ASER 2023 January Workshop

Digital Readiness of India's Youth

International and national context

International context

The UN's **Sustainable Development Goal 4** is to ensure inclusive and equitable quality education and promote lifelong learning opportunities for all

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4.4.3	Youth

INCREASE THE NUMBER OF PEOPLE WITH RELEVANT SKILLS FOR FINANCIAL SUCCESS

By 2030, substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship.

ogy (ICT)

ficiency

UNESCO Digital Literacy Global Framework:

"Digital literacy is the ability to access, manage, understand, integrate, communicate, evaluate and create information safely and appropriately through digital technologies for employment, decent jobs and entrepreneurship. It includes competences that are variously referred to as computer literacy, ICT literacy, information literacy and media literacy."

EU Digital Competence Framework

Competence area	Competences
1. Information and data literacy	1.1 Browsing, searching and filtering data, information and digital content 1.2 Evaluating data, information and digital content 1.3 Managing data, information and digital content
2. Communication and collaboration	2.1 Interacting through digital technologies 2.2 Sharing through digital technologies 2.3 Engaging in citizenship through digital technologies 2.4 Collaborating through digital technologies 2.5 Netiquette 2.6 Managing digital identity
3. Digital content creation	3.1 Developing digital content 3.2 Integrating and re-elaborating digital content 3.3 Copyright and licenses 3.4 Programming
4. Safety	4.1 Protecting devices 4.2 Protecting personal data and privacy 4.3 Protecting health and well-being 4.4 Protecting the environment
5. Problem solving	5.1 Solving technical problems 5.2 Identifying needs and technological responses 5.3 Creatively using digital technologies 5.4 Identifying digital competence gaps

National context – Digital India Mission

Digital India is a flagship programme of the Government of India with a vision to transform India into a digitally empowered society and knowledge economy.

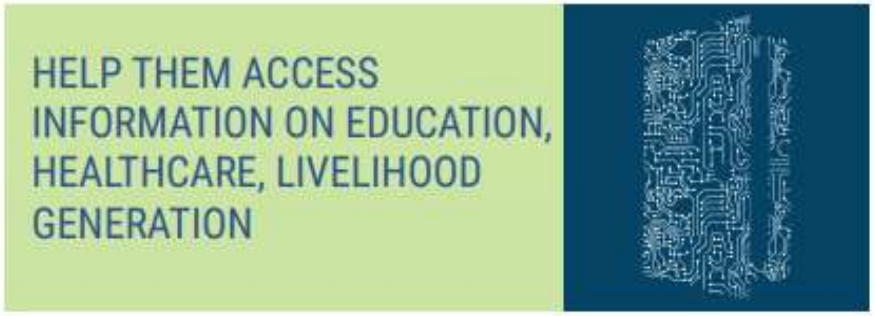
Digital infrastructure	Governance and services on demand	Citizens' digital empowerment
• AADHAR • Bharat Broadband • Common Service Centres (CSCs)	• Agrimarket App • BHIM App • E- Panchayat • E-Biz portal	• MyGov platform • PM Jan Dhan Yojana • PM Kaushal Vikas Yojana • Smart cities • **Pradhan Mantri Gramin Digital Saksharta Abhiyaan (PMGDISHA)**

Digital India
Power To Empower

National context – PMGDISHA

Objective: One person in the age group of 14-60 years from every eligible rural household to be trained in digital literacy

Implemented through: Common Service Centres (CSC)



The content of the course has been developed in consultation with various agencies like UNESCO, NASSCOM, Intel, IGNOU, NIELIT, NIOS, Indian Institute of Mass Communication (IIMC), IT for Change, Open Knowledge Network India, and Digital Empowerment Foundation

What does the PMGDISHA course entail?

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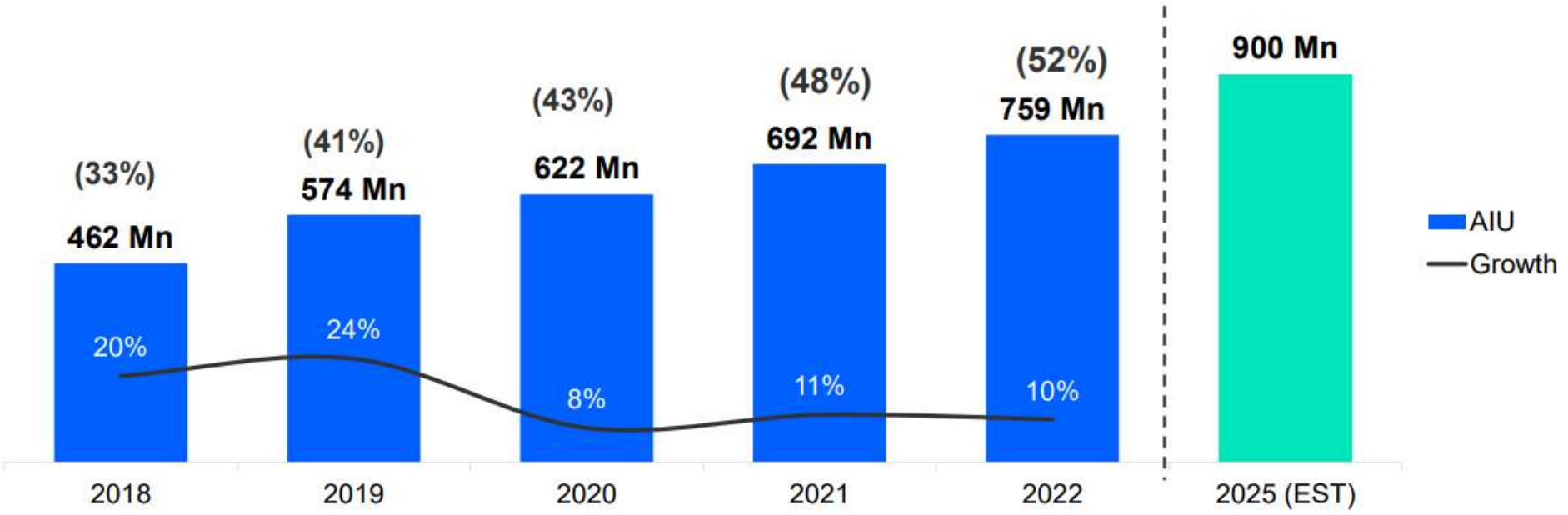
Module	Topic
1	**Introduction to digital devices** ▪ How to use a computer/smartphone/tablet ▪ Operating basic components like charger, data cable, keyboard, mouse, etc.
2	**Operating digital devices** ▪ Basics of the operating system ▪ Features of a mobile phone like calling and messaging
3	**Introduction to the internet** ▪ Connecting to the internet ▪ Web browsers and search engines ▪ Surfing the web
4	**Communications using the internet** ▪ Email
5	**Applications of the internet** ▪ Access livelihood related information ▪ Make utility bill payments ▪ Book train and bus tickets ▪ Access various government information and schemes ▪ Using social media

Existing data - digital readiness in India

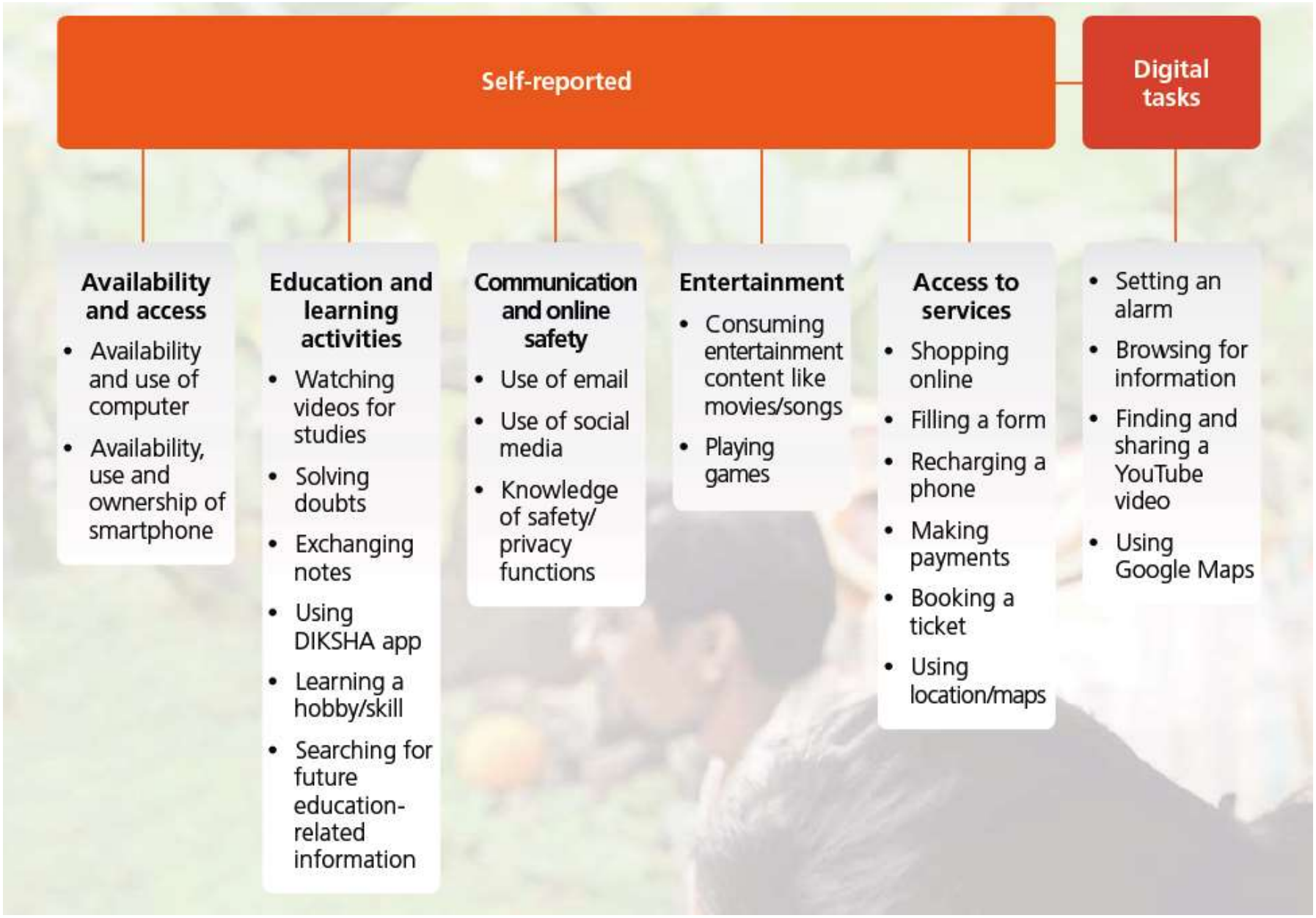
- Smartphone ownership in rural India more than doubled (from 36% to 75%) between 2018 and 2022 – ASER data
- India is the second largest and fastest growing mobile broadband market in the world – ICRIER
- 56% of new internet users in India will be from rural areas by 2025 – IAMAI



Active internet users - IAMAI

Digital readiness and ASER 2023

ASER 2023: Digital framework



Digital access

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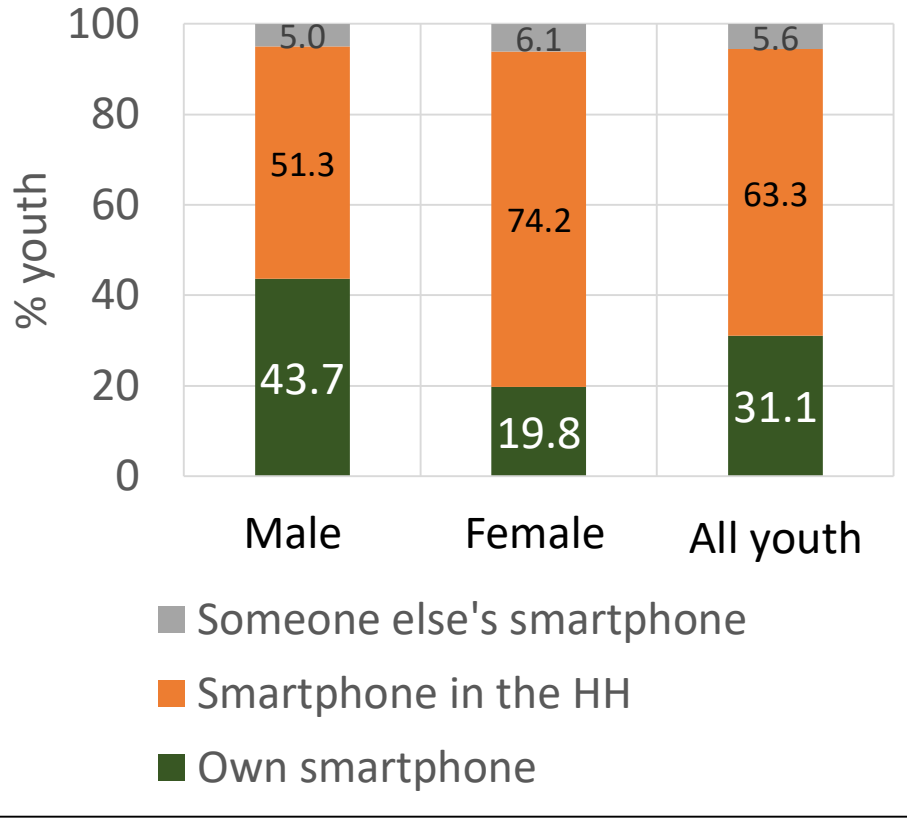
Table 1: Smartphone availability and use, by sex

Sex	% Youth with smartphone at home	% Youth who can use a smartphone
Male	90.9	94.7
Female	87.3	89.8
All youth	89.0	92.1

Chart 1: Of those who can use a smartphone, smartphone ownership by sex



- Almost everyone has and can use a smartphone
- Likelihood increases with age – reflected in personal smartphone ownership
- Males more than twice as likely to have their own smartphone

Use of smartphone for education/learning

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Table 2: % Youth who did education-related activities on a smartphone in the reference week, by sex

Sex	% Youth who did at least 1 education-related activity	% Youth who:		
		Watched online videos related to studies	Solved doubts related to current studies	Exchanged notes using messaging apps
Male	67.9	49.9	46.7	47.6
Female	64.6	48.8	44.7	44.3
All youth	66.1	49.3	45.6	45.9

- Youth in senior secondary school and college are more likely to have done these activities in the reference week
- Even among not enrolled youth, over a quarter have done so (26.2%)
- Additionally – about 40% have searched for future education-related information and 10% have used DIKSHA app
- Females more likely to have learnt a hobby/skill online than males

For youth who reported they can use a smartphone

Use of smartphone for accessing services

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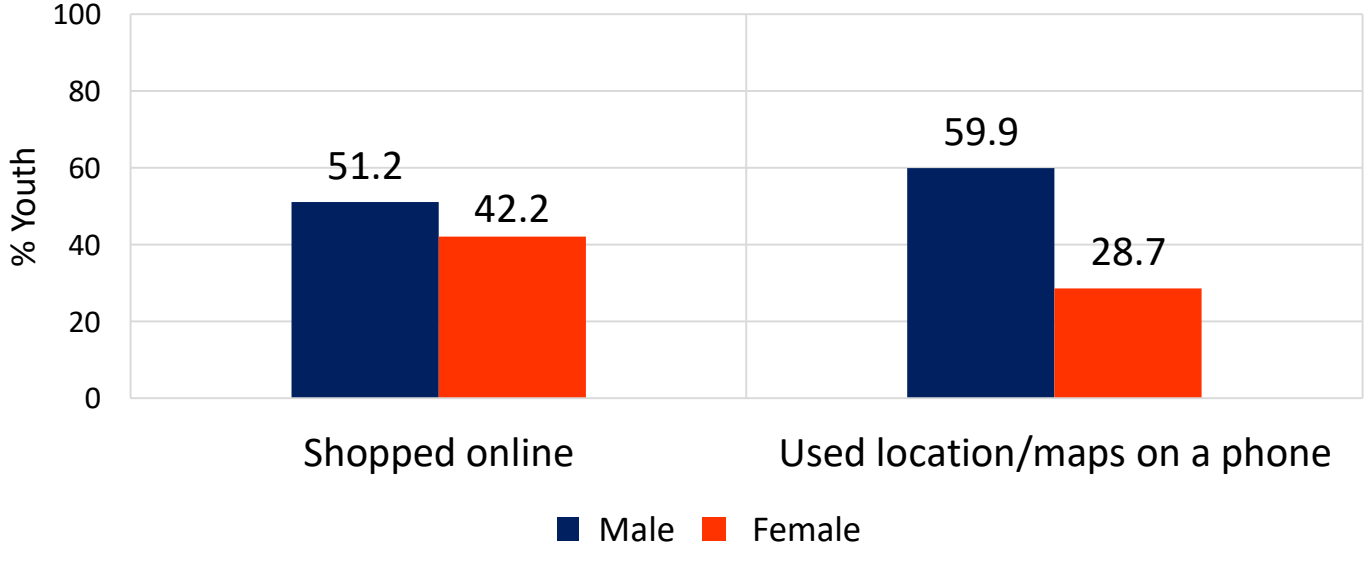
Table 3: Youth who have ever accessed online services, by sex

Sex	% Youth who have ever accessed any online service	% Youth who have ever:			
		Made online payments	Filled a form	Paid a bill	Booked a ticket
Male	37.6	26.3	20.0	11.3	6.9
Female	19.0	9.4	13.8	3.8	2.0
All youth	27.6	17.2	16.8	7.4	4.3

Chart 2: %Who have ever done the following on a smartphone, by sex



For youth who reported they can use a smartphone

- Large gender gap in all services, especially the use of navigation and maps
- Similar patterns by enrollment status as for educational activities

Use of smartphone for entertainment

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Table 4: Youth who did entertainment-related activities on a smartphone in the reference week, by sex

Sex	Consumed entertainment content (movies/music etc.)	Played games
Male	82.3	68.7
Female	74.1	45.6
All youth	78.0	56.6

- Use of smartphones for entertainment more common than for education-related activities
- But, a clear gender gap visible in entertainment related activities
- No major variation by enrollment categories

For youth who reported they can use a smartphone

Use of smartphone for social media

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Table 5: % Youth who used social media in the reference week and know how to use safety features, by sex

Sex	% Youth who used any social media in the reference week	Of these, % youth who can:		
		Block/report a profile	Make profile private	Change password
Male	93.4	56.7	55.6	64.8
Female	87.8	48.0	40.4	40.0
All youth	90.5	52.3	47.8	52.2

- While usage of social media is extremely common, knowledge of basic safety functions is scarce
- Vulnerable groups – females and younger children, are less likely to have the knowledge of asked safety features

For youth who reported they can use a smartphone

Assessment for digital skills

- Several international frameworks and surveys but very few assessment-based, mainly self-reported
- Assessments not in the public domain
- Not applicable for the Indian rural context

UNESCO Recommendations on Assessment Tools for Monitoring Digital Literacy:

- Combine self-reported with a knowledge-based/ performance-based assessment
- Establish and assess for a *"minimum level of proficiency"* in digital literacy

ASER 2023: Digital tasks

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Setting an alarm

8:30 in the morning tomorrow

Question: Set an alarm for 8:30 in the morning tomorrow.

Instruction: If the phone has an AM-PM setting, ensure that the youth has selected the correct option before recording the answer.

Browsing for information

First woman President of India

Question: Search on the phone and tell me the name of the first woman President of India.

Instruction: It does not matter which search engine the youth uses to find the answer; he/she could use Google, YouTube, or any other method. He/she should be able to point to/tell you the correct answer.

Using Google Maps

Maps

Question: Open Maps and tell me how much time it would take you to travel from your current location to <district name> bus/taxi stand by bike/two-wheeler?

Instruction: The youth should be able to do the task on an app (like Google Maps), and not on any search engine (like Google). Even if the youth simply points to the correct answer, it will be considered as correct. Ensure that the youth has chosen the correct option from two-wheeler/ four-wheeler on Maps. Do not ask the youth to turn on the location.

Finding and sharing a YouTube video

PMGDISHA Module 1

Question: Find the "PMGDISHA Module 1" video on YouTube.

Send/share it with a friend/family member using WhatsApp or Telegram.

Instruction: The youth should be able to point at the correct video after searching on YouTube.

Youth were asked to bring an available smartphone and asked to do these tasks. Responses were recorded by the surveyor.

Males outperform females across tasks

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Table 6: % Youth who could do digital tasks on a smartphone, by sex

Sex	% Youth who could bring a smartphone to do digital tasks	Out of those, % youth who could do the following:				
		Setting an alarm	Browsing for info-rmation	Using google maps	Finding YouTube video	Of those who found video, % able to share it
Male	72.9	74.7	72.0	48.9	85.2	92.5
Female	62.0	58.0	69.7	25.3	77.9	85.8
All youth	67.1	66.4	70.9	37.1	81.6	89.3

- Gender gap in all tasks – especially related to Maps
- Reading levels have a positive correlation with performance in digital tasks – the higher the level on the ASER reading assessment, the better the performance across digital tasks

Digital tasks by enrollment status

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Table 7: % Youth who could do digital tasks on a smartphone, by enrollment status

Enroll-ment status	% Youth who could bring a smartphone to do digital tasks	Out of those, % youth who could do the following:				
		Setting an alarm	Browsing for info-rmation	Using google maps	Finding YouTube video	Of those who found video, % able to share it
Std X or below	62.5	61.7	68.3	30.0	79.1	86.2
Std XI or Std XII	76.7	75.4	79.2	46.1	89.1	92.6
Undergraduate or other	83.2	81.8	84.3	56.7	92.8	95.1
Not enrolled	56.7	49.6	47.3	27.7	61.7	87.0

- Performance improves with enrollment in higher education levels
- Unenrolled youth lag behind others across all tasks

For youth who could bring a smartphone

Self-reported vs Assessment-based

One of the tasks had an overlap across self-reported and assessment-based questions.
Youth were asked if they had ever used Google Maps on a smartphone.
Then, they were asked to do a simple task using Google Maps – find the time taken to travel between two locations.

Table 8: Youths' self-reported use of Google Maps against their performance on Google Maps task (%)

Self-reported use of Google Maps	Could do the task	Could not do the task	No response	Phone did not work	Total
Those who reported they have used Maps	58.0	15.5	21.6	5.0	100
Those who reported they have not used Maps	14.1	17.8	63.8	4.3	100
All	35.7	16.7	43.0	4.7	100

Data suggests that self-reported format may not give an accurate indication of ability – assessment-based formats are required to ascertain competency levels.

Way forward

- It is clear that digital literacy is a national and international priority – but data show that concentrated effort is needed to ensure our youth are prepared with the awareness and aptitude to thrive in an increasingly digital society

- A sizeable proportion of youth are unable to do basic digital tasks, but performance improves with reading ability – there may be a link between FLN and digital competencies

- Access to smartphones is extremely skewed by gender – lack of access is a potential reason for females' poorer performance in digital tasks. Specialized effort is required to bring them at par with males.

- Large scale assessment based formats to capture digital skills will provide the necessary information to plan and design interventions.