DG DIGIT

Unit.B2 (Interoperability & Digital Government)

Open Source Software Country Intelligence Report

Nigeria

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Nigeria

Executive Summary

Nigeria has initiated significant governmental reforms aimed at achieving the digital transformation of its society. This process requires national internal coordination of the policies of 36 Nigerian federated states, and it relies on the broader coordination of technical standards at the continental level. At the federal level, the Ministry of Communications, Innovation, and Digital Economy is responsible for the formulation of digital policies, while the National Information Technology Development Agency implements and formulates ICT standards and guidelines. It also handles public procurement.

As such, there are currently no policies in Nigeria that mandate the use of open source software (OSS) in public administrations. However, the ongoing efforts at the federal level in Nigeria are focused on creating a more open and transparent government system through various forms of collaboration and governance. This is also exemplified by the work carried out by the African Union and the Open Government Partnership.

While the institutionalisation of OSS has not yet occurred in Nigeria, the country's economic standing places it at the forefront of innovation in West Africa. Nigeria boasts a significant open source community, led by two generations of developers who have spearheaded the local open source movement. These efforts have garnered the support of international open source communities, which actively support Nigerian developers and their communities. Finally, there are instances of OSS being used by associations at the national and local levels for projects of public interest.

Actors

This section presents the key governmental bodies responsible for setting OSS policies and the main strategic players that work together with the government at all levels to raise awareness of OSS.

Policy makers

- Ministry of Communications, Innovation, and Digital Economy[1]: At the federal level, policies related to digital matters are set by this ministry. Created in 2011, it is notably responsible for the creation of the Nigeria E-Government Master Plan. The ministry hasn't yet put forward any policy on open source.

- National Information Technology Development Agency (NITDA)[2]: founded in 2007[3], this agency is responsible for creating a framework for the planning, research, development, standardisation, application, coordination, monitoring, evaluation and regulation of information technology practices

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[1] Federal Ministry of Communications and Digital Economy
[2] NITDA
[3] NATIONAL INFORMATION TECHNOLOGY DEVELOPMENT AGENCY ACT 2007

in Nigeria through developing standards, guidelines, and regulations. It is in charge of public procurement for the Nigerian public sector.

Strategic players

- Open Source Community Africa (OSCA)[4]: OSCA is one of the main African associations for open source developers and promotion of open source. Founded in 2018[5] in Nigeria, the association has promoted several projects in Nigeria and the neighbouring countries. One of the first regional centres of expertise for open source, its active community is constituted in chapters[6] across several countries and organises a yearly festival.[7]

Policy and legal framework

This section summarises the main OSS-related policies and legal acts in Nigeria, including the first known milestones in this domain. The list is presented in chronological order, starting from the most recent milestone.

- African Union Data Policy Framework, 2022[8]: An implementation framework for the Digital Transformation Strategy, this framework calls for the adoption of open standards and showcases a successful open source project active in Nigeria.[9]

- The EU-Nigeria digital economy package (2021-2024), 2021[10]: The EU, through its Global Gateway program, is investing €820 million between 2021 and 2024 in the digital economy of Nigeria with the objective of promoting an open internet and further digitalisation of the country's public services.[11]

- African Union Digital Transformation Strategy For Africa (2020-2030), 2019[12]: This document establishes common objectives for the African Union's member states. Among these objectives, the strategy promotes the adoption of open standards and open data as well as open systems. While it doesn't mention open source by name, it calls for interoperable and open digital identity systems across Africa, and for states not to adopt "proprietary architectures".

- Open Government Partnership Nigeria E-Government Master Plan, 2016[13]: A member of the Open Government Partnership since 2016, the Nigerian government has committed to its third plan for 2023-2025. Among the measures included in the three plans, several are related to the release of

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[4] About Us | OSCAfrica
[5] Samson Goddy · GitHub
[6] Communtiy | OSCAfrica
[7] Open Source Festival
[8] AU DATA POLICY FRAMEWORK
[9] Ushahidi
[10] EUROPEAN UNION TO PARTNER WITH NIGERIA'S DIGITAL ECONOMY – FMCDE
[11] Global Gateway Africa-Europe Investment Package
[12] Digital Transformation Strategy for Africa (2020-2030)
[13] Nigeria Action Plan 2023-2025

government information and openness in the government. While none directly target open source, there are preliminary steps towards more openness in digitalisation of the country.

- National Information Technology Development Agency Act, 2007[14]: This Act defines the mandate and responsibilities of the NITDA.

Open source software initiatives

This section presents an overview of the main OSS-related initiatives in Nigeria. The list is presented in chronological order, starting with the most recent initiative.

- CHAOSScon Africa, 2023[15]: For the first time, the Community Health Analytics in Open Source Software organisation (CHAOSS) held a conference in Africa alongside the OSCAfest in Lagos. This new event showcases the deeper involvement of Nigeria in the African and global open source community and its significance in the open technologies landscape.

- Masakhane, 2021[16]: A grassroots organisation working on natural language processing (NLP), Masakhane uses and develops its own solutions as open source.[17] This organisation takes on the complex task of mapping and cataloguing the large diversity of languages represented in the African continent, which cannot be found in ICT systems. This is also supported by the crowd mapping of NLP related activities mapping on another Ushahidi platform.[18]

- She Code Africa, 2019[19]: An association that promotes the training and presence of women in tech in Africa, She Code Africa also developed the Women in Open Source Challenge (WOSCA) together with OSCA to support women to be part of open source development and contributions.[20]

- OSCAfest, 2019[21]: Organised by OSCA, this festival is a community event aimed at supporting open source in the region. Following the first edition of the festival, other events such as Sustain Africa were organised at the same time, gathering more than 2000 attendees in 2023.[22]

- African Girls Can Code Initiative (AGCCI), 2018[23]: Co-organised by the UN and the African Unionwith support from various actors, this initiative was launched to train 2000 women aged between 17 and 25. The training included both the use and development of open source solutions.[24,25]

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[14] NATIONAL INFORMATION TECHNOLOGY DEVELOPMENT AGENCY ACT 2007
[15] CHAOSScon-2023-Africa - CHAOSS
[16] Masakhane
[17] Masakhane · GitHub
[18] https://masakhane.ushahidi.io/views/map
[19] She C</>de Africa · GitHub
[20] Women-of-OSCA/WOSCA Open Source Projects.md at master
[21] Open Source Festival
[22] Sustain Africa 2023
[23] African Girls Can Code Initiative (AGCCI) | UN Women – Africa
[24] EN MAINSTREAMING ICT Gender and Coding Guide A5.pdf
[25] As confirmed during interviews with experts invited to these events.

- IDLELO 5, 2012: A series of events held by FOSSFA Africa, this fifth edition was held in Nigeria's capital, Abuja.[26] This event discussed the use of FOSS in education as well as the creation of digital commons.[27] Started in 2002 at the UNECA and constituted initially around the South African open source community, FOSSFA held its first IDLELO conference in 2004 in Cape Town[28], and the final one, IDLELO 7, in Uganda in 2016.[29]

- Ushahidi platform and tools, 2010[30]: The open source crowd mapping solutions from Ushahidi have been used on several occasions in Nigeria to support the delivery of public services. One of the first occurrences of this was during the 2011 presidential election to facilitate digital elections monitoring with the operation Reclaim Naija.[31] It also supported the monitoring of projects like Ogun-HarvestPlus[32], an agricultural mapping program, and policy implementation of Covid Watch Africa.[33]

- African Free and Open Source Software (FOSS) Reporter award, 2010: Launched by the Free and Open Source Software Foundation for Africa (FOSSFA) together with Deutsche Welle and the Open Society Initiative for West Africa (OSIWA)[34], this award recognises outstanding reporting for a general audience and honoured individuals for their coverage of FOSS. The award recipients included a Nigerian journalist.[35] The award last edition was in 2012.[36]

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[26] IDLELO 5 - Fedora Project Wiki
[27] IDLELO 5 - Fedora Project Wiki
[28] FREE SOFTWARE & OPEN SOURCE FOUNDATION FOR AFRICA (FOSSFA) FOSSFA Background ➔ FOSSFA started in November 2002 at UNECA to. - ppt download
[29] https://web.archive.org/web/20160706115901/http://www.idlelo.net/
[30] Ushahidi · GitHub
[31] Reclaim Naija
[32] https://ogun-harvestplus.ushahidi.io/views/map
[33] https://covidwatchafrica.ushahidi.io/posts/13
[34] Open Society Initiative for West Africa - Wikipedia
[35] Remmy Nweke WINS African FOSS Reporter's Award - The Zambian
[36] African FOSS Reporter 2012 award-Prix africain de reportage sur les logiciels libres et open source

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