**A Research Report** 

# BRIDGING THE DIGITAL DIVIDE

A Comprehensive Assessment of Foundational Digital Literacy in the Vanni Region of Sri Lanka

2024

# **Research Partners**





## **Technical Partner**





© 2024 The Gate Institute, UK and University of Vavuniya, Sri Lanka

This is a collaborative research project between the Vavuniya University (Sri Lanka) and the Gate Institute (UK). Galli Galli / ASER Nepal and Karkhana Global (KG) provided technical support in tools development, research design, data analysis and finalizing the report. The data collection was conducted between September 2023 and March 2024.

Research Team Senthan Selvarajah, CEO, GATE Institute, UK/Sri Lanka Mathivathany Sasitharan, Senior Lecturer in Project Management, Faculty of Business Studies, University of Vavuniya Rajib Timalsina, Assistant Professor, Department of Conflict Peace and Development Studies,

Tribhuvan University, Co-Founder of ASER Nepal

### ACKNOWLEDGEMENT

We extend our heartfelt gratitude to the dedicated students of the University of Vavuniya, Sri Lanka, whose efforts as data collectors were instrumental to the success of this study. Our sincere appreciation also goes to the esteemed professor Prof. T. Mangaleswaran, Former Vice Chancellor, University of Vavuniya and leadership team at University of Vavuniya, Sri Lanka for their unwavering guidance and support throughout the research process. We are deeply thankful to the founders and supporters of the Gate Institute, UK, for their vision and contributions, which made this collaborative effort possible. Additionally, we acknowledge the invaluable technical support provided by Sakar Pudasaini (KG, USA), and the dedicated staff of ASER Nepal / Galli Galli and Karkhana Global (KG), whose expertise and insights were vital in shaping this research. We express our gratitude to those who supported the data collection process from three districts and to the respondents for providing their valuable data and time for this research. Your collective efforts have significantly advanced this important work on digital literacy.

# EXECUTIVE SUMMARY

# **INTRODUCTION**

This report presents the findings of a comprehensive digital literacy assessment conducted in the Vanni region of the Northern Province of Sri Lanka, where the last phase of the civil war took place 15 years ago, causing severe damage to human life and economic and social structures. Collaboratively undertaken by the University of Vavuniya, Sri Lanka and The Gate Institute, UK/ Sri Lanka, the study highlights the disparities in access to digital infrastructure and skills across Vavuniya, Mullaitivu, and Mannar districts of Vanni. Leveraging UNESCO's Digital Literacy Global Framework, the research identifies barriers, explores mediating variables like gender and socioeconomic status, and offers actionable policy recommendations to ensure digital inclusion for all.

# **METHODOLOGY**

The research employed a Citizen-Led Assessment (CLA) model using a three-stage stratified sampling method to ensure representativeness across 1,347 households and 2,975 individuals in Vavuniya, Mullaitivu, and Mannar districts. Data collection involved contextual and assessment questionnaires aligned with UNESCO's Digital Literacy Global Framework (DLGF), capturing device ownership, internet access, and proficiency in 15 digital skills.

# **FINDINGS**

## **1. Digital Infrastructure Access**

The assessment reveals that smartphones are the most widely available digital devices, with 92.3% of households owning at least one. Mannar district leads in smartphone penetration, with 98.85% of households reporting ownership. Internet access is relatively high across the three districts, with Mannar showing the highest connectivity rate at 90.48%, followed by Vavuniya (85.86%) and Mullaitivu (85.41%). Mobile connections dominate as the primary means of internet access, while broadband usage remains limited. In contrast, ownership of computers and tablets is significantly lower, with only 12% of households owning a computer and 5.4% owning a tablet.

## 2. Digital Literacy Skills

Proficiency in digital skills varies significantly across basic, intermediate, and advanced levels. Foundational tasks such as charging devices, making calls, and saving contacts exhibit high proficiency rates, exceeding 95%. Moderate proficiency is observed in tasks like web browsing (79%) and conducting keyword searches (83%). However, advanced skills show significant gaps, with only about 50% of respondents proficient in email-related tasks such as creating, reading, and sending emails, and 17% finding employment through websites and social media, only 30% accessing government services through websites.

### 3. Gender Disparities

Gender-based differences are evident in both device ownership and skill proficiency. Males report higher ownership of computers and laptops and outperform females in advanced skills like online research and email usage. Conversely, women slightly excel in basic tasks such as saving contacts, reflecting potential differences in access and usage patterns.

### 4. Age-Based Trends

The study highlights clear age-based trends in digital literacy. Younger respondents, particularly those aged 12–18, demonstrate higher proficiency in advanced digital skills, such as social media usage and online browsing. In contrast, older respondents aged 30–40 show greater proficiency in basic tasks like making phone calls and operating devices.

#### 5. Socioeconomic Gaps

The findings indicate a strong correlation between household wealth and digital literacy. Wealthier households exhibit better proficiency in advanced skills, such as web browsing and email usage. However, basic skills remain consistent across all socioeconomic groups, suggesting that foundational competencies are less influenced by economic disparities.

These findings underscore the need for targeted interventions to address gaps in advanced digital skills, bridge gender disparities, and improve access to digital infrastructure in underserved communities.

# TABLE OF CONTENTS

Executive Summary	3
Table of Contents	5
Context	6
Objectives and Research Questions	8
Research Process and Design	9
Key Findings: Household Demographies	12
Key Findings: Individual Demographies	14
Key Findings: Digital and Smartphone Behavior of	
Individual Respondents	15
Key Findings: Digital Literacy Competencies and Skills	16
Conclusion and Recommendations	22
References	23

# CONTEXT

The University of Vavuniya, Sri Lanka, and The Gate Institute, UK/Sri Lanka, have jointly initiated this assessment to address the challenges and opportunities of digital literacy in the Vanni Region of Northern Province, Sri Lanka. The University of Vavuniya, established as the 17th state university of Sri Lanka, is a premier institution for higher education in the Vanni region, specializing in Applied Science, Business Management, and Technological Studies. The Gate Institute, a not-for-profit organization registered in the UK (Reg No: 14476509) and Sri Lanka (Reg No: GL00303974), is committed to community empowerment through innovative research. This collaboration builds on an existing Memorandum of Understanding (MoU) between the two organizations, designed to facilitate research and knowledge exchange. Technical support for developing the assessment tools, designing the citizen-led assessment model and analyzing survey findings was provided by Galli Galli / ASER Nepal, renowned for their expertise in citizen-led assessments.

The potential of Information and Communication Technology (ICT) to empower marginalized communities and improve governance is immense. Small-scale innovations have proven effective in addressing challenges like disaster response, human trafficking prevention, and reducing corruption in service delivery. However, large-scale ICT deployment in governance requires an understanding of existing hierarchies and power dynamics. Questions remain: Who within households gets to use digital devices? Who possesses the necessary skills? Are marginalized groups sufficiently motivated and equipped to go online? These considerations underscore the importance of understanding digital literacy comprehensively to design user-centric interfaces and interventions.

Globally, digital literacy is recognized as a means to empower citizens and enhance public service delivery (Ferrari, 2012; Law et al., 2018). Its inclusion in the Sustainable Development Goals (SDG), particularly indicator 4.4.2, highlights its significance in addressing the global digital divide (GEM Report, 2020). This research seeks to develop tools that assess minimum digital literacy competencies in rural contexts, informed by UNESCO's Digital Literacy Global Framework (DLGF).

The DLGF serves as the theoretical foundation for this study, aligning with SDG 4.4.2 to establish a coherent standard for digital literacy (Law et al., 2018). Methodologically, the study adopts the Citizen-Led Assessment (CLA) approach, proven to be scalable and cost-effective (Wadhwa, 2020). While digital tools are increasingly accessible and affordable, gaps in understanding who can effectively use these tools persist. The lack of a globally agreed-upon minimum proficiency standard hampers data aggregation and action-oriented insights (Laanpere, 2019).

This study builds on UNESCO's DLGF for two key reasons. First, the framework consolidates existing research to define digital literacy comprehensively (Law et al., 2018). Second, Sri Lanka, as a signatory to the SDGs, is committed to aligning its policies with global standards, making this framework highly relevant.

Data on digital literacy must also account for mediating variables such as gender, income, and geography. For instance, data from Nepal's Annual Status of Education Report indicates that while 71.9% of households have mobile devices, only 57.4% of women have access to them, and just 30.2% use the internet compared to 50% of men (ASER Nepal, 2019). Relying solely on internet penetration rates risks exacerbating existing disparities.

In Sri Lanka, the Department of Census and Statistics reports digital literacy rates of 57.2% and computer literacy rates of 34.3% as of 2021. Urban sectors lead with 49% computer literacy, compared to rural (32.3%) and estate (13.9%) areas. Youths aged 15–19 exhibit the highest literacy rates (71.4%), but significant disparities persist, with Northern Province reporting only 27.9% computer literacy (Department of Census and Statistics, 2021). These findings underscore the need for a comprehensive digital literacy assessment, particularly in rural areas.

Recognizing the limitations of existing data, this study leverages UNESCO's framework to develop a robust Digital Literacy Assessment tool. The goal is to equip youth in Northern Sri Lanka with basic digital competencies, ensuring their inclusion in the digital economy. This ambitious project aims to empower communities through evidence-based policy interventions and capacity-building initiatives.

# OBJECTIVES AND RESEARCH QUESTIONS

This overarching objective of our study is to produce global public goods in the form of open source and free to use tools and data that will support governments and philanthropists to design interventions that bridge the digital divide, ensuring the use of digital tools to deliver essential services in emergency contexts.

The key research questions that will drive our research are:

- 1. Who has access to digital infrastructure?
- 2. Who has the necessary skills to utilize this infrastructure?
- 3. Are there any mediating variables such as gender, geography or ability that define or explain varying degrees of digital literacy?
- 4. What are the lived experiences of marginalized groups in relation to digital literacy skills and digital tool use? Can specific interventions be designed to address these experiences?

# RESEARCH PROCESS AND DESIGN

The research process for this digital literacy assessment follows a comprehensive, four-phase approach: tool development, tool validation, full-scale Citizen-Led Assessment (CLA) data collection led by youth, and data processing. The study is rooted in UNESCO's Digital Literacy Global Framework (DLGF), targeting Sustainable Development Goal (SDG) 4.4.2. Each phase is designed to ensure robust methodology, community engagement, and practical outcomes.



#### **1. TOOL DEVELOPMENT AND VALIDATION**

The initial phase involves developing tools anchored in the UNESCO DLGF, supported by an extensive review of global literature on digital literacy, Citizen-Led Assessments, and relevant policy frameworks, including Vision 2030 targets and e-governance strategies. A contextual questionnaire gathered essential demographic data such as age, gender, and household assets. This is complemented by an assessment questionnaire, which evaluates respondents' ability to perform 15 tasks linked to UNESCO DLGF categories 0, 1, and 2. The survey captures household device ownership, internet connectivity, and proficiency in 15 digital skills, including email usage, web browsing, and social media engagement.

The list of 15 tasks are:

<b>T01</b>	Task: Charging the device	Able to do	Not able to do
<b>T02</b>	Task: Switching a phone on/off (smart phone)	Able to do	Not able to do
Т03	Task: Lock/unlcok device with password	Able to do	Not able to do
<b>T04</b>	Task: Connect to internet/data	Able to do	Not able to do
<b>T05</b>	Task: Making, receiving and ending phone call.	Able to do	Not able to do
<b>T06</b>	Task: Opening a web browser	Able to do	Not able to do
Т07	Task: Use key words to conduct searches	Able to do	Not able to do
Т08	Task: Taking photos/videos and accessing them	Able to do	Not able to do
Т09	Task: Record voice notes and access them	Able to do	Not able to do
T10	Task: Saving new contact	Able to do	Not able to do
T11	Task: Find phone number from contact list	Able to do	Not able to do
T12	Task: Writing text message	Able to do	Not able to do
T13	Task: Sending email.	Able to do	Not able to do
T14	Task: Reading email.	Able to do	Not able to do
T15	Task: Create a new email.	Able to do	Not able to do

#### 2. CITIZEN-LED ASSESSMENT DATA COLLECTION

Data collection employed the citizen-led assessments (CLA) method in collaboration with local governments and Civil Society Organizations (CSOs). A Training-of-Trainers (TOT) model equips community partners to recruit, train, and deploy assessors. Data collection was supported by mobile technology and monitored through a web-based platform. To uphold quality, data for every tenth household was rechecked. If three or more errors were found in a settlement's dataset, the entire settlement's data was reassessed.

#### **3. RESEARCH METHODOLOGY**

This research represents the first comprehensive digital literacy assessment conducted in Sri Lanka, focusing on the districts of Vavuniya, Mullaitivu, and Mannar in the Vanni region of the Northern Province, Sri Lanka. Using a quantitative survey approach grounded in the Citizen-Led Assessment (CLA) model, the study employs a rigorous three-stage stratified sampling method to ensure representativeness. In the first stage, 70 villages or settlements were selected proportionally across the three districts: 21 from Mannar, 18 from Mullaitivu, and 31 from Vavuniya. The second stage involved mapping each village into four equal sections, sampling five households per section, for an average of 20 households per settlement. Out of 1,400 targeted households, 1,347 households completed the survey (401 in Mannar, 355 in Mullaitivu, and 591 in Vavuniya), with a response rate of over 96%. The third stage focused on assessing all individuals aged 12 to 40 years within these households, excluding those outside this age range. This process resulted in a detailed dataset encompassing 2,975 individuals. The household-based assessment captured critical variables such as device ownership, internet connectivity, and proficiency in 15 digital literacy skills. Data gaps due

to missing responses were managed through exclusion and re-analysis to ensure robustness. This meticulous methodology lays a solid foundation for understanding digital literacy trends across diverse socio-geographic contexts in Sri Lanka.

The sample size of 1,347 households and 2975 respondents ensures a 95% confidence level with a  $\pm 2.7\%$  margin of error, exceeding the typical requirements for robust quantitative research. The low non-response rate (3.79%) further enhances reliability, making this study highly representative and statistically sound.

#### 4. DATA ANALYSIS AND ETHICAL SAFEGUARDS

The data analysis process for this research employed a combination of Python-based computational tools and descriptive statistical methods to derive meaningful insights from the survey data. The dataset, comprising responses from 1,347 households and 2,975 individuals, was systematically cleaned to address missing values and inconsistencies, ensuring reliability and accuracy in the findings. The analysis began with foundational descriptive statistics, summarizing key demographic, infrastructure, and digital literacy variables, such as household size, device ownership, and internet connectivity. Further, the 15 assessed digital literacy competencies were evaluated through percentage distributions, highlighting trends in basic, intermediate, and advanced skills. Stratified analyses explored mediating variables like gender, age groups, and socioeconomic quartiles, uncovering disparities in access and proficiency.

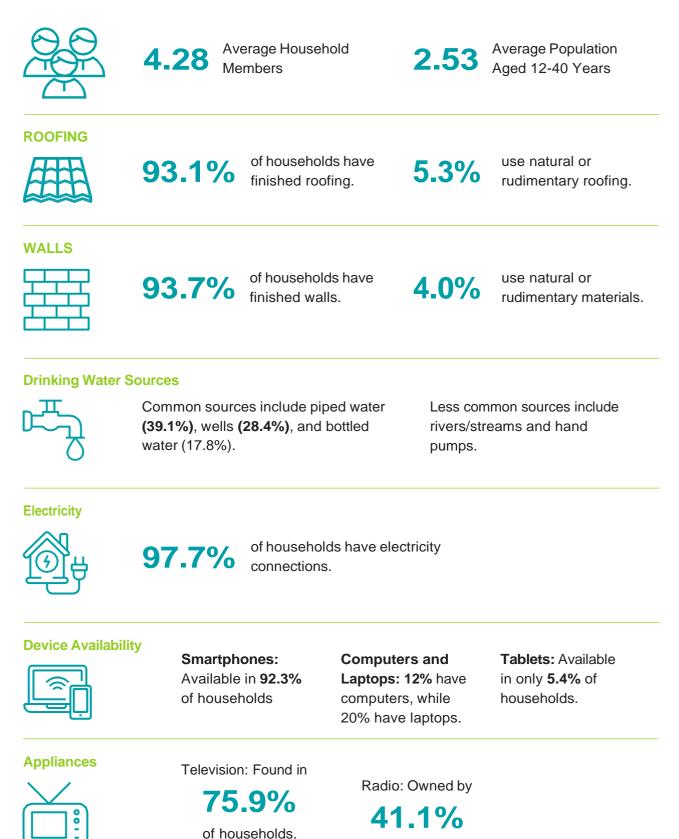
This research followed high ethical standards. The safety of all participants was the primary objectives of our ethics policy. Informed consent was obtained from all participants and, when required, from the caretakers of those unable to provide consent themselves. Participants were offered choices regarding their degree of participation in all aspects of the project and asked to provide on-going consent when data was generated. Ethical safeguards included obtaining informed consent, ongoing consent for participation, and compliance with a safeguarding policy based on Save the Children's public guidelines for respondents below 18 years, and also adhering to UKRI's safeguarding principles for overall research. The research adhered to the UIS Data Quality Standard Framework (2018) for monitoring and evaluation. The data collection process emphasized transparency, accuracy, and reliability, setting a high standard for replicability in future research.

# **KEY HIGHLIGHTS**

- Survey Scope: **1,347** households and **2,975** individuals across three districts.
- Methodology: Citizen-Led Assessment, supported by mobile technology and rechecks for data quality.
- Focus Skills: Aligned with UNESCO DLGF, covering tasks from basic operations to advanced digital competencies.
- Three Districts of Vanni Region, Northern Province: Mannar, Vavuniya and Mullaitivu
- 70 Settlements/Villages
- 1347 Households
- 2975 Individuals ranging 12-40 years

# **KEY FINDINGS**

# **HOUSEHOLD DEMOGRAPHIES**



#### **Motor Vehicles**



Motorbikes **(62.4%)** are the most common

Cars, vans, and threewheelers are significantly less common.

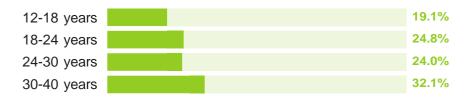
- Household Roofing Distribution: The dominance of finished roofing materials.
- Household Walls Distribution: High prevalence of finished walls.
- Main Drinking Water Sources: Highlighting the diversity in water sources.
- Electricity Connection Status: Demonstrating widespread access to electricity.
- **Device Availability:** Smartphones are the most prevalent, with fewer computers and tablets.
- Appliances and Vehicles: Shows the popularity of motorbikes and televisions.
- Smartphone access is nearly universal, with slight variations: Mannar (98.85%), Mullaitivu (97.63%), and Vavuniya (96.46%).
- Internet access is relatively high across districts, with Mannar leading at 90.48%, followed by Vavuniya (85.86%) and Mullaitivu (85.41%).
- All households without internet access still reported ownership of a smartphone.
- A small percentage of households lacking internet access also reported no electricity connection:
  - » Mannar: 4.82%
  - » Mullaitivu: 2.56%
  - » Vavuniya: 5.98%
- Internet access increases dramatically, primarily via mobile connections. Broadband usage is extremely low.
- Districts with higher smartphone ownership show significantly higher rates of internet connectivity, particularly through mobile connections. Mannar exhibits a notable gap in internet connectivity among households without smartphones. Mullaitivu and Vavuniya demonstrate similar trends, but broadband access remains limited across all districts
- Although mobile internet connectivity is at its peak due to high smartphone usage, this does not mean internet access and usage are satisfactory in the region because smartphone usage is almost universal nowadays, with over half of the world's population owning a smartphone.

## **INDIVIDUAL DEMOGRAPHIES**



#### **Age Distribution**

Ages are diverse, with the most frequent ages being 40, 23, and 28. The age distribution among respondents across major age groups is as follows:



### **Education Level**

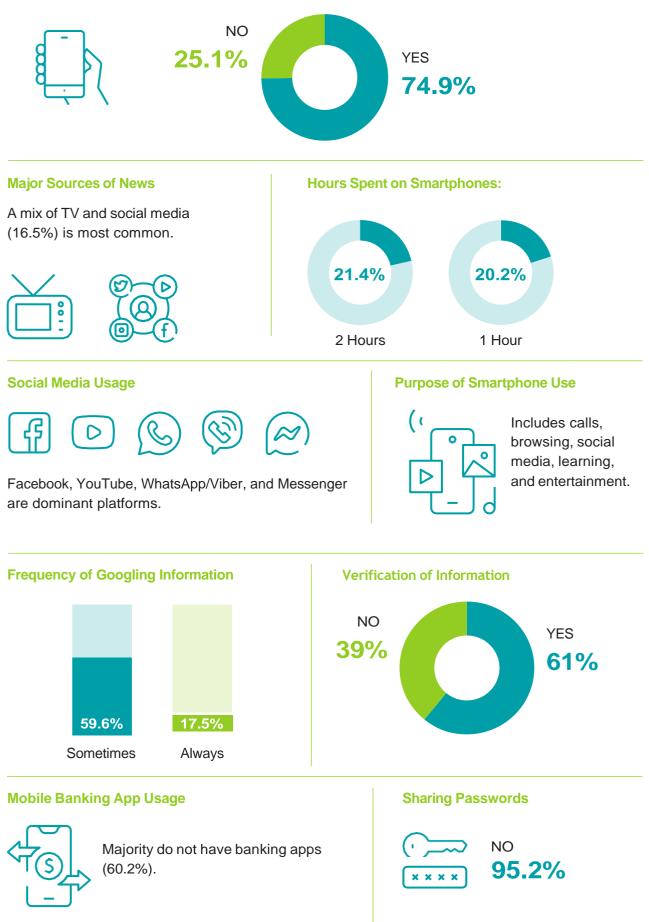
15.1%
33.3%
34.8%
2.7%
8.0%
0.5%
0.2%

#### **Job Status**

No formal employment	47.1%
Private jobs	11.5%
Own business	9.5%
Government jobs	8.0%
Cooley (daily labor)	7.7%

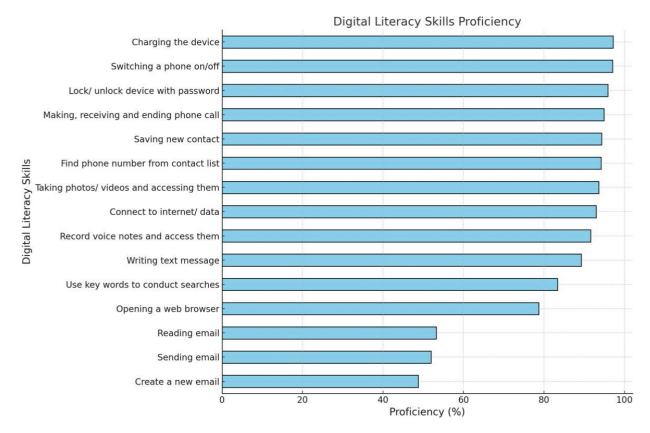
# DIGITAL AND SMARTPHONE BEHAVIOR OF INDIVIDUAL RESPONDENTS

**Smartphone Access:** 



# DIGITAL LITERACY COMPETENCIES AND SKILLS

The findings highlight strong proficiency in basic skills like charging devices, making calls, and saving contacts, while tasks like creating and using email show relatively lower proficiency.



### **Chart 1: Overall Digital Literacy Competencies and Skills**

### **Key Observations:**

#### 1. High Proficiency Skills:

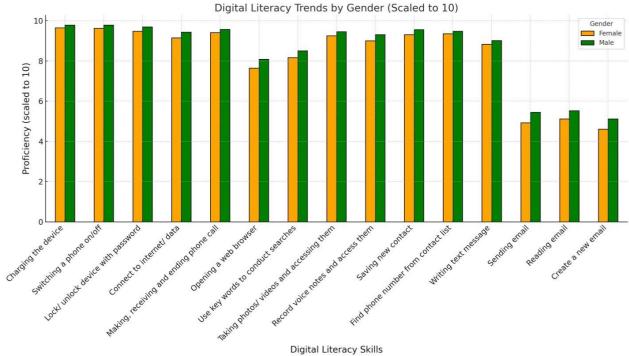
- Basic tasks such as "Charging the device" (97%), "Switching a phone on/off" (97%), and "Making, receiving, and ending phone calls" (95%) show near-universal proficiency.
- Skills like "Taking photos/videos" (94%) and "Saving contacts" (94%) also exhibit strong proficiency levels.

#### 2. Moderate Proficiency Skills:

- Intermediate skills like "Opening a web browser" (79%) and "Using keywords for searches" (83%) show slightly lower proficiency.
- These skills indicate a transition from basic to more complex digital literacy.

### 3. Low Proficiency Skills:

- Advanced tasks, including "Sending emails" (52%), "Reading emails" (53%), "Mobile Banking App Usage" (38.2%), "Googling" (17.5 % always), "Verification of information" (61%) and "Creating new emails" (49%), are significantly less prevalent.
- This suggests that email-related tasks may be less familiar or less relevant to some respondents.



### **Chart 2: Gender wise distribution of Digital Literacy Skills**

**Digital Literacy Skills** 

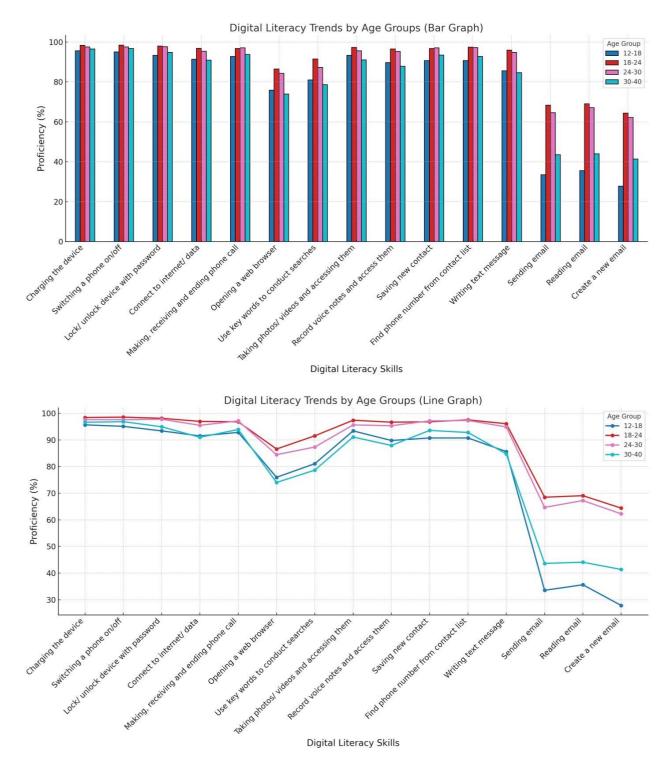
## **Gender-wise Proficiency Key Observations**

### 1. Consistent Trends:

- Both genders exhibit high proficiency in foundational skills, such as "Charging the device" and • "Making phone calls".
- Male and female respondents show similar patterns for basic and intermediate skills. 0 ٠

### 2. Gender Gaps:

- Advanced Skills: •
  - Males tend to perform slightly better in "Opening a web browser", "Using keywords for » searches", and "Creating emails".
- **Basic Skills:** •
  - Females show slightly higher proficiency in "Saving contacts" and "Taking photos/videos". »



### Chart 3: Age Wise Distribution of Digital Literacy Skills (Bar Chart and Line Graph)

#### Age-wise Proficiency Key Observations:

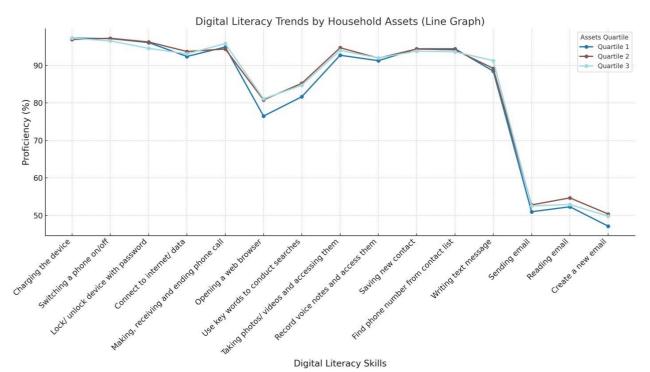
#### 1. Proficiency Trends by Age Group:

- Younger age groups (12-18, 18-24) demonstrate high proficiency in advanced skills like "Opening a web browser" and "Using keywords for searches".
- Older age groups (24-30, 30-40) show stronger performance in foundational skills like "Making calls" and "Switching phones on/off" and lower performance in advanced competencies such as "email usage"

 Although the age groups 24-30 and 30-40 are older compared to the age groups included in this study, this age group should have a significant level of advanced digital literacy skills. However, these findings highlight the possibility that the low level of advanced competence among this age group may be due to the severe war situation in the Vanni region that prevailed 15 years ago when they were students.

#### 2. Age Gaps in Advanced Skills:

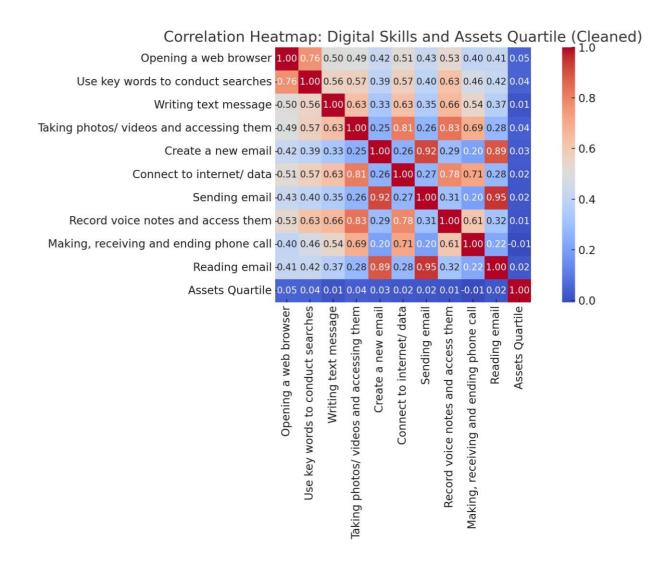
- The proficiency in "Creating new emails" and "Reading emails" declines in older age groups, suggesting less exposure or relevance.
- There are smoother transitions in proficiency across skills and age groups, emphasizing that younger respondents excel in advanced tasks.



#### Chart 4: Digital Litearcy Skills by Household Assets

### Age-wise Proficiency Key Observations:

- Higher quartiles (wealthier households) exhibit better proficiency in advanced skills, such as "Opening a web browser", "Sending emails", and "Using keywords for searches".
- Foundational skills like "Charging the device" and "Making calls" remain consistent across all quartiles.
- Digital literacy, particularly advanced skills, positively correlates with wealth.
- The gap between poorer and wealthier quartiles is most pronounced in skills requiring internet access or more expensive devices.



- Skills like "Opening a web browser" (0.049) and "Using keywords to conduct searches" (0.039) show the strongest positive correlations with asset quartiles, indicating higher proficiency among wealthier households.
- Basic skills such as "Lock/unlock device with password" (-0.024) and "Find phone number from contact list" (-0.012) show slight negative correlations, suggesting these skills are less dependent on household wealth.
- Skills like "Charging the device" (-0.003) and "Making calls" (0.010) show little to no correlation with asset quartiles.

#### **Strong Positive Correlations:**

• Skills such as "Opening a web browser" and "Using keywords to conduct searches" exhibit the highest positive correlations with household assets quartiles. This indicates that individuals from wealthier households are more proficient in advanced, internet-based skills.

#### **Moderate Correlations:**

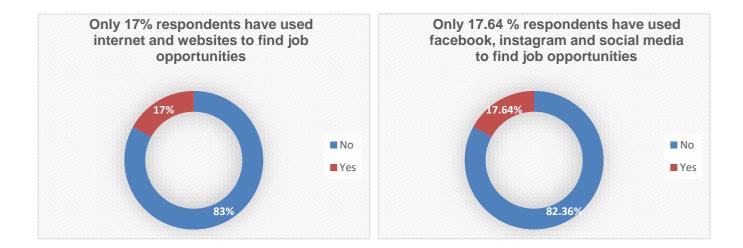
 Skills like "Creating a new email" and "Taking photos/videos" show moderate correlations, suggesting these skills are also influenced by household wealth but not as strongly as browsing or search-related skills.

#### **Minimal Correlations:**

• Foundational skills such as "Charging the device" or "Making calls" have negligible correlations, reflecting their universal nature across socio-economic groups.

Thus, the heatmap highlights that advanced digital skills are more dependent on socio-economic factors, as indicated by their positive correlation with asset quartiles. Basic skills are consistent across all groups, showcasing a baseline level of digital familiarity.





- Internet for Job Opportunities: Approximately 8 out of 10 respondents do not use the internet for job-related purposes, indicating a significant gap in leveraging digital platforms for employment opportunities.
- Internet for News: Around 4 out of 10 respondents do not access news through the internet, suggesting that traditional media still holds relevance for a considerable portion of the population.
- Social Media Usage: Despite the popularity of social media, about 3 out of 10 respondents do not engage with social media platforms.
- Internet for Government Services: Close to 7 out of 10 respondents do not use the internet for accessing government services, this situation highlights critical gaps in the adoption of egovernance solutions.

These findings emphasize the need for advanced digital skills training programs to address the significant non-usage rates in these critical areas, especially for job opportunities, e-governance, and life skills development.

# CONCLUSIONS AND RECOMMENDATIONS

This digital literacy assessment has provided valuable insights into the state of digital access, skill proficiency, and barriers across the Vanni region of the Northern Province of Sri Lanka. While foundational skills such as making phone calls and saving contacts are nearly universal, significant gaps remain in advanced competencies like email proficiency and internet navigation, particularly among older individuals and economically disadvantaged groups. The findings highlight the urgent need for educational interventions targeting advanced skills, with a specific focus on fostering email usage and online research capabilities. Advanced competencies, such as email usage, mobile banking app and job-search skills, are essential for accessing existing opportunities, creating new opportunities, and empowering the disadvantaged. Gender disparities also persist, as women report lower participation in advanced digital tasks. Targeted programs should aim to bridge this gap by increasing female involvement in skills such as email creation and usage, which are critical for professional and personal empowerment.

Addressing socio-economic disparities is another critical area of focus. Policymakers must prioritize the expansion of digital infrastructure and provide subsidized devices for lower-income households to enable skill development. The study also emphasizes the potential of youth as a key demographic, as younger respondents demonstrate higher proficiency in advanced digital skills. Leveraging their abilities through peer-led digital literacy programs can effectively bridge skill gaps. Furthermore, the findings suggest that systemic and economic factors, rather than the availability of electricity or smartphones, are the primary barriers to internet access, underscoring the need for comprehensive strategies to ensure equitable digital inclusion. By implementing these recommendations, Sri Lanka can empower its communities, align with global standards like UNESCO's Digital Literacy Global Framework, and advance toward achieving the Sustainable Development Goals.

# REFERENCES

- ASER.(2019). Annual Status of Education Report 2019. Retrieved 20 July 2020. Accessible at <u>shorturl.at/nzO68</u>
- Carretero Gomez, S., Vuorikari, R., & Punie, Y. (2017). DigComp 2.1: The Digital Competence Framework for Citizens with eight proficiency levels and examples of use (JRC106281). Publications Office of the European Union. <u>https://publications.jrc.ec.europa.eu/repository/</u> <u>handle/111111111/45929</u>
- Ferrari, A. (2012). Digital competence in practice: An analysis of frameworks. Publications Office of the EU. <u>http://op.europa.eu/en/publication-detail/-/publication/2547ebf4-bd21-46e8-88e9-f53c1b3b927f/language-en</u>
- Final Report: SubCommittee on Pedagogy and Alternatives in response to COVID 19. (2020). Ministry of Education, Science and Technology, Government of Nepal.
- Ghimire, B. (2020, May 28). Digital divide too wide for online classes to succeed in Nepal. The Kathmandu Post. <u>https://kathmandupost.com/national/2020/05/28/government-has-proposed-conducting-online-classes-but-a-majority-of-schools-and-students-don-t-have-computers-and-internet</u>
- Global Education Monitoring Report-SCOPE. (n.d.). SDG 4 Indicators. GEM Report SCOPE. Retrieved 19 July 2020, from <u>https://www.education-progress.org/en</u>
- Jennings, E. A., Arlikatti, S., Andrew, S. A., & Kim, K. (2017). Adoption of information and communication technologies (ICTs) by local emergency management agencies in the United States. International Review of Public Administration, 22(2), 193–210. <u>https://doi.org/10.1080/122</u> <u>94659.2017.1323481</u>
- Laanpere, M. (2019). Recommendations on Assessment Tools for Monitoring Digital Literacy within UNESCO's Digital Literacy Global Framework (1st ed.). UNESCO Institute for Statistics (UIS). https://doi.org/10.15220/2019-56-en
- Law, N., Woo, D. J., Torre, J. de L., & Wong, K. (2018). A Global Framework of Reference on Digital Literacy Skills for Indicator 4.4.2. UNESCO Institute for Statistics.
- Montoya, S. (2018, August 8). Meet the SDG 4 Data: Indicator 4.4.1 on Skills for a Digital World. Data for Sustainable Development. <u>https://sdg.uis.unesco.org/2018/08/08/meet-the-sdg-4-data-skills-for-a-digital-world/</u>
- Save the Children, (2014). Save the Children's Child Safeguarding Policy 2014. Retrieved from https://resourcecentre.savethechildren.net/document/save-childrens-child-safeguardingpolicy-2014/\_

- Siddiq, F., Hatlevik, O. E., Olsen, R. V., Throndsen, I., & Scherer, R. (2016). Taking a future perspective by learning from the past – A systematic review of assessment instruments that aim to measure primary and secondary school students' ICT literacy. Educational Research Review, 19, 58–84. <u>https://doi.org/10.1016/j.edurev.2016.05.002</u>
- Smiley, A., & Cremin, S. (2019). Overview of the Education in Emergencies (EiE) Data Landscape. 30. https://www.eccnetwork.net/events/overview-education-emergencies-eie-data-landscape
- Statcounter. (n.d.). Desktop vs Mobile vs Tablet Market Share Asia. StatCounter Global Stats. Retrieved 19 July 2020, from <u>https://gs.statcounter.com/platform-market-share/desktop-mobile-tablet/asia</u>
- UK Research and Innovation (UKRI), (2020). Safeguarding Policy. Retrieved from <u>https://www.ukri.org/wp-content/uploads/2020/10/UKRI-081020-SafeguardingPolicy.pdf</u>
- UNESCO Institute for Statistics (UIS). (2017). Education Data Quality Assessment Framework. Retrieved from <u>https://uis.unesco.org/sites/default/files/documents/training-workshop-manual-data-quality-assessment-framework-2017-en\_0.pdf</u>
- Wadhwa, W. (2020). Foundational learning a vital need, in India and worldwide, Retrieved 19 July 2020, from <a href="https://www.deccanchronicle.com/opinion/columnists/110720/wilima-wadhwa-foundational-learning-a-vital-need-in-india-and-world.html">https://www.deccanchronicle.com/opinion/columnists/110720/wilima-wadhwa-foundational-learning-a-vital-need-in-india-and-world.html</a> and <a href="https://www.asianage.com/opinion/columnists/110720/wilima-wadhwa-foundational-learning-a-vital-need-in-india-and-world.html">https://www.asianage.com/opinion/columnists/110720/wilima-wadhwa-foundational-learning-a-vital-need-in-india-and-world.html</a> and <a href="https://www.asianage.com/worldwide.html">http://www.asianage.com/opinion/columnists/110720/wilima-wadhwa-foundational-learning-a-vital-need-in-india-and-worldwide.html</a>.

# PARTNERS AND COLLABORATORS

## THE UNIVERSITY OF VAVUNIYA

The Vavuniya Campus of the University of Jaffna has been elevated to a separate state University and established as the "University of Vavuniya, Sri Lanka" by the extraordinary gazette issued on 08th June 2021. Accordingly, the University of Vavuniya became the 17th state university in Sri Lanka effective from 01st August 2021. The University of Vavuniya offers as well as proposes the courses within several faculties, namely, Faculty of Medicine, Faculty of Tourism and Hotel Management, Faculty of Health Sciences, Faculty of Aquaculture, Fisheries and Marine Studies, Faculty of Environmental Science, Faculty of Livestock, Faculty of Humanities and Social Sciences, and Faculty of Graduate Studies.

## THE GATE INSTITUTE (UK/SRI LANKA)

The Gate Institute is a non-profit organisation registered in Sri Lanka (Reg No: GL00303974) and the UK (Reg No: 14476509). It provides interventions through critical and transformative research on the socio-economic problems faced by underserved communities, primarily in Sri Lanka. To this end, it has signed MoUs with universities in Sri Lanka and is collaborating with diplomatic missions, international think tanks, diaspora, NGOs, and charities.

# ASER Nepal / Karkhana Global (NEPAL / USA)

ASER Nepal (hosted by Galli Galli)and Karkhana Global (KG) provided technical support in designing and implementing this citizen-led assessment based research. ASER Nepal works on foundational literacy assessment in Nepal since 2015. Karkhana Global (KG) is a co-located between Seattle, Washington and Kathmandu, Nepal. Karkhana Global (KG) works across three broad areas: Digital Transformation, Innovation in Education and Skilling for Innovation. Karkhana Global is part of the Karkhana network, which includes social businesses and non-profit organizations focused on STEAM education in South Asia.

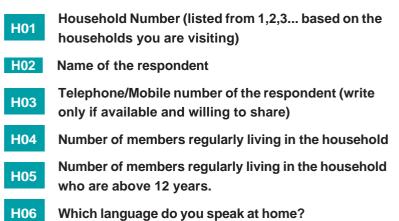
# DIGITAL LITERACY ASSESSMENT TOOLS 2024 2024

C01	Name of country	
C02	Name of Province	
C03	Name of District	
C04	Name of village/Enumeration Area (EA)	
C05	Name of the Volunteer	
C06	Gender of the Volunteer	
C07	Education Qualification of the volunteer	
C08	Mobile Phone Number of the Volunteer	

# **BASIC FACILITIES IN THE VILLAGE**

V01	Is there tarmac/all weather road leading to the village?	YES	NO
V02	Is there public transport facility available to the village?	YES	NO
V03	Does the village have access to electricity connection?	YES	NO
V04	Does the village have any government/public health clinic/hospital?	YES	NO
V05	Does the village have any private health clinic/hospital?	YES	NO
V06	Does the village have any pre-primary schools or any school offering pre-primary grades/classes?	YES	NO
V07	Does the village have any schools offering primary grades/classes?	YES	NO
<b>V08</b>	Does the village have any schools offering primary grades/classes?	YES	NO
V09	Does the village have any public or private internet cyber café?	YES	NO
V10	Are there spaces available for reading within the village? (Library or reading place)	YES	NO

## **BASIC FACILITIES IN THE HOUSEHOLDS**



H07	Household roofing (Cl	ick only on one applicable o	ption based on you	r observation.	)
	No roofing	Finished roofing	Natural or	rudimentary ro	oofing
H08	Household wall (exter	nal) material Click only on o	ne applicable option	n based on you	ur observation.
	No walls	Finished walls	Natural or	rudimentary v	walls
H09	What is the main sour is the main & regular	ce of drinking water used reg source)	jularly in the house	hold (tick only	one which
	Piped water	Handpump/tub	bewell Bo	orehole	Well
	River/Stream/pon	d Buy water	Ot	her	
H10	What is the main sour	ce of lighting regularly used	in the household (ti	ck only one)	
	Electricity	Solar	Paraffin	Other	
H11	Does this household h	ave electricity connection?		YES	NO
H12	Does this household	have Toilet/Latrines ?		YES	NO
H13	Does this household h high school diploma?	nave atleast one member who	o has completed	YES	NO
H14		have any books, or other su like story books besides the	-	YES	NO
H15		nave any other books or read newspapers magazines etc?	-	YES	NO
H16	Does this household	have computer/laptop/tablet	?	YES	NO
H17	Does this household h	nave broadband internet cab	le connection?	YES	NO
H18	Does this household h	ave television ?		YES	NO
H19	Does this household h	nave radio ?		YES	NO
H20	Does this household h	nave mobile phone ?		YES	NO
H21	(If yes in HH21), is it a	smartphone?		YES	NO
H22	Does this household h	nave a motorised 4-wheeler?		YES	NO
H23	Does this household h	nave motorised 2-wheeler?		YES	NO
H24	Does this household h	ave bicycle?		YES	NO

# INDIVIDUAL MEMBERS OF HOUSEHOLDS (12 YEARS TO 30 YEARS ONLY)

R01	Household Number (Similar as Question HH01)		
R02	Partcipant's Name (Need to fill separate form for all members)		
R03	Gender		
R04	Age		
R05	Has ever attended school?		
R06	If YES in R05, then write the class/grade completed by this person (highest qualification)?		
R07	Does this person have income generating work/job?		
R08	(If yes in R07 then), What kind of income generating work/job does this person have?		
R09	Does this person have mobile phone ?	YES	NO
R10	(If yes in R09), is it a smartphone?	YES	NO
R11	Is this person at home and ready for the survey assessmen	t? YES	NO
R12	Where do you get your news/information usually from? newspapers, tv, radio, print media, social media, online platforms?		
R13	How many hours do you spend on your phone?		
R14	How many hours do you spend on the internet?		
R15	How often do you google for information? go on wikipedia or youtube?		
R16	Do you verify whether or not information is true, checking sources (esp in terms of evaluating social media chain msgs!!!)	YES	ΝΟ
R17	Do you have social media such as Facebook, Instagram, or Youtube account?	YES	ΝΟ
R18	Do you verify content shared by others ?	YES	NO
R19	Do you share things that you have not verified as truth?	YES	NO
R20	Do you use mobile banking app?	YES	NO
R21	Could you check balance of your bank account on mobile phone?	YES	ΝΟ
R22	Could you pay utilities bill or transfer payment from mobile bank app?	YES	NO
R23	Could you access information on government services through internet?	YES	NO
R24	Do you share your password with anyone else	YES	NO

If you get a random email claiming you have won something (a lottery, a new phone), do you follow the YES NO R25 link and entere your details? Do you access websites to find job opportunities? **R26** NO YES Do you use social media such as Instagram and NO YES **R27** Facebook to find job opportunities? Do you do shopping through social media or NO **R28** YES eCommerce websites?

<b>T01</b>	Task: Charging the device	Able to do	Not Able to do
<b>T02</b>	Task: Switching a phone on/off (smart phone)	Able to do	Not Able to do
Т03	Task: Lock/unlcok device with password	Able to do	Not Able to do
Т04	Task: Connect to internet/data	Able to do	Not Able to do
Т05	Task: Making, receiving and ending phone call	Able to do	Not Able to do
Т06	Task: Opening a web browser	Able to do	Not Able to do
<b>T07</b>	Task: Use key words to conduct searches	Able to do	Not Able to do
Т08	Task: Taking photos/videos and accessing them	Able to do	Not Able to do
Т09	Task: Record voice notes and access them	Able to do	Not Able to do
<b>T10</b>	Task: Saving new contact	Able to do	Not Able to do
T11	Task: Find phone number from contact list	Able to do	Not Able to do
		Able to do	Not Able to do
T12	Task: Writing text message	Able to do	Not Able to do
T13	Task: Sending email	Able to do	Not Able to do
T14	Task: Reading email	Able to do	Not Able to do
T15	Task: Create a new email content	Able to do	Not Able to do

## CONTACT

The Gate Institute Technopark, Eastern University, Sri Lanka, 50, New Kalmunai Road, Batticaloa, Sri Lanka.

67-169, Great Portland Street, 5th Floor, London, United Kingdom, W1W 5PF. Email: info@thegateinstitute.org Tel: +44 203 475 0890; +94775587274

University of Vavuniya Pampaimadu, Vavuniya, Sri Lanka. Tel : +9424 222 2264. Email: <u>info@vau.ac.lk</u>

> Galli Galli / ASER Nepal Lalitpur-02, Kathmandu, Nepal Tel: +977-1-5424815

Karkhana Global 29th Ave NE, Seattle, WA 98115, USA Website: <u>http://karkhanaglobal.org</u> Email: <u>info@karkhanaglobal.org</u>