UGANDA COMMUNICATIONS COMMISSION

UCUSAF UGANDA COMMUNICATIONS UNIVERSAL SERVICE & ACCESS FUND

Enhancing Knowledge Management, ICT Adoption, Digital Skills and Access to E-Services for Persons with Disabilities

Supported by;

Uganda Communications Commission

In Collaboration with

National Union of Disabled Persons of Uganda (NUDIPU)

&

Eight Tech Consults Ltd

Website: https://ict4personswithdisabilities.org/

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Introduction & BackGround

Introduction

- Under the Uganda Communications Act of 2013, Section 3, UCC is mandated to promote the development of a modern communications sector, ensuring equitable access to communications services by all.
- Section 5 (L) of the Act mandates UCC to “Promote research into the development and use of new communication techniques and technologies, including those which promote accessibility of Persons with Disabilities and other members of society to communications services”.
- The Uganda Bureau of Statistics Census Report (UBOS 2016) indicated that 12.4% (approximately 4.5million) were living with some form of disability. The UBOS, 2024 census report puts the number of persons with disabilities (PWDs) at 5.7% of the 46M people.
- Recognizing the barriers that persons with disabilities face in accessing and utilising digital devices and services, UCC established a program on ICT For Persons with Disabilities.

Background

- In an effort to expand the impact of the persons with disability program Uganda Communications Commission established a strategic partnership with NUDIPU and Eight tech Consults
- The 3-year program focused on promoting digital inclusiveness by enhancing knowledge management, promoting ICT innovation and adoption, human capacity development in digital literacy, resource mobilisation and others.

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Program Objectives

The main objective of the program was;

"Enhancing Knowledge Management, ICT Adaptation, Digital Skills and Access to E-Services for Persons with Disabilities."

01 Establish baseline indicators on the level of access and usage of the ICT services among persons with disabilities

02 Develop and operationalize a National digital observatory (database) for PWD

03 Develop a digital literacy curriculum for persons with disabilities

04 Mobilize and create awareness of ICT access and potential among various categories of PWD.

05 Build Digital Literacy capacity for persons with disabilities

06 Build capacity of Organisations for Persons with Disabilities in knowledge management and use of emerging media

07 Promote the development and uptake of ICT innovations for persons with disabilities

08 Establish frameworks for program sustainability

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Program Phases

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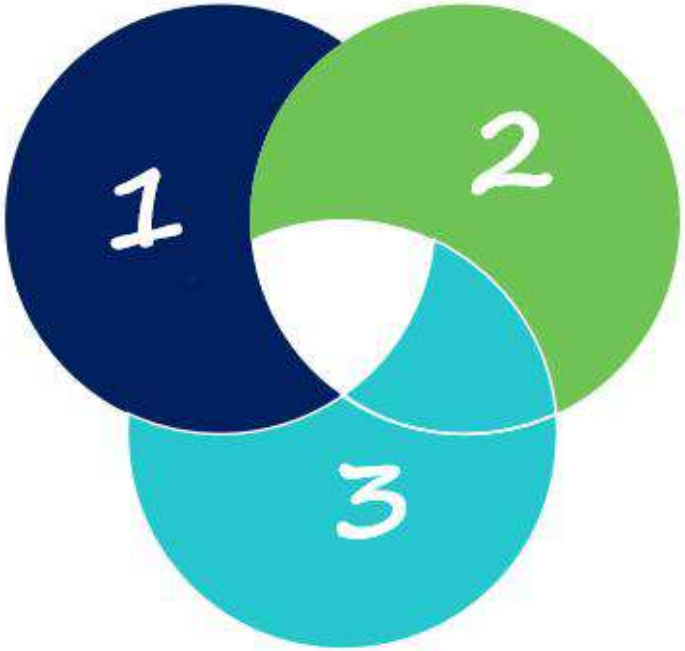
Phase One (2021/2022)

- Establish baseline of PWD digital inclusiveness in e-services access, technology, content, and information needs for various categories of PWD across the country.
- Requirements engineering and development of the National observatory
- Mobilize and create awareness of ICT access and potential among various categories of PWD.



Phase Two (2022/2023)

- Operationalize a National digital observatory (database) for PWD
- Develop digital literacy curriculum for persons with disabilities
- Build capacity for digital literacy TOTs

Phase Three (2023/2024)

- Country wide Digital skilling of persons with disabilities
- Upgrade and Scaling of the National observatory
- Program Sustainability

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Approach used for the Implementation of the program

The program was designed using

- A multi-stakeholder, co-creation approach, grounded in participatory principles and inclusive innovation.
- Active consultation with primary& key ecosystem actors
- Structured around nine interlinked work packages
- Incoporating Agile methodologies and Mixed methods for data gathering and interpretation

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Outputs and Outcomes

WP1: Research & knowledge work package.

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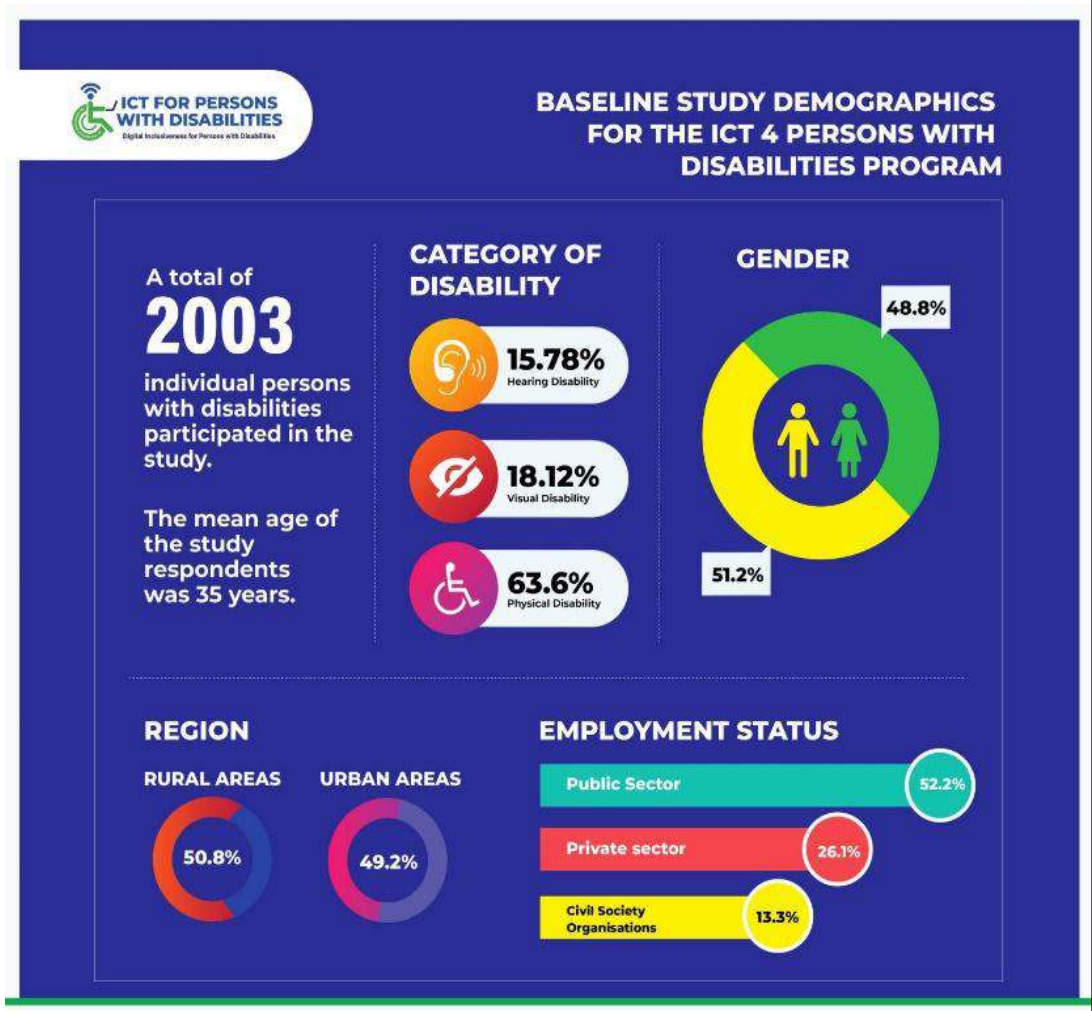
WP1 : Key Outputs

- The primary aim of this work package was to generate, document, and share insights that support informed decision-making, evidence-based policymaking, and continuous program improvement.
  - Phase one (focused on capturing the initial digital challenges and needs of PWDs)-**Baseline study report**
  - Phase two (focused on implementation of the targeted interventions,)-***Midline assessment report, policy brief***
  - Phase three (focused on measuring the impact and effectiveness of these interventions.)-***Endline study report, Policy brief, Journal paper and book chapter***
- the various research studies informed the different activities of the upcoming phases
- Additionally, an assessment of the digital skills training programs for PWDs was conducted to gauge their effectiveness and identify areas for improvement.



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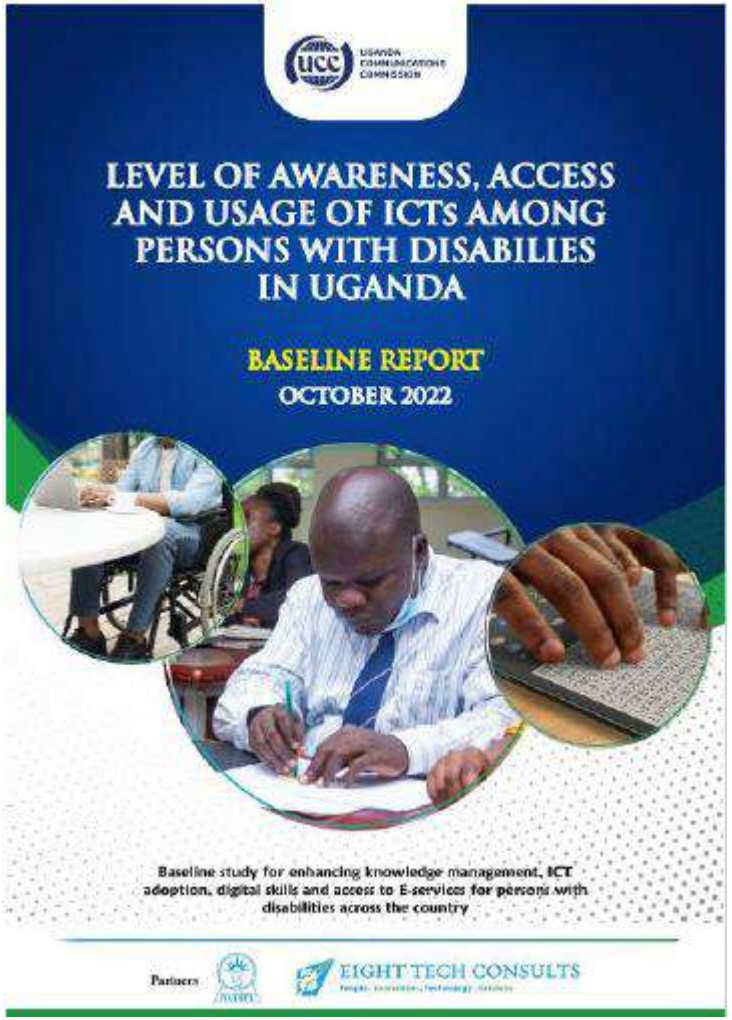
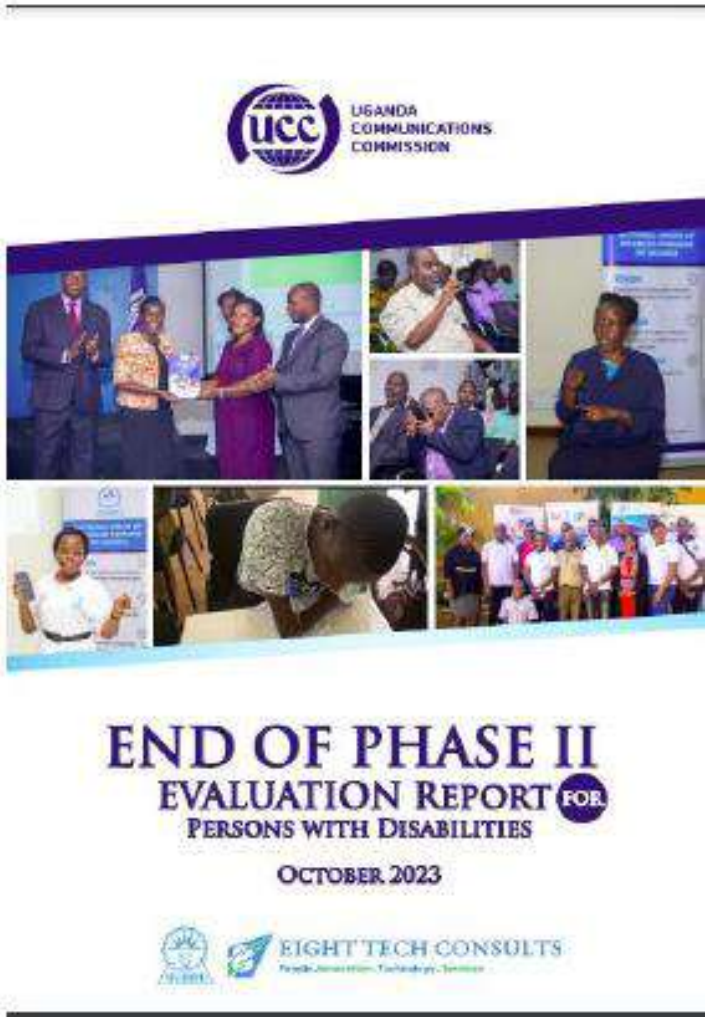
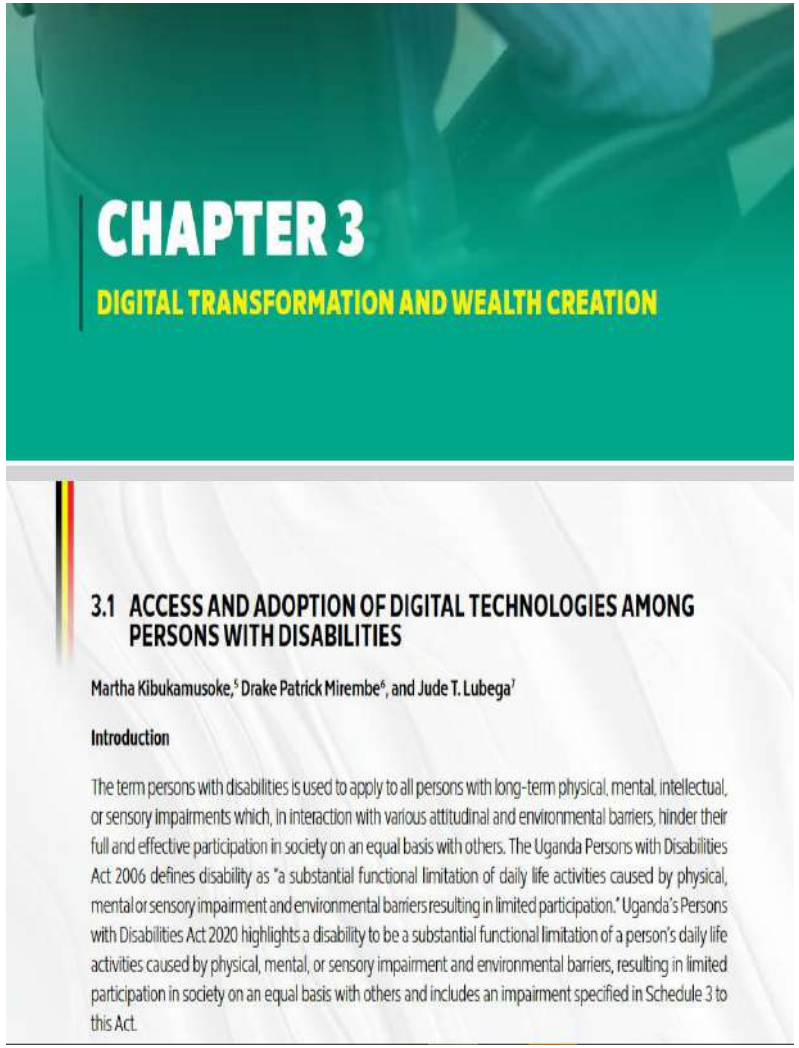
WP1 : Key Outputs







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WP1 : Key Outputs

ICT FOR PERSONS WITH DISABILITIES

Digital Inclusiveness for Persons with Disabilities

POLICY BRIEF 2022

UCC - RCDF PROJECT:
Enhancing Knowledge Management, ICT Adaption, Digita Skills, and Access To E-Services for Persons with Disabilities

COMPONENT
Establishment of the decision enhancement Person with Disability Digital Observatory (Baseline Study, Digital Observatory Portal, Digital Observatory Mobile App and Hackathon)

Executive Summary

According to the WHO, over 1 billion people are estimated to experience disability which corresponds to about 15% of the world's population, with up to 190 million (3.8%) people aged 15 years and older having significant difficulties in functioning, often requiring health care services. The number of people experiencing disability is increasing due to a rise in chronic health conditions and population ageing. Furthermore, the World Health Organization notes that 80% of persons with disabilities live in developing countries. Uganda Communication Commission (UCC) noted that ICTs can significantly increase the socio-economic livelihoods of communities in Uganda, including Persons with Disabilities (Persons with Disabilities). The growing outcry from the Ugandan public and key stakeholders is that the Persons with Disabilities are increasingly becoming isolated from accessing and using ICTs despite the available evidence of the impact of ICTs.

Out of the 2003 respondents who were persons with disability, 63.6% had a physical disability, 18.12% had visual disability and 15.78% had hearing disability. This confirms that there are more physical disabilities amongst persons with disability. Of these 51.2% were males and 48.8% were females. Of these 8.9% were formally employed (52.2% of these were employed in public sector, 26.1% in Private Sector and 13.3% in Civil Service Sector). In terms of ownership of ICT devices, individual persons with disabilities who owned other ICT devices also 54.8% owned feature phones (Kabiriti), 51.7% owned Radios, 23% owned smart phones, 20.6% owned televisions and a few 4.7% owned a laptop and 2.4% owned Tablet/IPad. The most used devices are Radio, Feature phones, Television and Smart Phones. It was noted that there was a high level of awareness and usage at (63%) of ICT devices amongst person with disability. 94.7% of the person with disability were not aware of the ICT innovations for them. These results from the stakeholders led to the design and development of Digital observatory to enhance knowledge management, adaptation and access to E-services for persons with disability

POLICY BRIEF

UCC - RCDF PROJECT:

ENHANCING KNOWLEDGE MANAGEMENT, ICT ADAPTION, DIGITAL SKILLS, AND ACCESS TO E-SERVICES FOR PERSONS WITH DISABILITIES

COMPONENT: ENSURING ICT INCLUSIVITY FOR PERSONS WITH DISABILITY IN UGANDA

EXECUTIVE SUMMARY

National Union of Disabled Persons of Uganda (NUDIPU), in collaboration with Eight Tech Consults Limited and funding from **Uganda Communications Commission (UCC)** are addressing an issue of digital inclusiveness. The ability to enhance knowledge management, ICT adoption, digital skills and access to E-services for persons with disabilities has never been needed as it is today due to the digital economy revolution. The collaborating partners are undertaking the following activities; promoting ICT innovation for Persons with Disabilities, capacity building for persons with disability in digital literacy skills, developing and operationalizing a national observatory of persons with disabilities through profiling.
The main objective of the project was to promote digital inclusion for Persons with disabilities through the use of ICT enabled technologies. The Uganda Bureau of Statistics Census Report (UBOS 2016) indicated that 12.4% of the Ugandan population lives with some form of disability implying that approximately 4.5 million Ugandans are persons with disability. However, majority of the Persons with Disability cannot be easily identified since their information had never been profiled. The ICTs that are accessible by Persons with Disability are not only very expensive but also not locally developed within the developing world context. This means there is a need to invest in local innovations to support Persons with Disability. The project revealed that many of the Person with Disability were not ICT literate and therefore massive capacity building was undertaken to further equip the Person with Disability with such 21st century skills. Despite that the there are several associations that manage Persons with Disability, none of them ever tapped into the opportunity of applying ICTs to capture, record, store, analyse and disseminate information concerning the Persons with Disability. The project managed to profile as many as 23,550 Persons with Disabilities.

COMPREHENSIVE REPORT

FOR THE ICT4PERSONS WITH DISABILITIES PROGRAM

2021-2024

Enhancing Knowledge Management, Ict Adoption, Digital Skills, and acccess to E-Services for Persons with Disabilities

Dec, 2024

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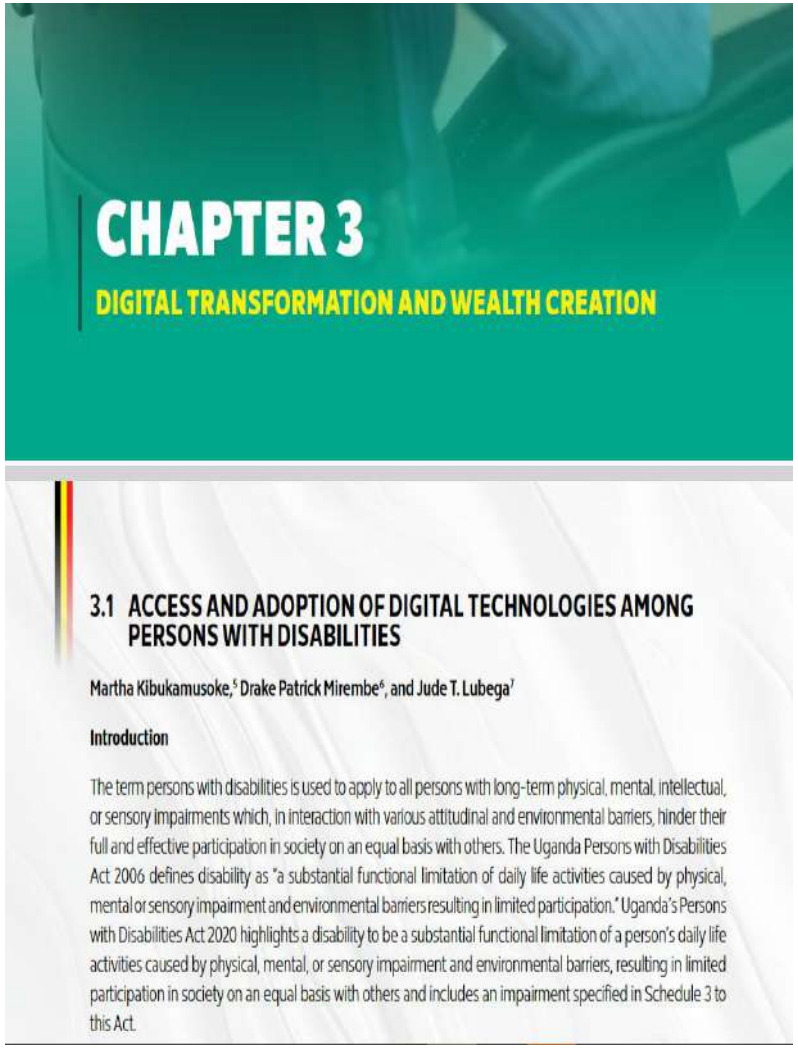
WP1 : Key Outcomes

- Built capacity for 120 persons with disabilities research and online data collection skills
- Influence on policy and programs through various stakeholder engagements
- Recognition of the program work in various national studies like the Report on the state of Uganda's Population , 2023
- Influence on ongoing programs like the UDAP project implementation
- Influenced The New Stratetigic plan of NUDIPU, UNAD and other organisations
- Influenced a number of OPDs by bringing out digital transformation as a key pillar
- Mastercard TAGDev 2.0 program at RUFORUM
- Over 5203 downloads have been made in various reports accessible on the website



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Built capacity of 120 Persons with disabilities in research and online data collection skills.

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WP2: Innovate for Ability hackathons

Sample images of the students during the different review sessions with the judges

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WP2 : Key Outputs

- Conducted 2 Innovate for ability Hackathons at Nkumba University and Makerere University with over 150 participants
- A total of 30 teams participated and 10 ideas were idenfied from these 5 were further selected for ongoing support.
- **List of key innovations produced:**
    1. Be my Eyes
    2. Smart health App
    3. Traffic mgt system
    4. My voice
    5. Digital white cane
- On boarded and trained over 30 interns from various universities; Makerere, Nkumba, Kyambogo University, Africa Renewal University, Kabale University etc
- Awarded financial support to the innovators
- Created an innovation profiling module on the observatory

Awarded seed support for the hackathon teams

First runners up (winners of the innovate for ability hackathon)

Second runners up the innovate for ability hackathon

Key Outcomes

- Increased awareness and capacity in inclusive tech design among university students and young developers.
- Strengthened linkages between academia, the disability community, and the ICT innovation ecosystem.
- Practical solutions developed for real accessibility challenges, with potential for scaling.
- Enhanced visibility and documentation of locally developed assistive technologies through the observatory's innovation profiling tool.

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WP3: Design and development of the National Digital Observatory

- Through a cocreation process between different stakeholders like the OPDs, DUs, and PWDs selected from their unique needs
- A transformative web and mobile-based application developed to enhance information access and data management .
- A centralized digital platform that not only bridges the gap between persons with disabilities and service providers, but also empowers Organizations of Persons with Disabilities (OPDs) through improved members' data management and decision-making.

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Baseline findings that informed the observatory dev't

Digital Register	Absence of a digital membership register hinders tracking.
Service Awareness	Limited awareness of key service providers is a barrier.
Job Opportunities	Lack of awareness regarding job opportunities exists.
Knowledge Management	Weak knowledge management within OPDs affects efficiency.
Evidence-Based Decisions	Limited use of evidence impacts decision-making processes.
Online Visibility	Low online visibility hinders OPD works and outputs.
Counseling Access	Limited accessibility to counseling and guidance services.

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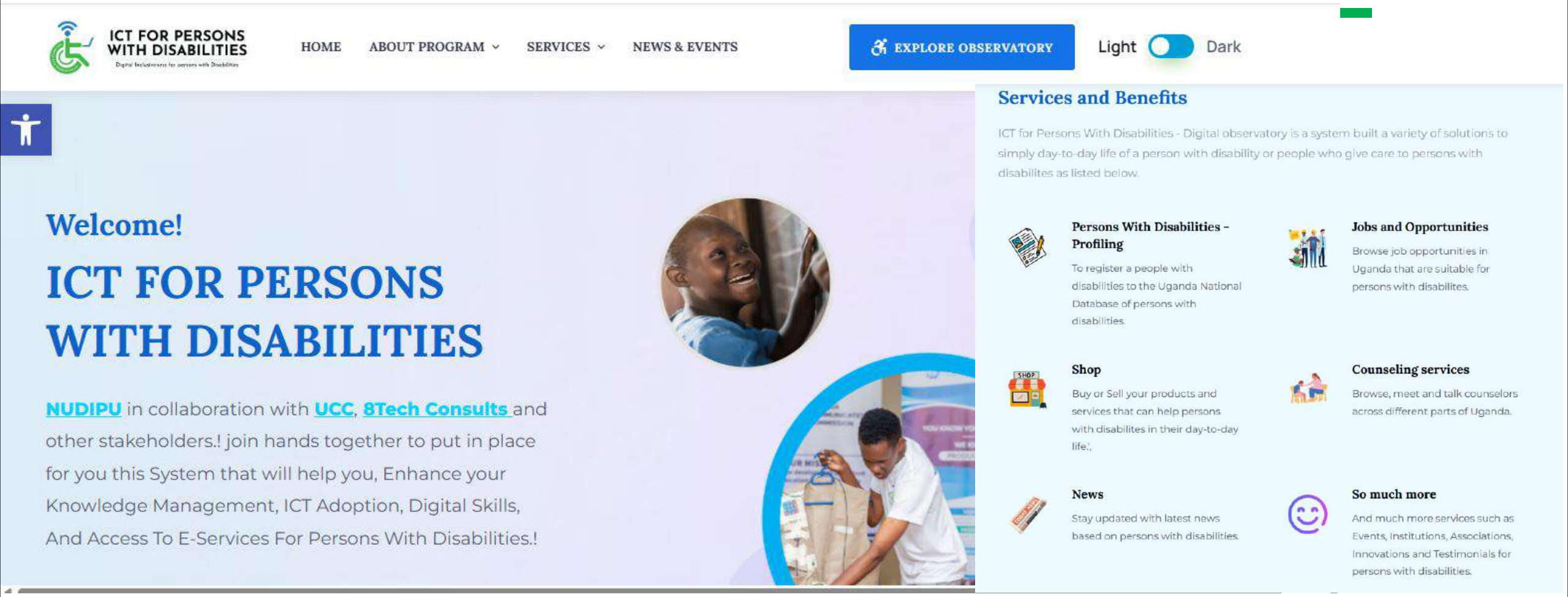
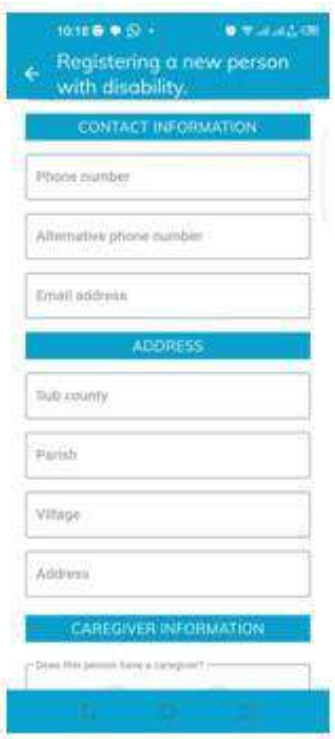
WP3 : Output- Observatory Platform

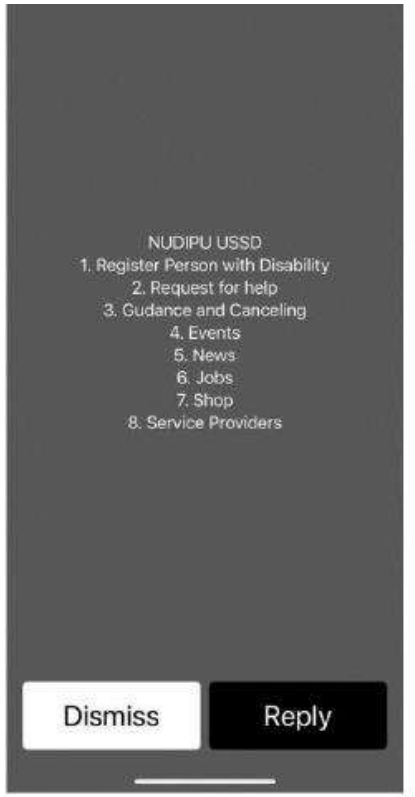


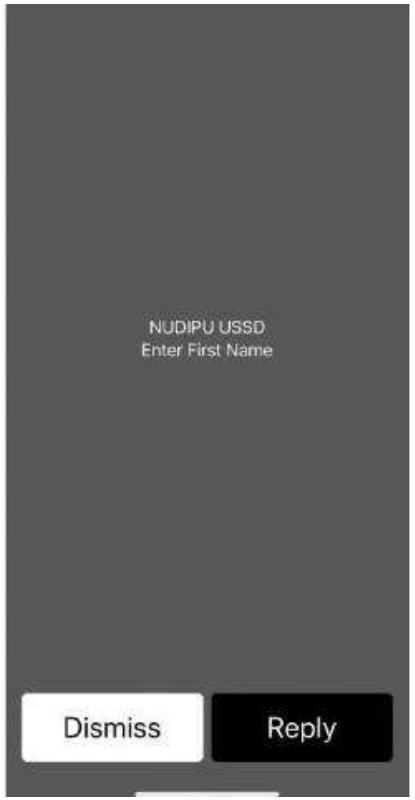
https://ict4personswithdisabilities.org

Services include; *System modules:-Database of Persons with disabilities, Access to service providers, Institutions, Jobs and opportunities, guidance and counselling among others*

WP3 : Output- Mobile App & USSD Access







Google Play

ICT 4 Person with Disabilities

Some of the observatory services can be accessed through USSD *255*65#

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WP3 : Ouppput -Ehancing Online visibility of OPDs and DUs

30 Websites were developed to improve on the visibility and advocacy of DU and OPDS and corresponding social media accounts were created

Developed 30 Selected District Union websites

kiboga.ict4personswithdisabilities.org
gulu.ict4personswithdisabilities.org
luuka.ict4personswithdisabilities.org
napak.ict4personswithdisabilities.org
arua.ict4personswithdisabilities.org
nebbi.ict4personswithdisabilities.org
yumbe.ict4personswithdisabilities.org
mbarara.ict4personswithdisabilities.org
masaka.ict4personswithdisabilities.org/
mukono.ict4personswithdisabilities.org/
moroto.ict4personswithdisabilities.org
kotido.ict4personswithdisabilities.org
mbale.ict4personswithdisabilities.org
jinja.ict4personswithdisabilities.org
iganga.ict4personswithdisabilities.org/
mpigi.ict4personswithdisabilities.org
kamuli.ict4personswithdisabilities.org
kumi.ict4personswithdisabilities.org/
wakiso.ict4personswithdisabilities.org/
mubende.ict4personswithdisabilities.org/

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WP4: National Persons with Disabilities Profiling

CATEGORY	Target	Archived
Number of DUs	50	61
Number of NOPDs	20	21
Service Providers	200	164
Persons with Disabilities	80,000	70,118

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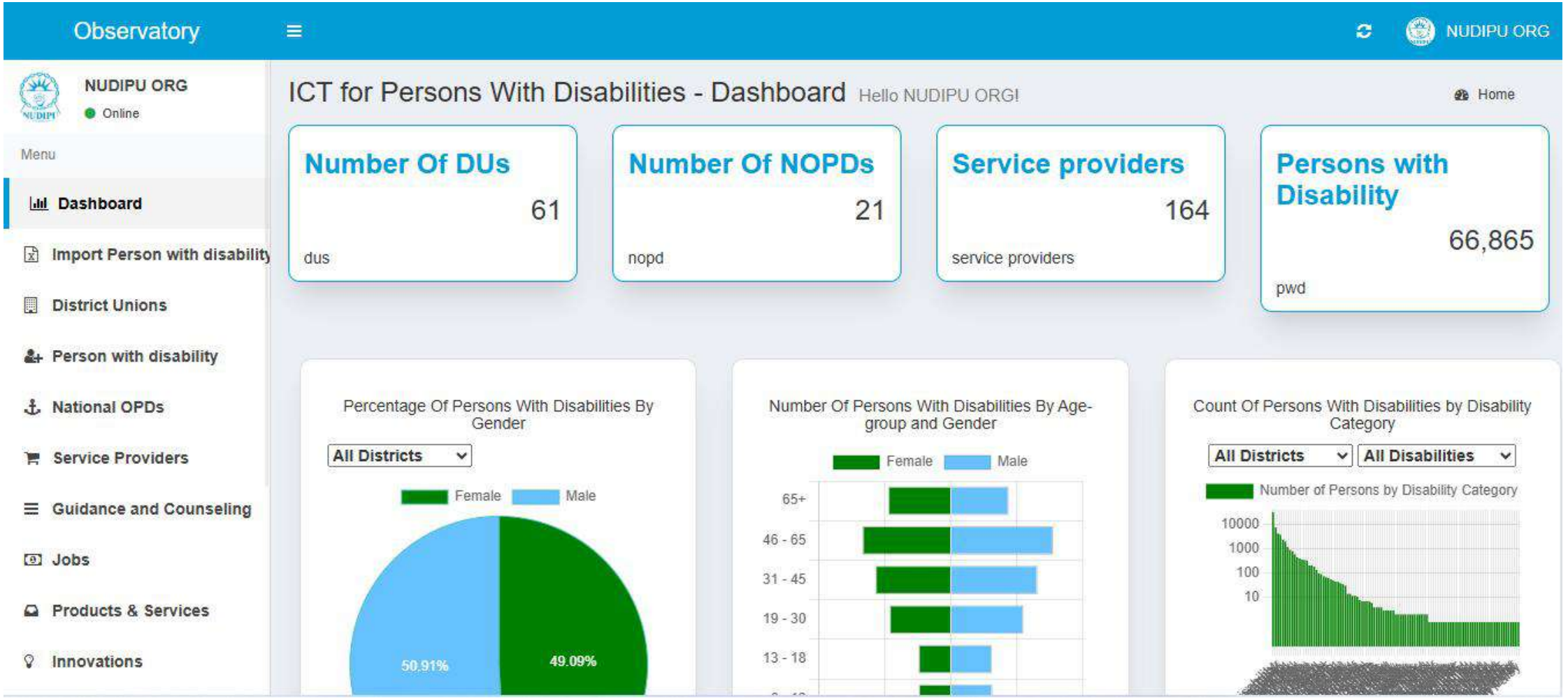
Sample system statistics



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WP3 & WP4 : OutComes

- Centralized data management for persons with disabilities through the National Digital Observatory.
- 70,000+ individuals profiled, enabling evidence-based planning, programming, and advocacy.
- Multi-platform access via web, mobile app, and USSD (*255*65#), ensuring inclusivity for users with or without internet access.
- 30 functional websites developed for OPDs/District Unions, increasing their digital visibility and outreach.
- Improved communication and engagement between OPDs, service providers, and stakeholders.
- Enhanced access to services like digital skilling, job listings, counseling, and training opportunities via the observatory.
- Real-time data visualization tools for monitoring trends and tracking progress in disability inclusion.
- Increased transparency and accountability in program implementation and reporting.
- Empowered OPDs and DUs with digital tools to advocate for their communities and mobilize resources.

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Outputs and Outcomes

WP5: National Digital Skilling for Persons with Disabilities

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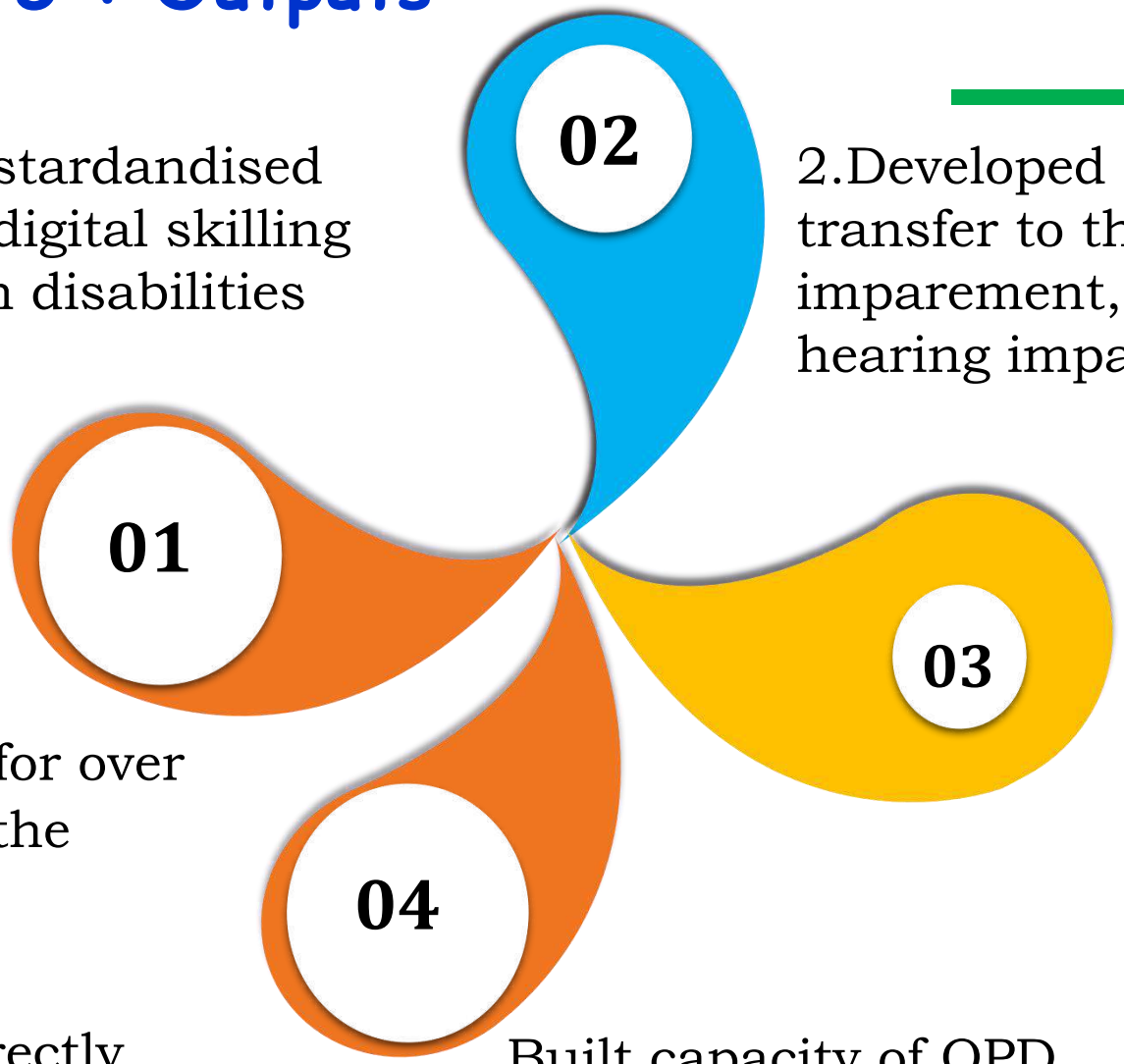
WP5 : Outputs

1. Developed a stardandised curriculum for digital skilling for Persons with disabilities



2.Developed content to facilite skills transfer to those with visually imparement, Physical disability and hearing impairment

3.Localised the content into four languages e.g

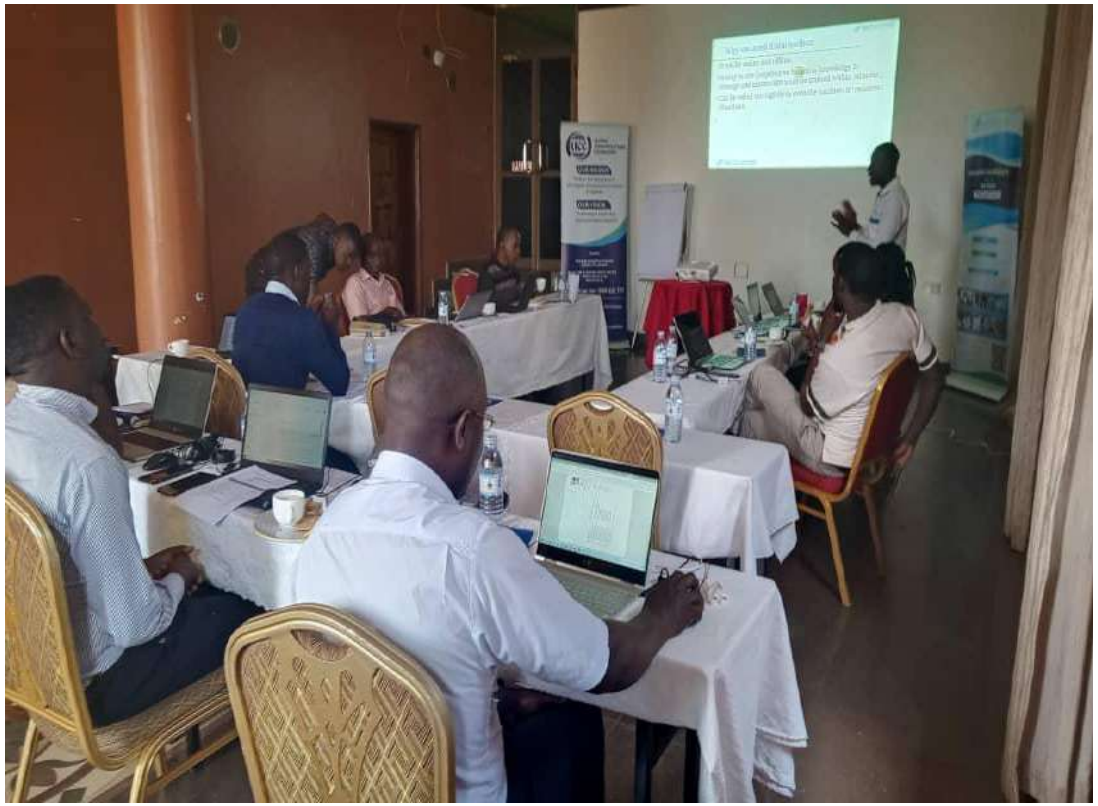
- Luganda
- Lusoga
- Runyakira
- Luo/ Atesot

4. Built capacity for over 240 ToTs across the country

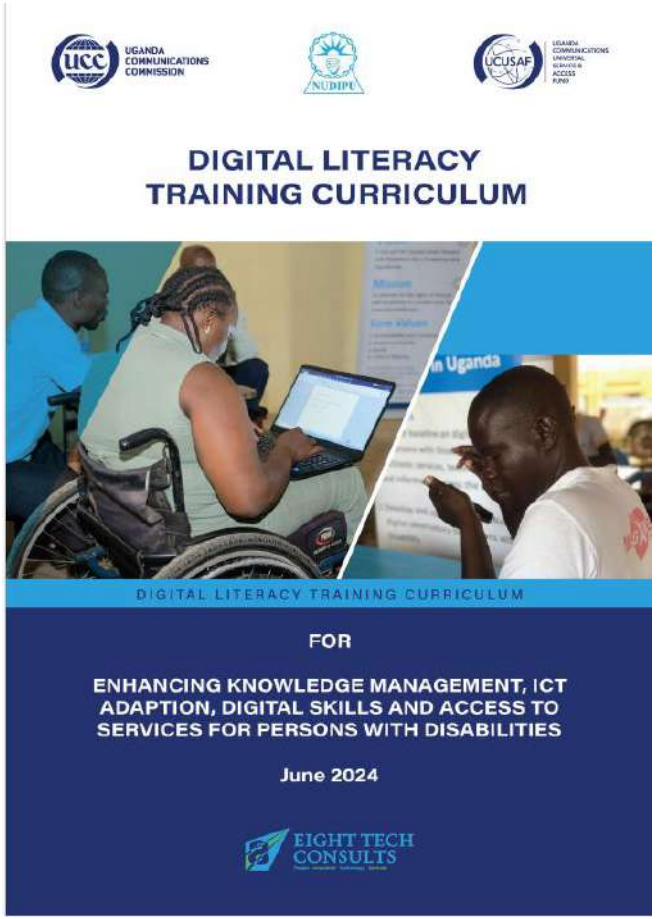
Trained over +10,000PWDs directly and indirectly

Built capacity of OPD and DU leadership in digital skills

Digital skilling curriculum development



Stakeholder Consultation on the development of the digital curriculum



The digital skills curriculum

WP5 : Outputs - Topics covered

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Samples images from the digital skills trainings

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Western Region Trainings




Eastern Region Training


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Samples images from the digital skills trainings

Central Region Trainings

Northern Region Training

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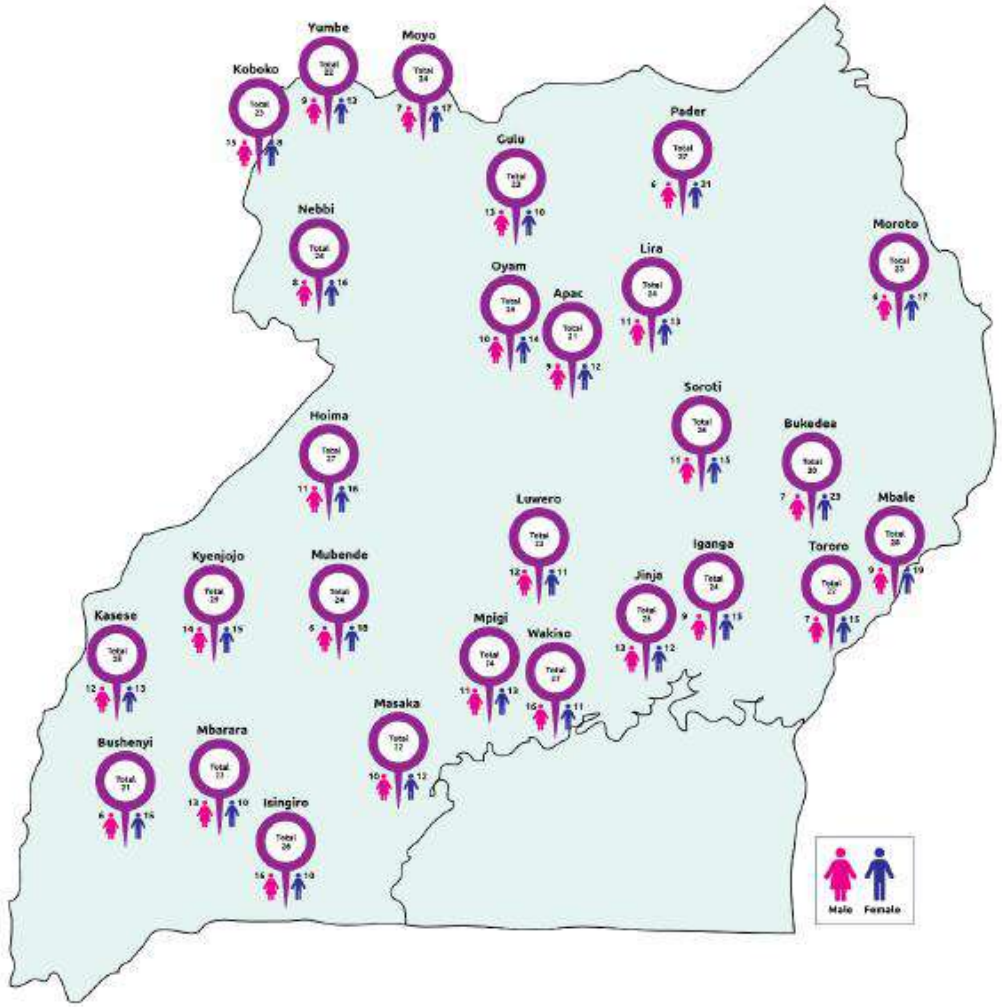
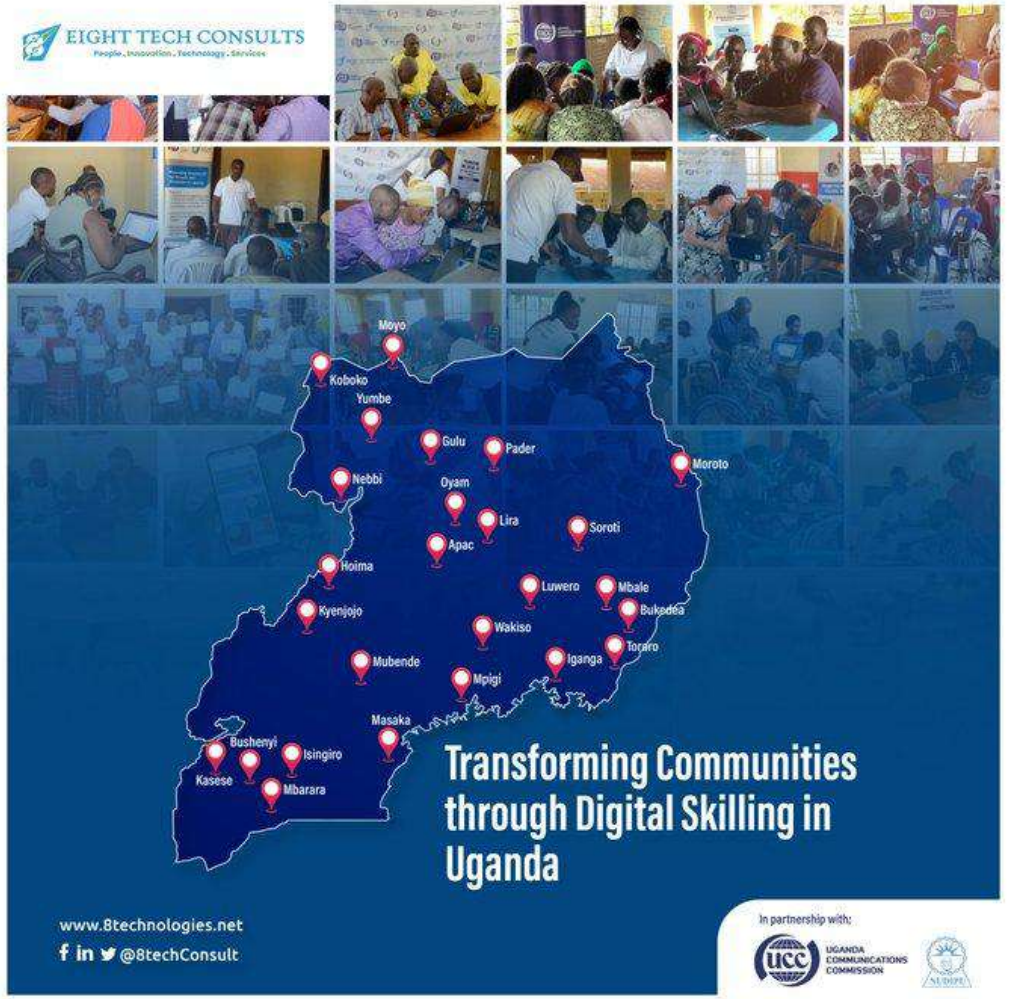
Digital skills trainings coverage as represented on a map





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WP5: Outcomes

- Over 5000 persons with disabilities trained across the country.
- Enhanced digital literacy and confidence among participants, including basic ICT usage, internet navigation, and online safety.
- Establishment of 2 digital hubs for Bugweri and Kiboga district Union of persons with disabilities to offer continous trainings
- Increased awareness and adoption of assistive technologies, enabling more independent use of digital tools and platforms.
- Trainers of Trainers (ToT) model deployed, promoting community-led training and knowledge transfer for sustainability.
- Participants gained practical skills in using e-government services, social media, mobile apps, and the Digital Observatory.
- Customized curriculum developed in English and local languages to accommodate diverse learning needs and literacy levels.
- Empowered local leaders and District Unions with the capacity to continue digital training in their communities.
- Creation of regional champions and digital ambassadors who continue to drive awareness and support for digital inclusion at grassroots level.

Pictures of digital ICT Hubs

Kiboga district union ICT hub

Bugweri district union ICT hub

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WP6: Stakeholder mobilization, awareness and program promotion

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WP 6- Outputs

- Involvement of PWDs and OPDs in system design
- Collaboration with government agencies and service providers
- Inclusive consultation process
- Resource Mobilisation Trainings offered to the various OPDs

Disseminated program activities Television and radio stations

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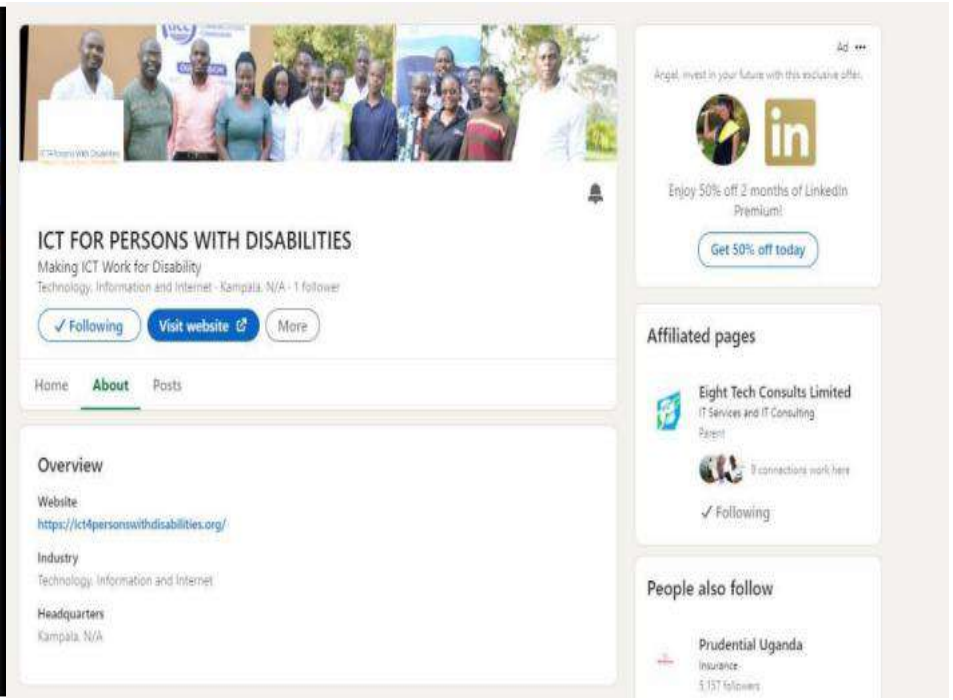
Setup active awareness social media platforms

Program twitter platform



Program LinkedIn page

Sample promotional material

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WP7: Resource mobilization and stakeholder engagement

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Resource mobilization and grants write shop

After a successful Grant write shop session

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Stakeholder engagement in Kabale DU

Stakeholder Visit from Dierra Leone and UCC

Conducted dissemination of baseline results at UCC

The participants

The former ED UCC, CEO NUDIPU , and CEO 8tech Launching the disseminated baseline report

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WP7: Develop a strategy for ICT for persons with disability innovation development and access

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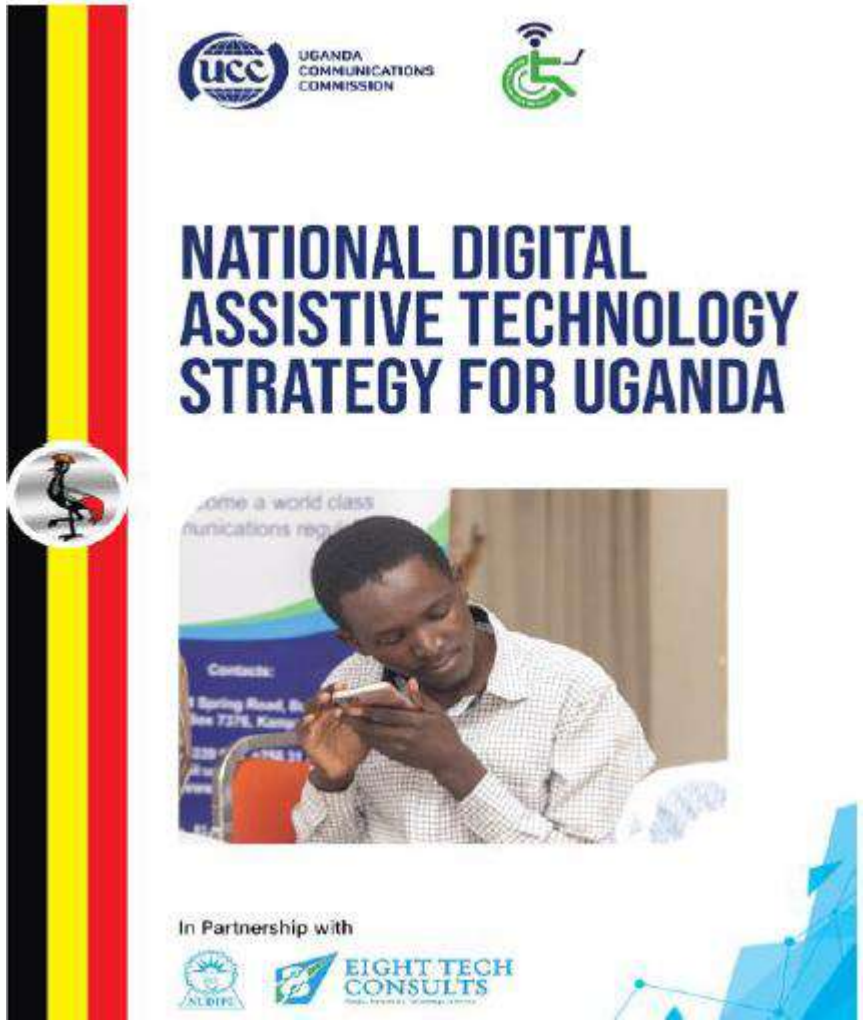
The strategic paper

The stakeholder engagement workshop for the strategic paper writing



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WP8: Project management, monitoring & evaluation and sustainability

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Lessons learned during implementation

Co-creation Builds Ownership:
Involving persons with disabilities, their organizations, and local stakeholders in the design and execution of activities led to greater ownership, higher participation, and more relevant outcomes.

Blended Training Approaches Are Effective:
Combining community-based training models with digital content delivery improved learning outcomes and allowed for wider reach, particularly in rural and underserved regions.

Accessible Technology Matters:
Ensuring compatibility of tools like the Digital Observatory with both smart and feature phones (via USSD) significantly increased accessibility for a majority who rely on basic mobile devices.

Institutional Capacity Must Be Strengthened:
Many District Unions (DUs) lacked strong leadership and data systems, which slowed down efforts such as digital profiling and program coordination.

Strategic Partnerships Amplify Impact:
Collaborations with media houses, universities, telecom companies, and government agencies enhanced awareness, reach, and the credibility of the program.

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Existing gaps that still need to be addressed

Limited Access to Devices & Assistive Technologies

Many beneficiaries still lack the tools needed to benefit fully from digital services and training, especially smartphones or assistive tech..

Digital Literacy Disparities:

A significant number of persons with disabilities, particularly in remote areas, continue to lack even basic ICT skills,.

Connectivity Barriers:

Poor internet infrastructure in several districts hinders access to digital services and limits the functionality of tools that rely on online access.

Underdeveloped Local Capacity:

Some DUs face structural and leadership challenges that impede sustainable implementation and data collection at the grassroots level.

Low Participation from Certain Disability Groups:

Groups such as the hearing-impaired or intellectually disabled were underrepresented in training and innovation programs

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Sustainability

- Institutionalization of the Digital Observatory
- Capacity Building through ToT Models
- Resource Mobilization
- Strategic Partnerships
- Development of policy briefs and strategy documents
- Continues System Maintenance and upgrades

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Program Impact and Testimonies

I am Salim Major from Arua City, Visually Impaired.
I thank NUDIPU and UCC for this program, this is because I had never thought of using a smart phone and using ICT but under this program, I have realized that I can use smart phone, in particular what has impressed me is the app that can help me to read my own money and the Be my Eyes app.

I am Watonga Edmond, from Jinja District having Albinism.
Recently I have been a student and I missed some lectures since they were on zoom and I couldn't see what the lecturer would be projecting on the screen using my small phone. But now I have learnt how to magnify on my phone and I have also learnt how to use speech to text on my phone. I am also going to use this knowledge to help my friends who cannot see small text.

UGANDA COMMUNICATIONS COMMISSION

UGANDA COMMUNICATIONS UNIVERSAL SERVICE & ACCESS FUND

Prelinary discussions

- What are the ideal innovative models of sustaining the programs of this nature?
- How do we address the challnges associated to limited access to digital devices and assistive devices by persons with disabilities
- How can we scale out the digital literacy capacity building for persons with disabilities
- What are the optimal strategies of promoting the development and rollout of digital assitive technologies for a country like Uganda
- What policy suggestions or provisions do you have for Govt to address holistic digital inclusion especially with the emergence of AI and 4IR technologies.

THANK YOU

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