

ITU Webinars

# Sustainable digital transformation in Africa

28 September 2021  
9:00-12:00 CEST

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In partnership with:



COPENHAGEN CENTRE  
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- 3 Key drivers for Digital transformation-Education
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# DIGITAL TRANSFORMATION

## Context

How minds of individuals and partnering institutions (UCC, MoES, NCDC and schools) have shifted to allow collaboration for sustainable digital transformation in Uganda's education sector.

## What does it require?

- ✓ What infrastructure is being deployed?
- ✓ What capacity building programs are in place?
- ✓ What platforms are being used for collaboration?



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The Uganda national policy documents (Vision 2040, The National Broadband Policy) identified gaps in



# WHAT WE KNOW

UCC as a regulator is also a facilitator and promoter of sustainable growth and development of Uganda's communications sector.

UCC addresses the sector gaps through the Uganda Communications Universal Service and Access Fund (UCUSAF), a USF it administers at arm's length.



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# KEY DRIVERS FOR DIGITAL TRANSFORMATION



NCDC recommended the introduction of digital literacy (ICT Studies) in secondary education

The Ministry of Education and Sports declared ICT studies compulsory in the secondary school curriculum

UCC's UCUSAF under its vision of "a Uganda where all people can harness ICT-enabled opportunities for prosperity"

Phase I of this partnership with MoES started in 2008 with

- ✓ A pilot of 50 schools
- ✓ Providing internet connectivity to these schools.
- ✓ A programme for skilling/retooling teachers



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# LESSONS FROM PHASE I

1. It was easier to see growth in schools in areas that were connected to the national grid.
2. Project monitoring reports revealed the following challenges;
  - ✓ Poor grid coverage in the rural areas (8.36% in 2008).
  - ✓ Unused Computers
  - ✓ The need to implement off-grid ICT solutions to close the access, affordability and equity gap for both power and ICT.



## PHASE 2: PILOT OFF-GRID SOLUTIONS

UCUSAF chose Solar as the suitable off-grid power solution for its known benefits as

Under Phase 2 Pilot, 7 government-aided off-grid schools were connected using Inveneo ICT solutions (5%)

The Inveneo implementing partner offered

- ✓ Appropriate ICT solutions
- ✓ 10 Low power system units and monitors
- ✓ Training and support of school ICT personnel
- ✓ Solar system (panels, charge controllers, batteries and lights)
- ✓ The Infrastructure was purely DC powered.



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## PHASE 2: LESSONS LEARNT

The solar powered pilot was an effective proof of concept for

- ✓ bridging the access gap due to power and ICT devices.
- ✓ Closing the digital literacy gap between the urban and the rural
- ✓ Closing the equity gap due to location.
- ✓ Developing school and community interest in digital literacy

The challenges

- ✓ Very few schools included in the pilot.
- ✓ Low specs to minimize consumption
- ✓ Low spec meant very slow and poor user experience.
- ✓ Internet connectivity was also poor (GPRS/Edge)
- ✓ Computers were strictly DC
- ✓ Computers were still fewer than the users.

The last two challenges prompted further research for solutions



# WHAT ARE WE DOING NOW?

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- ✓ We built on the successes of the solar powered ICT pilot.
- ✓ Further research was done for alternative solutions to the Phase 2 Challenges

	SOLUTIONS
1.	Implementation increased by over 612% the following year
2.	Deployment of low power PCs with better specifications
3.	Higher spec, a little more power consumption but better user experience.
4.	<ul style="list-style-type: none"><li>✓ Subsidies for operators to upgrade network.</li><li>✓ Exploring alternative broadband options.</li></ul>
5.	An inverter was introduced as an AC component so low power PCs provided also use AC.
6.	Virtualization for low power computers was introduced to double workstations.



# UCUSAF ACHIEVEMENTS

## Coverage/Usage

- ✓ Improved equity- less limitations due to location, power and technology.
- ✓ Improved access to ICT devices.
- ✓ Increased ICT usage.

## Literacy/Content

- ✓ Students are able to use their acquired ICT skills at tertiary level.
- ✓ Digital skilling centres to improve pedagogy and lesson delivery
- ✓ Increased development and roll-out of local content
- ✓ ICT clubs in school that foster student talents and innovations.

## Connectivity

- ✓ Supply of ICT infrastructure has increased demand for internet.
- ✓ More ISP options due to diverse coverage challenges.
- ✓ Competition among ISPs has greatly improved internet affordability.



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# WHERE ARE WE GOING?



## Contemporary Education for Every Child

In light of the global pandemic: UCUSAF started a pilot Holistic eLearning Platform for Secondary Schools based on Moodle [www.help.sc.ug](http://www.help.sc.ug) .

- ✓ Aimed at building capacity for quality teaching and learning using technology.
- ✓ Pilot is in 4 schools.
- ✓ RENU is platform host and provider of internet and cloud services
- ✓ Primary focus is on building infrastructure and capacity building
- ✓ Sample content in 6 subjects has been uploaded in the 2<sup>nd</sup> phase.
- ✓ 4 Seminars have been held using the platform with participants from over 50 schools

# THE HELP PLATFORM- THE FUTURE

In light of the global pandemic:

- ✓ More content is being developed and uploaded on the platform.
- ✓ More teachers training, other subjects will be on board.
- ✓ eLearning is the future of pedagogy and with hope of constituting 30% curriculum delivery and traditional learning still taking up the 70%
- ✓ The platform is zero-rated for all institutions on the RENU network.
- ✓ To zero-rate the platform on all ISPs to enable access even on mobile devices anywhere.



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**THANK YOU**

**Q&A**



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