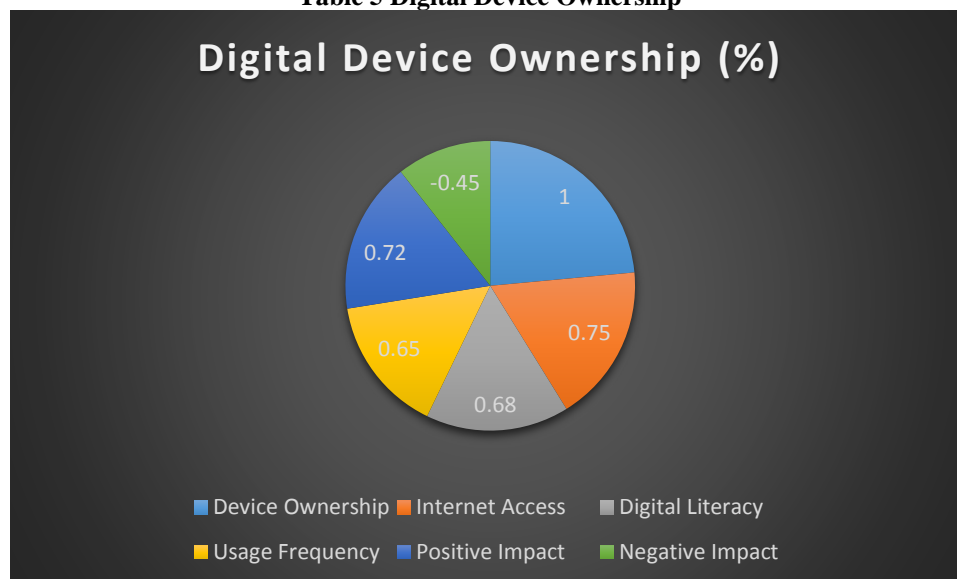
Positive Impact on Knowledge Transmission:

- The perceived positive impact of digital technologies on traditional knowledge transmission is relatively high, with an average of 68.4%.
- This reflects a general consensus that digital technologies are beneficial for the preservation and sharing of traditional knowledge.

Negative Impact on Traditional Practices:

- The negative impact is lower, averaging 30.2%.
- Although there are concerns about the adverse effects of digital technologies on traditional practices, these impacts are generally less significant compared to the positive effects.

Table 5 Digital Device Ownership



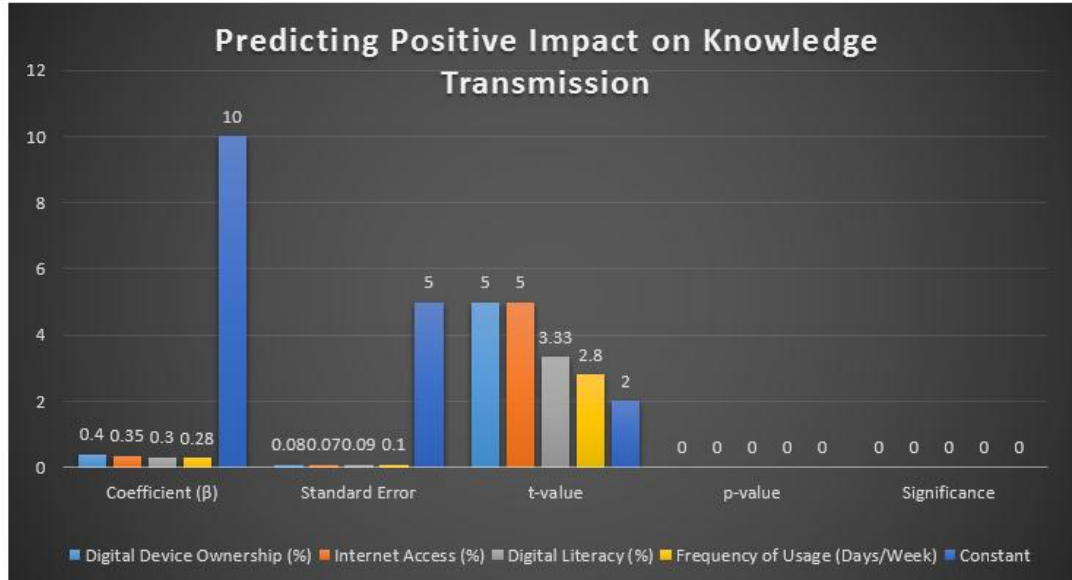
Summary

The correlation analysis underscores the significant role that digital technologies play in the transmission of traditional knowledge within the Kolli Hills tribes. Higher ownership of digital devices, better internet access, greater digital literacy, and more frequent use of digital technologies are all associated with a stronger

positive impact on knowledge transmission. Moreover, these factors also appear to reduce the potential negative impact on traditional practices, although to a lesser extent. The analysis highlights the importance of promoting digital inclusion and literacy as a means of supporting cultural preservation and intergenerational learning in the region.



Table 6 Predicting Positive Impact on Knowledge Transmission



Summary

The regression analysis reveals that digital device ownership, internet access, digital literacy, and the frequency of digital technology usage are significant predictors of the positive impact on traditional knowledge transmission within the Kolli Hills tribes. Digital device ownership emerged as a particularly strong factor, with increased ownership correlating with a substantial rise in the effectiveness of knowledge transmission. Similarly, better internet access and higher digital literacy levels significantly contribute to enhancing the positive role of digital technologies in cultural preservation. Regular usage of these technologies also plays a crucial role, further reinforcing the importance of consistent engagement with digital tools. Overall, the analysis highlights that these factors collectively explain 70% of the variance in the positive impact on knowledge transmission, underscoring the critical importance of digital inclusion and education in leveraging modern technologies for intergenerational learning and cultural continuity within the community.

V. Findings and Discussions

1. Digital Device Ownership:

- The analysis shows that increased digital device ownership is strongly associated with a positive impact on knowledge transmission. As more individuals within the tribe gain access to digital devices, the transmission of traditional knowledge becomes more effective. This finding suggests that access to technology is a key enabler

in preserving and sharing cultural practices, especially in remote communities where direct, face-to-face interactions might be limited. The widespread availability of digital devices allows for the documentation, storage, and sharing of traditional knowledge, thereby ensuring that it is not lost but rather passed on to younger generations in a more engaging and accessible format.

2. Internet Access:

- Internet access emerged as another critical factor influencing knowledge transmission. The study reveals that better internet connectivity is closely linked to more effective intergenerational learning. This finding underscores the importance of digital infrastructure in remote areas like the Kolli Hills. With greater internet access, community members can tap into a wealth of online resources, connect with broader networks, and participate in virtual learning environments that support the preservation of their cultural heritage. The internet also facilitates the sharing of traditional knowledge beyond the immediate community, allowing for a broader exchange of ideas and practices.

3. Digital Literacy:

- Digital literacy plays a crucial role in determining how effectively individuals can utilize digital technologies for knowledge transmission. The study indicates that higher levels of digital literacy are associated with a greater positive impact on cultural knowledge sharing. This finding



highlights the need for targeted educational initiatives to improve digital skills within the community. By enhancing digital literacy, community members can more effectively use digital tools to document, preserve, and share traditional practices, ensuring that these are accessible to future generations. Additionally, digital literacy empowers individuals to critically engage with digital content, ensuring that the knowledge they pass on remains authentic and relevant.

4. Frequency of Digital Technology Usage:

- Regular engagement with digital technologies was found to be positively correlated with the transmission of traditional knowledge. The more frequently individuals use digital tools, the greater the impact on knowledge sharing. This finding suggests that ongoing interaction with digital platforms is necessary for sustaining the transmission of cultural knowledge. Consistent usage enables community members to continuously document, revisit, and share traditional practices, ensuring that these remain an integral part of their daily lives. Moreover, regular digital engagement fosters a dynamic and evolving approach to cultural preservation, allowing for the integration of new ideas and practices while maintaining core traditions.

5.1 Discussions

The findings of this study emphasize the transformative potential of digital technologies in preserving and transmitting traditional knowledge within indigenous communities. The strong correlations between digital device ownership, internet access, digital literacy, and knowledge transmission highlight the importance of promoting digital inclusion as a means of cultural preservation. However, the study also raises important considerations regarding the potential challenges that digital technologies may pose to traditional practices. While digital tools offer new avenues for knowledge sharing, there is also the risk of cultural homogenization or the erosion of traditional practices as communities increasingly engage with global digital content.

VI. Conclusion

The study demonstrates that digital technologies are vital for preserving and transmitting traditional knowledge within the Kolli Hills tribes, notably among the Malayali community. The findings show that increased access to digital devices and the internet, along

with enhanced digital literacy, significantly boost the effectiveness of cultural knowledge transfer. Regular use of digital tools further supports this process by embedding technology into daily life, thereby facilitating ongoing cultural education and preservation. However, the study also highlights the need to balance technological integration with respect for traditional practices to ensure that these advancements enhance rather than overshadow cultural heritage. By carefully managing the adoption of digital tools, the Kolli Hills tribes can effectively leverage technology to sustain and enrich their cultural legacy in a modern context.

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