



OPEN SCIENCE: Global and Continental Perspectives

Africa Universities' Day Celebrations 2022

By Emmanuel Boakye (COS, eLife)

slides courtesy Antonio/SlidesCarnival

Open Science: The Journey So Far...

- Formation of several groups and associations
- Clearer understanding of Open Science core areas
- Development of resources and supports systems
- Collaborate in popularizing Open Science



- Increase openness, integrity, and reproducibility of research
- Change in culture, incentives, infrastructure and business models
- Open Science Framework, TOP Guidelines, Ambassador program
- <https://www.cos.io/>
- <https://www.cos.io/products/osf>



- Opening access to European research
- Influencing open policies in Europe
- Enable equity in Open
- <https://sparceurope.org/>



- Shift scholarly communication towards openness and transparency
- Create and operate services for Open Science.
- Open Science Primers, Open Science Observatory, OpenAIRE Connect
- <https://www.openaire.eu/>



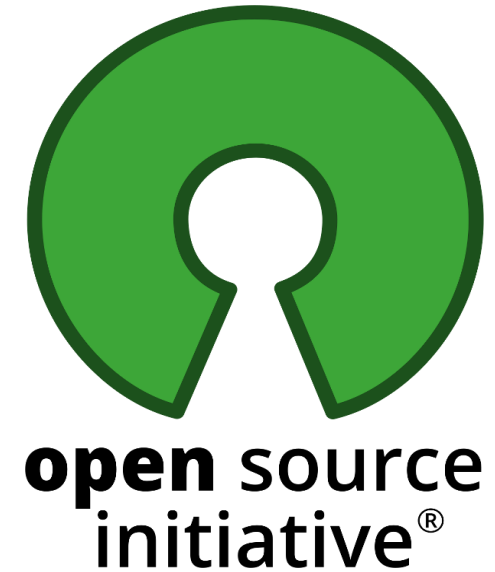
- Integrated platform that allows easy access to services that promote open science
- Web of FAIR Data and services for science in Europe (system of systems)
- E-Infrastructure, Data Analysis and Management, Applications and Software
- <https://eosc.eu/>



- Public digital library of open educational resources
- Collaborative teaching and learning
- Open Author, Hubs, Microsites
- <https://www.oercommons.org/>



- Educate about and advocate for the benefits of open source
- Develop policies and principles of open source
- Build bridges among different constituencies in the open source community.
- <https://opensource.org/>



- Open source and community-led handbook for reproducible, ethical and collaborative data science
- Guides on Reproducible Research, Project Design, Communication, Collaboration and Ethical Research
- <https://the-turing-way.netlify.app/welcome.html>



- Convening entity for the Global Open Science Hardware community
- Global access to hardware for science
- Sharing designs for scientific hardware openly online
- <https://openhardware.science/>



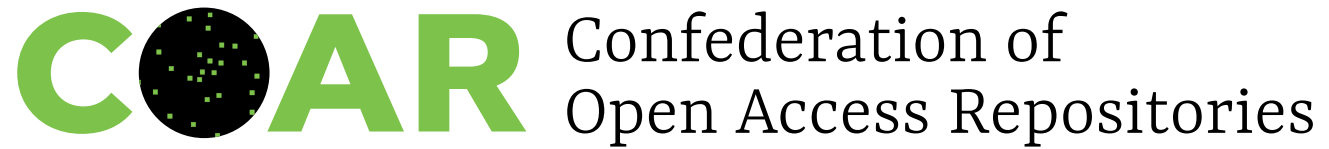
- Diverse community of organizations engaged in open scholarship
- Encourage and enable open access as the predominant communication model
- Principles of Transparency and Best Practices in Scholarly Publishing
- <https://oaspa.org/>



- Unique and extensive index of diverse open access journals
- Committed to ensuring quality content is freely available online for everyone
- Increase visibility, accessibility, reputation, usage and impact of OAJs
- <https://doaj.org/>



- International association of individual repositories and repository networks
- Focus on leadership, community, and innovation
- Repository toolkit, Framework for Good Practices in Repositories
- <https://www.coar-repositories.org/>



- Freely available online repository for open access mandates and policies
- Searchable international registry charting the growth of open access mandates
- <https://roarmap.eprints.org/>



- Promote the unrestricted availability of scholarly citation data
- Structured, separable, and open citation data
- Public citation graph to explore connections between knowledge fields
- <https://i4oc.org/>

I4OC

Initiative for Open Citation

- Advocate and promote the unrestricted availability of abstracts
- Centralized availability of open abstracts in trusted repositories
- <https://i4oa.org/>



**Initiative for
Open Abstracts**

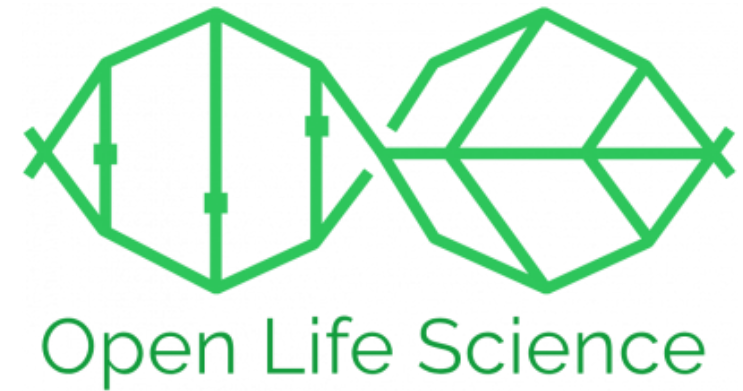
- Increase adoption of open research practices at scale
- Reproducibility workshops; reusable modules with instructor notes and guides
- Electronic lab notebooks, protocol sharing, reagent sharing, data visualization
- <https://www.repro4everyone.org/>



- Bring more equity and transparency to scholarly peer review
- Provide ways for feedback to preprints to be done openly, rapidly, constructively
- PREreview Open Reviewers
- <https://prereview.org/>



- Training program for Open Science ambassadors
- Gain knowledge essential to create, lead, and sustain an Open Science project
- <https://openlifesci.org/>



- Progression and adoption of open science through community building
- Collaborate to define priority activities, share knowledge, and develop relevant services
- Science Policy Templates, Case Studies, Presentations
- <https://libsense.ren.africa/en/>



LIBSENSE

STRENGTHENING OPEN SCIENCE IN AFRICA

- Open science adoption through hardware, communications and software infrastructure
- Consortia that utilize powerful digital tools and cutting-edge data science
- E-Infrastructure, Policies, Open Access Journals
- <https://aosp.org.za/>



- Create a set of actions and conversations in open science hardware
- Platform where Africans can showcase their innovations and ideas
- AfricaOSH Summits
- <https://africaosh.com/>



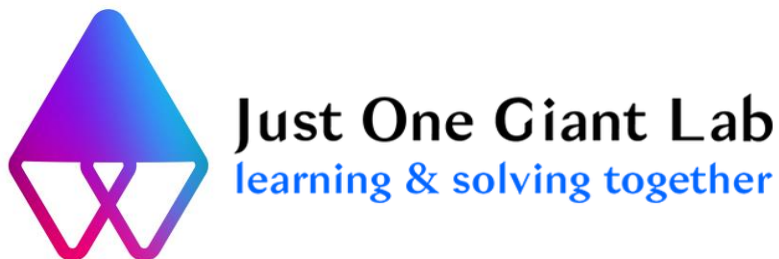
AFRICA OPEN SCIENCE HARDWARE

- Open knowledge commons of African scholarly works
- Open-access repository for preprints of academic publications
- Community-led digital archive for African research
- <https://info.africarxiv.org/>

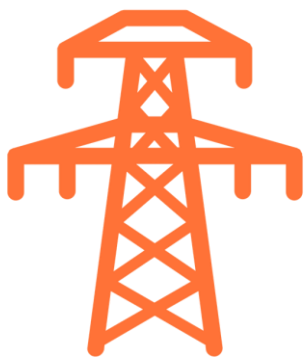


- An open access platform with a rapid, peer-reviewed, indexed and FAIR model
- Submission of a wide range of article types
- Gateways, Collections
- <https://openresearchafrica.org/>





Principles of Open
Scholarly Infrastructure



Group/Association	Web address
SCOSS	https://scoss.org/
Open Citations	https://opencitations.net/
Reproducibilitea	https://reproducibilitea.org/
Registry of Research Data Repositories	https://www.re3data.org/
Just One Giant Lab	https://jogl.io/
Open Access 2020	https://oa2020.org/
PubPub	https://www.pubpub.org/
Principles of Open Scholarly Infrastructure	https://openscholarlyinfrastructure.org/about/
UK Reproducibility Network	https://www.ukrn.org/
Society – Preprint Evaluation	https://society.org/



Collaborating and supporting existing efforts is key to a
global adoption of common standards in the pursuit of
a more Open Science



Email: kwaaseey@gmail.com

Twitter: [@thescientistgh](https://twitter.com/thescientistgh)

LinkedIn: [Emmanuel Boakye](#)