![GSMA logo]

Developing mobile digital skills in low- and middle-income countries

The GSMA is a global organisation unifying the mobile ecosystem to discover, develop and deliver innovation foundational to positive business environments and societal change. Our vision is to unlock the full power of connectivity so that people, industry, and society thrive. Representing mobile operators and organisations across the mobile ecosystem and adjacent industries, the GSMA delivers for its members across three broad pillars: Connectivity for Good, Industry Services and Solutions, and Outreach. This activity includes advancing policy, tackling today's biggest societal challenges, underpinning the technology and interoperability that make mobile work, and providing the world's largest platform to convene the mobile ecosystem at the MWC and M360 series of events.

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Connected Society

The Connected Society programme works with the mobile industry, technology companies, the development community and governments to increase access to and adoption of mobile internet, focusing on underserved population groups in developing markets.

For more information, please visit www.gsma.com/connected-society

To get in touch with the Connected Society team, please email connectedsociety@gsma.com

Connected Women

The GSMA's Connected Women programme works with mobile operators and their partners to address the barriers to women accessing and using mobile internet and mobile money services. Connected Women aims to reduce the gender gap in mobile internet and mobile money services and unlock significant commercial opportunities for the mobile industry and socio-economic benefits for women.

For more information, please visit www.gsma.com/connectedwomen

To get in touch with the Connected Women team, please email connectedwomen@gsma.com

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Introduction

As societies around the world become ever more digitised, digital skills have become essential to full participation in society. Almost every government has a digitisation agenda that includes policies on digital skills development, often focused on upskilling the labour force and teaching information communication technology (ICT) in schools.[1] Opportunities to connect with others, work, learn and find information more efficiently via the internet has become part of everyday life for billions of people, and brings enormous social, commercial and economic potential.

With its extensive reach, mobile is uniquely positioned to deliver the life-enhancing services and information people need to manage their day-to-day lives, make better-informed decisions and contribute to the economy. In low- and middle-income countries (LMICs), the primary way that people connect to the internet is via a mobile phone. Often it is their only means of access, particularly for women and rural populations.[2]

Mobile broadband now covers almost everyone in the world, yet 3.4 billion people are still not using mobile internet, 93 per cent of whom live in LMICs.[3] Most mobile users today are aware of mobile internet and awareness is growing steadily, even in rural communities, yet this has not always translated into use. Across LMICs, the biggest barrier to mobile internet use among those who are aware of it, is a

lack of literacy and digital skills.[4] This tends to be an even greater barrier for certain population groups, including women, and especially those who are less educated and have lower incomes.

The GSMA works to connect the unconnected and ensure equitable access to mobile technology for all. This includes addressing barriers such as a lack of mobile digital skills.[4] This report summarises key learnings from the GSMA's research and application of mobile digital skills initiatives. It highlights the importance of the following actions and draws together key insights and learnings for each:

KEY INSIGHTS AND LEARNINGS

1. Understand people's needs, goals and aspirations;
2. Understand how people learn mobile digital skills;
3. Use a framework to map key digital competencies and proficiency levels; and
4. Measure mobile digital skills.

This report is relevant for any organisation seeking to address the mobile digital skills barrier and develop strategies and interventions to support underserved populations in overcoming it.

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1. See: https://en.unesco.org/themes/ict-education/action and https://www.worldbank.org/en/topic/edutech/brief/ict-education-policies
2. GSMA. (2021). The Mobile Gender Gap Report 2021.
3. 94% coverage. See: GSMA. (2020). The State of Mobile Internet Connectivity Report.
4. GSMA Consumer Survey.

Defining mobile digital skills

Organisations tend to define digital skills differently depending on their focus and approach.[5] Additionally, the terms "digital literacy", "digital competency" and "digital skills" are often used interchangeably and can have overlapping meanings. This lack of clarity can make it challenging to measure the impact of digital skills interventions and share lessons with other organisations.

Yet, there is also broad agreement that digital skills are not just the technical skills people need to go online and use the internet. They also encompass a range of cognitive and non-cognitive skills, such as those associated with communication and media literacy, and concepts such as privacy and safety. Some recent definitions include a focus on self-autonomy, emphasising that digital literacy involves ensuring that an individual has the knowledge and skills they need to use the internet to help them achieve their goals.[6]

The GSMA defines mobile digital skills as the knowledge and skills required to effectively and safely use a mobile device and mobile services, including mobile internet.

- **"Skills"** are defined as the abilities needed to engage in use of mobile devices and services. These range from the technical skills required to operate them, to the cognitive and non-cognitive skills needed to engage in activities such as communication, content creation and evaluation, and with concepts such as privacy and safety.

- **"Effective use"** is defined as having the knowledge and skills to use mobile devices and services in ways that help the individual achieve their goals or "lead the kind of lives they value".[7]

- **"Safe use"** is defined as having the knowledge and skills to protect mobile devices, personal data and privacy, and well-being in digital environments.[8]

The GSMA also refers to **"digital competencies"**, for the purpose of mapping the key skills learners need to meet the objectives of a mobile digital skills intervention and measure its impact (see action 3). These competencies are based on UNESCO's Digital Literacy Global Framework and focus on the knowledge, skills and attitudes necessary for competent performance.[9]

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5.   GSMA. (2019). Unpublished. Research included a desk review of internal and external resources on digital skills with a focus on mobile, and 34 key stakeholder interviews. Stakeholders represented the GSMA, mobile operators, multilateral organisations, NGOs, civil society and other interest groups, technology companies, academia and research institutions and trusts and foundations.

6.   For further discussion of definitions of digital literacy, self-autonomy and the implications for women in India, see BBC Media Action. (2021). "Increasing women's digital literacy in India: what works". For more examples of recent definitions, see: UNESCO, UNCTAD, ITU and the European Commission.

7.   For more detailed discussion of "effective use", see pp. 116–118 in Donner, J. (2016). *After Access: Inclusion, Development and a More Mobile Internet*.

8.   Drawn from the European Digital Competence Framework for Citizens (DigComp) "safety" competence.

9.   UNESCO Institute for Statistics. (2018). A Global Framework of Reference on Digital Literacy Skills for Indicator 4.4.2: "Our observations during the various stages of our empirical work show that there is a general acceptance that competence in digital literacy requires the person to have the necessary knowledge and skills, but views differ regarding attitudes. We hold the view that attitudes are necessary for a person to have the commitment and motivation to achieve competent performance, and should be included."

1.

Understand people's needs, goals and aspirations

Understanding a target population's needs, goals and aspirations is the first step in developing relevant and appropriate mobile digital skills strategies and interventions. This information can be used to identify how mobile services, including the internet, can help these individuals meet their needs and identify the digital skills they require. A needs-based approach can ensure an intervention appeals to the target population, aligns with their goals and helps them acquire the digital skills they need to use mobile devices and services effectively and safely.

Life needs fall into 11 categories and mobile internet fulfils them in different ways
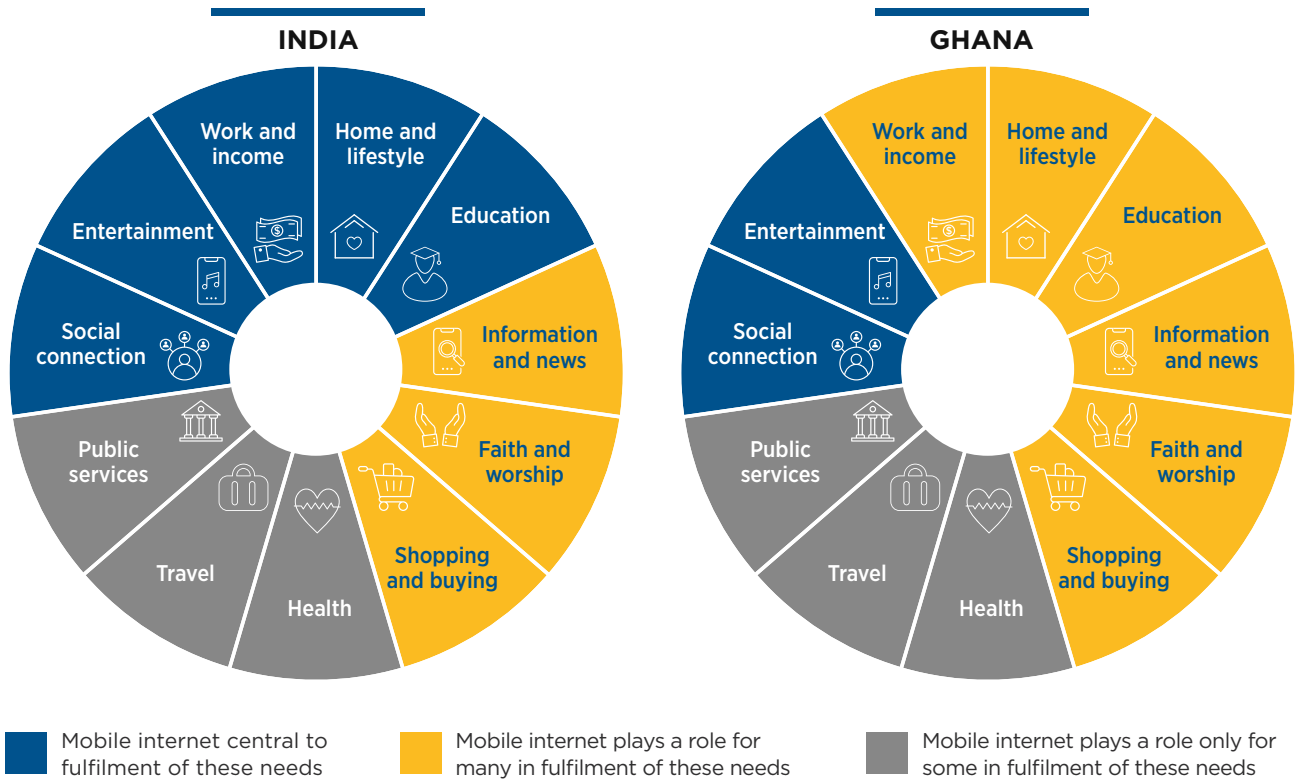
The GSMA has developed a framework outlining 11 categories of "life needs" where mobile internet plays a role for users (Figure 1).[10] This can be used to identify which needs are a priority for certain population groups and how mobile internet is, or could be, used to meet these needs. This framework was applied to research with underserved groups in India and Ghana. While users reported that mobile internet was a valuable way to support their life needs across all 11 categories, they tended to use it for some needs more often and before other needs. In both countries, mobile internet was central to meeting users' needs for *Social Connection* and *Entertainment*. In India, mobile internet also played a central role in supporting three additional life needs: *Work and Income*, *Home and Lifestyle* and *Education*. Across all life needs, saving time and money were priorities.[11]

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10.   The framework was initially developed by Basis Research, an independent research consultancy that conducted the user research underpinning the GSMA (2021) report: Understanding people's mobile digital skills needs: insights from India and Ghana.
11.   GSMA. (2021). Understanding people's mobile digital skills needs: insights from India and Ghana.

Figure 1

The role of mobile internet in supporting 11 "life needs" of users in India and Ghana

INDIA

- Work and income
- Home and lifestyle
- Education
- Entertainment
- Information and news
- Social connection
- Faith and worship
- Public services
- Shopping and buying
- Travel
- Health

GHANA

- Work and income
- Home and lifestyle
- Education
- Entertainment
- Information and news
- Social connection
- Faith and worship
- Public services
- Shopping and buying
- Travel
- Health

■ Mobile internet central to fulfilment of these needs

■ Mobile internet plays a role for many in fulfilment of these needs

■ Mobile internet plays a role only for some in fulfilment of these needs

Priority needs and goals vary by demographic group

People prioritise their life needs differently, and these needs vary by demographic group. When designing strategies and interventions to support mobile digital skills development, it is important to consider what needs are a priority for the target population, as the mobile use cases that support these needs are also likely to be the most compelling and relevant to them.

How do needs, goals and compelling use cases differ by gender?

Local social norms that influence gender roles and expectations can be a key factor in shaping people's priority needs and goals, and the mobile use cases they find most compelling.

In the India research sample, women and men often reported different priority needs. Men frequently highlighted *Work and Income* as a priority because they were typically responsible for supporting themselves and their families financially. By contrast, women were typically responsible for the domestic space and tended to prioritise the needs of the household. This included *Education* (for children) and *Home and Lifestyle* (e.g. managing household administration, cooking for the family, sewing, etc.). The mobile use cases women and men found compelling were similarly gendered.[12]

In the Ghana sample, however, women and men reported similar priority needs, which centred around *Work and Income* and *Social Connection*. Both women and men were engaged in economic activities and were responsible for supporting the family financially, however the type of economic activity differed by gender to some extent. Consequently, the mobile use cases that women and men found compelling differed slightly according to the type of economic activity they were engaged in. For women, use cases that supported activities such as market trading or hairdressing were compelling while men found use cases that supported activities such as construction work or taxi services most compelling.

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12. For example, for women, this included use cases that supported the household, such as finding new cooking recipes online. For men, it included use cases that support economic activity, such as finding new agricultural techniques online.

2.

Understand how people learn mobile digital skills

A critical next step is understanding the target population's learning preferences, opportunities and barriers. This will ensure that the intervention is designed to appeal to them and aligns with their circumstances and the resources available to them. The following three insights should be considered when designing mobile digital skills strategies and interventions.

The learning journey starts before users go online

Lack of confidence to learn can be a significant issue, especially for women.[13] Research conducted in India and Ghana found that lack of confidence was a key barrier to learning and was often linked to perceptions of the mobile device as "fragile", "expensive" or "complicated". Encouragement and practical support, such as placing the device in the learner's hands, is important at this stage to build their confidence.[14] Additionally, learning how to operate the handset, for example turning it on, making a call, inserting a SIM, navigating settings and adding contacts, are often important precursors to learning how to use mobile internet.[15]

New users begin at similar starting points, but their learning journeys diverge as they progress

GSMA research has found that communication, social networking and entertainment are often the primary entry points to mobile internet, and certain platforms tend to serve as initial gateways, although these differ slightly by country.[16] For example, research conducted with mobile internet users in India found that this included WhatsApp, YouTube and, for some people (often men), Facebook. In Ghana, however, WhatsApp and Facebook were more common entry points. In the early stages of skills development, users performed basic activities on these platforms that were quick to learn and provided immediate reward and reciprocity (e.g. messaging and calling).[17]

As users progressed, they tended to use skills learned in early stages to support a wider range of needs and use cases. Transferrable skills varied depending on their early activities. For example, in India, common transferrable skills included those that supported search, especially with voice, and those that supported image and video sharing (see Figure 2).[18]

13. GSMA. (2015). Accelerating Digital Literacy: Empowering women to use the mobile internet; GSMA. (2021). The Mobile Gender Gap Report 2021.
14. GSMA. (2021). Understanding people's mobile digital skills needs: insights from India and Ghana. This has also been found in studies conducted in countries such as Kenya. See: GSMA. (2021). Safaricom's Maisha Ni Digital Campaign; Mozilla. (2016). Stepping Into Digital Life: Digital Skills Observatory Research Report.
15. GSMA. (2019). Unpublished. Research included a desk review of internal and external resources on digital skills with a focus on mobile, and 34 key stakeholder interviews. Stakeholders represented the GSMA, mobile operators, multilateral organisations, NGOs, civil society and other interest groups, technology companies, academia and research institutions and trusts and foundations.
16. GSMA. (2019). Unpublished; GSMA. (2018). Triggering mobile internet use in Côte d'Ivoire and Tanzania; GSMA. (2017). Triggering mobile internet use among men and women in South Asia; GSMA. (2015). Accelerating Digital Literacy: Empowering women to use the mobile internet.
17. GSMA. (2021). Understanding people's mobile digital skills needs: insights from India and Ghana.
18. Ibid. See the published report for more details and the key transferrable skills identified in the Ghana sample.

Figure 2

Examples of key transferrable mobile digital skills: India

KEY SKILLS:	EARLY USE:	TRANSFERRRED TO:
Search, especially via voice	• YouTube searches for videos on subjects of interest (Entertainment, Work and Income, etc.)	• Location searches on Google Maps • Information search on Google • Other uses of voice command (e.g. voice notes on WhatsApp)
Enter text into a 'bar' (those with sufficient functional literacy)	• Writing WhatsApp messages to friends, family, work contacts	• Text based search (e.g. location searches on Google Maps, information on Google) • Other text search (e.g. Play Store for apps, products in online stores such as Amazon) • Messaging on other platforms (e.g. Instagram)

Significantly, the learning journey for each mobile internet user in the research was unique based on the life needs they aimed to fulfil, the mobile use cases that were compelling to them and the learning barriers they experienced.[19] Those who became regular mobile internet users often continued to use the same entry point platforms, but had added a variety of other digital platforms, use cases and skills to their repertoire.[20]

When designing strategies and interventions to support mobile digital skills development, it is valuable to build in flexibility for learners who have slightly different needs, experience different barriers to learning and are on different learning journeys. For example, this may include designing modules to target different use cases, platforms and types of digital skills, and providing options to start at different places in a training curriculum.

New users often prefer face-to-face training support, but can become more confident learning new skills by themselves as they progress

GSMA research has found that in the early stages of mobile digital skills development, new users often want and need face-to-face training with practical support.[21] This support can be particularly important for women; the GSMA *Mobile Gender Gap Report 2021* highlighted that female mobile users tend to feel less confident than male users learning a new activity on their phone by themselves.[22]

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19. Ibid. See the report for more details; barriers were grouped into underlying literacies, mindset and device, cost and device-related issues.
20. Research participants were categorised as engaging in regular use if they had started using internet
21. GSMA. (2021). *Understanding people's mobile digital skills needs: insights from India and Ghana*; GSMA. (2015). *Accelerating Digital Literacy: Empowering women to use the mobile internet*.
22. GSMA. (2021). *The Mobile Gender Gap Report*. This confirms previous research findings. See, for example, GSMA. (2015). *Bridging the gender gap: Mobile access and usage in low- and middle-income countries*; GSMA. (2014). *Reaching Half of the Market: Women and Mobile Money*.

GSMA research in India and Ghana showed that many non-users and new users wanted interactive approaches that would allow them to ask questions and feel reassured that they were performing activities correctly. This was due to the perceived complexity of the internet and the digital skills required to use it, combined with concerns about the risks involved in making mistakes online.[23] These learners tended to seek support from people they considered trustworthy and sufficiently expert in digital technology.

As users acquired more digital skills, they typically developed more confidence using mobile internet, and were often more willing to explore and learn by themselves. For example, these users were more likely to follow on-screen prompts and respond to familiar icons, such as the search bar. They were also more likely to use Google and YouTube to troubleshoot problems they experienced. They might still rely on in-person guidance when using new platforms or features, but it was typically lighter touch, providing reassurance.

This demonstrates the importance of an individual's social network in learning mobile digital skills, particularly in the early stages. It implies that those with the fewest digitally literate people in their social network willing to help them learn may benefit most from mobile digital skills interventions.

It also suggests that resources that can support self-guided learning, such as training videos, may be valuable in promoting digital skills development, but are unlikely to be a substitute for in-person training in the early stages. Instead, it is important to explore how in-person techniques and self-guided training resources can complement each other in a mobile digital skills development strategy.[24]

How do learning preferences and strategies differ by gender?

Local social norms that influence gender roles and expectations can play a significant role in shaping people's learning preferences and are important considerations when designing mobile digital skills interventions.

For example, research conducted in low-income communities in Uttar Pradesh and Tamil Nadu in India found that women were often expected to stay close to home and tended to have smaller social networks than men that often centred around the domestic space. Among the women sampled, interaction with strangers was often not approved of, and there needed to be a strong justification to travel further afield. Local social norms also often stigmatised women's use of mobile devices and services, especially mobile internet.

Consequently, women and the gatekeepers in their lives (husbands, fathers, mothers-in-law, etc.) were frequently ambivalent about mobile digital skills training. They had a strong preference for it to be held in familiar spaces close to home where women felt safe and comfortable. There was also a preference for group learning with female peers to ensure peer support and social acceptability of the training among the family and wider community.[25]

23. GSMA. (2021). *Understanding people's mobile digital skills needs: insights from India and Ghana*.
24. For example, self-guided training materials may be effective during and following face-to-face training sessions to reinforce and recap what was learned.
25. GSMA. (2021). *Understanding people's mobile digital skills needs: insights from India and Ghana*.

3.

Use a framework to map key digital competencies and proficiency levels

A framework that maps key digital competencies and proficiency levels can be a valuable way to support the design and assessment of mobile digital skills strategies and interventions. Most existing digital competence frameworks do not focus explicitly on mobile devices or use cases, although they can be relevant when they are device agnostic.[26]

The following points provide guidance on designing a framework to support mobile digital skills development strategies:

1. Build the framework around use cases that the target population finds compelling (as outlined under action 1). The first step is to map the knowledge and skills the target population needs to engage in these use cases, as well as the key tasks involved.[27]

2. Establish the proficiency levels required for each use case, being aware that they may vary depending on the complexity of the tasks

involved.[28] Learners may also have higher levels of proficiency in some competencies than others depending on their previous experience with mobile devices and the internet.[29]

3. When assessing learner proficiency, consider not only the complexity of the task that the learner can manage, but also the "cognitive challenge" involved and the "autonomy" of the learner in completing the task.[30]

The GSMA has developed a sample framework that organisations can use (see Figure 3). This is based on six competency areas relevant to mobile digital skills development (see Box 1), adapted from UNESCO's Digital Literacy Global Framework. Each competency area can be combined with different proficiency levels. The proficiency levels included here are indicative and based on the complexity of tasks for a particular use case.[31]

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26. For further discussion and a review of digital literacy assessment frameworks in relation to LMICs, see UNESCO Institute for Statistics. (2018). A Global Framework of Reference on Digital Literacy Skills for Indicator 4.4.2.

27. This is similar to the pathway mapping methodology used by UNESCO (2018) and has a similar purpose.

28. "While different levels of proficiency can be defined in a general framework, what serves as an adequate level of proficiency differs according to the context". See p. 28, UNESCO. (2018). A Global Framework of Reference on Digital Literacy Skills for Indicator 4.4.2.

29. For example, some may have higher levels of proficiency in communication and content creation due to previous social media use, but lower proficiency in information management due to lack of experience searching for information online.

30. For more information, see European Commission. (2017). European Digital Competence Framework for Citizens (DigComp 2.1). "Cognitive challenge" refers to the cognitive domains "remembering", "understanding", "applying", "evaluating" and "creating" (based on Bloom's taxonomy). These align with increasing levels of proficiency. "Autonomy" refers to the level of support a learner requires to complete a task, for example, "with guidance", "on my own" or "guiding others". The level of autonomy also increases with the level of proficiency.

31. For more information on this framework and associated proficiency levels, see: GSMA. (2021). Accelerating mobile internet adoption: Policy considerations to bridge the digital divide in low- and middle- income countries.
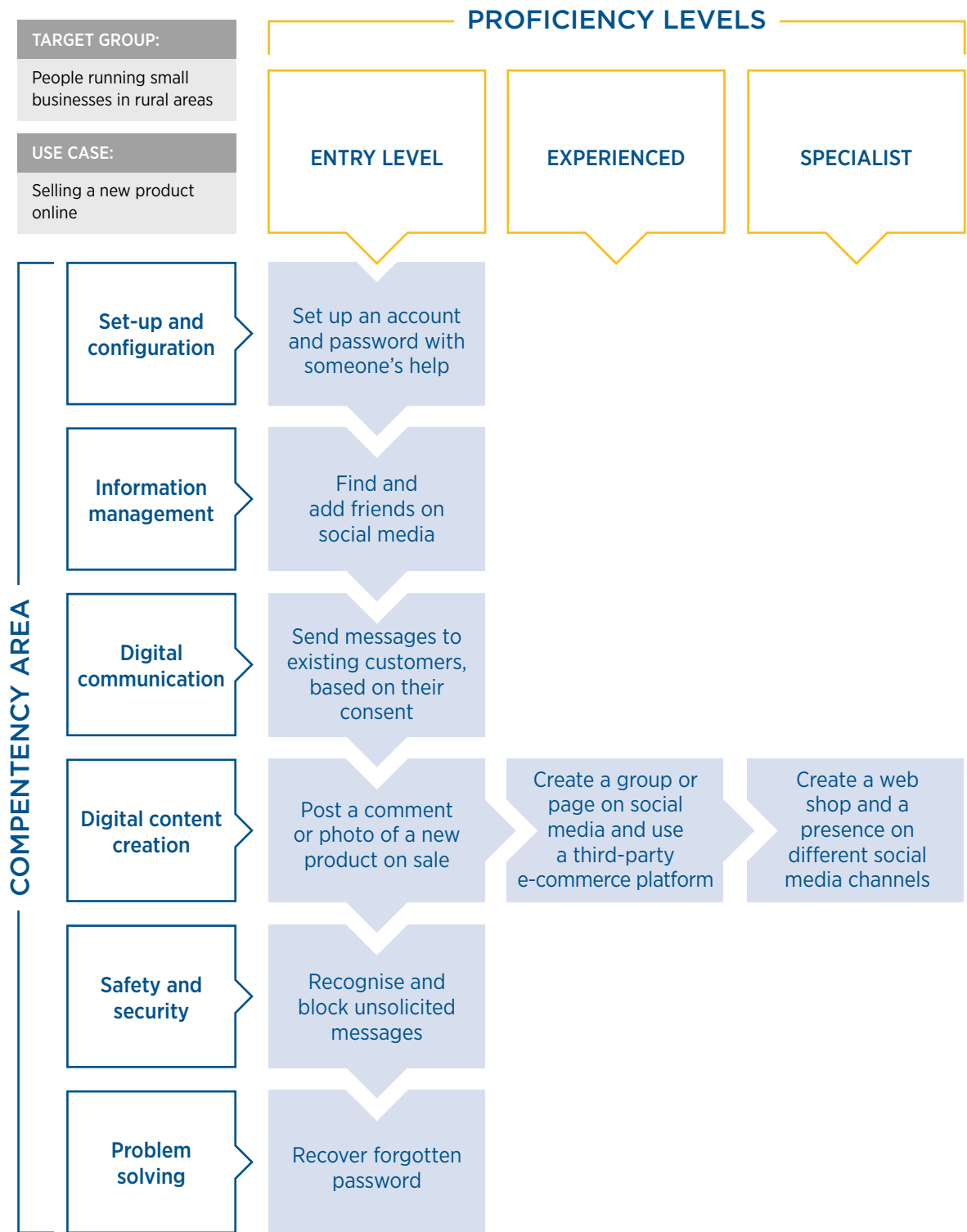
BOX 1 – Competency areas

Competency areas	
Set-up and configuration	The ability to set up devices, products and services, configure settings and set preferences to personal needs. Examples include acquiring, understanding and managing a data plan, setting up internet access, downloading and installing or deleting applications, creating accounts and managing device or app settings.
Information management	The ability to articulate information needs, to search or discover new and useful information, content and services, and to evaluate, compare and judge the relevance and trustworthiness of information and its sources.
Digital communication	The ability to interact, communicate, collaborate and participate in society through a variety of digital services. It also includes being able to build a positive digital identity and reputation while being aware and sensitive to others' needs, concerns and cultural diversity.
Digital content creation	The ability to create, edit and share digital content with a particular audience or contribute information to an existing body of knowledge.
Safety and security	This is a cross-cutting competency and includes the ability to protect devices, content and personal information (e.g. the ability to change privacy settings, protect passwords), as well as physical and psychological well-being from potential online harm (including scams, malware, harassment and harmful content).
Problem solving	The ability to identify technical problems with devices or services, and addressing them or recognising the lack of capabilities to do so. It also includes being able to help others develop their digital competence and stay up to date with new developments.

Figure 3

A sample framework for mapping digital competency and proficiency levels

PROFICIENCY LEVELS

TARGET GROUP:
People running small businesses in rural areas

USE CASE:
Selling a new product online

COMPETENCY AREA

Competency	ENTRY LEVEL	EXPERIENCED	SPECIALIST
Set-up and configuration	Set up an account and password with someone's help		
Information management	Find and add friends on social media		
Digital communication	Send messages to existing customers, based on their consent		
Digital content creation	Post a comment or photo of a new product on sale	Create a group or page on social media and use a third-party e-commerce platform	Create a web shop and a presence on different social media channels
Safety and security	Recognise and block unsolicited messages		
Problem solving	Recover forgotten password		

A framework such as this can help to identify the skills involved in a particular use case and support organisations in designing mobile digital skills strategies and interventions accordingly. It can also guide assessment of the current proficiency levels of the target population, against the proficiency levels necessary for the use cases included in the framework. This can help to identify gaps in skills, assess learners' progress in acquiring these skills and measure the effectiveness of the mobile digital skills strategy or intervention.

4.

Measure mobile digital skills

Assessing the digital skills of different populations is vital to support digital inclusion and develop effective digital skills strategies and interventions. It can help to identify segments of the population and areas where more support is needed and to assess the effectiveness of existing interventions. It is particularly important to include *mobile* digital skills in these assessments since mobile devices are the primary entry point to the internet for many people, especially in LMICs.[32] However, robust and comparable data on digital skills, and particularly mobile digital skills, is often lacking, especially in LMICs.[33]

Measuring digital skills accurately and at scale is challenging given the limitations of many existing approaches. For example, performance tests are generally considered one of the most robust and accurate methods, but these are costly and time consuming to implement. Large-scale surveys often rely on respondents to self-report their skills proficiency, which is commonly overestimated or underestimated. However, proxies can be used. For example, surveys that capture what people use their mobile devices for may indicate that a user has at least the most basic skills required for a use case. Qualitative research can also be used to gather in-depth information on the skills and skill needs of specific segments.

The GSMA uses a combination of these approaches and continues to explore how to improve research and measurement of mobile digital skills and the design and implementation of mobile digital skills strategies and interventions more broadly.

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32. GSMA. (2021). The State of Mobile Internet Connectivity 2021.
33. GSMA. (2019). Unpublished. Data is particularly lacking for LMICs due to a lack of local resources and capacity to conduct such research.

The GSMA Mobile Internet Skills Training Toolkit (MISTT)

Connected Society
Mobile Internet Skills Training Toolkit

A guide for training people in basic mobile internet skills

The GSMA identified a need for training resources to teach underserved populations the skills they need to access and use mobile internet. The Mobile Internet Skills Training Toolkit (MISTT) was created to meet this need.

The toolkit contains a variety of free resources that stakeholders can adapt and scale to support their training efforts.[34] It is designed to be flexible enough to be used in a range of scenarios and formats. This includes scenarios where time is a constraint (e.g. they can be used for one-off or short training sessions, even two to three minutes in length) and where trainers have limited training experience (e.g. mobile agents). MISTT resources are being used by MNOs, NGOs and governments around the world to teach and strengthen mobile digital skills. This has increased mobile internet adoption and use among those who have received the training, and generated a strong positive return on investment for MNOs.[35]

The toolkit resources fall into three broad categories:

1. **App-focused modules** (e.g. WhatsApp, Google, Facebook): These are stand-alone modules that enable the trainer to adapt content to the specific needs of the trainee (e.g. highlight the benefits of the app for social connection).

2. **Topic-focused modules** (e.g. Safety & Cost, Accessibility, Mobile Money): These are also stand-alone modules that allow the trainer to adapt content to the needs of the trainee.

3. **Needs-focused modules:**[36] These modules are structured around "learning pathways". Each pathway has modules on different consumer needs (e.g. Staying Connected and Entertained). Each module focuses on a relevant use case and introduces the skills and knowledge needed to perform that use case (e.g. Getting Started on Social Media). Each module begins from the mobile home screen, so it can be stand-alone or included as part of a series.

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34. The resources can be found in the *Mobile Internet Skills Training Toolkit (MISTT)*. In keeping with the principles of digital public goods, the resources are freely available under the Creative Commons Attribution 4.0 International License, which allows users to distribute, remix, adapt and build on them in any medium or format, as long as attribution is given to the creator. For more information on digital public goods, see DigitalPublicGoods.net.
35. GSMA. (2021). *MTN Data Smart: Increasing mobile internet access and use through digital skills training*; GSMA. (2019). *Mobile Internet Skills Training Toolkit: Banglalink Pilot Evaluation*; GSMA. (2018). *Mobile Internet Skills Training Toolkit: Tigo Rwanda pilot evaluation*.
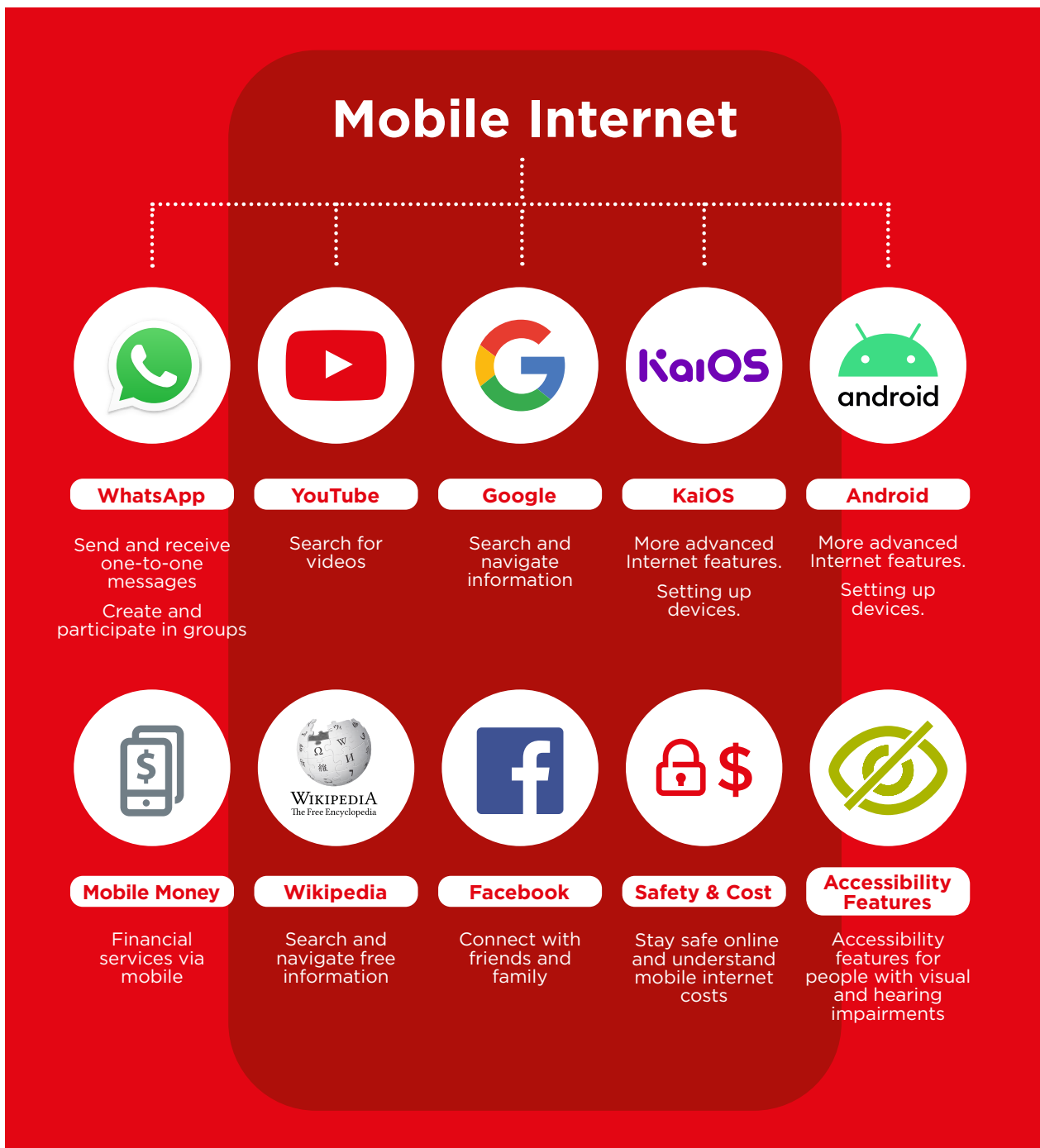36. Currently in development, due to be published April 2022.

MISTT resources include "train the trainer" guides to support face-to-face training, as well as posters, learner handouts and short videos that can be shared with trainees.

These resources have been developed using Human-Centred Design (HCD) principles and methodologies, and centre around the learning styles and preferences of new and low-data users. For example, the resources draw on research that shows new users often want to learn about specific apps (e.g. WhatsApp), topics (e.g. staying safe online) or use cases (e.g. sharing photos with family). The toolkit continues to be updated and expanded as more research and development activities are conducted.

Figure 4

App and topic-focused modules

Mobile Internet

WhatsApp
Send and receive one-to-one messages
Create and participate in groups

YouTube
Search for videos

Google
Search and navigate information

KaiOS
More advanced Internet features.
Setting up devices.

Android
More advanced Internet features.
Setting up devices.

Mobile Money
Financial services via mobile

Wikipedia
Search and navigate free information

Facebook
Connect with friends and family

Safety & Cost
Stay safe online and understand mobile internet costs

Accessibility Features
Accessibility features for people with visual and hearing impairments

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