

DIGITAL LITERACY PRIMER

How to Build Digital Literacy into USAID Programming

Photo: Paula Bronstein—India

APRIL 2022



ACKNOWLEDGEMENTS

The USAID Digital Literacy Primer is the result of significant contributions from across USAID, DAI's Digital Frontiers Project, and our partner community, including implementing organizations. The Primer was written by a drafting team led by Kanchana Sthanumurthy (USAID), Kelly Church (DAI Digital Frontiers), and Araba Sapara-Grant (DAI Center for Digital Acceleration), with substantial contributions from Tom Koutsky and Michelle Parker (USAID), and Erica Bustinza and Angelica Serna (DAI Digital Frontiers). Report design and graphics were provided by Amber Pitts via Digital Frontiers.

The authors extend their appreciation to all USAID staff who participated in internal discussions and review of this report, especially the dedicated guidance provided by Michelle Parker. The authors thank USAID's Digital Sector Council and Digital Literacy Working Group members for taking the time to meet and provide input and/or peer review the Primer.

The authors accept responsibility for any errors or inaccuracies in this report.

This publication was produced by the Digital Frontiers Project under Cooperative Agreement AID-OAA-A-17-00033 at the request of the United States Agency for International Development (USAID). This report is made possible by the generous support of the American people through the United States Agency for International Development under the Digital Strategy. The contents are the responsibility of the author or authors and do not necessarily reflect the views of USAID or the United States Government.

TABLE OF CONTENTS

ACKNOWLEDGEMENTS	2
ACRONYMS	5
ABOUT THIS PRIMER	6
INTRODUCTION	8
What is Digital Literacy?	9
Digital Literacy Framework	11
What are the Types of Digital Literacy Programming?	13
Why Does Digital Literacy Matter for USAID Programming?	14
Understanding the Operating Environment for Digital Literacy	14
EMBEDDING DIGITAL LITERACY INTO USAID’S PROGRAM CYCLE	19
Country and Regional Strategic Planning	19
Activity Design and Implementation	21
Monitoring, Evaluation, and Collaborating, Learning, and Adapting	25
DIGITAL LITERACY TRENDS BY SECTOR AND PRACTICE AREA	29
Agriculture and Food Security	29
Conflict Prevention and Stabilization	32
Democracy, Human Rights and Governance	34
Digital Financial Services	36
Economic Growth and Trade	39
Education	41
Energy	43
Gender	46
Health	49
Humanitarian Assistance	51
Youth	53
CONCLUSION	57

ANNEXES	58
Annex I: USAID Topics for Further Reading	59
Annex II: DigComp 2.2 Proficiency Levels	60
Annex III: Examples of DigComp 2.2 Competence Areas, Competences, and Proficiency Levels across USAID Programming	61
Annex IV: Digital Literacy Competence Frameworks and Resources	65
Annex V: Case Studies	69
Annex VI: Digital Literacy in Project Activity Design	74
Annex VII: Glossary	77

LIST OF BOXES AND FIGURES

BOXES

Box 1. What is Digital Literacy and Cyber Hygiene?	10
Box 2. Where Do Trust and Confidence Fit into the Digital Literacy Definition?	12
Box 3. Digital Literacy and the Global Development Agenda	14
Box 4. Digital Ecosystem Country Assessments (DECAs)	21
Box 5. The Role of Champions and Intermediaries in Building Digital Literacy and Behavior Change.....	24
Box 6. Digital Financial Services and Sector-Specific Interventions	37
Box 7. Education and Digital Literacy Programming	43

FIGURES

Figure 1. Percent of individuals who have access to the Internet	8
Figure 2. Digital literacy pillars	9
Figure 3. DigComp 2.2 Competence Areas and Competences	11
Figure 4: Types of digital literacy programming	13
Figure 5. The Digital Ecosystem Framework	15
Figure 6. Maturity of a digital ecosystem	15
Figure 7. How digital literacy can help close the digital divide and create more inclusive digital ecosystems	17
Figure 8. USAID Program Cycle	19
Figure 9. Principles for Digital Development	22
Figure 10. Digital Financial Literacy	36
Figure 11. DigComp Framework Competence Levels	60
Figure 12. DigComp Framework Proficiency Levels	60

ACRONYMS

AOR	Agreement Officer's Representative	ICDL	International Certification of Digital Literacy
APS	Annual Program Statement	IP	Implementing Partner
API	Application Programming Interface	ITR	Innovation, Technology, and Research Hub
ASYCUDA	Automated System for Customs Data	ITU	International Telecommunication Union
CPS	Bureau for Conflict Prevention and Stabilization	IVR	Interactive Voice Response
DDI	Bureau for Development, Democracy, and Innovation	JRC	Joint Research Centre
BHA	Bureau for Humanitarian Assistance	KYC	Know-your-customer
CICO	Cash in/Cash out	LMICs	Lower-Middle Income Countries
CVP	Center for Conflict and Violence Prevention	MFI	Microfinance Institution
CDC	Centers for Disease Control and Prevention	MSME	Micro, Small and Medium-Sized Enterprise
CIO	Chief Information Officer	MAST	Mobile Applications to Secure Tenure
CSM	Civil Society and Media	MNO	Mobile Network Operator
CSOs	Civil Society Organizations	mSTAR	Mobile Solutions Technical Assistance and Research
CLA	Collaborating, Learning and Adapting	NICS	National ICT Competency Standards
CVE	Combating Violent Extremism	NIST	National Institute of Standards and Technology
CHW	Community Health Workers	NGO	Non-Governmental Organization
CORs	Contracting Officer's Representatives	OTI	Office for Transition Initiatives
CDCS	Country Development Cooperation Strategy	CMC	Office of Civilian-Military Coordination
DRG	Democracy, Human Rights, and Governance	OT	Operational Technology
DI	Development Innovations	P2P	People to People
DIV	Development Innovation Ventures	PMGDISHA	Pradhan Mantri Gramin Digital Saksharta Abhiyan
DigComp	Digital Competence	SDGs	Sustainable Development Goals
DECA	Digital Ecosystem Country Assessment	CTA	Technical Centre for Agricultural and Rural Cooperation
DFS	Digital Financial Services	UNCDF	United Nations Capital Development Fund
D4Ag	Digital for Agriculture	UNCTAD	United Nations Conference on Trade and Development
EU	European Union	USAID	United States Agency for International Development
GHSC-TA	Global Health Supply Chain — Technical Assistance	VSLA	Village Savings and Lending Association
ICT	Information and Communications Technology	WHO	World Health Organization
IT	Information Technology	YESS	Yemen Economic Stabilization and Success

ABOUT THIS PRIMER

Purpose of the Primer

USAID's first [Digital Strategy](#) charts an Agency-wide vision for development and humanitarian assistance in a rapidly digitizing world. Digital literacy is an essential component of efforts to expand the use of digital technology in developing countries. Incorporating digital literacy into development programming is central to the Agency's new approach to "help partners navigate opportunity and risk" and strengthen the security and resilience of partner country digital ecosystems.

This Primer aims to:

- Improve USAID staff's understanding of digital literacy;
- Demonstrate how digital literacy contributes to broader global development goals;
- Describe how digital literacy can be incorporated into various stages of the USAID program cycle; and
- Detail ways in which different sectors and practice areas can develop digital literacy through their unique activities.

This primer builds on the Digital Competence (DigComp) digital literacy framework developed by the European Union (EU) and considered to be the gold standard for understanding digital literacy. The DigComp framework will enable USAID staff to develop digital literacy activities, share best practices, and capture lessons learned with a shared understanding and technical approach. Digital literacy is a broad topic that encompasses a range of competences from basic literacy and numeracy skills to advanced computing and information processing skills. Sharing a language and an understanding of each of the core competences of digital literacy will improve USAID's programming, understanding, and collaboration on this topic that is critical to effective digital programming.

Who this Primer is for

This primer is intended for USAID staff working across all sectors and stages of the program cycle, particularly Agreement Officer's Representatives (AORs) and Contracting Officer's Representatives (CORs), as they conceive, design, implement, and evaluate technical programs.



Photo: Jeremy Green—Colombia

INTRODUCTION

Countries around the world are experiencing unprecedented digital transformation. Governments are expanding the availability of digitized public services and Information and Communications Technology (ICT) infrastructure, while businesses across economic sectors are introducing digitally-enabled products and services. As a result, previously disconnected communities are coming online and increasing their reliance on new technologies and skills.

The COVID-19 pandemic has further hastened this trend, accelerating global rates of digital adoption by three years.¹ According to the International Telecommunication Union (ITU), global internet penetration has risen from 17 percent in 2005 to over 53 percent in 2019.² At the close of 2020, 5.8 billion people — 75 percent of the global population — had subscribed to mobile services.³ While these figures offer a narrow glimpse into the ways people are joining the digital economy, they demonstrate a shift in the demand for and use of digital technologies across all spheres of personal, social, political, and economic life.⁴

Not everyone benefits equally from digital transformation. Roughly 87 percent of individuals in high-income countries have access to the internet, in comparison to 19 percent in Lower-Middle Income Countries (LMICs).⁵

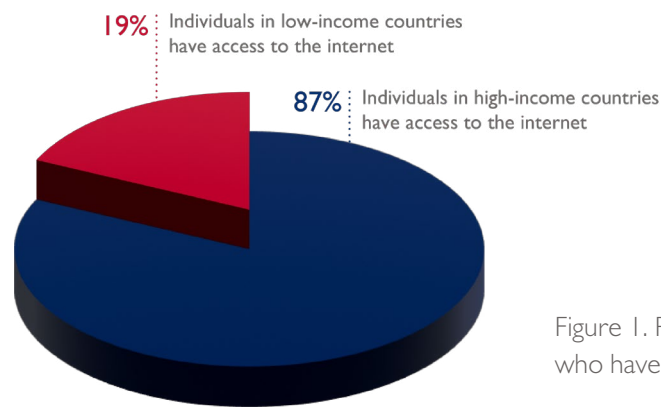


Figure 1. Percent of individuals who have access to the Internet

USAID is working to expand digital access through investments in connectivity. In order to be effective and equitable in achieving access, USAID’s approach to digital programming must extend beyond access to physical devices and infrastructure and ensure that users possess a nuanced set of skills to meaningfully, responsibly, and safely participate in their digital ecosystem. This set of competences, also known as **digital literacy**, is central to ensuring that the benefits of the Digital Revolution are available to all members of society.

WHAT IS DIGITAL LITERACY?

Building on [UNESCO's definition](#) of literacy, USAID defines digital literacy as:



The ability to access, manage, understand, integrate, communicate, evaluate, and create information safely and appropriately through digital devices and networked technologies for participation in economic, social, and political life.

Digital literacy encompasses skill sets sometimes referred to as computer literacy, ICT literacy,ⁱ⁶ or media and information literacy.ⁱⁱ⁷ Borrowing from these competences, this definition acknowledges digital literacy's two pillars: capacity and safety.

- **Capacity** refers to the technical knowledge and skills required to use a variety of digital devices and services such as mobile phones, tablets and computers, the internet,

messaging and social media services such as WhatsApp, Twitter, and Facebook, as well as audio and visual tools.

- **Safety** refers to the skills and awareness required to use digital tools carefully while navigating potential harmsⁱⁱⁱ and cyber threats successfully. This pillar includes, but is not limited to, strategies for strengthening cyber hygiene and countering mis- and disinformation.^{iv}

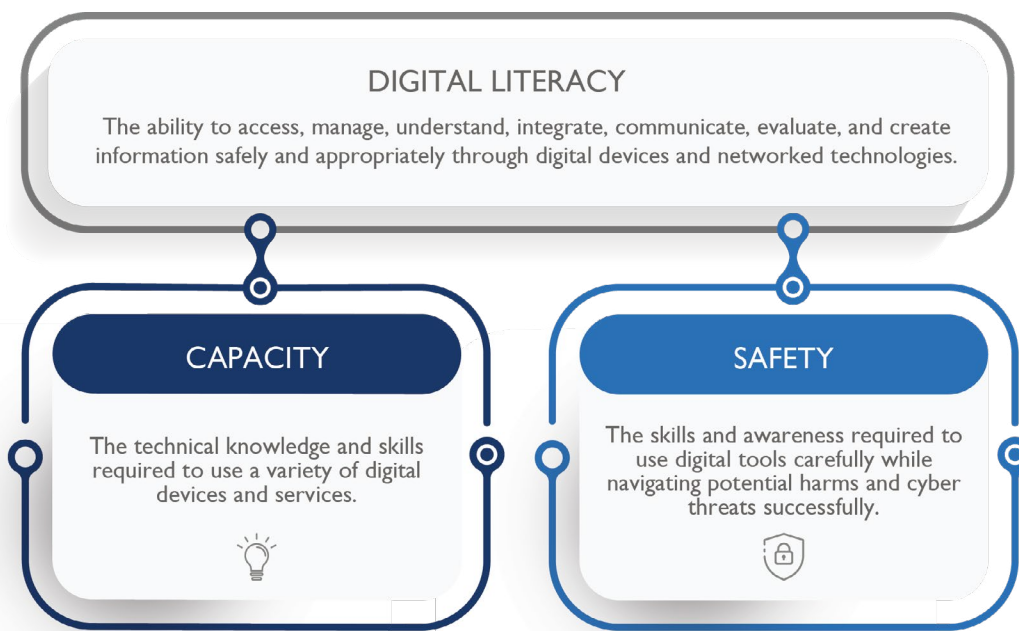


Figure 2. Digital literacy pillars

i ICT literacy is using digital technology, communications tools, and/or networks to access, manage, integrate, evaluate, and create information in order to function in a knowledge society.

ii Media literacy is defined as a set of competences that empowers citizens to access, retrieve, understand, evaluate and use, create as well as share information and media content in all formats, using various tools, in a critical, ethical and effective way in order to participate and engage in personal, professional, and societal activities.

iii Cyber harms are defined as damaging consequences resulting from cyber events, which can originate from malicious, accidental, or natural phenomena, manifesting itself within or outside of the internet. They can potentially impact individuals, organizations, or countries. Cyber harms can be organized into six different categories: physical, psychological, economic, reputational, cultural, and political.

iv Mis-information is when false information is shared without harmful intent. Dis-information is when false information is knowingly shared to cause harm.

BOX 1

What is Digital Literacy and Cyber Hygiene?

Cyber hygiene is a key digital literacy skill that encompasses practices and steps that individual users and organizations take to maintain their online security and strengthen the security of their computers or other digital devices. Many of these practices are routine and help ensure the protection of a person’s identity or other sensitive information from being unknowingly co-opted or corrupted. Though cyber hygiene varies by sector, common cyber hygiene practices include:

LIMIT USERS

Not all people within your organization should (or need to) have access to all the data within a network, system, or program. Access should only be granted to those who require it to perform their duties. All others should have limited capabilities.

TWO-FACTOR AUTHENTICATION

A method of establishing access to an online account or computer system that requires the user to provide two types of information. According to the National Institute of Standards and Technology (NIST), 81 percent of hacking-related breaches were enabled by stolen or weak passwords. This is why it is important to employ two-factor authentication, when available, thus adding a second layer of protection.

PASSWORD CHANGES

Creating passwords or passphrases that are easy to remember, hard to guess, regularly changed, and not repeated can prevent malicious activities and protect sensitive information.

USE LICENSED SOFTWARE

To avoid vulnerabilities, organizations should use licensed software, which is regularly updated to fix or “patch” a problem or “bug” in a computer program. Pirated software leaves computers vulnerable to surveillance and attacks.

BACK-UP DATA

All data should be backed up to a secondary source to avoid data loss as a result of a cyber attack or malfunction. Options include an external hard drive or cloud storage system.

UPDATED INVENTORY OF ASSETS

All hardware and software used should be kept in a secure inventory, including the installation of new software. This inventory will help identify vulnerabilities should the system become victim to a cyber-attack.

SOFTWARE AND HARDWARE UPDATES

Updating software on all devices is vital for maintaining the health of that device. Many software updates come with patches that address known vulnerabilities. Many software products push these updates and patches automatically, but users need to enable those push updates. Not all hardware has to be updated to maintain performance standards, but hardware that is no longer being used should be wiped of all data and disposed of properly.



DIGITAL LITERACY FRAMEWORK

Digital literacy competences are skills that help users safely and effectively use technology. Digital literacy frameworks provide a structure and shared language for assessing existing competences, identifying gaps, and measuring the impact of their investments in capacity building. While there are a few frameworks available, this primer uses the European Digital

Competence Framework for Citizens (DigComp Framework) as a foundation for digital literacy and the competences USAID activities are developing. This primer references the DigComp Framework as it provides a comprehensive breakdown of digital literacy competency areas and ways of measuring those competences.

THE DIGCOMP FRAMEWORK

The European Commission’s Joint Research Centre (JRC) published the first iteration of the [DigComp Framework](#) in 2013 “to improve citizens’ digital competence, to help policymakers formulate policies that support digital competence building, and to plan education and training initiatives to improve digital competence of specific target groups.”⁸ It identified 21 competences under five key areas, as presented in Figure 3. The next version, [DigComp 2.1](#), was updated in 2017 to expand the initial proficiency levels from three to eight and to support implementation of the Framework (see [Annex II](#)). The current version, [DigComp 2.2](#), was released in 2021 and further expands the Framework by offering more than 250 current examples of the knowledge, skills, and attitudes that contribute to each competence. The second part of the

publication provides reference material for DigComp, combining previously released publications and references.

The DigComp Framework provides a core set of digital literacy competences and a starting point for understanding how digital literacy fits into programming. [Annex IV](#) includes additional examples of digital literacy competency frameworks.⁹

DigComp 2.2 categorizes many of the competences identified in USAID’s digital literacy definition. For examples of how various USAID activities align with the DigComp 2.2 competence areas and competences, along with programming-related examples of different proficiency levels, see [Annex III](#).

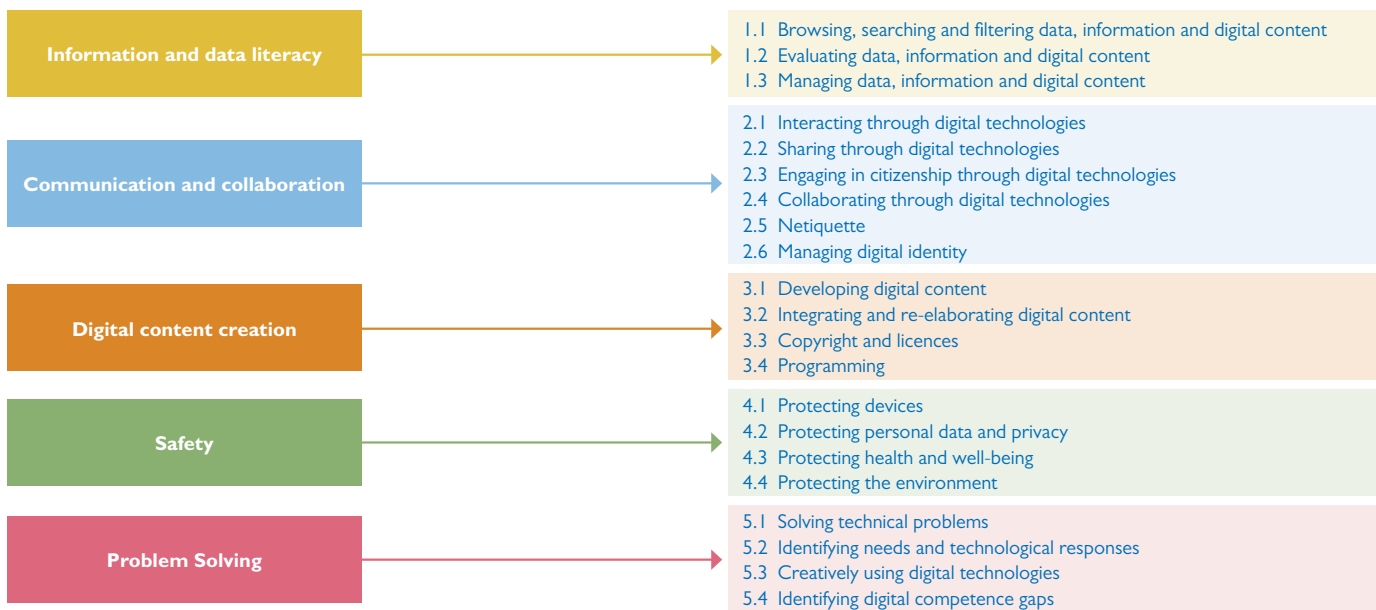


Figure 3. [DigComp 2.2](#) Competence Areas and Competences

BOX 2

Where Do Trust and Confidence Fit into the Digital Literacy Definition?

Trust, one's belief that a digital tool will achieve its intended purpose without causing harm, and confidence, the belief in one's self to learn and apply digital skills, are critical for advancing digital literacy. Lack of trust in digital tools and service providers can contribute to low adoption rates of these tools. Low self-confidence in using digital tools, particularly among women and girls, presents another major barrier. A 21-country assessment of eighth grade students found that “girls had lower levels of self-efficacy even when they outperformed or performed similarly to boys on measures of digital skills.”¹⁰

Though these concepts are not considered digital literacy competencies by DigComp 2.2 standards, they are important to acknowledge. Digital literacy interventions can build trust and self-confidence through strategies such as identifying and mitigating digital harms, identifying trusted human interfaces and support systems for digital services, and developing high-touch, recurrent training curricula that make use of role models and archetypes to build a sense of aspiration, familiarity, and identity among potential users.¹¹



WHAT ARE THE TYPES OF DIGITAL LITERACY PROGRAMMING?

There are two main approaches for incorporating digital literacy considerations into program design: Foundational and Tactical Digital Literacy.

Foundational digital literacy activities help users develop competences that are applicable in all aspects of their economic, social, and personal lives, while tactical digital literacy activities prepare target populations to use digital tools in particular

sectors or areas of employment. USAID activities should proactively identify opportunities to build digital literacy through both approaches, engaging with relevant stakeholders where possible. Governments, academic institutions, and vocational training entities may be ideal partners for foundational activities, while private sector entities, industry associations, and other workforce development groups may be appropriate partners for tactical digital literacy activities.

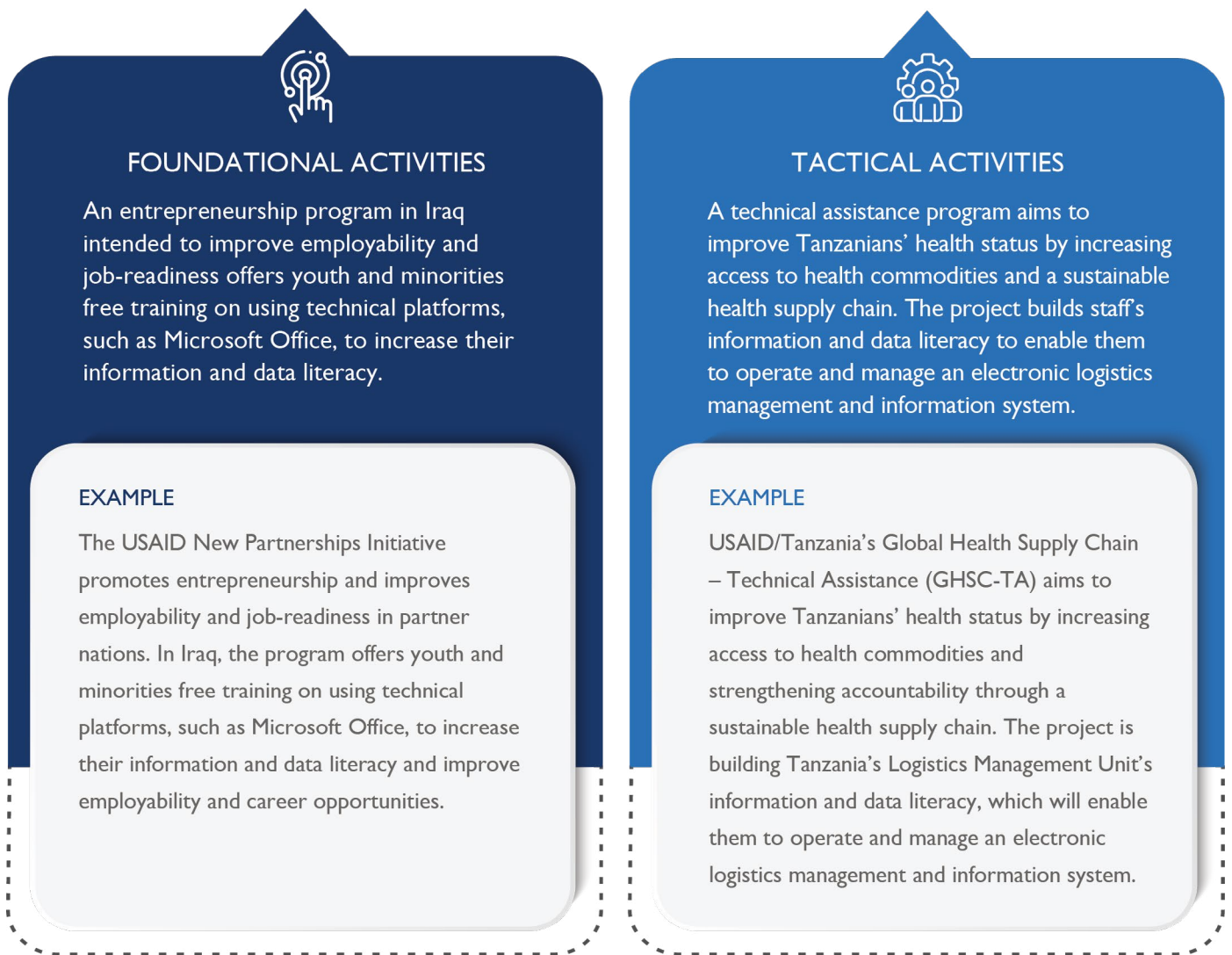


Figure 4: Types of digital literacy programming

WHY DOES DIGITAL LITERACY MATTER FOR USAID PROGRAMMING?

Any USAID activity that involves a digital component inherently involves digital literacy, whether acknowledged or not. Ensuring that users are able to engage with and utilize a digital intervention safely and appropriately is key to a successful digital development activity.

Digital development programs **should never assume** that the users or beneficiaries have the necessary digital literacy skills to take full advantage of the program or to understand and manage the potential risks involved. A program that incorrectly makes this assumption may set itself up to fail or deepen the divide between the digital haves and have-nots.

As supply and demand for digital services increases, USAID must ensure that digital transformation takes place in an inclusive and safe manner. The Agency's Digital Strategy highlights the importance of strengthening partner country digital ecosystems to ensure that the benefits of digital technologies and services are distributed equitably and contribute to development objectives. Digital skills gaps present a major barrier to the adoption of digital technologies, threatening the viability of USAID's digital interventions. The Digital Strategy highlights the importance of digital literacy across its Results Framework.¹²

Digital literacy is key for establishing open, inclusive, and secure digital economies. If strengthened, digital literacy will contribute to a virtuous cycle in which partner governments and citizens are able to reap the full benefits of USAID investments in digital development while simultaneously demonstrating to public and private investors a readiness to adopt more advanced digital tools and services.

BOX 3

Digital Literacy and the Global Development Agenda

The Sustainable Development Goals (SDGs) explicitly recognize the importance of digital literacy.¹³

SDG 4.4: Proportion of youth and adults with information and communications technology (ICT) skills, by type of skill. The lack of such skills continues to be one of the key barriers keeping people from fully benefiting from the potential of information and communication technologies. These data may be used to inform targeted policies to improve ICT skills, and thus contribute to an inclusive information society.

By identifying digital skills as a critical step in achieving the SDGs, the United Nations has created an opening for international donors, non-governmental organizations (NGOs), implementing partners (IPs), civil society organizations (CSOs), and the private sector to advocate for the integration of digital literacy into national strategies and development interventions.



UNDERSTANDING THE OPERATING ENVIRONMENT FOR DIGITAL LITERACY

Well-designed initiatives and digital tools consider the structures and needs that exist within a country, region, and community. In implementing successful digital interventions, development programming must evaluate the broader operating environment to determine how best to tailor a digital intervention. This section

reviews factors that influence the operating environment for digital literacy, including the digital ecosystem, the COVID-19 pandemic, and the risks of digital illiteracy and the gender digital divide in the broader context of the operating environment.

THE DIGITAL ECOSYSTEM

A digital ecosystem comprises stakeholders, systems, and an enabling environment that, together, empower people and communities to use digital technology to access services, engage with each other, and pursue economic opportunities. Building on this concept, the Agency created the Digital Ecosystem Framework that refines the ecosystem into a practical structure for development practitioners (figure 5).

A digital ecosystem takes into account the maturity of the stakeholders, systems, and enabling environments that empower people and communities to use digital technology. In countries where the digital ecosystem is relatively mature, a population may experience higher rates of digital literacy than in countries where digital ecosystems need strengthening. Understanding this digital divide helps identify a population’s digital literacy needs (see figure 6).

A community with a high rate of mobile penetration, strong internet connectivity, inclusive digital policies, and affordable data and digital devices may need more support developing digital literacy in areas like *Safety*, rather than in more foundational competence areas like *Information and Data Literacy*. Although a population may benefit from developing digital safety practices, if personal devices are inaccessible or unaffordable, related safety competences such as *Protecting devices* or *Protecting personal data and privacy* could be difficult to develop effectively. And yet, it is possible to build complex skills in low resource environments

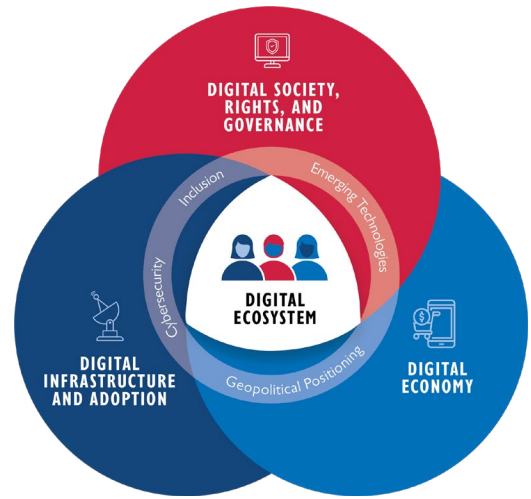
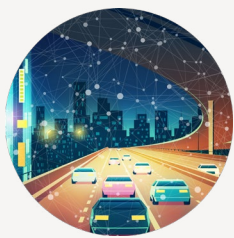


Figure 5. The Digital Ecosystem Framework

and vice versa. This is meant to demonstrate the ways in which digital ecosystems can influence what kind of digital literacy competences a target population may **need** and which are actually **possible** to develop.¹⁴

USAID’s work to strengthen the digital ecosystem could fall short of its intended outcome unless we are intentional about building user capacity to demand, engage with, and safely navigate digital tools and services. Digital literacy and related topics, such as cybersecurity and media literacy, need to be considered in any USAID digital intervention.

Mature Digital Ecosystem

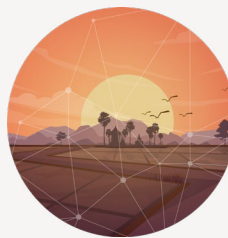


- High rate of mobile penetration
- Strong internet connectivity
- Inclusive digital policies
- Affordable data and digital services



Focus on: Safety

Nascent or Emerging Digital Ecosystem



- Low rate of mobile penetration
- Inconsistent internet connectivity
- Deep digital divide
- Unaffordable or inaccessible data and digital services



Focus on: Information and Literacy

Figure 6. Maturity of a digital ecosystem

USAID’s work to strengthen the digital ecosystem could fall short of its intended outcome unless we are intentional about building user capacity to demand, engage with, and safely navigate digital tools and services.

COVID-19

The global COVID-19 pandemic has renewed focus on the value of using digital tools to increase access to reliable information and services. McKinsey found that 75 percent of people using digital channels for the first time intend to continue using them after the pandemic ends.¹⁵

Digitalization necessitated by the COVID-19 pandemic provides an opening to form and reinvest in long-term partnerships with organizations working to strengthen digital literacy across global, national, and local spheres. Digital literacy is crucial for facilitating a global response to and recovery from COVID-19, including the global transition to digital ways of learning and working. In addition to enabling safe and responsible access to the internet and other digital technologies to receive, share, and produce content, program and activity designers should consider how best to support adoption through digital literacy training and capacity building.

THE RISKS OF DIGITAL ILLITERACY

While digital tools and technologies can expand equity and prosperity among vulnerable groups and across the developing world, they can also expose users to digital risks and harms. Although donors, IPs, and other stakeholders are advocating to strengthen digital ecosystems and shepherding digital transformation in partner countries, they must also maintain their commitment to “do no harm” and ensure that target populations are aware of, and equipped to avoid, the threats associated with digital technology, including¹⁶:

- The persistent digital divide among vulnerable and marginalized groups;
- Digital sexual and gender-based crime;

- Hate speech and violent extremism online;
- The influence of online misinformation and disinformation on democratic processes;
- Risks to privacy and security, particularly among vulnerable populations;
- Disruption or attacks upon digital infrastructure; and
- Online bullying.

These threats are not unique to any one region of the world and can compromise the strength of a digital ecosystem by sowing mistrust in digitally-enabled systems and services. For example, if a woman is subject to online gender-based violence or harassment, the negative impacts of these attacks could lower her willingness to adopt digital technologies or services in the future. Digital literacy activities can protect the communities that USAID serves and ensure that the positive impacts of digitalization are not reversed by malign actors by expanding awareness of digital risks and harms. Individual awareness of online risks is a necessary but not sufficient component and efforts to improve individual awareness around risks must be coupled with efforts to mitigate harms through policy interventions.

USAID programming should include activities that build competences related to DigComp Competence Area 4: *Safety*, such as

- 4.1: Protecting devices,
- 4.2: Protecting personal data and privacy, and
- 4.3: Protecting health and well-being.

DEEPENING THE DIGITAL DIVIDE

Persistent digital divides can negatively impact the strength of a country's digital ecosystem and digital literacy rates. Digital divides exist between men and women¹⁷, young and old, rural and urban, persons with disabilities, citizens and migrants, and more. While each of these divides is characterized by unique social, economic, and political dynamics, they all result in a similar injustice: a vulnerable or marginalized group unable

to attain digital skills due to barriers that make digital tools and services unaffordable, unavailable, or inaccessible. The USAID Digital Strategy aims to close the digital divide in all of its forms. Developing digital literacy among marginalized groups can help close the digital divide by ensuring that vulnerable or marginalized groups have equal opportunity to adopt and benefit from digital technology (figure 7).

HOW DIGITAL LITERACY CAN HELP CLOSE THE DIGITAL DIVIDE AND CREATE MORE INCLUSIVE DIGITAL ECOSYSTEMS

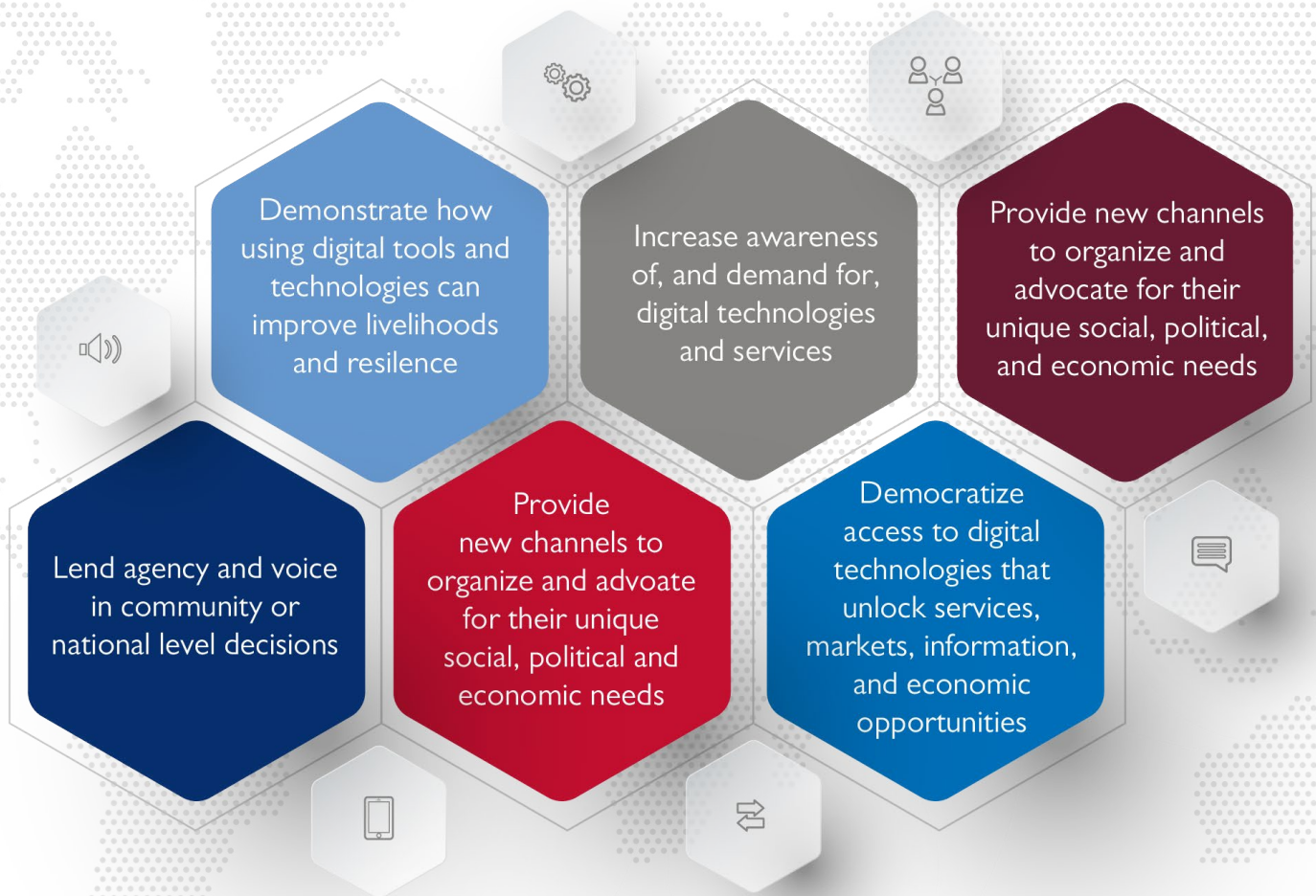


Figure 7. How digital literacy can help close the digital divide and create more inclusive digital ecosystems



Photo: Marina Kuznechetskaya—Central Asia

EMBEDDING DIGITAL LITERACY INTO USAID'S PROGRAM CYCLE

Digital literacy among the target population is necessary to the success of digital interventions. This section outlines how Mission staff can incorporate or enhance digital literacy throughout the program cycle.^v

COUNTRY AND REGIONAL STRATEGIC PLANNING

Missions can incorporate digital literacy considerations into the Country Development Cooperation Strategy (CDCS) process. Agency-endorsed frameworks, such as landscape analyses¹⁸, help Missions identify the primary development challenges in their country through a series of studies and data collection activities. This methodology can also help Missions survey a country's digital ecosystem and identify digital literacy needs.

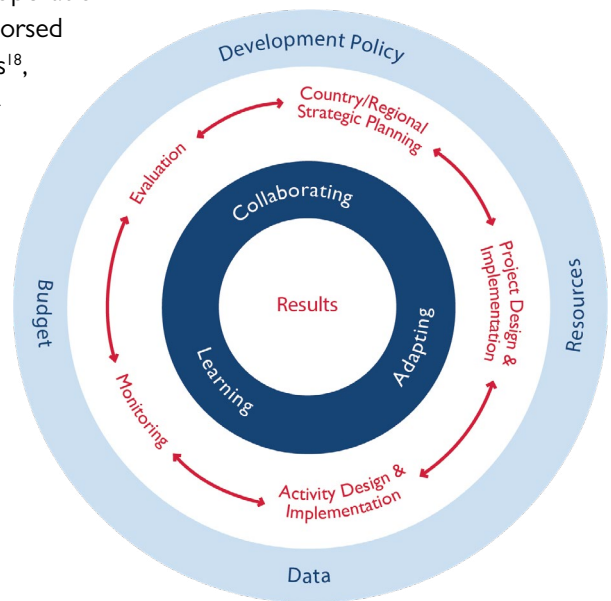


Figure 8. USAID Program Cycle

^v **Note:** This section is not intended to provide step-by-step guidance on how to design, implement and evaluate digital literacy programs and activities, but rather offer a variety of guiding questions and considerations to support USAID staff embarking on the process of incorporating digital literacy activities into new or existing programs.

When conducting these context-setting exercises, Missions should consider the following guiding questions:

What are the partner government’s strategic development goals and how might digital technology accelerate their achievement?

Digital literacy is a development goal in and of itself, but partner governments face competing priorities, of which digital literacy may be just one (or not considered at all). In environments where digital development is not yet recognized as an explicit development objective, it is important to identify the ways in which digital technology, and digital literacy by extension, can achieve other strategic goals in a more efficient, safe, inclusive, and equitable manner. **Building digital capacity can support a government’s broader development goals and help chart a path towards investment in digital literacy.**

Broader digital development reports and assessments conducted by organizations such as GSMA as well as internal USAID tools like Digital Ecosystem Country Assessments (DECAs, see box 4) can provide further context on how digital tools are furthering development outcomes across various geographies.¹⁹

Does the partner government have agencies, strategies, or initiatives focused on digital development and ICT? If so, what are their priorities and how might digital literacy help achieve these priorities?

Digital literacy may be perceived as a development enabler rather than a development goal so **Mission staff should review existing documents detailing a country’s digital or ICT strategy to identify potential activities or goals that could be enhanced by digital literacy.** Mission staff should conduct a landscape analysis of government initiatives related to ICT, education, workforce development, or other strategic goals, and map out existing government stakeholders and structures related to digital development to determine

where partner countries may already be implementing digital literacy activities (whether explicitly identified as such or not).

Are there target populations that the partner government would like to prioritize and what do we know about their existing digital literacy rates?

Depending on the partner government’s priorities around sectors or social issues, certain groups— such as women and girls, smallholder farmers, youth, CSOs, or micro, small and medium-sized enterprises (MSMEs) — may be target populations. Capturing the digital literacy rates of these groups is crucial before developing digital literacy activities. Some studies compare digital literacy rates by country²⁰ but often neglect developing economies.

Mission staff should use other forms of nationally representative data as proxies for digital literacy, such as literacy and numeracy rates, data on existing ICT infrastructure, feature and smartphone penetration, and mobile money subscriptions. [UNICEF](#) and the [World Bank](#) collect country-level data on youth and adult literacy rates, while the [ITU](#) is a reliable source for country-level ICT data.²¹

What are the characteristics of the local digital ecosystem?

Understanding the partner country’s digital ecosystem can help identify a population’s digital literacy needs as well as the barriers or opportunities that may affect a digital literacy activity. Studies on the digital ecosystem should be as granular as possible, and include regional studies on digital adoption and literacy, and research by gender, indigenous populations, and other vulnerable groups. Understanding the local digital ecosystem can reveal whether the partner country or relevant stakeholders have adopted any digital literacy frameworks to guide digital skills development in public education systems, vocational training, or workforce development programs.²²

BOX 4

Digital Ecosystem Country Assessments (DECAs)

USAID's [DECAs](#) inform the development, design, and implementation of USAID's strategies, processes, projects, and activities. The assessment evaluates the three pillars of a country's digital ecosystem: Digital Infrastructure and Adoption; Digital Society, Rights, and Governance; and Digital Economy. The resulting report identifies areas of opportunity and risk for Mission-funded programming. In countries where extensive gaps in the digital ecosystem exist, Missions can build responses into sector-level programming or develop cross-cutting efforts country-wide. By taking a holistic view of ecosystem challenges and U.S. engagements and investments in-country, a DECA can facilitate interagency collaboration and private-sector engagement to strengthen the digital ecosystem. DECAs are a helpful tool that USAID staff can use to ensure that their digital literacy activities are shaped by relevant and contextual information about a country's digital ecosystem.²³

ADDITIONAL CONSIDERATIONS FOR INCORPORATING DIGITAL LITERACY INTO COUNTRY AND REGIONAL STRATEGIC PLANNING:

- Include digital literacy as a cross-cutting theme in the CDCS;
- Integrate digital literacy into other objectives grounded in skills development, such as workforce development, civic engagement, entrepreneurship, and economic empowerment;
- Consult digital development experts and specialists, both internal and external to USAID, on how digital literacy can align with a country's broader development goals;
- Encourage local buy-in of digital literacy and digital development programming; and
- Identify digital champions at every Mission to advocate for the inclusion of digital literacy considerations.

For an example of a Mission effectively integrating digital literacy commitments into their CDCS, please see the USAID/Colombia CDCS example in [Annex V](#).

REMEMBER

Digital literacy may often go unmentioned, but any government commitment to digital inclusion, expanded technology access, workforce development, digital transformation, or similar goals will require improvements in digital literacy. **Technology expansion and digital literacy go hand in hand.**

ACTIVITY DESIGN AND IMPLEMENTATION

Mission Technical Offices should take a lead role in determining how a USAID activity, whether [foundational](#) or [tactical](#), can expand digital literacy competences. When planning activities, it is critical to design in collaboration with the end user. Understanding a user's experiences will reveal their needs and ensure that capacity building activities are uniquely tailored to them.

The [Principles for Digital Development](#) (Digital Principles) are living guidelines that help digital development practitioners in integrating best practices of technology-enabled programs. The Digital Principles identify how best to design and structure a digital literacy activity.



Figure 9. Principles for Digital Development

For examples of how the Principles for Digital Development can inform digital literacy activity design, see [Annex VI](#).

Guiding Questions

To pursue a user-centered design process and build a clear understanding of how a proposed digital literacy activity will create value for the user, Missions should consider the following guiding questions:

Who is my target user?

 PRINCIPLE: Design with the User

What are their pain points? What are their needs? What type of people, services and institutions do they trust? Which factors or influences may encourage a target user to join a digital literacy training? Which training formats would be most effective given their known behaviors, skills and potential limitations? Which stakeholders and community members can this activity engage to increase trust, awareness, and interest in adopting the new tool?^{vi} It is important to reflect on these questions through the lens of a learning environment.

^{vi} For more information on tools to rapidly assess the potential digital literacy of target populations, please see [Annex VI](#).

Asking questions about the user’s experience reveals information that informs the design of digital literacy activities. **Activity designers should follow a user-centered or human-centered design approach to develop a clear profile of their target user.** Resources such as [IDEO’s HCD toolkit](#) or [USAID’s Engage HCD toolkit](#) support this process.

In what context or operating environment does my target user live and work?

 PRINCIPLE: Understand the Existing Ecosystem

To answer these questions, **designers should conduct a context assessment at the activity level that addresses the five key areas of inquiry²⁴:**

- *People:* Levels of education and literacy, including digital literacy, information habits and needs, access to disposable income, availability of power to charge devices, airtime and data to run them, and network access.
- *Community:* How membership of specific groups may affect access to technology and communication habits.
- *Market environment:* The key players, legal and regulatory policies, the mobile market, including cost and distribution of agent networks, and infrastructure, including commercial mobile infrastructure such as the availability of short-codes and application programming interfaces (APIs).
- *Political environment:* The governance, control of, and access to communications infrastructure by government and other institutions, as well as relevant laws and policies that govern ICTs.
- *Implementing organizations:* Their presence and ability to maintain and sustain use of technology through available infrastructure or existing cultures of innovation and adaptive learning.

Is the target user digitally literate and, if so, to what degree?

Digital literacy comprises a spectrum of hard and soft skills. Any given target group or sub-population may have strong digital literacy in one competence area and little to no literacy in another. To ensure that digital literacy activities are properly targeted, Operating Units should create space in technical and cost proposals for IPs to design and conduct digital literacy assessments. See [Annex VI](#) for a list of data collecting tools that can serve as an alternative to digital literacy-specific assessments.

How might we encourage IPs to consider digital literacy in their proposals and activity design?

While it may feel sufficient to refer to digital literacy activities as simply “training” or “capacity building” in a procurement, being very explicit with IPs about USAID’s interests and expectations around digital literacy from the outset can encourage IPs to be creative and intentional in how they propose activities to build specific competence areas. **Highlight digital literacy in solicitation language, allowing space in cost proposals, including the digital literacy definition provided in this primer, and providing examples of each of the DigComp 2.2 competences.** For insights on how IPs are currently approaching digital literacy in their work, see [Annex IV](#).

Are there risks associated with the proposed digital literacy activity?

Digital literacy activities may widen the digital divide due to improper targeting of training activities, or unintentionally cause users to adopt harmful behaviors through improperly developed or contextualized training curricula. Digital literacy activity risk assessments can assist in determining the most appropriate risk mitigation strategies to develop and whether

to proceed; if the risks are too high and cannot be properly mitigated, the program should not proceed.

Consider designing standalone digital literacy activities: Missions can leverage global buy-in mechanisms, design, or procure standalone digital literacy activities that improve digital literacy and inclusion in partner countries. This approach works best if the activities focus on developing competences in a particular sector or technical area such as media, health, youth workforce development, education, or financial inclusion. For example, the Macedonia Mission released a [Request for Applications](#) specifically targeting youth media literacy.

Leverage surveys, assessments, and local knowledge to gauge the appropriateness of a new digital tool or service.

In instances where a digital literacy assessment is not feasible or a digital literacy activity is designed midway through implementation, Missions can rely on alternative sources of information, such as digital agriculture assessments and market viability tools, that can serve as a proxy for digital literacy rates (see [Annex VI](#) for more details).

Intermediaries such as mobile money agents and extension officers can provide formal or informal training to marginalized, illiterate, or vulnerable populations on how to use, manage, and understand a service or device (see Box 5).

For advanced users in need of more complex digital competences, **champions and role models can help influence adoption of behaviors such as cyber hygiene.** It is critical to ensure that they are properly trained and equipped to help users adopt safe, appropriate, and responsible behaviors.

Adapt existing digital literacy curricula, rather than developing new materials, to support time and cost efficiency.



PRINCIPLE: Reuse and Improve

Consult with the Digital Inclusion Team and sector experts to discuss best practices for sector-specific digital literacy activities. Missions should leverage existing knowledge within the Technology Division of the Innovation, Technology, and Research (ITR) Hub, housed within the

USAID Bureau of Development, Democracy, and Innovation (DDI). The teams within the Technology Division are a resource, in addition to this Primer, to offer advice, share lessons learned, talk through challenges, and connect Missions implementing similar work.

REMEMBER

- Developing digital literacy competences is a high-touch process, requiring **multiple opportunities for users to learn and adopt a tool or service**. Activity design and implementation should account for this, building in multiple refresher activities for users over the life of the project.
- A target population's low adoption of a digital tool can be attributed to low digital literacy rates, triggering demand for a digital literacy activity. If the tool in question is poorly designed or fails to create value for the user, digital literacy training will do little to increase adoption. **To ensure that digital literacy activities achieve their intended outcomes, it is critical to properly scope and design digital interventions.**

BOX 5

The Role of Champions and Intermediaries in Building Digital Literacy and Behavior Change

Much of digital literacy is rooted in behavior change — either taking on a new behavior, like sending payments digitally, or correcting harmful behaviors, like using the same password across multiple accounts or devices. Digital literacy activities benefit from the use of role models, champions, community leaders, and trusted entities. These individuals model and incentivize the adoption of digital literacy competences and serve as sources of informal training.

For services targeting marginalized, illiterate, or vulnerable populations, intermediaries such as mobile money agents and extension officers play an important role in providing formal or informal training on how to use, manage, and understand a service or device.

Fall Armyworm Prize runner up, Akorion, uses community agents to help reach and train farmers on how to use mobile agriculture services. These community agents help lower the costs associated with reaching new customers, provide cost-effective training and capacity building support to farmers, and help build trust in the platform. Engaging these intermediaries can offset risks, as noted in a recent assessment of a social protection activity that uses mobile money to make social cash transfers.

The analysis found that mobile agents were giving users negative digital hygiene advice, such as advising users to make their PIN numbers simple and easy to guess, such as 1111 or 0000. Programs that harness intermediary trainers or champions should consider how best to engage with stakeholders to ensure that target beneficiaries get accurate information.

Case Study: mSTAR Mobile Money Salary Payments

In 2015, during the West Africa Ebola outbreak, Government of Liberia employees could only obtain their salaries through a direct deposit at a bank. This method of payment presented many challenges, including strenuous travel during an epidemic to reach the banks; system outages; and bribes. These challenges often resulted in teachers and healthcare workers abandoning posts for up to a month at a time. Through the Mobile Solutions Technical Assistance and Research program in Liberia (mSTAR/Liberia), USAID provided assistance to digitize payment systems so government employees could obtain their salaries through a mobile money transaction. The mSTAR mobile payments activity is a good example of a tactical digital literacy activity where the end goal of the activity was not simply increasing digital literacy. The activity incorporated best practices of digital literacy to achieve a strong development outcome. To read more about this program and how USAID integrated digital literacy considerations into the activity design, please go to [Annex V](#).



MONITORING, EVALUATION, AND COLLABORATING, LEARNING, AND ADAPTING

Monitoring, evaluation, and collaborating, learning, and adapting (CLA) analyze an activity's progress towards expected results.²⁵ This process informs decisions around resource allocation and changes, if any, an activity must undergo. This step is important for digital literacy activities to determine whether they expanded the target user's digital competences.

With the exception of sectors like education, youth, and democracy, human rights, and governance (DRG), digital literacy is almost uniformly considered a supplementary outcome. Since digital literacy activities are primarily focused on achieving development outcomes, like resilience and economic growth, monitoring and evaluation plans tend to evaluate program success based on indicators (such as increased income or the proportion of women accessing health care services), rather than the degree to which a user has mastered a digital competency area. As digital literacy becomes a greater focus in USAID programming, Missions should consider how best to measure digital literacy competences over time to ensure that they are effective.

Guiding considerations:

I Require evaluations for digital literacy programming

Various instruments exist to assist in evaluating the effectiveness of digital literacy programs (see [Annex VI](#)). According to the 2018 UNESCO report, *A Global Framework of Reference for Digital Literacy Skills for Indicator 4.4.2*, four categories of assessment instruments relate to digital literacy²⁶:

Performance assessments require the individual to demonstrate how he or she performs certain tasks.

Knowledge-based assessments require the individual to explain how he or she would perform certain tasks.

Self-assessments are subjective evaluations of a person's competence and may not really reflect that person's competence in real-life situations.

Secondary data gathering and analysis may provide information about competence at the group or population level but not at the individual level.

Depending on the timeframe and resources available, one or more of these tools can be used to measure how target users have developed a digital literacy competence. For example, the [Digital Payments Toolkit](#) recommends knowledge-based assessments^{vii} to measure users' understanding of digital financial services and suggests measuring success through pre- and post-training surveys that ask users questions such as:

- “What are digital payments?”;
- “Have you heard of modality x?”;
- “What are three things you can use modality x for?”;
- “What are three advantages of mobile money?”; and
- “What are three disadvantages of mobile money?”

Surveys can also ask respondents about the degree to which they feel capable of using a certain digital technology or service and if they desire to continue using it.

2 Develop unique digital literacy indicators with the help of digital literacy frameworks, such as the DigComp 2.2:

The [DigComp Framework](#) breaks its five digital literacy competence areas into 21 competences that can inform unique indicators. For example, competence 1.3, *Managing data, information and digital content*, could inform an indicator such as “number of trainees able to evaluate data, information, and digital content,” measured through one of the previously mentioned assessment instruments. DigComp 2.2 includes eight proficiency levels that gauge the level of specialization a user has achieved in a given competency. These proficiency levels are linked to specific cognitive domains such as remembering, understanding, applying, and creating, which can also inform an activity's unique digital literacy indicator.

vii Note that a criticism of knowledge-based assessments is that they largely test short-term memory and recall rather than measuring the knowledge and skills one has developed over time and have the ability to apply.

3 Find creative ways to measure auxiliary skills, such as trust and confidence

Tools such as self-reported surveys can reveal the degree to which users' confidence in themselves and their use of digital technology has increased over the life of the project.

4 Seek new channels to share digital literacy programming with practitioners both internal and external to USAID

Improving digital literacy is a continuous process and may be more easily adopted in some sectors than others. Sharing lessons learned, successes, and challenges will help demystify digital literacy programming and encourage the use of common frameworks and language to discuss activities.



Monitoring, Evaluation, and CLA Case Study: Hey, Sister! Show Me the Mobile Money

Hey, Sister! Show Me the Mobile Money is an interactive voice response (IVR) campaign designed to increase women's ability to access and use mobile money services.

This campaign recognizes that one of the top barriers for women's active use of mobile money is the lack of education, training, and a support network to navigate first time use of mobile money. The campaign takes participants through 10 lessons designed to build the capacity of women to evaluate and use mobile money.

As this campaign is targeted toward women, confidence — a primary enabler of digital literacy — is the indicator of greatest interest.

While the campaign does not measure indicators related to the acquisition of specific competences, it does measure indicators that can be used as a proxy for capacity, awareness, and confidence. Through self-reported surveys, the campaign measures the number and percentage of participants who have started using mobile money, switched to mobile money providers, started a new bank account through their phone or an agent, taken a loan out through their phone or agents, improved security measures for financial activities on their phones, or helped someone else learn how to use mobile money.



Photo: Jonathan Torgovnik—Kenya



Photo: Aquatronics—Morocco

DIGITAL LITERACY TRENDS BY SECTOR AND PRACTICE AREA

This section presents an overview of how USAID bureaus, offices, and teams are developing digital literacy competences across activities. This high-level analysis offers AORs, CORs, and other activity designers insight into trends that are shaping digital literacy in their sector of interest. Examples highlight sector-specific information and considerations, such as target users, their digital technology and literacy needs, and strategies to address these needs. There are many opportunities to develop digital literacy competences across unique technical or programmatic settings.

AGRICULTURE AND FOOD SECURITY

Digital literacy is an increasingly critical part of USAID's agricultural programming approach. Digital tools can be used to address market inefficiencies by correcting information asymmetries, strengthening communication across value chains, and empowering participation of a more diverse pool of actors. A lack of digital literacy among smallholder farmers and other value chain actors inhibits the ability of smallholder farmers (referred from here on as "producers") to maximize value from digital devices and services. According to the Technical Centre for Agricultural and Rural Cooperation (CTA) and Dalberg's [Digitalisation of African Agriculture report](#), demand for Digital for Agriculture (D4Ag) services remains below potential due, in part, to a lack of digital literacy. This lack of demand is one of the top four challenges inhibiting the role of digital technology in agriculture. As digital tools become a key enabler for functioning agricultural systems, the ability of stakeholders to understand, access, and properly leverage digital tools will be critical to the success of these digitally-enabled interventions.

Target Users and Barriers to Digital Literacy

While USAID agriculture activities engage a variety of stakeholders such as government agencies, civil society organizations, digital service providers, and agribusinesses of all sizes, producers (whether operating individually or as part of a cooperative or farmer group) are often the primary target and beneficiary of these activities. This section will focus on this group of users and discuss their common needs in relation to digital literacy.²⁷

Producers face a variety of challenges to increasing their digital literacy, not least among them basic literacy and numeracy. As a group that is often economically vulnerable, producers face ecosystem-level challenges, including limited access to digital devices, unreliable connectivity, and unaffordable data. Beyond these ecosystem challenges, producers face obstacles such as: 1) a lack of trust in or low awareness of, digital devices and services; 2) digital content that has not been properly contextualized to the local environment; and 3) a lack of services that effectively demonstrate value to the producer.

Programming Trends

Based on interviews for this primer, USAID agriculture activities targeting producers tend to focus on building foundational literacy skills such as *Information and Data Literacy* and *Communication and Collaboration* (DigComp Framework competence areas 1 and 2)^{viii}. This is a function of existing capacity—some producers may be using a digital device or the internet for the first time—and the nature of the services being introduced. Mobile technology is the most common digital tool in USAID agriculture programming as it is a delivery channel for services from mobile payments to digital extension and advisory.²⁸ Agriculture activities help producers and farming communities build the competences they need to use their mobile phones to search for, identify, collect, request, and send digital information, or in the case of digital financial services, use mobile money and gain access to other mobile financial services (such as credit).

USAID’s suite of tools, known as Mobile Applications to Secure Tenure (MAST), uses mobile technology to help producers and rural communities efficiently, transparently, and affordably map and document land resource rights as a means to improve agricultural productivity. Beyond mobile technology, activities introduce software packages, like Microsoft Office, to help producer groups and cooperatives track and manage their data. The [Naatal Mbay](#) project in Senegal worked to build the capacity of producer groups to use tools such as Microsoft Excel, DropBox, CommCare, and Area Mapper. These activities illustrate how USAID’s agriculture activities



are developing competences such as *Browsing, searching, and filtering data, information, and digital content; Evaluating data, information, and digital content; and Managing data, information, and digital content* (*Information and Data Literacy, 1.1 – 1.3*).

Few USAID foundational digital literacy activities target producers. Digital literacy capacity building is typically packaged within, or considered a secondary outcome of, digital agriculture interventions. Projects that introduced digital tools to MAST-trained community surveyors to map and verify parcel boundaries did not explicitly intend to improve digital literacy, but the project nonetheless built participants’ competences and familiarity with technologies such as GPS.

Some mobile applications are designed for direct use by producers, but due to literacy and accessibility barriers, digital agriculture activities may rely on mobile money agents, extension officers, village agents, and other intermediaries to offer digital services or deliver trainings on how to use a service. The use of intermediaries presents challenges, particularly if there are gender equity concerns with regard to access. To mitigate such risks, activities must be designed so that intermediary channels are open and inclusive. Hybrid models that link a digital product to a trusted intermediary with face-to-face engagement have a higher impact on adoption versus purely digital solutions.

^{viii} The Digital Literacy Trends by Sector and Practice Area chapter identifies specific DigComp Framework competence areas and competences, noted in italics.

KEY CONSIDERATIONS for Digital Literacy Activities in Agriculture

- Target users in the agriculture sector face individual and ecosystem-level barriers to increasing their digital literacy, such as low literacy and numeracy and inadequate access to digital devices in poorly connected rural areas.
- To overcome these challenges, digital literacy activities should consider approaches that increase digital literacy *both* among users who have their own devices and those who do not.
- Digital literacy activities should recognize and incorporate the unique roles that women play in agricultural communities and intentionally consider how to overcome the gender digital divide and barriers in this programming.
- USAID staff should encourage partners to offer digital literacy trainings through existing community structures like producer groups and cooperatives to expand awareness of digital tools and their value among producer communities—and work to ensure that these producer groups and cooperatives are open and inclusive to vulnerable populations.
- Staff should consider digital literacy activities for intermediaries like village and extension agents or trusted local leaders (and even youth in the community) who can help expand access to digital services for users who do not own digital devices, and provide formal or informal digital literacy training to those who do. When framed in an inclusive manner, this can build trust in digital services.
- While target users will primarily need support developing competence areas such as *Information and Data Literacy* and *Communication and Collaboration*, prioritize linking digital literacy competence areas such as *Safety* to trainings on specific agriculture services, particularly those collecting farmer data.
- When developing digital literacy training materials, adjust the format and content to address contextual issues such as differences in adoption between women and men, low connectivity (e.g. offline accessibility), language (e.g. availability of training materials in local languages), low literacy or numeracy (e.g. offering training materials through video or voice recording), and social and environmental realities (e.g. using scenarios and archetypes that are culturally relevant and context specific)
- As most digital agriculture innovations targeting producers are mobile-based, reference GSMA's [Accelerating Digital Literacy Report](#) for information on the stages of developing digital literacy with a mobile device.
- Reference additional resources on integrating digital technology into agriculture programming such as USAID's [Toolkit On Integrating Digital Financial Services Into Feed The Future Programs](#).

CONFLICT PREVENTION AND STABILIZATION

The Bureau for Conflict Prevention and Stabilization (CPS) is USAID’s dedicated, program-driven team for technical and analytical expertise on peacebuilding, conflict, and violence prevention. CPS partners with USAID Missions and U.S. Embassies to contribute to peace and stability through programs, funding, and technical services focusing on social, communal, and political aspects of crises and political transition. CPS builds the capacity of local organizations and governments to preserve and expand democratic and peaceful space in complex political environments. From working with independent media to jumpstarting local economies, digital solutions have an important role to play, particularly in their ability to increase transparency and efficiency in resource-constrained environments. Digital platforms, such as social media sites, are powerful tools for shaping public perceptions and the pace at which conversations about peace processes can happen. The relevance of digital tools, and stakeholders’ ability to use them, is rising in stabilization programming.

CPS is comprised of three operating units: the Center for Conflict and Violence Prevention (CVP), the Office of Transition Initiatives (OTI), and the Office of Civilian-Military Coordination (CMC). These entities have unique digital literacy considerations.

Target Users and Digital Literacy Barriers

Center for Conflict and Violence Prevention (CVP): Digital literacy plays a role in CVP’s efforts to support Missions working both on and in conflict. Digital literacy initiatives can serve as a tool for enhancing the effectiveness of conflict prevention programming by challenging patterns of exclusion, enabling more inclusive approaches to conflict analysis, and equipping partners and beneficiaries with the tools to resist the effects of digital hate speech and other challenges to social cohesion. CVP promotes conflict-sensitive development across sectors, assisting Missions to recognize and navigate how digital development may interact with the complex contexts in which USAID works and how to prevent unintended harm to beneficiaries, communities, and societies. CVP focuses on critical dynamics, including how conflict actors interact with the digital landscape, and how the information environment

affects individual rights and security, specifically in terms of data protection, privacy, safety, and cybersecurity.

CVP champions ethical and conflict-sensitive do no harm approaches to digital literacy (both training and utilization) that focus on safety and security, transparency and accountability, responsibility, diversity, and informed consent. CVP’s target users have diverse (and often dynamic) digital literacy needs pertaining to safety, security, and risk management, primarily in fragile and conflict-affected settings, where the conflict shapes the digital ecosystem in varied ways.

Office of Transition Initiatives (OTI): OTI is unique in that the short-term, flexible nature of its programming usually requires projects to work within the limits of stakeholders’ existing skills, habits, and preferences. Instead of designing large-scale educational programs or campaigns to build specific digital literacy competences, projects target specific participants who are able to influence local perceptions, attitudes, or behaviors in line with shared values around peace and democracy.

Standalone projects on digital literacy fill specific knowledge or skill gaps necessary to achieve higher-level outcomes. For example, OTI will support a local youth group to facilitate a conversation on how social media is being used to spread hate speech. This work is done within the resource constraints of small grants (average project size \$60,000 USD over six months) and the operational constraints that come with fluid, complex, and insecure environments.

Office of Civilian-Military Coordination (CMC): CMC coordinates with the Department of State and the Department of Defense to align USAID’s digital development activities with Civilian-Military, or “Civ-Mil,” Coordinators in Missions and through Senior Development Advisors assigned to Geographic and Functional Combatant Commands. From the Civ-Mil perspective, cybersecurity is an important cross-cutting theme in today’s geopolitical landscape where power competition takes on many forms. Cyber aggression against critical infrastructure, civil society organizations, commercial entities, and governments continues to grow in the developing world. [Cybersecurity](#) and cyber hygiene are a key part of digital literacy (see Box 1).



Programming Trends

Center for Conflict and Violence Prevention (CVP):

CVP’s programming promotes digital literacy and media for strengthening intergroup cohesion and the overall enabling environment for positive peace. CVP’s People to People (P2P) Reconciliation Fund builds inclusive economies in Israel and West Bank/Gaza through digital skill-building. Beyond direct programming, CVP provides technical assistance to Missions to identify ways in which digital ecosystems influence wider conflict dynamics and on how to integrate conflict-sensitive approaches across their portfolios, including in digital development initiatives.

Office of Transition Initiatives (OTI):

OTI works across government, civil society, and the media to build capacity gradually and incrementally on discrete topics of interest. Digital literacy is often supplemental to other primary and secondary objectives that take priority, given limited resources and time.

Through its small grants model, OTI builds the capacity of local partners in: media research, context analysis, content production and distribution, use of social media, countering of disinformation or misinformation or hate speech, civil society advocacy, government strategic communications, social impact entertainment, community journalism, content moderation, digital rights, internet governance, graphic design, overall data management, and cybersecurity.

Office of Civilian-Military Coordination (CMC):

Troubling trends surrounding the use of cyber-enabled disinformation by local, malign states, and non-state actors, media, and internet trolls undermine social cohesion and global stability. Pervasive surveillance and attempts to control and limit access to information are often enabled by technologies sold to authoritarian regimes. Pitched as necessary enhancements to public services for improved safety and security, these technologies increase repression and control over growing swaths of the global population. Media literacy work on countering disinformation, as well as cybersecurity work, are thus key digital literacy considerations in CMC programming.

KEY CONSIDERATIONS

for Digital Literacy Activities in Conflict Prevention and Stabilization

- Digital literacy activities are targeted to specific audiences and knowledge and skill gaps given the fluid nature of political transitions and complex crises.
- Digital literacy outcomes are often discrete and supplemental to other primary or secondary objectives related to the on-going transition or crisis.
- Digital literacy and digital development programming in fragile and conflict-affected settings may create unique risks for intended beneficiaries and inadvertently reinforce patterns of exclusion in society; conflict sensitive approaches can help identify and mitigate these risks.
- Visit civispace.tech for relevant primers available to the public on disinformation, data protection, social media, and the gender digital divide.

DEMOCRACY, HUMAN RIGHTS AND GOVERNANCE

USAID’s DRG Center is charged with guiding and implementing activities that strengthen democratic outcomes; improve transparency, accountability and good governance; and encourage civic participation. The [2013 DRG Strategy](#) highlights the role digital technology plays in achieving these outcomes, as it promotes and protects citizen voices, improves government responsiveness, strengthens internet governance, and mitigates cyber threats. As government, civil society, and the media move into the digital age, stakeholders invested in the protection of human rights and democratic processes must understand how to leverage digital technologies to combat authoritarianism and human rights abuses. If action is not taken, partner countries could experience a decline in political freedom, both online and in-person, while activists, political groups, and other civically-minded citizens could be exposed to online threats and harms that could compromise their personal safety. According to Freedom House’s [Freedom on the Net 2020 report](#), the global pandemic is causing a dramatic decline in global internet freedom, as state and nonstate actors have leveraged opportunities created by the pandemic to censor speech, spread misinformation, and exert control over their populations. The [report recommends digital literacy](#)—specifically the ability to spot mis- and disinformation—as a means of addressing this sobering trend. The DRG Center expands digital citizenship and engagement by improving digital literacy across spheres such as media and information literacy, including discerning mis- and disinformation, increasing digital safety, protecting digital rights, and amplifying citizen voices through online communication.

Target Users and Barriers to Digital Literacy

The DRG Center’s digitally-enabled interventions train and empower CSOs, media, youth groups, political parties, organizers, legislatures, government ministries, and electoral commissions to increase transparency, strengthen advocacy, protect human rights, and root out digital authoritarianism^{ix}. Some of these interventions are managed by the Center’s Civil Society and Media (CSM) team, which is responsible for strengthening

the ability of citizens to freely organize and communicate, foster democratic political culture, and mobilize constituencies for reform—all in the digital space. This section focuses on users targeted by these activities and discusses common needs in relation to digital literacy.

CSM’s work centers on civic activism and focuses on activists and members of youth, advocacy, or civil society organizations that have a moderate level of digital literacy. In some cases, these target users may be digital natives (i.e., individuals born into the digital age) with an intimate understanding of the role digital devices and services can play in their daily lives beyond DRG issues. These users may not face the same accessibility and connectivity barriers that inhibit digital literacy among more vulnerable populations, but they face challenges related to mindset, behavior, and a lack of effective digital security strategies. They often lack awareness on safe navigation of online spaces and fail to protect themselves against cyber threats such as phishing scams²⁹ or malware³⁰. Beyond the realm of protection, both personal and professional, civic activist groups may also be unaware of how to use digital tools and platforms to raise awareness about their causes or communicate with community members. They may be dissuaded from learning how to leverage digital tools for these purposes, fearing retribution from authoritarian regimes. At the ecosystem level, the absence of adequate legislation and consumer awareness initiatives around privacy and data protection presents an additional barrier.

Programming Trends

CSM’s activities focus primarily on building digital literacy skills such as *Communication and Collaboration* and *Safety*, a function of the types of digital tools and services USAID activities introduce to target users in this space. Digitally-enabled approaches include civil society mobilizing and organizing, data storytelling for organizations, evidence-based advocacy, data security and safety, and media and information literacy. Many of these approaches require users to engage with social media

^{ix} Digital authoritarianism is the use of digital technologies by authoritarian actors to surveil, censor, and manipulate populations in contravention of human rights and democratic principles.

platforms like Facebook, Whatsapp, Twitter, and Signal where users are already networked.

Activities focused on topics like data security or media and information literacy do not introduce users to new digital devices, but provide strategies for protecting digital communication and properties and for practicing discernment when consuming digital content. USAID’s Development Innovations (DI) project in Cambodia provides CSOs and other groups support in designing and using ICT solutions to address Cambodia’s development challenges. DI developed a partnership with Cambodia’s largest NGO consortium to explore its

members’ ICT- needs. Concerns ranged from digital security and awareness-raising to navigating social media and using data collection tools. In addition to delivering trainings on digital hygiene, DI helped develop a Social Media Handbook to help civil society users communicate strategically through social media. This illustrates how USAID activities develop competences such as *Engaging in citizenship through digital technologies (Communication and Collaboration, 2.3)*, and *Protecting Devices and Protecting Personal Data and Privacy (Safety, 4.1 and 4.2)*.

DRG and CSM build digital literacy through these additional approaches:

KEY CONSIDERATIONS for Digital Literacy Activities in Democracy, Human Rights, and Governance

- Target users reached by DRG programming need support building competence areas such as *Safety and Communication and Collaboration* — specifically, competences that require shifts in strategy, mindset, and behavior.
- To effectively build such skills, involve role models and community champions in digital literacy activities that can influence the adoption of positive behaviors among the target population. Find role models for women and girls to build confidence and familiarity with the use of technology in these vulnerable populations.
- Meet target users where they are by building digital literacy activities around digital services and platforms that they are already using and where social networks are already gathered online.
- Build on existing digital hygiene, citizenship, and media literacy curricula available online such as [SafeJourno](#), [Holistic Security for Human Rights Defenders](#), and [USAID’s Guide to Strengthening Civil Society through Social Media](#).
- Consider the unique risks faced by girls and women when they engage in online spaces. When developing digital literacy activities, reference best practices for safeguarding such as the Girl Effect’s [Girl Safeguarding Policy: Digital Privacy, Security, Safety Principles and Guidelines](#) and [Safe Sisters’ Guide for Digital Safety for Women and Girls in Sub-Saharan Africa](#).
- Visit civispace.tech for further resources on disinformation, data protection, social media and the gender digital divide.

- Educating youth and digital natives on the value of privacy and generating demand for privacy through education and awareness-raising workshops and camps;
- Using case study-based approaches to sensitize CSOs on the importance of good data hygiene (e.g. demonstrating what a data breach and the consequences looks like);
- Providing data security trainers to advocacy and human rights organizations or individuals to conduct security assessments and provide recommendations on how to manage and mitigate threats while proactively protecting digital assets, and mitigating online surveillance;
- Training advocacy organizations to use digital data collection tools and online surveys to collect anecdotes and quantitative information and to use data to develop compelling and evidence-based digital advocacy campaigns; and
- Working with national and local governments to build skills needed to collect data from constituents, use digital tools to facilitate collaborative decision making, or simply communicate with constituents through social media platforms.

DIGITAL FINANCIAL SERVICES

USAID’s [Digital Finance Team](#) provides digital financial services (DFS) that expand financial inclusion, deliver essential services, and support economic participation. In the financial services context, “digital literacy” is often combined with “financial literacy” as “digital financial literacy,” which is defined as “the application of digital literacy and financial literacy to enable the use of digital financial services.”³¹ Having a basic understanding of finance and of managing money through digital tools, like a mobile phone or applications, is a prerequisite for the safe adoption of services like mobile money or digital credit.

For USAID programming that works with households, individuals, or MSMEs, attention to digital financial literacy training is “one of the most important steps in building a more inclusive and resilient digital ecosystem.”³² DFS is critical for USAID as financial services are an important “pull” into the digital ecosystem. During the COVID-19 pandemic, many individuals were forced to pay for goods digitally for the first time.

DFS also forms the foundation for a variety of services across sectors, including agriculture, trade, and humanitarian assistance. When (potential) users of DFS have low digital financial literacy, many might choose not to adopt DFS. For those that do adopt DFS but still lack the necessary skills and knowledge, they might fall prey to risks, such as loss of funds (due to mistakes), fraud (not knowing who to trust online), and predatory

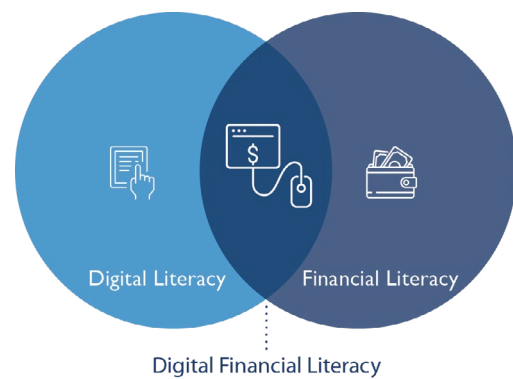



Figure 10. Digital Financial Literacy

lending (not knowing how to assess appropriateness of a loan or lender found on the phone).

Target Users and Barriers to Digital Financial Literacy

 Digital payments and other digital financial services are not sector-specific. These tools can support farmers, individual entrepreneurs, MSMEs, women, youth, refugees and displaced persons, and even large multinationals looking to strengthen their supply chain management. DFS is applicable across geographies, digital ecosystems, and operating environments with varying levels of maturity. Under the right circumstances, DFS can be useful for the economically vulnerable, immobile, geographically

isolated, or otherwise marginalized as it enables financial transactions that are remote, private, convenient, and safe.

Sitting at the intersection of digital literacy and financial literacy, digital financial literacy compounds barriers to adopting digital technology, such as affordability³³, availability³⁴, and adoption³⁵, with the barriers to adopting financial services, which include:

- Distance to a Cash in/Cash Out (CICO) outlet;
- Lack of trust;
- Cost or unwillingness to pay transaction fees;
- Irregular income;
- Perceived lack of need;
- Confusing products;
- Ecosystem-level challenges such as a lack of available mobile money agents to help support transactions; or
- Social and cultural norms that restrict usage and influence mistrust among consumers.

This combination of barriers adds a layer of complexity, particularly for women. Women face barriers related to know-your-customer (KYC) requirements as they may lack formal identification and are typically less likely than men to have the traditional collateral or property deeds necessary to secure a loan. Additionally, women tend to have less regular incomes and less time than men, which makes traveling to banks or finding time to learn new products and services difficult. Lastly, social and gender norms that insist it is inappropriate or immoral for women to access and use digital tools can negatively impact women's access to, and use of, digital financial services.

Programming Trends

Mobile phones are a common device in DFS programming as they can host multiple services like payments, savings, credit, and insurance linked to formal financial institutions, village savings and loan associations (VSLAs), and microfinance institutions (MFIs). Depending on the target user, literacy training may not focus on the basics of how to use a mobile phone or other digital device, and instead focus on building confidence, awareness, trust, and safety in using these devices for financial activity.³⁶ The DFS Team approaches digital financial literacy

BOX 6

Digital Financial Services and Sector-Specific Interventions

Many DFS activities are embedded within sector-specific programming, such as health and agriculture, and thus have developed specific guidance around implementing DFS activities in sector-specific contexts:

[The Role of Digital Financial Services in Accelerating USAID's Health Goals](#)

[Digital Financial Services for Health: A Global Evidence Review](#)

[Digital Financial Services for Agriculture Guide](#)

and digital literacy more broadly from a consumer awareness and protection lens.

USAID's [Vietnam Forests and Deltas](#) activity provided trainings to help local community members use mobile money to receive payments from the Government of Vietnam. Participants already owned and used mobile phones and were more concerned about the safety and utility of mobile money. Trainings addressed misconceptions while demonstrating benefits of the speed and transparency of mobile payments over cash payments. Similar trainings, such as the [Hey Sister! Show Me the Mobile Money!](#) campaign, demonstrate how to properly and safely use mobile money, building competences such as *Managing Data, Information, and Digital Content (Information and Data Literacy, 1.3)*, *Managing Digital Identity (Communication and Collaboration, 2.6)*, and *Protecting Devices (Safety, 4.1)*.

Understanding user access to digital devices and services is one of the most important steps when developing a digital financial literacy activity. USAID's [Digital Payments Toolkit](#) offers tools that help assess the enabling environment including mobile phone penetration, mobile money agent capacity, liquidity, and reliable network. This assessment is conducted through a market-fit lens to ensure that the proposed service is appropriate for the target population.

KEY CONSIDERATIONS for Digital Literacy Activities in Digital Financial Services

- DFS introduces new users to the digital ecosystem. Developing digital financial literacy can serve as an opening for other important digital competences and skills.
- As DFS activities commonly introduce mobile-based services such as mobile money, consider the value of pairing digital financial literacy trainings with mobile literacy trainings (see GSMA's Accelerating Digital Literacy Report for information on the stages of developing digital literacy with a mobile device).
- When developing digital financial literacy trainings, note that traditional formal training has had limited long-term impact, although it can be useful when targeted toward users' learning goals.
- It is important that digital financial literacy trainings are linked to a specific product or service, explain how the product/service is relevant to the user, and include an action moment that enables the user to try the service (example: leading a training on how to open an account, followed by asking training participants to open their own accounts).
- Building consumer safety, trust, and awareness is critical. Engage role models, champions, trusted community members, government officials, mobile network operators (MNOs), and other known leaders when implementing digital literacy activities.
- Pay attention to the challenges women face in accessing and using digital financial services, which are frequently determined by social norms, expectations, and cultural and educational barriers.
- Building digital financial literacy is high-touch. Conduct periodic trainings to help users better retain competences.
- Digital financial literacy trainings should improve financial capability through improved digital financial behaviors. This can be achieved through human-centered design activities that inform better user interfaces and provide useful information and helpful nudges during key transaction moments.
- Develop inclusive trainings that allow participants to practice using financial services like mobile money and adjust trainings to reflect frequently asked questions and concerns. To encourage use among women, consider archetypes that reflect women's different life stages and needs as you prepare training materials to help build a sense of confidence and identity. Women prefer to learn from a trusted individual and require more support than men to start using a new service but then become very loyal customers. Engage intermediaries like mobile money agents³⁷ to help offer formal and informal training to mobile money users. For guidance, reference GSMA's Digital Literacy Training Guide for Mobile Money Agents and Digital Literacy Change Agents as well as its Mobile Internet Skills Training Toolkit.

The toolkit also offers recommendations on how to expand digital financial literacy among target users. Tips include:

- Conducting periodic trainings throughout the life of a project to ensure that payees sustain proficiency;^x
- Providing trainings at least two weeks before launching digital payments; and

- Drawing from existing digital financial literacy curricula such as the [GSMA Mobile Internet Skills Training](#).

The Toolkit also includes resources such as a [Guide to Curriculum Development](#), a [Sample Digital Literacy Training Flow](#), and a [Pre- and Post-Training Survey](#).

ECONOMIC GROWTH AND TRADE

Digital technology is transforming the way firms of all sizes do business. In addition to facilitating the free flow of information, digital tools have enabled greater competition by helping firms access new labor pools and new customers while increasing the efficiency of operations. E-commerce, particularly in the context of COVID-19, has emerged as a powerful tool to help stakeholders reach broader audiences. As the global movement of goods and services increases, international trade functions, such as the clearance of goods for import, export, and transit, are digitizing in an effort to increase the speed and transparency of goods moving across borders.

The potential of digitally-enabled trade and e-commerce to improve time and cost efficiencies cannot be realized absent digital literacy. Persistent digital divides and a lack of digital inclusion present key challenges to economic growth programming, as identified by USAID's [Economic Growth Policy](#) (page 22). Digital literacy is critical for addressing these challenges and empowering all actors to leverage digital tools for economic activity. USAID's economic growth and trade programming must develop digital literacy competences.

Target Users and Barriers to Digital Literacy

USAID's Economic Growth and Trade programming focuses on trade facilitation reforms and often engages with counterpart governments to automate customs authorities. Digital interventions target frontline officers at customs and border agencies with low to moderate digital literacy. Barriers to building digital literacy among these users stem from ecosystem-level

challenges such as weak or unreliable digital infrastructure at border crossings or barriers related to mindset and behavior. Some users reportedly resist adopting USAID-supported digital platforms that are often designed to remove discretionary authority and reduce corruption. Digital literacy activities also extend to workforce development programming through USAID's support to business enterprises. For example, activities may target freight forwarders and operators adopting digital systems.

In e-commerce programming, target users are largely MSMEs or artisans looking for opportunities to expand their markets and increase operational efficiency. As smaller, more vulnerable members of the private sector, their barriers to digital literacy mirror those of other vulnerable groups experiencing a lack of access to electricity, internet, affordable data, and digital devices, as well as a lack of awareness of e-commerce platforms, digital payment systems, or social media marketing strategies.

Programming Trends

Trade: Activities building digital literacy through trade programming are primarily focused on upskilling customs officers and border agents, where the use of mobile technology is almost non-existent. Government authorities typically use outdated computer software and web-based solutions that are further constrained by outdated devices. To address these issues and support trade modernization, USAID activities facilitate the adoption of tools including cloud computing,

^x In lieu of trainings, programs could also incorporate the use of methods like mobile and in-person reminders or nudges.

border management technology, blockchain, and computerized customs data systems, such as the United Nations Conference on Trade and Development (UNCTAD) Automated System for Customs Data ([ASYCUDA](#)).

USAID’s Yemen Economic Stabilization and Success (YESS) activity piloted ASYCUDA at the Aden Port. YESS worked with Yemeni officials to ensure that ASYCUDA was informed by context specific customs, trade, and tax policies, and delivered trainings to the Yemen Customs Authority and stakeholders in the public and private sector on using the system. This type of activity helps develop digital literacy competences such as *Evaluating data, information and digital content (Information and*

Data Literacy, 1.2), which refers to users’ ability to analyze, compare, and evaluate the credibility and reliability of digital content.

To address mindset and behavior barriers, some activities work with senior government leaders to help them understand the value of digital systems. With leadership buy-in and willingness to shepherd organizational change, low- to mid-level employees may be more likely to learn and adopt new systems. That said, interviewees have noted situations where workplace norms may be a barrier to adoption of new technologies, even with executive-level buy-in. In some cases, corruption may be ingrained in the system and employees may not be

KEY CONSIDERATIONS for Digital Literacy Activities in Economic Growth and Trade

- Target users in USAID trade programming typically have low to moderate rates of digital literacy and need specialized training to operate digital technologies that support global trade (such as automated systems for customs data).
- Digital literacy activities should engage senior officials to ensure that the customs officials and border agents targeted by these activities understand the importance and value of operating these tools properly.
- To gauge the existing digital literacy of target users, conduct surveys and speak directly with experts, such as retired professionals able to characterize target users’ readiness to adopt certain tools.
- To review a framework of essential skills for the e-trade environment, reference [Aid for Trade At a Glance 2017](#), specifically Chapter 6 on Improving the e-Trade Environment.
- Target users in e-Commerce programming face ecosystem-level challenges such as low connectivity and lack of access to devices.
- To overcome these challenges, provide training materials available offline (e.g., mobile applications that don’t require internet or data to use).
- Partner with private entities or organizations with expertise in building capacity in e-Commerce tools.

willing to forgo personal financial interests to adjust to new, more secure systems.^{xi}

E-Commerce: USAID e-Commerce activities address digital literacy through trainings on digital tools, such as social media platforms, sourcing applications, and mobile or electronic payments to increase operational efficiency and access to finance and markets. These activities also focus on building user familiarity with broader e-Commerce and logistics platforms. The [E-Trade Alliance](#)—a partnership between USAID and 11 private sector companies including Cargill, DHL, Mastercard, Paypal, Etsy, UPS, Visa, and Google—identified e-skills as a priority for increasing digital trade. The Alliance trains SMEs to utilize e-Commerce platforms, works to increase users’

access to the internet and devices and partners with technology companies to offer scholarships and trainings on how to use their services.

The E-Trade Alliance worked with Etsy and Paypal to offer phone [trainings](#) to more than 100 Georgian artisans to grow their online business presence. In addition to in-person trainings, partners such as the [Latino e-Commerce Institute](#) provide mobile-based and other virtual trainings to increase the adoption of e-commerce platforms. Digital literacy skills developed through this work include competences such as *Developing digital content*, *Integrating and re-elaborating digital content (Digital Content Creation, 3.1, and 3.2)*, and *Sharing through digital technologies (Communication and Collaboration, 2.2)*.

EDUCATION

By 2050, the youth population among the world’s poorest countries is expected to increase by 62 percent.³⁸ This expansion is already underway in many countries where USAID works, demanding swift action to increase academic and employment opportunities for young people. In response, partner governments are looking to invest in education and human capital development to ensure that their populations are prepared for the economic opportunities of tomorrow. [USAID’s Education Policy \(2018\)](#) prioritizes the skills young people need to lead productive lives, gain employment, and positively contribute to society. In the context of COVID-19, it is more important than ever for USAID to expand opportunities for youth to learn and apply digital skills.

Digital literacy is a major part of this work. Beyond providing opportunities for gainful employment, digital literacy can expand the reach and accessibility of educational opportunities and prepare students to leverage digital tools for other aspects of their lives such as social and political participation and economic empowerment. By working with partner governments and other stakeholders in the education sector, USAID can help prepare students and trainees to thrive in a digital world.

Target Users and Barriers to Digital Literacy

The USAID Center for Education focuses on achieving measurable improvements in learning outcomes and skills development. USAID implements activities that improve the quality of education for children, youth, and university-level students, expand workforce development programs for job seekers, and provide professional development opportunities to educators and administrators. Varying levels of access to digital devices and internet connectivity affect the types of barriers to developing digital literacy that each group faces. While educators in resource-constrained settings may face barriers to getting digital devices into classrooms to help build foundational competences like *Information and Data Literacy*, students and educators with greater availability of resources may face a lack of information on what types of digital skills pupils should develop and how to segment lessons based on age. For adult students, barriers to increasing their digital literacy could be economic as they may not have money to enroll in courses that improve their ICT skills.

^{xi} Though outside the realm of digital literacy activities, interviewees noted that this challenge is reflective of the need for senior leaders to provide their workers with adequate pay, professional development and capacity building opportunities to incentivize efficiency.

KEY CONSIDERATIONS for Digital Literacy Activities in Education

- Now more than ever, students and educators of all ages require safe opportunities to incorporate digital literacy and digital skills building into educational opportunities.
- Through its education programming, USAID is building digital literacy in a variety of settings, both informal and formal, to increase the familiarity of children and youth with digital devices and services.
- When developing digital literacy activities for children and youth, make sure that materials are context appropriate.
- Ensure that digital literacy interventions address and reach education of girls, otherwise, digital literacy interventions that predominantly benefit boys will exacerbate and widen the gender digital divide.
- Companies like Google have developed [digital literacy curricula](#) that can be referenced and adapted when developing digital literacy materials. USAID activities should build partnerships with vocational training institutes and other private sector entities when developing digital literacy activities aimed toward employability and workforce development. Various toolkits and resources for building digital literacy already exist and are publicly available. USAID staff should consider adapting and building upon these existing materials, and making these curricula open source to support digital literacy development more broadly. See [Annex IV](#) for a list of digital literacy guides and toolkits.
- For more examples of digital literacy activities in the education sector, see [USAID's Information and Communication Technology for Education \(ICT4E\) How-to Note](#).

Programming Trends

USAID is expanding digital literacy through education programming in its support to organizations like [Youthmappers](#). This network of student-led university chapters of students and educators is filling the global demand for open source geospatial data by empowering youth to map their own communities. USAID has also supported global partnerships such as the All Children Reading Grand Challenge for Development, which is an “ongoing series of competitions that leverages science and technology to identify, catalyze, and apply scalable

technology-based solutions to improve the literacy skills of early grade learners in developing countries.”³⁹ The Grand Challenge also provides literacy learning for children with disabilities.

USAID education interventions build a variety of digital literacy competences. Under *Safety*, USAID implemented the Combating Violent Extremism (CVE) Youth Intervention in Bangladesh where implementers trained youth on exercising tolerance and internet safety in order to discourage online interaction with extremist groups. Through a partnership with Cisco in Pakistan, USAID developed youth’s information technology

BOX 7

Education and Digital Literacy Programming

The Education sector at USAID is most likely to incorporate “foundational” digital literacy activities into programming to place a strong emphasis on learning and digital literacy for children and youth. Examples of digital literacy interventions in education include:

- [Distance Learning in COVID-19: Offers guidance for government policymakers and education staff to use different learning modalities to reach the most disadvantaged and marginalized children through distance learning.](#)
- [Global Digital Library: Provides free digital books for children in their local languages.](#)
- [Global Book Alliance: Focuses on strengthening the book supply chain so all children can have access to books.](#)
- [All Children Reading Grand Challenge for Development: Advances EdTech innovation and research to improve reading outcomes for marginalized children with a focus on accessibility and inclusion.](#)

(IT) skills and sponsored job fairs to help match trainees to jobs. Under the Development Innovation Ventures (DIV) project, USAID helped build skills under the *Problem Solving* and *Digital Content Creation* competence areas by supporting

mentorships that encouraged Cambodian girls to design mobile application prototypes and business plans to address social and economic issues.

ENERGY

The Energy sector is a critical infrastructure sector, where digitalization enables increased processing power, special communication networks, aggregation of datasets, and their processing between energy suppliers, grid operators, and consumers and producers. USAID’s energy programming helps partner countries achieve energy security, optimize grid operations, promote private sector investments, expand access to sustainable and affordable sources of power, promote clean technologies and energy efficiency, and enable data processing to improve reliability and quality of service.

USAID energy programs support the digitalization of critical infrastructure to promote greater competition, transparency and efficiency. These programs also increase stakeholder awareness about the risks associated with introducing IT systems into energy infrastructure, which may increase the risk of cyber attacks. These threats can target users from individual

consumers to utilities and other energy supply chain actors that have access to digital systems, software, and analytics. As nearly every economic sector relies on sustainable sources of energy to function, cybersecurity is not only critical to protecting partner countries’ energy sectors, but to economic

NOTE

Though cyber hygiene sits under the umbrella of digital literacy, cybersecurity is a specialized area of discipline with implications for USAID programming in critical infrastructure sectors, where energy is one of 16 sectors. For a more in-depth discussion of how to better incorporate cybersecurity considerations into USAID programming, please see the [Cybersecurity Primer, Power Sector Cybersecurity Building Blocks, and Energy Utility Digitalization and Cybersecurity Webinar Series.](#)

resilience and national security, as well. USAID activities aim to sensitize energy stakeholders to the fact that digitalization, cybersecurity, and energy no longer exist as separate ideas and instead must be addressed in combination.

Incorporating digital literacy into energy programming can help achieve these goals by ensuring that stakeholders not only digitalize operations for the sake of digitalization, but also adopt national policies, laws, regulations, standards, and corporate guidance that change the traditional approach to energy sector development. USAID supports its counterparts in assisting countries as they incorporate security and cyber hygiene concepts to minimize cyber threats and effectively respond to cyber attacks.

Target Users and Barriers to Digital Literacy

USAID programs in the energy sector target a range of actors from policymakers to utility companies, regulators, and consumers, each of whom have unique digital literacy needs. Customers may need support learning how to use digital financial services to pay their utility bills, while IT professionals may need targeted training on procurement from trusted and reliable vendors, minimizing exposure to cyber attacks, and identifying and responding to cyber attacks. Activities targeting utilities and other energy supply chain actors aim to expand the digital literacy of employees at all levels, while activities targeting government ministries may aim to improve the cybersecurity-related digital literacy of policymakers and their staff. Given this variety of target users, the barriers preventing

KEY CONSIDERATIONS for Digital Literacy Activities in Energy

- As the operating environment for energy programming is relatively advanced due to the specialized nature of technology in this sector, stakeholders in this space typically have moderate to high levels of digital literacy. The digital literacy competence areas they typically need to develop are *Safety* and *Problem Solving*.
- Building safety competences in the energy sector relates to expanding government awareness of cyber threats and the ability of energy utilities and supply chain actors to protect against, and respond to, cyber attacks.
- As building digital literacy in cybersecurity relates to changing mindset and behavior, engage senior leaders in the public and private sector in digital literacy activities to help influence their teams to take up new practices.
- To avoid losing institutional knowledge on cybersecurity, include deputies and other mid- or low-level staff in trainings, as they will be responsible for operationalizing new strategies introduced by senior leaders. Develop and maintain reference documents that will help future employees learn how to operationalize practices.
- For guidance on various topics to cover in cybersecurity trainings or while developing digital roadmaps with energy utilities, reference the USAID/USEA webinar series of [Digitalization and Cybersecurity in the Energy Sector](#) and the [Cybersecurity Primer](#).

the uptake of digital literacy competences in this sector vary. For the purposes of this primer, this section will focus on the barriers affecting energy sector supply chain actors.

As the technology used in the energy sector is highly specialized, users typically have a moderate to high level of capacity. While energy sector professionals and policymakers may need support to learn new types of software or web-based tools, digital literacy programming in this sector focuses on improving cybersecurity and digital hygiene. The biggest barriers to successfully improving these behaviors are a reluctance to accept the importance of cybersecurity in protecting energy sector assets, workers and customers, and a reluctance or lack of confidence to learn about cybersecurity. This is reportedly due to perceptions that only IT experts are responsible for developing such knowledge, as opposed to it being a responsibility all players in the energy ecosystem must share. As a result, there is a lack of human capacity at management and decision-making levels to institutionalize cybersecurity policies, and insufficient investment to execute strategies.

Programming Trends

Introducing new business models utilizing digitalization in the energy value chain is a priority for USAID's energy programming. Digital literacy activities primarily focus on building competences that fall under the *Safety* competence area. USAID activities are helping senior leaders and decision makers understand the impact that new technologies can have on their enterprises and think through strategies to defend against

potential threats. Stakeholders are encouraged to consider risk management, network configuration, identity and access management, and event incident response to determine how to incorporate cybersecurity best practices. By training and encouraging decision makers to evaluate their standards, procurement processes, and supply chain management approaches, these activities can help structure a digital roadmap that a utility company can follow to achieve greater cybersecurity. Technical assistance is then offered to help these utilities introduce solutions. Through these capacity-building activities, decision makers and support staff are trained on ways to strengthen cyber readiness and hygiene, thus building competences such as *Protecting Devices* and *Protecting Personal Data and Privacy* (*Safety, 4.1 and 4.2*).

There is a need to build hard skills that help energy utilities navigate various IT and Operational Technology (OT) systems beyond cybersecurity-related capacity building. USAID interventions help utilities use digital tools, such as digital bidding platforms and digital forecasting, as well as consumer-facing tools like web-based platforms that help consumers monitor their consumption, smart meters, and payment platforms. The goal of consumer-facing tools is to help utilities build trust with the end user. This requires utilities to build competences that support development of appropriate content that enables consumers to educate themselves. Energy programs also build competences that fall under the *Digital Content Creation* competence area.

A NOTE ABOUT CLIMATE ADAPTATION

Access to digital tools can increase the capacity of communities to adapt to increasingly unpredictable and extreme weather patterns due to climate change. Cleaner and more efficient digital technologies can also mitigate the effects of climate change overall. Leveraging satellite technology to map long-term changes to agricultural lands or encroachment of protected natural resources can help national and local stakeholders develop strategies to protect communities and wildlife. However, it will not be possible to fully reap the benefits of digital technologies in the fight against climate change without integrating digital literacy. The *Information and Data Literacy* competence area is the most relevant as it can help users from farmers to government ministers search for, retrieve, and analyze weather and climate data to make informed decisions that support adaptation. As USAID expands its commitments to addressing climate change, digital technology will continue to play a role. Digital literacy is integral to this strategy.

GENDER

Gaps in women’s access to, and use of, digital technology as compared to men’s (otherwise known as the gender digital divide) is one of the most pressing issues in digital development. According to [USAID’s 2020 Gender Equality and Women’s Empowerment Policy](#), men are adopting digital technologies at a faster rate than women. This is due to the fact that women across all social and economic demographics face greater obstacles to access and ownership of digital devices. Social norms surrounding intersectional identities such as gender identity, sexual orientation, class, disability, caste, indigenous identity, language, and other factors play a major role in determining access to, and use of, digital technology.

Women and girls also face unique threats from technology-facilitated, gender-based violence such as sexual harassment, doxxing^{xii}, stalking, bullying, defamation, and exploitation. Despite these challenges, women have much to gain from increased access to digital services, such as increased financial independence, access to markets and services, and increased decision-making power. Building digital literacy is critical to mitigating digital risks while increasing women’s confidence and ability to use digital financial tools.

Target Users and Digital Literacy Barriers

Gender-focused digital literacy activities are designed to target women and girls participating in a wide range of USAID activities, from farmers and entrepreneurs, to garment workers, students, teachers, and refugees. Given this wide range of target users, the barriers limiting women’s digital literacy also vary depending on the geographic, cultural, and socio-economic contexts. Some women may face ecosystem-level challenges—such as unaffordable devices and data, and limited connectivity—more acutely than men. The degree to which these challenges affect women varies depending on the factors listed above.

Many women and girls face intense societal pressure to eschew digital technology. Social norms may frame women who use digital devices or services as immoral, bad wives or mothers, or irresponsible and can prevent them from actively participating in programs to build their digital literacy, even if there is a perception that these services could improve their livelihoods. Uncovering these concerns and misconceptions is an initial step to addressing the divide along with other strategies outlined in the [Gender Digital Divide Primer](#), such as tying ICT use to new income-generating opportunities, working directly with community leaders to create compelling cases for women’s technology use, and ensuring that programs are designed with safeguarding women and girls in mind.

Women’s aspirations to improve their earning potential, education, health practices, household management, and entrepreneurial pursuits draw them to digital services and devices, while also making them vulnerable to aspirational risk-taking (e.g., taking a loan with unfair terms out of a desire to finance her own education or pay her children’s school fees). Such false promises and online scams can drive women away from technology use. Technology companies are working to address the gender digital divide and build trust in technology through expanding women’s digital literacy.⁴⁰

Another unique challenge to enabling digital literacy among women is low confidence. Interviewees for this primer identified low confidence as one of the main issues inhibiting women’s digital literacy. Activities should focus on building self-efficacy to ensure that women continue to demand and actively use digital tools. Interviewees also reported that digital literacy programs do not always reach the women who need them most, such as the most vulnerable and marginalized, as they are unable to travel or take time away from the household to participate in trainings. The design and promotion of USAID activities could potentially create a barrier to improving women’s digital literacy.

^{xii} Doxxing is the internet-based practice of researching and publicly broadcasting private or identifying information about an individual or organization. The methods employed to acquire this information include searching publicly available databases and social media websites, hacking, and social engineering.

For example, if a woman is not yet digitally literate and USAID activities have not effectively shared information about upcoming training opportunities through channels that she naturally interacts with, the chances of her discovering and participating in these activities is low.

The gender digital divide is another critical challenge. While internet adoption and mobile phone ownership are on the rise, studies show staggering gaps in access for women in many regions of the world. The [GSMA Mobile Gender Gap Report 2021](#) states that 234 million fewer women than men have access to mobile internet in low- and middle-income countries, and smartphone ownership—a principal way of accessing the internet—is 15 percent lower for women than men.⁴¹ As noted in USAID’s [Gender Digital Divide Primer](#), the gender digital divide is a negative feedback loop in which global inequality “informs unequal access to and use of Information and Communication Technology (ICT), and the subsequent growth in ICT deepens gender inequality.” Reduced rates of digital literacy among women are a sobering reflection of this dynamic, as their already limited access to employment opportunities is exacerbated by barriers to developing digital skills. With over 90 percent of jobs now requiring some level of digital skill, the ability and confidence of women to meaningfully engage in the workforce will be harmed without greater investment in their digital literacy.⁴²

Programming Trends

All USAID activities aim to increase women’s participation in social, economic, and political life. Digital literacy activities targeting women touch upon all digital literacy competence areas. USAID/Kosovo’s Advance Women Leadership Academy provided digital skills training to women in politics and activism to build their skills in advocacy and political engagement, which helped build competence areas such as *Communication and Collaboration* and *Safety*.

This section focuses on how activities address the unique social, political, economic, and cultural barriers that have an impact on women’s adoption of digital literacy competences. Interviewees for this primer indicated that an important step

in developing digital literacy programming for women is identifying which devices are most appropriate for delivering trainings or broader digital interventions. As some women users may face limitations that prevent them from accessing digital tools, activity designers should consider factors such as the total cost to own devices, connectivity, and the cost of data, before selecting tools for interventions. Designers must also understand how these factors differ between rural, urban, and peri-urban women, as each group will have unique thresholds for affording a digital device or service.

User-centered design is even more critical when targeting women with digital literacy activities. When developing a foundational or tactical digital literacy activity, women, as well as the gatekeepers in their community, must be engaged in developing the content so it accurately addresses their needs. If most women in a community do not have regular access to a computer, tablet, smart phone, or laptop, the effects of digital literacy trainings built around these devices will be short-lived as most women will not be able to apply them in their day-to-day lives after the project closes. This primer instead recommends pursuing trainings and broader interventions built around digital devices women have access to, such as low-cost mobile phones or radio. Some women’s digital literacy programs offer foundational digital literacy activities rather than tactical activities tied to other goals like employment. Training women to develop digital competences without clear application for these skills either through jobs, entrepreneurship, or other outlets can lead to discouragement and low skill retention, as women may have the knowledge, but only limited opportunities to apply that knowledge.

In the context of COVID-19, new opportunities have emerged to introduce women and their communities to the importance of women’s digital literacy. As women are exposed to technology in their role as caretakers for children who are learning remotely, USAID implementing partners are seeking ways to leverage this softening stance toward women’s use of digital tools to introduce DFS, agriculture technology, and other digitally-enabled solutions specific to women’s personal and economic needs (see [Annex I](#)).

Through the USAID WomenConnect Challenge, USAID has identified five proven strategies that work to close the gender digital divide:

- Changing social norms and cultural perceptions around women's use of digital technologies;
- Creating economic opportunities for women through technology;
- Cultivating women's confidence;
- Designing creative women-centric technology; and,
- Developing community support.

KEY CONSIDERATIONS for Digital Literacy Activities in Gender

- Despite commonalities such as statistically lower rates of digital inclusion compared to men, women are not a monolith and therefore have different digital literacy needs. Try to understand and segment women's existing digital literacy rates and relationship with digital technology.
- In addition to developing the various digital competence areas outlined in this primer, digital literacy activities targeting women should specifically consider strategies for building trust and self-confidence as low self-efficacy is a barrier to women's digital literacy (see Viamo's Calling All Women program which aims to tackle barriers for women such as low digital literacy, and the perception that mobile internet is not relevant to their lives).
- Literacy programs should also target men and boys with capacity building and sensitization to shift their mindsets with regard to women's use of digital tools.
- As some women face unique social challenges that limit their awareness of, and access to, digital technology services, use archetypes that reflect women's different life stages and needs in program materials.
- Women face various risks to their safety online such as online harassment and gender-based violence and are often vulnerable to aspirational risks that can lead to financial scams. Develop training activities to mitigate these risks. Build upon existing curricula, toolkits and resources such as Safe Sisters, Take Back the Tech and the Gendersec Training Curricula.
- Link digital literacy activities to existing economic or entrepreneurship opportunities to ensure that women have opportunities to apply their digital literacy competences.
- Make use of audio and visual tools and content (e.g., IVR, text to speech) to include users with low levels of numeracy and literacy.
- For further information on introducing women to ICT tools, review USAID's Gender and ICT Toolkit.

HEALTH

The health sector's early adoption of digital interventions and a long-standing and engaged mobile and digital health community have contributed to a large body of learning, best practices, and resources for implementing digital health. The Global Health Bureau recently released [USAID Vision for Health System Strengthening 2030](#) detailing the important role that health system digitization plays in working toward health equity, quality, and resource optimization.

Digital health is “the systematic application of information and communications technologies, computer science, and data to support informed decision-making by individuals, the health workforce, and health institutions, to strengthen resilience to disease and improve health and wellness for all.”⁴³ The [World Health Organization \(WHO\) Classification of Digital Health Interventions](#) details the variety of use cases for clients, health-care providers, health system managers, and data services. USAID partners and stakeholders across health ecosystems are using digital tools to collect data, improve service at point-of-care, provide decision support to health workers, and develop health management information systems managed at the national level. Digital literacy is essential to sustaining a quickly evolving digital health landscape, especially as digital adoption and innovation accelerates with the emergence of new topics like architecture and informatics. The ability of stakeholders at all levels to understand and use these tools will determine the degree to which solutions can be adopted and quickly scaled.

Target Users and Barriers to Digital Literacy

USAID's health activities use digital technology to achieve a variety of outcomes for stakeholders from patients and community health workers (CHWs) to clinics, hospitals, and government officials. Users' digital literacy needs and barriers to building these skills will also vary widely. Digital solutions are becoming increasingly institutionalized, requiring all actors who engage with the health system, like patients, CHWs, nurses, and doctors, to have some level of digital literacy. Poor literacy and numeracy, limited access to digital devices, poor connectivity, and unaffordable data plans can prevent patients from adopting digital health-related mobile applications. These

systemic barriers also have a negative impact on CHWs who, depending on whether they own a mobile phone or the type of phone they do own, may not be able to participate in CHW trainings. According to interviews for this Primer, as the use of digital tools for service delivery becomes increasingly dominant in the health sector, certain individuals may no longer be eligible to become CHWs due to their lack of digital competences. While USAID activities are promoting data-driven decision making at the community level, inadequate information and data literacy among community members can limit the viability of this inclusive approach. Ultimately it is the responsibility of the health system to make sure that new digital approaches do not exclude patients.

On the planning side, literacy activities target the ministry-level tacticians responsible for implementing strategies that affect how health systems operate. These individuals face barriers such as a lack of investment, lack of political will, inadequate staffing, or a lack of familiarity with how digital platforms can improve the management and quality of their national health systems. This is quickly changing, as countries increasingly seek the expertise needed to make their health systems digitally-enabled and interoperable, for example, by linking lab systems to electronic medical records.

Programming Trends

USAID's [Vision for Action in Digital Health](#), the Agency's first dedicated policy guidance for investments in digital technologies for health programs, aims to build country-level digital health capacity at the leadership, governance, institutional, and workforce levels. To this end, USAID is building digital literacy competences among stakeholders responsible for the implementation of health interventions as well as those who develop and maintain health management information systems. For example, the USAID [Ethiopia Digital Health Activity](#) provided on-the-job training to health information technicians in properly maintaining electronic medical catalogues and troubleshooting system challenges as they arise. The activity provided this training to technicians across 700 health facilities in the first year of implementation.⁴⁴ These activities build competences

such as to *identify technical problems when operating devices and using digital environments* (*Problem Solving, 5.1*).

USAID also helps professionalize health care workers to prepare them for increasingly digital environments. To strengthen the entire labor pipeline, USAID provides support in three domains: pre-service training, in-service training, and new skills. While pre-service training focuses on building relevant skills among university-level students, in-service training looks to strengthen and standardize the skills of existing healthcare

workers, particularly those whose jobs are being shaped by digital decision support tools. Bodies such as the Centers for Disease Control and Prevention (CDC) and WHO are digitizing their standard guidelines and recommendations that until recently were only available in a physical book or basic PDF document. The digitization of this information is expected to assist in shifting tasks from doctors to nurses and nurses to CHWs. With the help of a digital decision support platform, a CHW could ideally execute the same tasks as a more senior health worker, increasing efficiencies and the availability of

KEY CONSIDERATIONS for Digital Literacy Activities in Health

- When developing digital health-focused activities, reference USAID's [Vision for Action in Digital Health](#) and supporting resources.
- As partner governments adopt digital systems to manage patient data, information, and supply chain logistics, individuals involved with health planning and implementation will be required to build competence areas such as *Information and Data Literacy* and *Problem Solving*.
- When developing digital literacy activities for health implementation, segmenting the workforce across three domains: pre-service training, in-service training, and new skills to better target and contextualize materials for different needs.
- Develop specific training for CHWs who face greater demands for more advanced digital competences to support task shifting from doctors to other healthcare workers.
- When developing trainings for CHWs, reference resources such as [LivingGoods'](#) overview of digital tools for CHWs and [digital health CHW maturity assessment](#) for a helpful framework on the digital skills CHWs may need to develop.
- For information on digital literacy considerations for healthcare seekers, reference GSMA's [mHealth Gender Toolkit](#) and the [Role of Digital Financial Services in Accelerating USAID's Health Goals](#).
- On the planning side, stakeholders responsible for healthcare governance should be sensitized to the value of digital health systems and policies that can support and empower the health workforce.

healthcare across partner countries. With the WHO estimating a shortfall in health workers by 2030⁴⁵, CHWs must increase their competence in areas such as *Information and Data Literacy*. Under new skills programming, USAID helps partner governments identify specialized expertise to further their digital health strategies. As countries develop digital health ministries, they may need assistance identifying specific expertise, such as software development. On an institutional level, this kind of support builds competences such as *Identifying competence gaps* (*Problem Solving*, 5.4).

Underscored digital literacy activities are efforts related to change management and the long-term work of sensitizing health officials and other government representatives to the importance of digital tools. USAID provides training to introduce ministry staff and tacticians at the donor level to digital health systems management, covering topics such as digital health, strengthening health systems through digital tools, enterprise architecture, digital health interventions that leverage digital platforms, and governance, policy regulations, compliance, and workforce modernization.

HUMANITARIAN ASSISTANCE

USAID's Bureau for Humanitarian Assistance (BHA) provides critical relief to people facing some of the world's most challenging situations. As the lead federal coordinator for international disaster assistance, BHA organizes humanitarian aid to help communities respond to natural disasters and other crises, and transition from relief to recovery. Digital technology has emerged as a key component of humanitarian response due to timely information sharing and data collection, and the safe, transparent movement of financial resources. Given the fluid, unpredictable, and time-sensitive nature of humanitarian assistance, the cost and time efficiencies that digital technology yields allow donors and partners on the ground to deliver services to vulnerable groups in situations where resources are often scarce. Digital literacy, particularly among partners, is necessary to fully realize the contributions that digital technologies can offer the humanitarian sector.

Target Users and Barriers to Digital Literacy

In BHA programming, digital technology is used for two primary purposes: data collection conducted by partners and grantees or direct support to beneficiaries. The target users for BHA's activities are IP organization staff who deliver humanitarian aid, and the direct beneficiaries of humanitarian aid. Implementing partners may face similar digital literacy barriers, such as poor digital hygiene or inadequate methods for collecting, processing, analyzing, and storing data with informed consent, while beneficiaries' digital literacy needs may vary more widely.

When crisis strikes, the social, economic, and political dynamics that affect people's access to and use of digital devices are magnified. The gender digital divide will continue to affect women in humanitarian contexts, while communities from low-resource environments may continue to face challenges in gaining access to government services due to the limited availability of devices and poor connectivity. It is important to assess the context and existing digital literacy rates of communities facing humanitarian crises to ensure that activities are well targeted. For example, over 70% of individuals in Somalia over the age of 16 use mobile money services, due in large part to remittances received from Somalia's large diaspora community. In this context, digital literacy needs may focus less on building familiarity and trust in mobile services, and instead focus on building media literacy skills or other competences.

These variations in user characteristics should be taken into account when designing digital literacy programming in the humanitarian sector. Regardless of a community's barriers to digital literacy, if they believe a solution has inherent value they will most likely overcome literacy challenges to learn how to use it. It is therefore critical for stakeholders in this sector to introduce digital solutions that are designed with the end user in mind, easy to adopt, and well-managed across IPs to avoid confusion for the target user. Lack of collaboration and coordination among digital service providers and IPs has proven to be an obstacle to digital literacy, both for partners who have lost opportunities to develop integrated systems, and for

KEY CONSIDERATIONS for Digital Literacy Activities in Humanitarian Assistance

- Digital literacy activities in humanitarian contexts may not have the opportunity to implement large scale education programs that move the needle on a community's rate of digital literacy.
- Programs should instead ensure that the digital tools selected to deliver aid are well designed and context-specific. Literacy activities should focus on providing users with all the information they need to use the selected tools properly and without incident. This may include specific training materials on Near Field Communication technology, Digital IDs, or mobile money.
- Reference GSMA's [Accelerating Digital Literacy Report](#) for information on the stages of developing digital literacy with a mobile device.
- When developing training materials for financial transfers, adapt key messages to the user context, taking into account factors like literacy and numeracy levels, bank account access, mobile phone ownership, and connectivity.
- For additional considerations on digital financial literacy in humanitarian contexts, review the United Nations Capital Development Fund's (UNCDF) [Financial Literacy Training Toolkit for Refugees](#).
- In slow-onset emergencies, collaborate with other USAID activities in-country to find common areas assessing digital literacy needs and implementing responsive activities.
- Provide implementing partners with digital literacy training on digital hygiene, data protection, and informed consent to mitigate risks such as data breaches. For more information about data protection in the humanitarian context, review the [ICRC Handbook on Data Protection in Humanitarian Action](#).

communities who may have been dissuaded from adopting a tool or service due to duplication or poor design.

Programming Trends

BHA programming works primarily across two domains^{xiii}: partners and direct programming. In direct programming,

digital tools are used primarily for transferring resources to the beneficiary. This can come in the form of ATM cards, mobile money, or other DFS. The type of training partner organizations can deliver depends largely on the context, both in terms of the beneficiaries' existing digital literacy, and the operating environment. For example, in environments like Jordan where beneficiaries typically have bank accounts, they may receive

^{xiii} In a potential third domain, BHA programming also leverages digital tools to provide services to displaced populations in tracking and unifying family members after a crisis. Digital literacy is also needed to safely and effectively offer these services.

a money transfer or ATM card. In contrast, in environments like northern Nigeria where beneficiaries are less likely to have a bank account, they may receive aid through Near Field Communication cards that are accepted by specified vendors.

In both scenarios, the related training activities focus on how to use the technology and what to do if it stops working. For example, if an intervention decides to distribute SIM cards to prompt the use of mobile money transfers, this activity may be paired with specific, community-based training to address practical questions such as how to know if a vendor is overcharging and who will be responsible for paying transaction fees. The focus here is not on robust education and skills development, but on ensuring that the beneficiary has the information they need.^{xiv} This approach is characteristic of interventions in complex conflict zones and quickly evolving crises.

In more long term, evolving crises such as those related to food insecurity, activities can incorporate more standard digital literacy training activities into their interventions. In these scenarios, it can be useful to liaise with existing USAID activities in the country to learn about digital literacy activities already underway that could be expanded in the humanitarian context. For example, in a food security emergency, BHA may engage with agriculture and food security programs leveraging digital technology to help build beneficiary capacity to receive and analyze crop and weather data.

YOUTH

USAID's youth programming is designed to help young people access economic and social opportunities, share in economic growth, live healthy lives, and contribute to household, community, and national well-being.⁴⁶ These activities also aim to help youth participate actively in democratic processes and make stronger contributions to their local and national institutions and policies.⁴⁷ As highlighted in USAID's [Youth in Development Policy](#), "embracing innovation and technology for and by youth" is an important principle in achieving these

In a community-based culture where beneficiaries may share devices among larger groups, digital literacy training that focuses on competence areas like *Safety (competence 4)* may not be appropriate as beneficiaries may not be accustomed to Western interpretations of privacy. Humanitarian aid interventions may also need to adjust concepts to meet existing levels of literacy and numeracy among beneficiaries. In some interventions, instead of introducing PIN numbers, beneficiaries are encouraged to select a password consisting of colors or photos. In communities that are otherwise inaccessible, local radio programs and blended digital/analog solutions have proven to be appropriate. For example, in Djibouti, beneficiaries used digital identifiers like scanned thumb prints to receive cash payments.

Training for partners has a much stronger focus on increasing communication, collaboration, and risk mitigation in relation to the collection and use of data. USAID helps these partners make informed decisions around practices that are safe, legal, and necessary, while also overcoming the operational challenges of leveraging digital devices like mobile phones and tablets for data collection. For example, when an implementing partner in Nigeria went from operating nine phones to 250 over the course of a year as activities scaled up, USAID increased support to help the partner manage these devices and the data they collected. USAID also supports partners in designing data management systems that are fit-for-purpose and well integrated, as opposed to running parallel.

goals. Digital technology can increase academic opportunities by broadening access to information and educational material, and also increase prospects for employment and entrepreneurship by helping develop marketable skills needed in a quickly digitizing world. As countries in the developing world create strategies to serve their growing youth populations, social media platforms and other forms of ICT can help youth organize, hold their governments accountable, and drive social change. Without developing digital literacy competences, it

^{xiv}This could qualify as *Information and Data Literacy and/or Communication and Collaboration*.

will be difficult for USAID programs to fully realize the positive benefits of digital technology in the lives of youth around the world.

Target Users and Digital Literacy Barriers

USAID’s programming supports youth and emerging leaders ages 10-29 across a variety of economic sectors, practice areas, digital ecosystems, and operating environments. Youth are not a monolith. As the targets of digital interventions, youth face varying social, economic, and political realities that shape their relationship with technology and their ability to develop digital literacy competences. Youth in rural or low-resource areas may face barriers to developing their digital literacy related to affordability, connectivity, and availability of digital devices. Youth in urban areas, or those living in an operating environment where digital technologies are better integrated into different aspects of society, may face barriers related to social stigma, fear of online threats, or harmful behavior such as poor digital hygiene. While young people today have more access to digital devices and platforms than their predecessors and, in some cases, are considered to be “digital natives,” they may also face massive barriers to proper education (e.g., basic literacy and numeracy) and training opportunities to expand their digital literacy. Without greater social and economic empowerment, young people may struggle with basic introductions to the digital economy such as mobile phone ownership.

Beyond specifically targeting young people, youth programs with digital interventions may also engage teachers, trainers, and near-peer educators to sensitize youth to specific digital competences, or function as role models and champions to encourage competency development.

Programming Trends

USAID builds a variety of digital literacy competences, which vary depending on the operating environment and sector in which a youth program is being implemented. For example, in agriculture, youth may be recruited to serve as digitally-enabled facilitators to help deliver services to their community, particularly in situations where feature and smartphone ownership in

the community is low. Through USAID’s Village Agent Model, young men and women are recruited and trained to offer guidance to farmers in their communities on good agricultural practices or to provide services like aggregation, often with the support of a mobile device to monitor transactions or offer decision support. Trainings for such village agents focus on building competence areas such as *Information and Data Literacy*.

Programs like USAID’s Youth Employment and Business Start-Up Program (YouLead) help youth with more advanced education and foundational digital literacy build competences in new areas that will improve their employability and support entrepreneurship. For example, through YouLead’s ICT Future Careers Bridge Program, university graduates have access to online challenges designed to build and demonstrate skills in areas like social media campaigns and programming, both of which relate to the *Digital Content Creation* competence area. USAID/Indonesia’s Ready-to-Work Accelerator has included digital literacy as a complementary module in its Work Ready Now curriculum for youth. These activities can be targeted to at-risk youth as in the case of Youth Ready which works with partners like Microsoft and Intel to develop ICT skills among young victims of gender-based violence.

A major aspect of USAID’s youth programming is helping young people navigate online spaces safely. This includes discerning mis- and disinformation and countering bullying and online threats. Projects such as Ukraine UNITY, which supports youth leadership in creating a values-based Ukrainian identity, help build competences under *Communication and Collaboration* as they increase digital citizenship through activities like leveraging social media to amplify youth voices and encourage civic and economic participation.

USAID’s YouthLead platform and Youth Excel mechanisms build the skills of young leaders in digital citizenship and digital implementation research. Similarly USAID’s YouthMappers builds the GIS mapping skills for development with over 5,000 students in 250 universities globally. These programs build on digital literacy competences such as *Digital Content Creation* and *Information and Data Literacy*.

KEY CONSIDERATIONS for Digital Literacy Activities in Youth

- Though born into the digital era, youth still face barriers to expanding their digital literacy, from poor literacy and numeracy to social and economic barriers.
- To ensure that digital literacy activities address youth's most pressing needs, activities should consider scoping exercises to ensure that existing rates of digital literacy and competency gaps among youth are well known.
- Activities should engage youth champions and ambassadors in digital literacy activities to influence the adoption of skills related to behavior change such as *Safety*.
- Engage technology companies, ICT associations, and vocational training institutions to provide digital literacy training together with other forms of workforce development, employment, or entrepreneurship training.
- Consider engaging youth as intermediaries for digital services, providing them with digital literacy training to help them build the capacity of other youth and increase access to digital services. For further guidance, review GSMA's [Digital Literacy Training Guide for Mobile Money Agents](#) and [Digital Literacy Change Agents](#).
- Young people are particularly interested in how digital literacy skills can advance both economic and civic impact opportunities.



Photo: Colby Göttert—Moldova

CONCLUSION

Digital technology has changed our world. In the wake of COVID-19, these changes will only accelerate. USAID's Digital Strategy lays out a vision for development in the digital age and sets forth a path for Missions seeking to bring the benefits of digital technology to activities around the globe. While the positive impacts of digital development interventions are many, they will be difficult to realize without stronger digital literacy competences across USAID's partners and stakeholder groups. There is no digital development without digital literacy. This Primer supports USAID Missions in intentionally incorporating digital literacy into new and existing programs and, simultaneously, improving the use and development of digital skills across the Agency.

Photo: Odetola Ismail Folaranmi—Nigeria

ANNEXES

ANNEX I: USAID TOPICS FOR FURTHER READING

This Primer discusses the nuances of digital literacy in cross-cutting themes like the gender digital divide, child protection, and cybersecurity, but these areas are not analyzed in great depth. Rather, readers interested in further information on these subjects should reference the following primers, reports, and analyses developed through the implementation of the USAID Digital Strategy:

Resource Type	Purpose
<u>The Cybersecurity Primer</u>	This primer will help USAID staff build their understanding of cyber threats, cybersecurity, and cyber resilience as they relate to USAID programming. This guide does <u>not</u> address cybersecurity for USAID's internal enterprise, which is managed by the Office of the Chief Information Officer (CIO).
<u>Gender Digital Divide Primer</u>	This primer outlines the barriers women face in gaining access to digital tools and services as well as strategies for IPs to bridge this digital divide.
<u>Gender Digital Divide Desk Review</u>	This review provides an overview of the current status of the gender digital divide (with a particular focus on mobile phones and mobile Internet), including an analysis of why it exists, why closing the gender digital divide matters, and the potential risks for women and girls when using technology.
<u>Gender Digital Divide Gender Analysis Technical Resource</u>	This resource addresses the constraints to women's equitable participation in the economy, with a focus on the gender digital divide and women's access to and use of ICT. The Technical Resource includes practical tools and resources to be used by USAID staff and partners as they integrate the gender digital divide into gender analyses with a women's economic empowerment and gender equality lens at global, country, and regional strategic planning levels; into program and activity design and implementation; and into monitoring and evaluation.
<u>GDD Risk Mitigation Technical Note</u>	This Technical Note addresses the constraints to women's equitable participation in the national, regional, and global economy. It offers practical steps, strategies, and resources to be used by USAID staff and partners for mitigating the risks associated with women and girls accessing and using ICT and also includes examples of on-the-ground solutions.
<u>Disinformation Primer</u>	This primer provides an overview of disinformation culture to help USAID staff and partners understand the basics of disinformation, how it is spread, why it is spread, and how programming can help reduce its damaging impact on societies around the world.
<u>Digital Ecosystem Framework</u>	Maintaining an intimate knowledge of a country's digital ecosystem, unique characteristics, and key stakeholders is essential for understanding how digital literacy can support the development of open, secure and inclusive digital technologies and services. USAID developed the digital ecosystem framework, which goes into more detail on defining the digital ecosystem for USAID staff.

ANNEX II: DIGCOMP 2.2 PROFICIENCY LEVELS

As referenced throughout the Digital Literacy primer, the DigComp Framework introduces five competence areas in its original iteration (Figure 11). DigComp 2.1 introduced and DigComp 2.2 kept eight proficiency levels (Figure 12) to demonstrate the range of proficiencies people can acquire within each competence area to obtain digital literacy. See the [DigComp Framework 2.2](#) for more information.

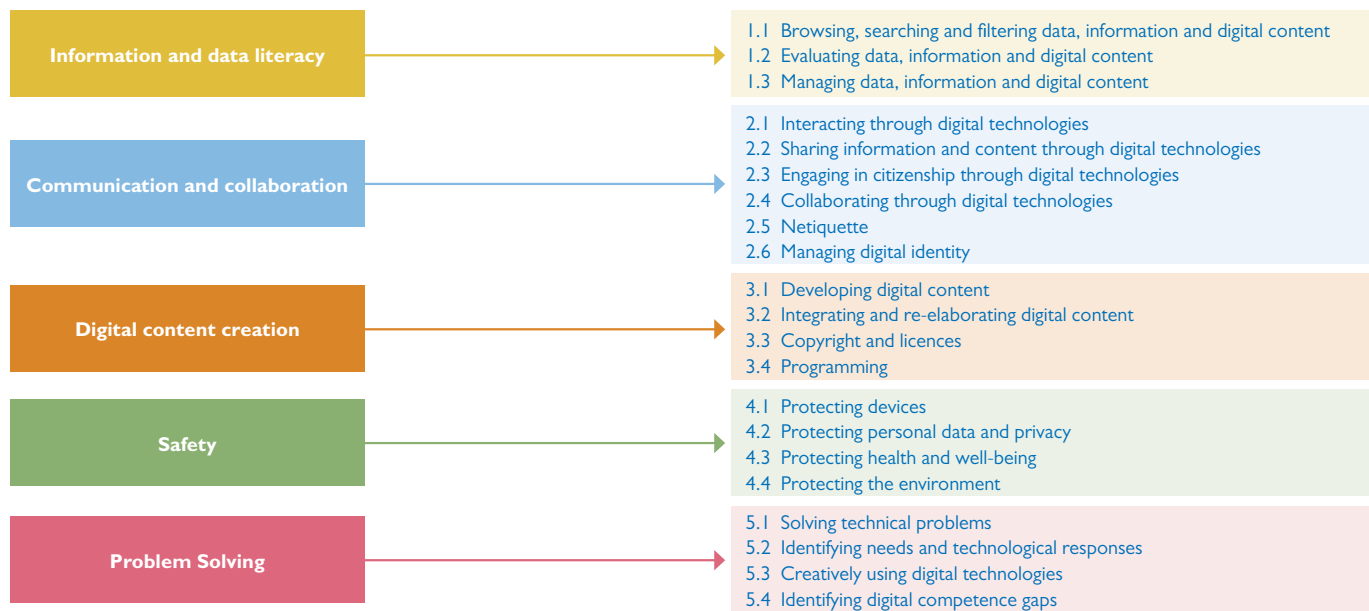


Figure 11. DigComp Framework Competence Levels

4 OVERALL LEVELS	Foundation		Intermediate		Advanced		Highly specialised	
8 GRANULAR LEVELS	1	2	3	4	5	6	7	8
COMPLEXITY OF TASKS	Simple task	Simple task	Well-defined and routine tasks, and straightforward problems	Tasks, and well-defined and non-routine problems	Different tasks and problems	Most appropriate tasks	Resolve complex problems with limited solutions	Resolve complex problems with many interacting factors
AUTONOMY	With guidance	Autonomy and with guidance when needed	On my own	Independent and according to my needs	Guiding others	Able to adapt to others in a complex context	Integrate to contribute to the professional practice and to guide others	Propose new ideas and processes to the field
COGNITIVE DOMAIN	Remembering	Remembering	Understanding	Understanding	Applying	Evaluating	Creating	Creating

Figure 12. DigComp Framework Proficiency Levels

ANNEX III: EXAMPLES OF DIGCOMP 2.2 COMPETENCE AREAS, COMPETENCES, AND PROFICIENCY LEVELS ACROSS USAID PROGRAMMING

Competence areas (dimension 1)	Competence Area Examples
1. Information and Data Literacy	<p>Through the Naatal Mbay project (2015 - 2019), USAID worked with local stakeholder groups to expand the use of digital tools to support locally-owned and sustainable data collection and analysis. The project supported capacity building on a suite of farmer-facing tools such as Microsoft Excel, DropBox, CommCare, and Area Mapper. By building local ownership and adoption of these tools, the project empowered value chain actors to collect, manage, and evaluate data to better serve farmers, monitor activities, increase transparency along the chain, and attract investment.</p>
2. Communication and Collaboration	<p>The Ukraine UNITY project (2020 - 2025) supports youth leadership toward a values-based Ukrainian identity. Together with implementing partner IREX, Ukraine UNITY has helped young people gain access to improved economic and skills-building opportunities, and contribute to community-based problem solving. The project implements activities around norm-changing and engaging communications, which leverages social media to amplify youth voices to encourage the civic and economic participation of their peers.</p>
3. Digital Content Creation	<p>The Alliance for e-Trade Development is a USAID Global Development Alliance designed to support the cross border e-commerce development of micro, small, and medium enterprises (MSMEs). Through this program, enterprises receive targeted capacity building to market and sell their products and services through online e-commerce platforms. Through one-on-one mobile trainings and workshops, Alliance member Etsy is providing e-commerce training to small and medium-sized enterprises and artisans in peri-urban and urban India on marketing elements.</p>
4. Safety	<p>Through the Digital Asia Accelerator, under the Digital Frontiers program, USAID and its partners identified hacking and online scams as major impediments to small and medium-sized enterprises, security specialists, and business support organizations in the region. In response, the team developed ten videos with tips and tricks, such as strategies for protecting data and devices, to help users in Cambodia increase their digital hygiene and security.</p>
5. Problem Solving	<p>Through hackathons and innovation challenges like the Fall Armyworm Tech Prize, USAID challenges supported users of digital tools and technologies in creatively using their skills to address local development challenges. The grand prize winner of the Fall Armyworm Tech Prize, Farm.ink, developed an interactive virtual advisor that provides knowledge to its users on how to identify, scout, and treat fall armyworm, which are a pest to farmers and lead to crop loss and other damage.</p>

DIGCOMP 2.2 COMPETENCY EXAMPLES

Balkans Media Assistance Program

Implementing Partner: Internews

DigComp Competences: Safety, Problem Solving, Digital Content Creation, Communication and Collaboration

USAID's regional Balkans Media Assistance Program built the capacity of Balkansmedia.org, a comprehensive online learning and information exchange platform. The program commissioned the creation of a 10-episode series of how-to videos on the basics of data-driven journalism. Program experts in mobile journalism shared recommendations for a journalism equipment kit (requested by grantee recipients of training) in visual storytelling. The program completed preparations for a series of activities related to increasing digital security of the program's media partners and making Balkansmedia.org content more social-media-friendly and shareable.

Bangladesh, Cyber Champ

Implementing Partner: Dnet

DigComp Competences: Safety, Information and Data Literacy, Digital Content Creation

Through CVE interventions, youth were trained in exercising tolerance and internet safety aimed at discouraging them from online interaction with extremist groups. One USAID activity improved the employability of youth and identified jobs based on their individual skills and interests by developing an online psychometric test with career profiles. Dnet adapted this in response to restrictions from COVID-19 and developed a virtual Olympic event with students around the country, enabling them to continue to participate in internet safety training while school was remote.

Colombia, Human Rights Activity

Implementing Partner: Chemonics

DigComp Competences: Communication and Collaboration, Problem Solving, Digital Content Creation

HRA, in alliance with IBM, supported a hackathon that enabled young innovators to apply new tech-based solutions to improve communication and collaboration between conflict-affected communities and government institutions. The winning proposal was a prototype of an early warning system using encrypted messaging transmitted through FM frequencies to the Government of Colombia with a request for protection measures.

Liberia, Learning Links

Implementing Partner: The Kaizen Company

DigComp Competences: Problem Solving, Communication and Collaboration

Learning Links implemented several initiatives to reduce phone-related challenges experienced by the project before distribution, introducing real-time monitoring of Learners' and Tutor-Mentors' daily SMS engagement, and training Tutor-Mentors to troubleshoot phone-related issues with Learners. The result has been a reduction in phone-related challenges experienced by Learners and Tutor-Mentors through the provision of IT support methods.

Liberia, Mobile Salary Payments

Implementing Partner: FHI360/mSTAR

DigComp Competences: Problem Solving

The Liberian government partnered with the Mobile Solutions Technical Assistance and Research (mSTAR) project, led by FHI 360 and funded by USAID, to roll out mobile salary payments for the Ministry of Education and Ministry of Health workers. With mobile salary payments, workers no longer had to leave their workplaces to receive their salaries. Since the program launched in 2016, over 3,100 education and 800 health workers have enrolled in 14 counties.

Pakistan, Skills for Youth

Implementing Partner: World Learning

DigComp Competences: Digital Content Creation, Problem Solving

USAID's three-year old partnership with CISCO to develop the IT skills of youth in the Af/Pak region trained 3,185 students (558 female) and sponsored three job fairs to help match jobs and trainees.

Tanzania, 3-2-1 Service

Implementing Partner: Viamo and Women's Connect Challenge

DigComp Competences: Communication and Collaboration, Safety, Problem Solving

Viamo tackles barriers for women, such as low digital literacy, and the perception that mobile internet is not relevant to their lives. Viamo's free, on-demand information service, 3-2-1, partners with MNOs to provide low-literacy women with interactive, educational content to access life-saving information and digital literacy training.

Ukraine, Learn to Discern

Implementing Partner: IREX

DigComp Competences: Information and Data Literacy, Communication and Collaboration, Safety

The "Learn to Discern in Schools" media literacy pilot taught middle school pupils to recognize disinformation by critically evaluating the information they receive through social media and television. The program added media literacy lessons to standard history, literature, and arts appreciation courses in 50 public schools in four cities, empowering future voters and leaders to make conscious choices about media they consume and share.

DIGCOMP 2.2 PROFICIENCY LEVEL EXAMPLES

The following USAID programs demonstrate how proficiency levels are assigned using DigComp 2.2.

Proficiency Levels in DigComp 2.1	Complexity of Tasks	Example
Foundation	Simple tasks (with guidance/autonomy where needed)	A program with the Liberian Government and FHI 360 trained and implemented <u>mobile salary payments</u> for Ministry of Education and Ministry of Health workers. With mobile salary payments, workers no longer had to leave their workplaces to receive salaries. The skills and knowledge shared through the mobile money program such as operating a phone, setting up a mobile money account, cashing out, or sending mobile payments to banks are all relevant and useful skills outside of the salary payment. Beneficiaries can use the skills to send remittances to family or assist others within their community to use mobile money, thereby increasing digital literacy, and familiarity with the digital ecosystem. Since the skills required to implement a program at the foundation level are low, many IPs are capable of implementing this type of programming.
Intermediate	Well defined and routine and non-routine problems	USAID partnered with <u>The Kaizen Company</u> to implement several initiatives to reduce phone-related challenges experienced by the project before distribution, introducing real-time monitoring of Learners' and Tutor-Mentors' daily SMS engagement, and training Tutor-Mentors to trouble-shoot phone related issues with Learners. The program saw a reduction in phone-related challenges experienced by Learners and Tutor-Mentors through the provision of IT support methods.
Advanced	Different tasks and problems	USAID partnered with <u>Cactus Education</u> to train 59 youth in ICT skills and 46 in entrepreneurship skills, and helped secure four full-time jobs and 16 internships for trainees in the ICT sector. These partnerships are improving workforce skills for out-of-school youth while creating a platform for sustainable job creation, with the private sector playing a critical role in the process. The skills learned in the Cactus program are high level, can be used in careers across many industries, and are highly relevant to countries digitizing systems and services.
Highly specialised	Resolve complex problems with limited solutions	<u>OTI's program in Bosnia and Herzegovina</u> works with online news portals to better monitor and moderate hate speech on their sites, thereby disrupting the influence of extremist messaging. The OTI program requires high digital skills to quickly identify and remove hate speech and is specific to the media sector because content moderation is a specific skill set when a large amount of content is posted publicly.

ANNEX IV: DIGITAL LITERACY COMPETENCE FRAMEWORKS AND RESOURCES

COMPETENCE FRAMEWORKS

- [British Columbia Digital Literacy Framework](#)

The framework elaborates on six characteristics identified by British Columbia education leaders. These characteristics are based on the National Educational Technology Standards for Students standards developed by the International Society for Technology in Education and encompass the types of knowledge and skills learners need to be successful in the 21st century.
- [Digital Intelligence Global Standards Report Common Framework for Digital Literacy, Skills and Readiness \(2019\)](#)

Digital Intelligence is a comprehensive set of technical, cognitive, meta-cognitive, and socio-emotional competences that are grounded in universal moral values and enable individuals to face the challenges and harness the opportunities of digital life. Digital Intelligence has three levels, eight areas, and 24 competences composed of knowledge, skills, attitudes, and values.
- [Digital Literacy Global Framework](#)

The objective of the Digital Literacy Global Framework project is to develop a methodology that can serve as the foundation for Sustainable Development Goal (SDG) thematic Indicator 4.4.2: “Percentage of youth/adults who have achieved at least a minimum level of proficiency in digital literacy skills”.
- [DQ Institute Framework](#)

The DQ (Digital Intelligence) Framework establishes a global standard for digital literacy, skills, and readiness. The Framework aggregates 25 global approaches to digital literacy, including UNESCO’s Digital Citizenship Competency Framework, European Commission’s Digital Competence Framework, US Common Sense’s Digital Literacy Framework, and Singapore’s Skills Frameworks.
- [European Commission’s Digital Competence Framework](#)

An updated list of 21 competences (also called the conceptual reference model). The eight proficiency levels and examples of use can be found in DigComp 2.1 (2017) and DigComp 2.2 (2022) contains more than 250 current examples of the knowledge, skills and attitudes that contribute to each competence.
- [EU e-Competence Framework](#)

The European e-Competence Framework version 3.0 provides a reference of 40 competences as required and applied at the ICT workplace, using a common language for competences, skills, and capability levels that can be understood across Europe.
- [Jisc Digital Capabilities \(DigCap\) Framework](#)

The framework has most often been used by digital leaders and staff with an overall responsibility for developing digital capability in their organization. It can be also be used by staff in any role and by students in any educational setting.
- [Microsoft Digital Literacy Standard Curriculum](#)

The Digital Literacy Standard Curriculum offers resources including shareable content object reference model (SCORM) packages, lesson guides, transcripts, videos, and closed caption files.
- [Skills for a Digital Age Matrix \(Caribou Digital, 2019\)](#)

This project explores how societies can equip working individuals — both those in the workforce and those about to enter it — with the skills they need to access meaningful work.

- [UNESCO ICT Competency Framework for Teachers \(2019\)](#)

The UNESCO ICT Competency Framework for Teachers helps countries develop comprehensive national teacher ICT competency policies and standards and integrate these into overarching ICT in education plans.

TRAINING GUIDES AND TOOLKITS

- [Accelerating Digital Literacy Report](#)

This report analyzes the challenges women with low mobile literacy and digital skills face when accessing mobile internet, aims to understand how women learn these skills, and identifies the barriers that women come up against in various learning channels.

- [Building Resilient and Inclusive Digital Ecosystems: A Toolkit for Using Digital Payments in Development Programs \(USAID, 2020\)](#)

The updated version of the Digital Payments Toolkit is intended to help USAID IPs navigate the journey from cash to digital payments and includes new content and tools to reflect the progress made in the availability of digital payments and their use by development organizations.

- [Combating Digital Disinformation and Misinformation through Media and Information Literacy \(UNESCO, 2018\)](#)

This module is part of UNESCO’s handbook for journalism and training and introduces students to the concept of Media and Information Literacy to understand news as a means to detect ‘information disorder’ in obvious and subliminal messages.

- [Connected Society: Mobile Internet Skills Training Toolkit \(GSMA, 2017\)](#)

The GSMA Mobile Internet Skills Training Toolkit is a set of free resources to teach people the basic skills they need to access and use mobile internet.

- [Digital Health Tools for Community Health Worker Programs \(LivingGoods\)](#)

This toolkit aims to improve health by supporting community health programs in using ICT more effectively by assisting the Ministry of Health and health program managers at national and sub-national levels to assess, plan, and implement digital health tools in CHW programs, building on the experience of a broad range of initiatives around the world.

- [Digital Literacy for Children](#)

The paper presents the results of an initial scoping exercise on digital literacy undertaken by the UNICEF Policy Lab with the objectives of working toward a definition of digital literacy, highlighting existing competence frameworks and how they could be adapted to the needs of UNICEF, and analyzing the needs and efforts of UNICEF country offices.

- [Digital Literacy Training Guide: A Guide Mobile Money Agents and Digital Literacy Change Agents \(GSMA, 2020\)](#)

This Digital Literacy Training Guide is a contextually appropriate, engaging curriculum designed to address the knowledge, attitudinal, and skills barriers that prevent refugees — especially women — from accessing and using financial services.

- [Financial Literacy Training Toolkit for Refugees \(UNCDF, 2021\)](#)

The United Nations World Food Programme, the UNCDF, and PHB have developed a financial literacy training toolkit customized to meet the needs and realities of refugees and refugee-hosting communities in Uganda.

- [Google for Education Applied Digital Skills](#)

Google for Education teaches adults practical digital skills through a variety of modules that can be taken in any sequence.

- [GSMA mHealth Gender Toolkit](#)
This toolkit is a reference guide for mHealth visual analog scale providers and partners to help improve their services by making them more gender inclusive and extending their reach to more female users.
- [Handbook on data protection in humanitarian action \(ICRC\)](#)
In suggesting how data protection principles should be applied by humanitarian organizations, this handbook builds on existing guidelines, working procedures, and practices that have been established in humanitarian action in the most volatile environments and for the benefit of the most vulnerable victims of armed conflicts, other situations of violence, natural disasters, pandemics, and other humanitarian emergencies (together “humanitarian emergencies”).
- [Holistic Manual: A Strategy Manual for Human Rights Defenders \(Tactical Technology Collective\)](#)
This guide, the first to explicitly adopt a ‘holistic’ approach to security and protection strategies for human rights defenders, integrates the need for an understanding of our technical environment and its relation to our work and security.
- [ITU Digital Skills Toolkit \(2018\)](#)
This toolkit provides stakeholders with guidance on developing a digital skills strategy and it is intended for policymakers, along with partners in the private sector, NGOs, and academia.
- [Managing Information in a Humanitarian Context \(Internews, 2019\)](#)
Internews first developed this rumor tracking methodology in 2014 in Liberia to address the deadly Ebola outbreak, and has implemented rumor tracking as a way to address misinformation during humanitarian crises in numerous countries and contexts, reaching hundreds of thousands of beneficiaries.
- [Mozilla Stepping into Digital Life \(2016\)](#)
The Digital Skills Observatory was a 12-month, experimental and participatory design research project developed to deepen the understanding of low-income, first-time smartphone users.
- [Mozilla Web Literacy 2.0](#)
The paper represents the thinking, research findings, and next iteration of the Web Literacy Map that embraces 21st century skills as key to leadership development.
- [Newsroom Handbook: A Conflict Sensitive Approach to Election Reporting \(Internews, 2020\)](#)
This handbook brings together principles of conflict sensitive journalism with practical strategies for election reporting to explore how media workers can play a role in protecting and promoting free and fair elections.
- [SafeJourno \(Internews, 2014\)](#)
SafeJourno is a free and open-source curriculum guide for media trainers who teach students, professionals, and peers digital safety and online security.
- [Safe Sister Guide \(Internews and DefendersTech 2018\)](#)
This booklet helps African women learn about problems they might encounter on the internet (e.g., leaked or stolen personal photos, viruses, and scams), how they can make informed decisions every day to protect themselves, and how they can help make the internet a safe space for African women, their families, and other women around the world.
- [Security in a Box](#)
The Tactics Guides in this toolkit cover basic principles such as how to create strong passphrases and avoid malware, while the Tool Guides offer step-by-step instructions to help readers install, configure, and use essential digital-security software and services.

- [Social Networking: A Guide to Strengthening Civil Society through Social Media \(USAID, 2014\)](#)

This guide was developed as a reference guide for CSOs working in partnership with the USAID and its IPs in advancing their critical missions.

- [TacticalTechnology GenderSec Toolkit](#)

Gendersec Curricula introduces a holistic, feminist perspective to privacy and digital security trainings, informed by years of working with women and transgender activists around the world.

- [Toolkit on Integrating Digital Financial Services into Feed the Future Program \(USAID, 2019\)](#)

The tools in this publication are meant to help Feed the Future IPs explore where they can leverage mobile money to deliver relevant and useful financial services to the smallholders and value chain partners they work with.

- [USAID Gender and Information Communication Technology \(ICT\) Survey Toolkit](#)

This Toolkit is meant to fill the gap in available, standardized resources for obtaining an overall landscape assessment of gender and ICT for USAID programming.

- [UNESCO Global Framework of Reference for Teaching Digital Literacy Skills](#)

The objective of the Digital Literacy Global Framework project is to develop a methodology that can serve as the foundation for SDG thematic Indicator 4.4.2: “Percentage of youth/adults who have achieved at least a minimum level of proficiency in digital literacy skills”.

ANNEX V: CASE STUDIES

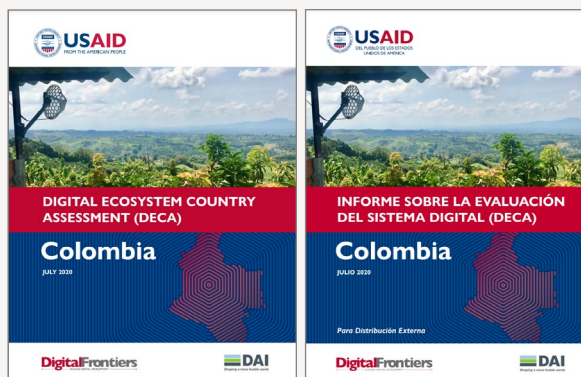
COUNTRY AND REGIONAL STRATEGIC PLANNING: USAID/COLOMBIA CDCS

In response to the vision laid out in the Digital Strategy and recognizing the potential that digital technologies have, USAID/Colombia conducted a DECA during the CDCS development process to identify priority areas for digital development that could align to the CDCS' results framework.

Linking the DECA findings to the CDCS' development objectives and intermediate results helped identify opportunities for digital interventions and digital literacy activities that supported Colombia's broader development priorities. In response to Shared IR 1 / 2.1: *Improved governance for citizen security*, the DECA found that digital applications, when used safely and securely, can provide alternate channels for reporting violence, while improved cyber hygiene and digital security can strengthen communities by mitigating online threats and harassment.

The assessment also recommended building digital literacy as a means to:

- Strengthen social integration of migrants, youth, and conflict-afflicted persons;
- Increase citizen monitoring and oversight of public service delivery;
- Enhance job skills to participate in the labor market;
- Develop migrant workforce skills;
- Protect human rights defenders; and
- Provide financial resources to farmers in rural areas.



In July 2020, USAID/Colombia released its 2020-2025 CDCS, which outlines the Mission's three development objectives for Colombia:

- A more cohesive and inclusive society resilient to conflict;
- Strengthened governance to meet citizens' needs and increase citizen confidence in the state; and
- Promote equitable and environmentally sustainable economic growth.

It also highlights the Mission's Special Objective: Stability in areas impacted by migration from Venezuela.

As a result of specifically linking the DECA findings to the CDCS results framework, **USAID/Colombia was able to identify digital approaches that complement existing priorities and have since committed to building the digital literacy and skills of youth, women, and ethnic populations.**

COUNTRY AND REGIONAL STRATEGIC PLANNING: USAID/COLOMBIA CDCS *(continued)*

This CDCS has informed the implementation of activities such as the **Greater Internet Freedom**, a three-year initiative supporting the digital security of CSOs and media organizations; the W-GDP Microsoft Women’s Digital Inclusion Partnership that is designed to increase the number of women around the world with

Internet coverage by July 2022; **Mastercard Start Path Empodera**, a business accelerator focused on promoting women’s entrepreneurship and financial inclusion; and **Digital APEX**, a USAID ITR program, designed to help strengthen cybersecurity practices for local programs and partners in Colombia.

Sample Solicitation Language from Colombia CDCS

As part of its strategy to be more intentional in its design of digital interventions, USAID/Colombia now includes the following language in its solicitations:

USAID is working toward a future where digital technology promotes inclusive growth, fosters resilient and democratic societies, and empowers all, including the most vulnerable. Digital development tools and approaches can support and strengthen country digital ecosystems. Activities that include digital data collection and digital payments to beneficiaries and subcontractors can potentially streamline processes and procedures while supporting digital feedback loops that allow for real-time adaptive management.

Offerors are encouraged to develop a digital vision for the proposed activity and, when appropriate, integrate this vision into their proposed technical approach. The offeror’s digital vision, when appropriate, would clearly outline and highlight the areas of opportunity for the integration of digital tools and approaches into the proposed technical approach in response to this Request for Proposal. For further information, please review USAID’s Digital Strategy and Section J.X for a copy of the DECA Colombia Report and Agency Digital Strategy in both English and Spanish.

This language can serve as a sample for other Missions interested in incorporating the use of digital technology, including digital literacy, into their solicitations and procurements.

YOUTH EXCEL INCORPORATES DIGITAL LITERACY INTO APS ADDENDUM

Overview

The Office for Education released an addendum under the Youth Power 2 Annual Program Statement (APS) calling for concept notes to build the capacity of youth-led and youth serving organizations. When building this addendum, the USAID design team included both digital literacy and digital leadership in the solicitation to reflect the Office of Education's priorities and align with the Digital Strategy. While the team did not have a clear idea of which digital activities could be incorporated into what would become the Youth Excel activity, the APS specifically highlighted Youth Digital Leadership as an intervention that applicants could explore further in their responses. Sample activities included:

- Training in digital literacy for youth and youth leaders to foster employment and civic engagement;
- Training in critical thinking skills for youth in order to analyze digital information and make informed decisions;
- Supporting digitally enabled young leaders in international, national, and local community development issues; and
- Supporting policy initiatives that expand the enabling environment for positive youth development, including digital literacy and activism.

By including language about digital literacy into the solicitation, the team leading the Youth Excel co-creation process signaled to IPs an expectation that digital literacy specific and/or sensitive activities would be included in the activity design.

What happened next?

Candidates who submitted successful concept notes were invited to a co-creation event with USAID. Digital literacy and youth digital leadership were discussed during the co-creation event which led to the inclusion of language on digital literacy in the RFA. Once the procurement was awarded, both USAID and the IP entered a six-month inception period during which the design team assigned to digital literacy programming grappled with how best to structure effective activities. Some considerations included how best to develop trainings that could be delivered across different modalities and age groups, and how best to navigate topics such as misinformation, digital advocacy, youth coalition building and networking. The design team did not start from scratch and instead leveraged resources on advocacy, skill development, and digital literacy submitted by the IP's consortium members to help efficiently identify literacy gaps and avoid duplication of efforts.

What did this achieve?

By incorporating digital literacy considerations from the very beginning, the Youth Excel design team was able to draw upon partner expertise and facilitate a collaborative approach to the design of digital literacy programming.

Lessons learned

- Include digital literacy language in the solicitation;
- Make digital literacy activity design a collaborative and iterative process;
- Make end users a part of the design process; and
- Invest in a strong coordinating and convening partner

ACTIVITY DESIGN AND IMPLEMENTATION: MSTAR/LIBERIA MOBILE MONEY SALARY PAYMENTS

Challenge

In 2015, during the West Africa Ebola outbreak, Government of Liberia employees had one option to receive salaries – through direct deposit at banks. With few bank branches available in urban and peri-urban areas and none available in rural areas (the majority of the country). Traveling to banks was difficult, especially as staff had to travel for days over treacherous roads to reach a bank, which could take over a week each way. Upon arriving at the bank, there were additional hurdles including long lines (even requiring multiple days' wait), system outages, low liquidity (no cash on hand), and reports of bribes to security guards and bank staff. Receiving a monthly salary was a time-consuming task; many teachers and healthcare workers were forced to abandon their posts for sometimes up to a month at a time just to receive their paycheck.

Intervention

Civil servants could avoid this extensive travel and other challenges by accessing salaries via mobile money. The mSTAR program in Liberia partnered with the Government of Liberia and service providers to support smooth transition to a mobile money salary payment system for civil servants.

Understanding and Designing with the User

mSTAR conducted an ethnography study with civil servants to understand how they retrieved salaries, their pain points, and how mobile money might offer an improved option. They also conducted research to identify attitudes toward mobile money, providers, and the Government of Liberia to understand openness to changing payment modalities and concerns. mSTAR

leaned heavily on Liberian staff to contribute to digital literacy design, using concepts and tools that the target group would respond to, such as the [cartoon shown here](#).

Understanding the Context

The team worked closely with the Government of Liberia to understand the technical components of the transition and translate the process to the users. mSTAR built a close relationship with the MNOs providing mobile payments, and understood the value proposition for them and their constraints, which enabled more effective service provision to the civil servants. mSTAR was a convener of frequent and close coordination with all six Government of Liberia entities, and two service providers provided a contextual framing that enabled stakeholders to understand one another's needs, concerns, and motivations.

Identifying the Right Competences

Since education and health workers were the target population for this activity, their levels of literacy and numeracy, and comprehension of mobile phone usage were already somewhat high. Therefore, digital literacy efforts were more focused on building positive behaviors. The team introduced localized enrollment events to build trust and awareness among target users. Typically three to four large-scale events were held in each of Liberia's 15 counties and were attended by representatives from the mSTAR project, the MNO,



ACTIVITY DESIGN AND IMPLEMENTATION: MSTAR/LIBERIA MOBILE MONEY SALARY PAYMENTS *(continued)*

and the Government of Liberia, and helped address user questions. (e.g., If I am out of network, will I still receive my payment? If my phone is stolen, will the money be stolen too? Who will cover the transaction fees?)

Working with Intermediaries

As part of this activity, the project set up a call center as a resource to troubleshoot problems. The call center was housed within the Government of Liberia and staffed by an individual already responsible for fielding questions about salaries. This individual was trained in how to respond to queries about mobile money payments, and also attended the registration and awareness events to build trust and familiarity with users.

Lessons Learned






- This activity is a good example of a tactical digital literacy activity where the end goal of the activity was not simply increasing digital literacy. The activity

did incorporate best practices of digital literacy to achieve a strong development outcome.

- **Look for Ways to Build Confidence and Credibility:** Inviting government representatives to the awareness raising events was key to lending the activity credibility and increasing user confidence.
- **Continuously adjust trainings to respond to user needs:** After the first awareness and registration event, the team realized that teachers would not take up mobile money if they did not feel adequately informed. They took special note of the questions asked about how mobile money worked, revising and tailoring each subsequent session to respond to these questions and concerns.
- **Reach out to USAID colleagues for support:** The mSTAR team consulted with USAID counterparts involved in global health and education. These conversations expanded the team's contextual knowledge and helped them avoid risks and delays.

ANNEX VI: DIGITAL LITERACY IN PROJECT ACTIVITY DESIGN

USING THE PRINCIPLES FOR DIGITAL DEVELOPMENT TO STRENGTHEN DIGITAL LITERACY ACTIVITIES

Principle for Digital Development	Application in Digital Literacy Activity Design
 <p>Design with the User User-centered design starts with getting to know the people you are designing for through conversation, observation, and co-creation. Designing a digital literacy activity with the user can increase the activity’s effectiveness by drawing out the questions, concerns, and learning themes of most importance to the user.</p>	<p>Invite members of the target population to design workshops and elicit their feedback on capacity building activities and training curricula.</p>
 <p>Understand the Existing Ecosystem (Operating Environment) Well-designed initiatives and digital tools consider the particular structures and needs that exist in each country, region, and community.</p>	<p>Conduct context-setting assessments to understand which social, political, or economic factors may impact the success of the activity.</p>
 <p>Design for Scale Achieving scale requires adoption beyond an initiative’s pilot population and often necessitates securing funding or partners that take the initiative to new communities or regions. Designing for scale can expand the reach and impact of digital literacy activities beyond the target population.</p>	<p>Leverage intermediaries such as village agents and community structures such as women’s groups to conduct Training of Trainers exercises to help bring digital literacy to new communities or regions.</p>
 <p>Build for Sustainability Building sustainable programs, platforms, and digital tools are essential to maintain user and stakeholder support, as well as to maximize long-term impact. Building for sustainability helps ensure that following the life of the project, target users are still able to identify resources to continue building their digital literacy.</p>	<p>Engage local stakeholders such as vocational training centers and ICT associations in digital literacy training activities to ensure they are equipped to continue offering training services to the community.</p>
 <p>Be Data Driven When an initiative is data driven, quality information is available to the right people when they need it, and they use those data to take action. Collecting relevant qualitative and quantitative data about the target populations, their existing rates of digital literacy, and broader digital development needs will help develop a well-informed and well-targeted activity.</p>	<p>Conduct context-setting assessments, such as digital literacy assessments, surveys, DECAs, or digital agriculture assessments to gather such information.</p>



Use Open Standards, Open Data, Open Source, and Open Innovation

An approach to digital development can help to increase collaboration in the digital development community and avoid duplicating work that has already been done. An evidence base with proven strategies for building digital literacy across various sectors and practice areas can inform the design of more effective digital literacy activities around the globe.

Where possible, share evaluation data with the larger development community.



Reuse and Improve

Reusing and improving is about taking the work of the global development community further than any organization or program can do alone. A wide range of digital literacy curricula are either publicly available or available through other USAID activities.

Where appropriate, reuse and build upon existing digital literacy curricula to avoid duplication of efforts, increase collaboration between activities, and refine and standardize existing training materials. (See *Annex IV* for a list of resources including existing training guides and toolkits)



Address Privacy and Security

Addressing privacy and security in digital development involves careful consideration of which data are collected and how data are acquired, used, stored, and shared. While protecting privacy and security in digital development is not primarily the responsibility of the user — it is also the responsibility of the government, civil society, etc. — it is important that individuals have knowledge of how to protect themselves.

No matter one's level of digital literacy, being informed on privacy and security can help mitigate the risk of digital harms.

Even if an activity is developing foundational digital literacy competences, it is essential to address privacy and security concerns through digital literacy training activities.



Be Collaborative

Being collaborative means sharing information, insights, strategies, and resources across projects, organizations, and sectors, leading to increased efficiency and impact

Sharing best practices, lessons learned, and evaluations across USAID activities will unearth new, effective, and creative ways to build digital literacy competences.

Publish case studies or host brown bags to share experiences from conducting digital literacy activities.

THE ROLE OF SURVEYS AND ASSESSMENTS IN DESIGNING DIGITAL LITERACY ACTIVITIES

Planned activities may not always have the resources needed to conduct baseline assessments that gauge the digital literacy of their target users. Further, activities may not always begin implementation with a planned digital intervention and instead design one during the life of the project. In these instances, having some sense of a population's digital literacy is still critical for designing and implementing impactful programming. While USAID does not specifically recommend one broad digital literacy assessment, activities can use a variety of methods to responsibly collect information to fill these data gaps in a manner unique to their context or budget.

Market Viability Tools: Digital interventions that introduce users to a specific digital service or platform can use a market viability assessment or similar tool to assess a product's market fit. The [Gender and ICT Toolkit](#), for example, contains draft survey forms to understand digital use and skills that can be used for any geography and vulnerable group. In addition, the [Digital Payments Toolkit](#) offers clear guidance on how to expand digital financial literacy among users.

Digital Agriculture Assessments: Digital agriculture assessments have been conducted in [Bangladesh](#), [the Sahel](#), and [Nepal](#) (forthcoming) and covered topics relevant to digital literacy such as mobile phone ownership, access to mobile internet, and use of mobile financial services, as well as in-depth information on services that are in use and barriers to adoption of those services.

Surveys: The E-Trade Alliance used the [2017 E-Commerce Development Survey](#) and Index to learn more about the barriers MSMEs face in adopting e-commerce tools. The survey included findings on the degree to which access, ICT infrastructure, and entrepreneurial capacity are a barrier to the adoption of digital tools. Information from surveys such as these can be used as a proxy for digital literacy and, in the case of the Alliance, was used to inform the design of digital literacy activities specifically focused on building digital competences of MSMEs.

Local Knowledge: Interviewing local partners and experts is a critical method to truth-test assumptions about digital literacy. In USAID trade programming designed to upskill and modernize customs officers and border agents, former border officials are consulted to help activity designers understand what level of education and digital literacy the target population has and to what degree they may be willing and able to adopt digital tools to modernize their work.

ANNEX VII: GLOSSARY

Resources

[Center for Media Literacy Glossary of Terms](#)

[Internet Safety 101 Glossary](#)

[Internet Safety, Security, and Digital Parenting Glossary](#)

[Government of Australia eSafety Commissioner Glossary of Terms](#)

Term	Definition
Agent [Mobile Money Agent]	A point-of-sale location that is often a small retail shop at which the teller has been trained to conduct mobile money transactions, including deposit and withdrawal
Basic Phone	Mobile phone that provides access to voice and text-based services; common worldwide including in rural communities
Connectivity	A broad indicator of mobile access measured by both the level of mobile telephone coverage and the level of cell phone ownership, and usually disaggregated to be more specific (i.e., connectivity to basic mobile phones, connectivity to mobile internet)
Content	The information made available through a mobile device or service
Cyber Hygiene	The practices and steps that users of computers and other devices take to maintain system health and improve online security. These practices are often part of a routine to ensure the safety of identity and other details that could be stolen or corrupted.
Data Privacy	The aspect of mobile services that deals with the ability an organization or individual has to determine what personal information can be shared with third parties
Disinformation	False information that is deliberately created or disseminated with the express purpose to cause harm. Producers of disinformation typically have political, financial, psychological, or social motivations.
Enabling Environment	Attitudes, policies, and practices that stimulate and support effective and efficient functioning of organizations and individuals. In the case of mobiles this includes the regulatory framework, data security and privacy, and the level of market freedom available to mobile service providers.
Feature Phone	Mobile phone that provides access to voice, text, and internet-services and enables the use of applications and multimedia content

Term	Definition
Financial Literacy	The ability to effectively and critically navigate and evaluate financial services and to manage money; in the case of mobiles for development, financial literacy is important for mobile money adoption and usage
Hardware	The physical storage and display device that provides mobile access
Human-Centered (or User-Centered) Design	In broad terms, a type of user interface design, and a process in which the needs, wants, and limitations of end users of a product are given extensive attention at each stage of the design process
Information and Communication Technology (ICT)	Any technology (mainly digital but also analog) that allows users to create, store, display information in all its forms (text, images, video, audio) or communicate with others over a distance, such as computers, television, handheld computers, radio, audio cassettes, DVD and CD players, cell phones, networks, and the convergence of any of these technologies
ICT4D (or Information and Communications Technology for Development)	A term referring to the use of technology such as mobile phones and computers to achieve development goals
Internet	A network of networks with worldwide scale, in which millions of computers are interconnected through standardized protocols (TCP/IP)
Infrastructure	Infrastructure necessary to facilitate mobile uptake includes electricity, cell towers, data servers, and sales distribution networks
Literacy	Basic literacy is defined by the World Bank as anyone “who can, with understanding, read and write a short, simple statement on their everyday life”
Misinformation	Information that is false, but not intended to cause harm. For example, individuals who do not know a piece of information is false may spread it on social media in an attempt to be helpful.
Mobile Access	The ability of individuals to benefit from mobile devices and services without being hindered by location, income, gender, or other variables beyond their control
Mobile Banking	The use of a mobile phone to interact with a personal bank account; used to check balances, pay bills, and transfer money between accounts
Mobile Data Collection	The use of portable, electronic devices to collection information for monitoring and evaluation and for evidence-based decision making

Term	Definition
Mobile Device	The physical piece of mobile equipment, generally divided into three different categories: basic, feature, and smartphone
Mobile Ecosystem	A complex and multi-faceted system that encompasses the full range of different mobile devices, business models, content delivery models, and user habits available in a country or region
Mobile Money	A term used to describe the use of a mobile phone account to store and access funds that are held in a mobile wallet account
Mobile Network Operator (MNO)	A private company that provides mobile network services to customers
Open Source Software	Generically, open source refers to a program in which the source code is available to the general public for use and modification from its original design free of charge or for reduced cost
Partnerships	An aspect of a business model for a mobile service by which the appropriate donor, private sector, non-profit, and government organizations are brought together in order to effectively implement the service
Smart Phone	A mobile device that offers the features of a mobile telephone (voice calls, SMS) as well as the ability to run small software applications (“apps”) and to connect to the Internet to provide email, web browsing, and other data communication services.
SMS (Short Message Service)	A service that allows short text messages to be sent between mobile phones.
Sustainability	The capacity of a program, project, or other intervention to continue its activities over time
Theory of Change	An explicit presentation of the assumptions about how changes are expected to happen in relation to a particular project and due to the implementation of a specific mobile service
Usability	The ability and ease at which an individual can operate a mobile device or service for its intended purpose

ENDNOTES

- 1 McKinsey & Company, "How COVID-19 Has Pushed Companies over the Technology Tipping Point--and Transformed Business Forever," www.mckinsey.com/business-functions/strategy-and-corporate-finance/our-insights/how-covid-19-has-pushed-companies-over-the-technology-tipping-point-and-transformed-business-forever, February 18, 2021.
- 2 International Telecommunication Union, "Measuring digital development Facts and Figures 2021," <https://www.itu.int/en/ITU-D/Statistics/Documents/facts/FactsFigures2021.pdf>. 2021.
- 3 GSMA, "The Mobile Economy", www.gsma.com/mobileeconomy/wp-content/uploads/2020/03/GSMA_MobileEconomy2020_Global.pdf, 2020
- 4 International Telecommunication Union, "Measuring digital development Facts and Figures 2021," <https://www.itu.int/en/ITU-D/Statistics/Documents/facts/FactsFigures2021.pdf>. 2021.
- 5 Ibid.
- 6 International ICT Literacy Panel, "Digital Transformation: A Framework for ICT Literacy" (ETS, 2002), https://www.ets.org/research/policy_research_reports/publications/report/2002/cijk, p.2
- 7 UNESCO Communication and Information Sector, "Global Media and Information Literacy Assessment Framework: Country Readiness and Competences" (UNESCO, 2013), <http://uis.unesco.org/sites/default/files/documents/global-media-and-information-literacy-assessment-framework-country-readiness-and-competences-2013-en.pdf>.
- 8 Riina Vuorikari et al., "DigComp 2.0: The Digital Competence Framework for Citizens" (European Commission, 2016), https://publications.jrc.ec.europa.eu/repository/bitstream/JRC101254/jrc101254_digcomp%202.0%20the%20digital%20competence%20framework%20for%20citizens.%20update%20phase%201.pdf.
- 9 Annex IV resources include: "A Global Framework of Reference on Digital Literacy Skills for Indicator 4.4.2" (UNESCO, June 2018), <http://uis.unesco.org/sites/default/files/documents/ip51-global-framework-reference-digital-literacy-skills-2018-en.pdf> and "What Is the DQ Framework? Global Standards for Digital Literacy, Skills, and Readiness," DQ Institute, September 24, 2020, <https://live.dqinstitute.org/global-standards/>.
- 10 "I'd Blush If I Could: Closing Gender Divides in Digital Skills through Education" (UNESCO, 2019), <https://unesdoc.unesco.org/ark:/48223/pf0000367416>.
- 11 Through the WomenConnect Challenge, USAID supports AFCHIX, a network of African women in technology working to increase gender diversity in computer science and ICT fields. Through the development of women-led community networks to bring internet and other digital services to local communities, AFCHIX provides training to women community network leaders to help maintain the local internet infrastructure. Some of these leaders have expressed greater confidence and empowerment in their newfound ability to troubleshoot technical challenges, install solar equipment and serve as role models for women in their community.
- 12 Digital literacy is reflected in both strategic objectives of the digital strategy and is also explicitly referenced in Immediate Results (IRs) 3 and 5. See "Annex I: Detailed Strategic Framework," USAID, June 2020.
- 13 See Sustainable Development Goal (SDG) Target 4.4.
- 14 Under the umbrella of a country's digital ecosystem are a variety of operating environments that will demand different digital literacy competences. For example, the operating environment for an activity targeting farmers or rural youth will be quite different from that of an activity targeting civil servants or salaried professionals. This means that the level of education, availability and accessibility of devices, connectivity and other important factors can also determine what kind of digital literacy capacity building will be most appropriate for target users.
- 15 Aamer Baig et al., "The COVID-19 Recovery Will Be Digital: A Plan for the First 90 Days" (McKinsey & Company, May 14, 2020), <https://www.mckinsey.com/business-functions/mckinsey-digital/our-insights/the-covid-19-recovery-will-be-digital-a-plan-for-the-first-90-days>.
- 16 "USAID Digital Strategy" (USAID, 2020), <https://www.usaid.gov/usaid-digital-strategy>.
- 17 For more on the gender digital divide, see the gender section of the primer.
- 18 For example, see "Tracking the First and Second Order Impacts of COVID-19" (USAID, March 2021), <https://www.usaid.gov/sites/default/files/documents/March-2021-USAID-COVID-19-Landscape-Analysis.pdf>.
- 19 For example, see "Bangladesh: Mobile Industry Driving Growth and Enabling Digital Inclusion" (GSMA, 2018), <https://data.gsmaintelligence.com/api-web/v2/research-file-download?id=30933394&file=Country%20overview%20Bangladesh.pdf>.
- 20 "Preparing for Life in a Digital World: IEA International Computer and Information Literacy Study 2019" (IEA, 2018), <https://www.iea.nl/studies/iea/icils/2018>.

21 At the Country and Regional Planning stage, this aggregate level data will give a general snapshot of the national population, however this data may not be appropriate once program and activity design begins. More specific data sources will be needed for studying specific target populations at the activity level.

22 Examples include India's Pradhan Mantri Gramin Digital Saksharta Abhiyan (PMGDISHA), Indonesia's SiBerkreasi, the International Certification of Digital Literacy (ICDL), the National ICT Competency Standards (NICS) of the Philippines, or Kenya's Presidential Digital Programme Curriculum.

23 For more information on DECA, see the "Digital Ecosystem Country Assessment (DECA): Colombia" (USAID, July 2020), <https://www.usaid.gov/digital-development/DECA/Colombia> or "Digital Ecosystem Country Assessment (DECA): Kenya" (USAID, September 2020), <https://www.usaid.gov/digital-development/DECA/Kenya> or "Digital Ecosystem Country Assessment (DECA): Serbia" (USAID, August 2021), <https://www.usaid.gov/digital-development/serbia-digital-ecosystem-country-assessment>

24 "Context Analysis of Technologies in Social Change Projects" (SIMLab, n.d.), http://simlab.org/files/Context%20Analysis_Framework_final.pdf.

25 "ADS Chapter 20I: Operational Policy for the Program Cycle" (USAID, January 22, 2021), <https://www.usaid.gov/sites/default/files/documents/20I.pdf>.

26 "A Global Framework of Reference on Digital Literacy Skills for Indicator 4.4.2" (UNESCO, June 2018), <http://uis.unesco.org/sites/default/files/documents/ip51-global-framework-reference-digital-literacy-skills-2018-en.pdf>.

27 Note that while this section does not analyze digital literacy of other market system actors such as input providers, traders, and retailers, their digital literacy can directly influence the digital literacy of producers. For example, if a local trader is not digitally literate, they may be less willing to accept digital payments and therefore impact the willingness of a smallholder farmer to adopt mobile money or other digital financial services.

28 Programs do target larger farms with precision agriculture tools to build on farm efficiencies. Further, the sensors used in these tools help collect and provide information to USAID, IPs and local governments to help improve programming decisions (ex. USAID/NASA SERVIR). In these cases, USAID does provide technical assistance and training related to digital literacy for database management, data analytics, etc.

29 According to CISA, "phishing attacks use email or malicious websites to infect your machine with malware and viruses in order to collect personal and financial information." See CISA. 2019. "Phishing." 2019. https://niccs.cisa.gov/sites/default/files/documents/pdf/ncsam_phishing_508.pdf?trackDocs=ncsam_phishing_508.pdf. Also, see Office of the Director of National Intelligence. N.D. "Phishing: Keeping Your Identity and Personal Information Safe." <https://www.dni.gov/files/NCSC/documents/campaign/Phishing.pdf>. For more information, see "Security Awareness Episode 4: Phishing and Ransomware," Staysafeonline.org, April 6, 2020, YouTube video, 2:33, https://www.youtube.com/watch?v=D_yAYhjNE-0

30 CISA. 2019. "Phishing." 2019. https://niccs.cisa.gov/sites/default/files/documents/pdf/ncsam_phishing_508.pdf?trackDocs=ncsam_phishing_508.pdf. For more information, see "Protect Your Computer from Malware," Federal Trade Commission, n.d., video, 3:47, <https://www.consumer.ftc.gov/media/video-0056-protect-your-computer-malware>

31 USAID and NetHope, "Building Resilient and Inclusive Digital Ecosystems: A Toolkit for Using Digital Payments in Development Programs" (USAID, December 2020), https://www.usaid.gov/sites/default/files/documents/USAID_Digital_Payments_Toolkit_2020.pdf.

32 Ibid.

33 Affordability in this context is defined as: The cost of access relative to income and the level of competition in the marketplace.

34 Availability in this context is defined as: The quality and breadth of available infrastructure required for access and levels of internet usage.

35 Adoption in this context is defined as: Facilitating the ability of people or institutions to use a new technology and incorporate it into their existing routines or processes.

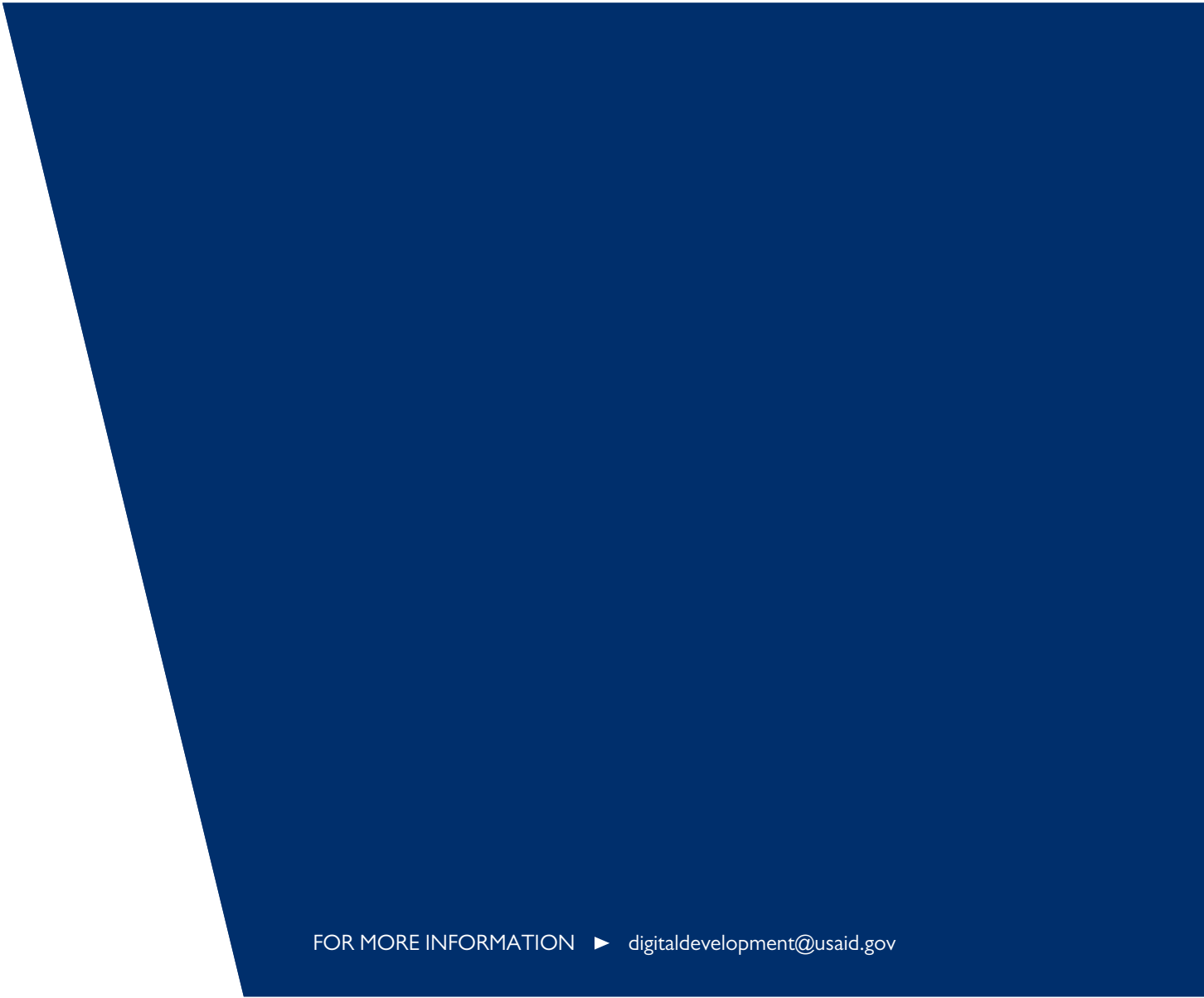
36 For more information about how trust impacts women's use of DFS, see Shelley Spencer, Mandana Nakhai, and Jordan Weinstock, "The Role of Trust in Increasing Women's Access to Finance Through Digital Technologies" (USAID, May 2018), https://www.usaid.gov/sites/default/files/documents/15396/The_Role_of_Trust.pdf.

37 Though engaging mobile money agents can be a useful approach for offering formal and informal training to mobile money agents, it is possible for users to feel alienated by them. For example, if the majority of agents are male, in locations not frequented by women or operating in a society where women are prohibited from engaging with men outside of their own families, this can impact women's ability to engage with mobile money agents directly. For insights on how to better consider some of these challenges in the context of a specific geography, see Tasnuba Sinha and Catherine Hight, "Guide to Increasing Women's Financial Inclusion in Bangladesh through Digital Financial Services" (MarketLinks, August 25, 2017), <https://www.marketlinks.org/resources/guide-increasing-womens-financial-inclusion-bangladesh-through-digital-financial-services>.

38 United Nations Department of Economic and Social Affairs. "International Youth Day, 12 August 2019." 2019. https://www.un.org/development/desa/youth/wp-content/uploads/sites/21/2019/08/WYP2019_10-Key-Messages_GZ_8AUG19.pdf

39 Anthony Bloome and Cynthia Chassy, "Information and Communication Technology for Education (ICT4E) How-To Note" (USAID, 2019), <https://www.edu-links.org/sites/default/files/media/file/USAID%20ICT4E%20How-To%20Note%20Final.pdf>.

- 40 For example, see “Intel She Will Connect,” Intel, accessed September 8, 2021, <https://www.intel.com/content/www/us/en/corporate-responsibility/social-impact-and-educational-initiatives/she-will-connect.html> and “Empowering Women and Girls through Web Literacy,” UN Women Africa, June 2, 2016, <https://africa.unwomen.org/en/news-and-events/stories/2016/05/empowering-women-and-girls-through-web-literacy>.
- 41 “The Gender Digital Divide Primer” (USAID, August 1, 2020), <https://www.usaid.gov/digital-development/gender-digital-divide-primer>.
- 42 “Bridging the Gender Digital Divide,” Plan International, accessed June 1, 2020, <https://plan-international.org/education/bridging-the-digital-divide>.
- 43 “A Vision for Action in Digital Health” (USAID, 2020), https://www.usaid.gov/sites/default/files/documents/USAID-A-Digital-Health-Vision-for-Action-v10.28_FINAL_508.pdf.
- 44 “Transforming Patient Service and Saving Staff Time at Wada Health Center in Ethiopia,” John Snow Inc., January 22, 2021, <https://www.jsi.com/transforming-patient-service-and-saving-staff-time-at-wada-health-center-in-ethiopia/>.
- 45 “Health Workforce,” World Health Organization, accessed June 1, 2020. https://www.who.int/health-topics/health-workforce#tab=tab_1.
- 46 “Youth in Development: Realizing the Demographic Opportunity” (USAID, October 2012), https://www.usaid.gov/sites/default/files/documents/1870/Youth_in_Development_Policy_0.pdf.
- 47 Ibid.



FOR MORE INFORMATION ► digitaldevelopment@usaid.gov

