An African framework for sustainable open science

Open Science Conference 2021 | United Nations Academia and Open Science Infrastructure

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NRENs in Africa: 10 years of AfricaConnect
The LIBSENSE Community Approach
Fostering Institutional Open Science Culture
National Research and Education Networks in Africa


AfricaConnect3 (2019-2023) – pan-African

- Start date: 16/Nov/2019
- Duration: 48 months
- Funding: EU Grant Contract
- Budget: 37.5M€ (80% EU - 30M EUR)
  - 23.2M€ for connectivity, equipment and cloud

ASREN
Algeria, ARN
Egypt, EUN
Morocco, MARWAN
Tunisia, GCK

WACREN
Burkina Faso, FasoREN
Cameroon, RiC
Chad, ChadREN
Côte d’Ivoire, RITER
Ghana, GARNET
Ghana, GhREN
Guinea, Gn-REN
Mali, MaliREN
Niger, NigerREN
Nigeria, NiREN
Sierra Leone, SLREN
Togo, TogoREN
Liberia, LLREN

UbuntuNet Alliance
Botswana, BotsREN
Burundi, BERNET
D.R. Congo, Edelle
Ethiopia, ERENET
Kenya, KENET
Madagascar, RENALAG
Malawi, MAREN
Mozambique, MoREnet
Namibia, Xnet
Rwanda, RwEdNet
Somalia, SomAILREN
South Africa, TENET
Sudan, SudREN
Tanzania, TERNET
Uganda, RENU
Zambia, ZAMREN
Zimbabwe, ZAMREN

www.africaconnect3.net
A Pan-African Network in the Making

- Since AfricaConnect **started in 2011**, 22 out of **38 African** NRENs are connected to their regional network:

  - **UbuntuNet Alliance**: Burundi, DRC, Kenya, Malawi, Mozambique, Rwanda, Somalia, South Africa, Tanzania, Uganda, Zambia and Zimbabwe.
  
  - **WACREN**: Benin, Burkina Faso and Côte d’Ivoire, Ghana, Nigeria and Togo.
  
  - **ASREN**: Algeria, Egypt, Morocco and Tunisia.
  
- All three regional networks are growing.
- Next countries to be connected: Mali and Ethiopia.
AC3 Objectives and Outputs

- Enhance human capital development in Africa.

- Unlock the potential of education and research through increased access of African education and research institutions to digital infrastructures and technologies.

  **Output 1**: Access to affordable and adequate e-infrastructures is increased.

  **Output 2**: Dedicated RE services and applications are developed.

  **Output 3**: Adequate human resource capacity and expertise is built.

  **Output 4**: Digital transformation in research and education is raised.
Developing R&E Services

• Service outreach to science communities, deployment of R&E applications and access to repositories
• Trust and Identity for seamless access - edulD.africa
• Proactive Cybersecurity for NRENs and their Digital Assets - TrustBroker.africa
• Federated Identity Management for Libraries and Open Science platforms
LIBSENSE – Objectives

(Library Support for Embedded NREN Services and E-infrastructure)

Building a community for open science in the African region(s) through library-NREN collaboration since 2017 in order to:

• Support cultural change
• Provide technical support
• Build capacity
• Develop value-added services
LIBSENSE – Organisation

Overall Strategy:
- Building communities of practice
- Strengthening local and national services
- Bottom-up, distributed, heterogeneous
- Inclusive -
  - 3 Working languages, Arabic, English and French
  - Indigenous and traditional knowledge

Three Pillars:
- **Policy**: open science policies, governance and leadership
- **Infrastructure**: open access journals, repositories for publications and data and open discovery services
- **Capacity-building**: communities of practice and training
LIBSENSE – Partners & Networks

Thematic Areas
- Policy Development
- Leadership
- Open Science Policies
- Open Access Journals
- Repositories for Publications and Data
- Open Discovery Services

Infrastructure Support
- Linkage Networks

Core Foundational Team
- WACREN
- EIFL
- TuUs Information School
- COAR

NREN Activities
- Regional RENs
- ASREN
- UbuntuNet Alliance
- High-speed fiber networks
- Wireless Community Networks
- National Repositories & Open Science Clouds
- Cybersecurity

National Organisations
- Library Consortia
- Librarian Associations
- RENs

African Regional Organisations
- AFLIA
- AAU
- CRUFAOIC
- CAMES

External Collaborators
- Gigabit Libraries Network
- La Referencia
- OpenVire
- National institute of Informatics (NI)
- RENs
- GEANT
- IFLA

Connecting Communities of Practice
- Early Career Researcher Development
- Library Consortia
- Librarian Associations
- RENs
LIBSENSE Timeline (2016-2019)

Initial Activities and Ideas
- Library Open Access Workshop
- Institutional Focal Points Workshop
- Setting the agenda for LIBSENSE
- Informal collaboration btw. EIFL & WACREN
- TUoS Information School joins collaboration

Connecting to AfricaConnect 2 (AC2)
- COAR workshop on repositories for pan-African harvester
- AC2 funds pan African survey/workshops on OAR
- Survey launch in 3 regions commences
- Pan-African LIBSENSE workshops commence

2016

2017

2018

2019

Workshop Activities and Outputs
- LIBSENSE workshops in all regions completed
- Outputs include roadmaps, guidelines, survey reports, workshop reports
- Community activities begin to make impact
- Plans for AC3 LIBSENSE drawn up

Building the Community
- WACREN LIBSENSE workshops commence
- COAR brought on board as key collaborator
- Pilot survey planned and implemented
- Pilot survey results presented at UA conference
LIBSENSE Timeline (2019-2023)

**2020**
- **Skills Profiles Webinars**
  - Skills Profiles for HEI Librarians
  - Anglophone & Francophone
- **Capacity-building workshops**
  - Open access publishing
  - Research data management, repository interoperability, and persistent Identifiers

**2021**
- **UNESCO Open Science Partnerships**
  - Open Science Africa: Principles and Actions for Global Participation
- **Other Partnerships**
  - LA Referencia, RedCLARA
  - RUFORUM

**2022**
- **National Open Science Roadmaps**
  - Côte d’Ivoire, Ethiopia, Ghana, Lesotho, Mozambique, Nigeria, Somalia, Tanzania, and Uganda
- **National open access repository and publishing platforms**
  - Nigeria, Côte d’Ivoire, ...
- **National Policy Development Workshops**
  - Nigeria, Côte d’Ivoire, ...
- **AC3 Regional Policy Development Workshops**
  - Colocated with Ubuntunet Alliance, ASREN and WACREN annual conferences
  - Co-organised with regional associations of VCs/Rectors
  - Focus on policy implementation - moving from high-level goals to role of institutions in implementing open science
Fostering Institutional OS Culture

- Research and university communities engagement
  - Early Career Researcher (ECR) training program
    • Practical guidance and training to help researchers learn how to open up their research processes and results
      • Leverage installed infrastructure base
      • Establish OS communities on campus to sustain training
  - Leadership programmes
    • Garner support from employers/supervisors for incentives and policies on data and open science skills.
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Thank you

Any questions?

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https://libsense.ren.africa