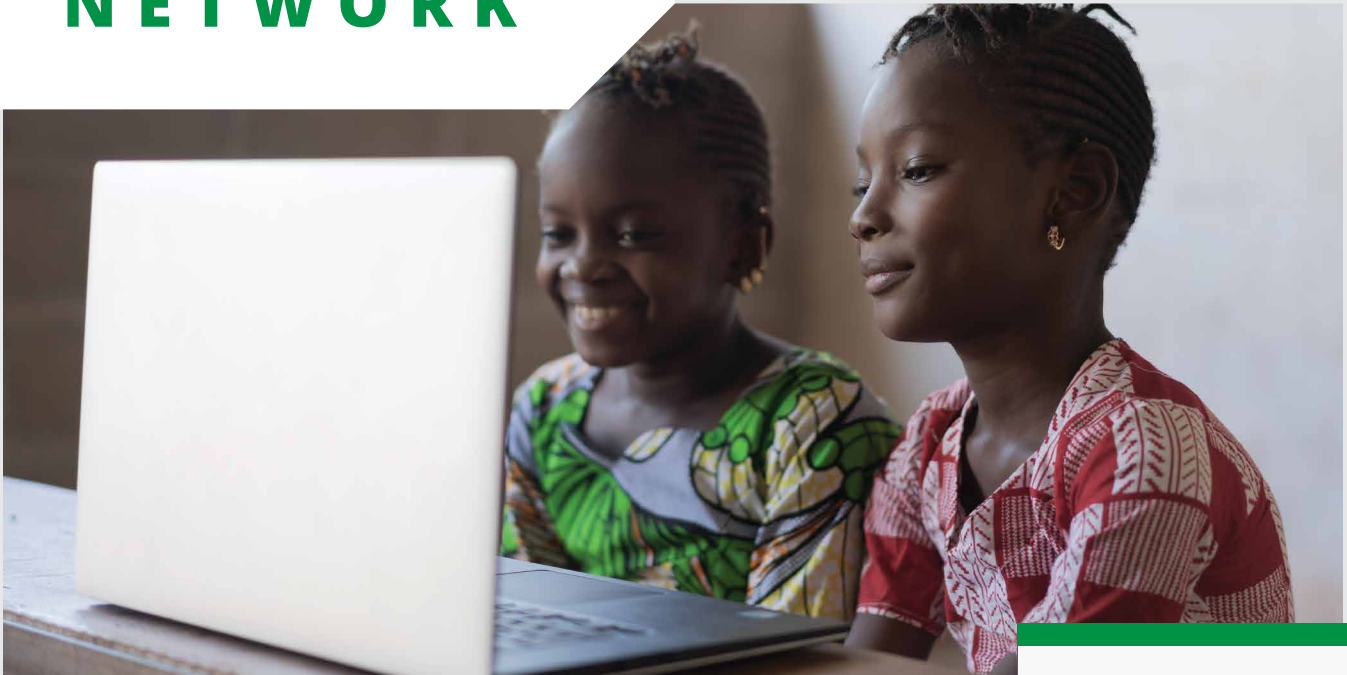


# UPANZI

DIGITAL PUBLIC INFRASTRUCTURE

# NETWORK

A SECURE AND RESILIENT  
DIGITAL TRANSFORMATION OF AFRICA



## Goals

- Build, experiment with, and contribute back to existing open standard digital technologies for the public good, and demonstrate technological solutions that can provide beneficial, cost-effective and interoperable digital services for Africans
- Implement secure, privacy-protecting, fair, resilient and trustworthy digital technologies
- Enable a more inclusive digital technology environment through the development of digital services that are well-suited to resource-constrained individuals and environments
- Empower users of digital technologies by building and promoting the development of human-centered digital solutions
- Build a network of existing African academic institutions that will act as trusted players where decision makers get trustworthy guidance about different technological solutions

## Project Areas



CYBERSECURITY



DATA



DIGITAL PUBLIC GOODS /  
DIGITAL PUBLIC INFRASTRUCTURE  
GOVERNANCE AND DEPLOYMENT



CONNECTIVITY



PUBLIC HEALTH AND AGRICULTURE



TECHNOLOGY AND SOCIETY

## ABOUT UPANZI

Upanzi is an Africa-based network of engineering research labs that is working towards a secure and resilient digital transformation on the continent. The network focuses on creating, testing, innovating, and assisting in implementing digital technologies at scale such as identity, payments, cybersecurity, cloud computing, data governance, artificial intelligence and machine learning, and influencing technology policy recommendations to support low- and middle-income countries.

[Launched in 2021](#), the Upanzi Network is supported by the Gates Foundation. The initiative is led by Carnegie Mellon University Africa.

The Upanzi Network partners with engineering research labs across the continent to create nodes. Each university partner lab has received a one-year seed grant for up to \$50,000 USD for a research project related to the goals of the Upanzi Network.

### Members

- Al Akhawayn University
- University of Botswana
- University of the Witwatersrand

# UPANZI NETWORK



## CHALLENGES TO OVERCOME

Low and disparate usage of digital technologies (availability, affordability, and access)

Very low cybersecurity skills and persistent security and privacy risks leading to lack of trust

Little global coordination and consensus about architecture, security, privacy and data sharing

Incentive misalignment between PFP and government geopolitical motives

Lack of a sustainability and end-to-end evaluation frameworks

Africa's low technical skills

Regulations

## Background

- Open digital technologies and infrastructures are important to the realization of the [UN's Sustainable Development Goals](#), particularly in low- and middle-income countries.
- Digital public goods (DPGs) refer to a collection of openly accessible software, data, AI systems, and content that follow privacy regulations and relevant guidelines, promote positive impact, and contribute towards achieving the Sustainable Development Goals.
- Digital public infrastructure (DPI) refers to a set of shared digital systems which are:
  - (1) secure and interoperable;
  - (2) built on open standards and specifications to deliver and provide equitable access to public and/or private services at societal scale; and
  - (3) governed by enabling rules to drive development, inclusion, innovation, trust, competition, and respect human rights & fundamental freedoms.

## Learn More

 [africa.engineering.cmu.edu/upanzi](https://africa.engineering.cmu.edu/upanzi)

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