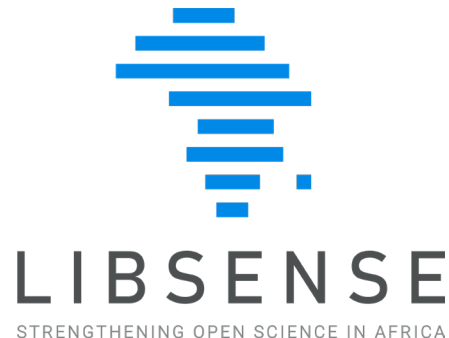


On Campus Open Science Communities of Practice

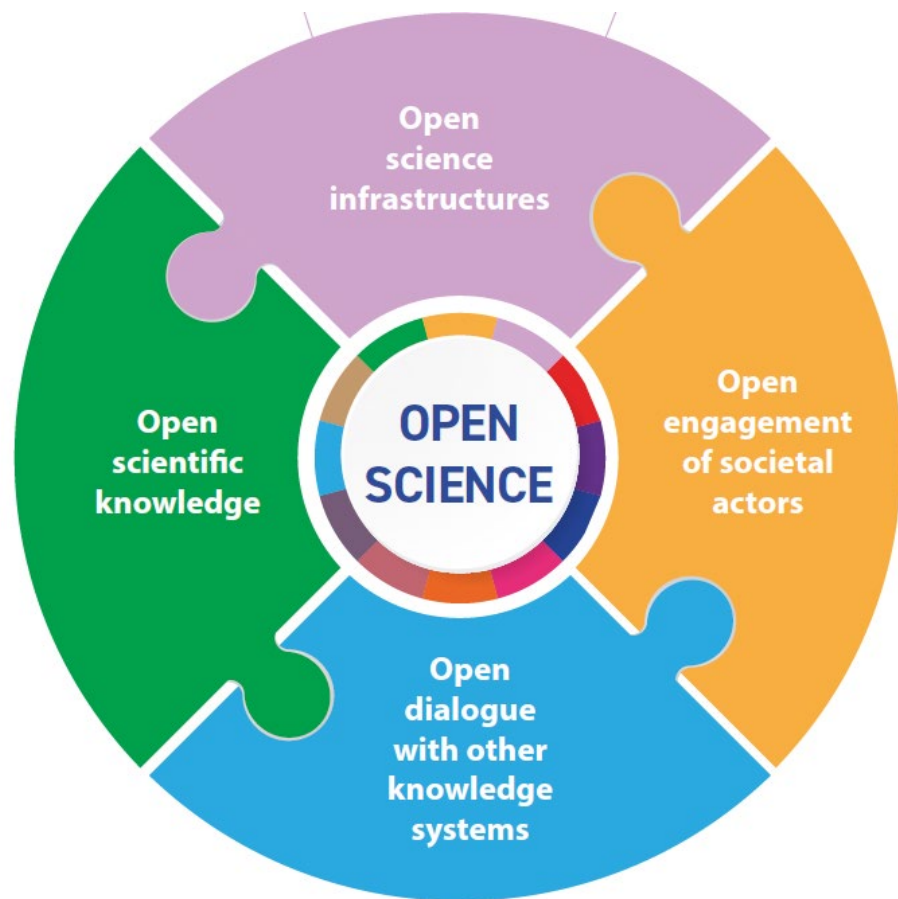
LIBSENSE ECR Leadership Workshop - Nigeria 2026



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Sheffield

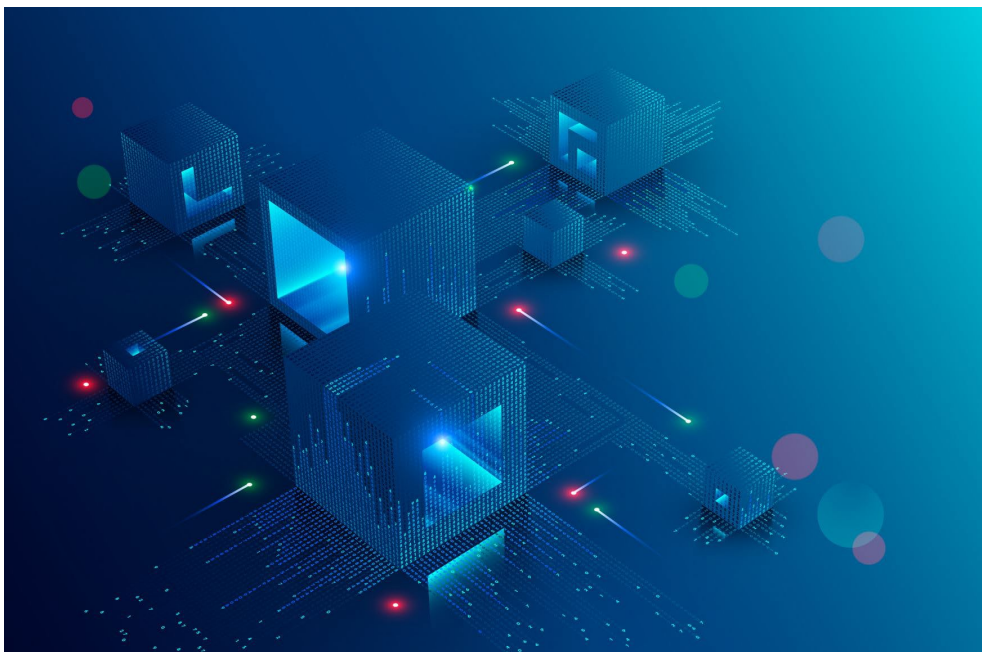


Key Pillars of the UNESCO Recommendation on OS



- Open scientific knowledge
 - Open Research Data
 - Open Educational Resources
- Open science infrastructures
- Science communication
- Open engagement of societal actors
- Open dialogue with other knowledge systems
 - Indigenous peoples
 - Marginalised scholars
 - Local communities

Taken from (UNESCO, 2021)



LIBSENSE Statement on Open Science in Africa - Values

Africa-led and operated open infrastructures

- African research community should maintain control of the publishing process and ownership of the publishing and data sharing infrastructure.
- Open - set up with free and open-source software, public - not-for-profit, infrastructure hosted and operated in Africa; addresses the needs of African researchers.
- African community governs open infrastructures and bears responsibility for reliable and trustworthy management and maintenance.
- Ensure diversity and inclusivity in scholarly communications and supporting multilinguality.
- Collaborative open access publishing.

Indigenous/Traditional Knowledge

- Co-creating knowledge outputs with communities by following responsible research methods.
- Supporting local open access publishing.
- Ensuring language pluralism.
- Ensuring inclusivity of media and formats, for example, when capturing oral culture tradition.
- Taken from ([LIBSENSE Working Group on Open Science policies, governance and Leadership, 2020](#)).

Example LIBSENSE Actions to Support OS Values



Develop (if doesn't exist yet) and offer training for the infrastructure management, data service and management in order to set standards in the creation, use, maintenance and support for open science. [RDM/OAR/Open Data with Capacity Building]



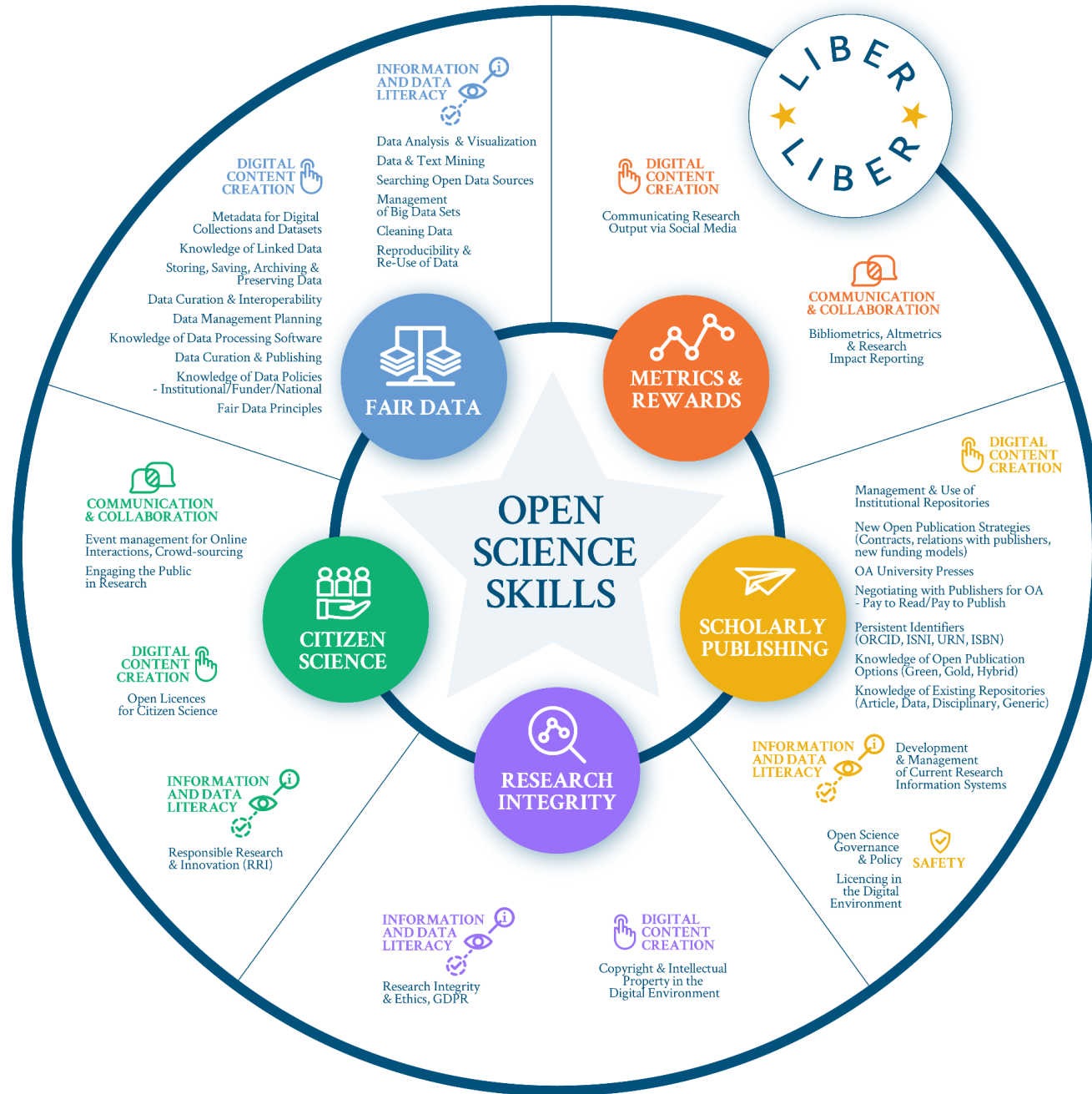
Ensure that universities and research organisations have the evaluation practices, incentives and services needed to support open science and research, e.g. the academic career system supports and rewards researchers who participate in a culture of sharing the results of their research; adopt open responsible research metrics, along with ways of rewarding the full diversity of outputs and contributions, capturing the broader social impact of research. [Research Assessment Reform with Policy Work]



Ensure the quality, interoperability and reliability of infrastructures, including through the use of internationally-recognised certification mechanisms, specifications, and standards and through utilising open source systems and software whenever possible, complying with the rules of inclusiveness, transparency, good governance and non-profitability. [Open Research Infrastructure with Infrastructure Support]



Enhance open science skills: those involved in each stage of the research process should have the capacity and skills necessary to publish in open access, manage research data and practice open science. [Open Science CoPs with Capacity Building]



Many shared principles from LIBSENSE and UNESCO statements

- Openness
- Accessibility
- Transparency
- Reproducibility
- Inclusivity
- Collaboration
- ...
- Opportunities for capacity building of open science skills through strategic, networked action

Introducing communities of practice

From [OpenScience Introductory Resources on Open Science](#)

What is a community of practice?

- “Communities of practice are social learning spaces, where individuals come together to learn a new skill, exchange knowledge and experiences, gain new skills, and then apply what they’ve learned in the contexts of their day-to-day work from the community”.
- “Well-designed and managed communities of practice can support behavioral changes in individuals by connecting them and providing a safe environment where members can exchange ideas and best practices. They can also empower members with the freedom to set and accomplish goals that they are unable to attain on their own”.
- These ideas are based on theories of social learning such as communities of practice theory and legitimate peripheral learning (Lave & Wenger, 1991)
- Also relevant are ideas around learning by doing, apprenticeships and community learning models

Lave, J., & Wenger, E. (1991). *Situated Learning: Legitimate Peripheral Participation*. Cambridge University Press.

<http://books.google.ca/books?id=CAVIOrW3vYAC>

Open Science Communities of Practice (OSCs)

- OSCs
 - “are bottom-up [grassroots] learning groups of scholars that discuss OS within and across disciplines”
 - “make OS knowledge more accessible and facilitate communication among scholars and policymakers”
 - Need “support from universities...to be viable, effective, and sustainable”
- OSC challenges
 - Moving from advocacy to acceptance and behavioural change – difficult when OS is not normalised research practice
- OSC strengths
 - Facilitating effective adoption of new OS practices thus normalising policy and technological changes

LIBSENSE ECR Champions

- What is a LIBSENSE ECR Champion?
 - A member of the wider LIBSENSE community, who identifies as an early career researcher(ECR) and who leads interventions, which can be at the policy, capacity-building or infrastructure levels, that strengthen the institutional research environment.
 - ECR Champions would also generally support the formation and growth of on-campus Open Science communities of practice aligned with LIBSENSE strategies and priorities.
- LIBSENSE strategic pillars are:
 - Policy work
 - Capacity building
 - Infrastructure support
- LIBSENSE OS priorities are:
 - On-campus Open Science Communities of Practice
 - Open Access Repositories
 - Open Data
 - Research Assessment Reform
 - Open Research Infrastructure
 - Open Publishing

What OSCs can offer you as ECR Champions

From [OpenScience Introductory Resources on Open Science](#)

Why engage with Open Science Communities?

- “Communities offer a low-entry point into improved research and pedagogical practices. As pedagogical communities welcome scholars from all levels, including early career researchers, they are an accessible space for all wishing to learn and practice open scholarship. By cutting across career stages, these communities, then, become essential to instilling the new and improved values and norms of open scholarship”.
- “Communities facilitate the co-creation of open scholarship training materials which are crucial in facilitating the integration of open scholarship into research projects.”
- “Communities also offer a much-needed environment wherein scholars share individual experiences, identify common hurdles, and iteratively enhance their knowledge and advance addressing the unique challenges ensuing from members’ needs”.
- “Through peer-to-peer exchanges, communities help create a culture of open scholarship, benefiting those within the community, and those that interact with it”.

OSC structural and operational elements

- Structurally, OSCs are:
 - Generally peer-based
 - Open and inclusive (can be students, researchers, academic staff, support staff etc.)
 - Comprised of like-minded individuals with similar values and goals
 - Function as 'bridges' between colleagues from different disciplines and backgrounds
 - Mediate between policymakers and academics
- OSCs can function through:
 - Workshops and training sessions
 - Social media and other digital platforms for engagement
 - Providing 'low-threshold' opportunities for exchange of knowledge to ensure inclusivity
 - Enabling colleagues to adopt new approaches and processes in a supportive environment

OSC critical success factors

- A generic plan of action (from Armeni et al., 2021):
 - “(1) make OS knowledge more visible;
 - (2) make OS knowledge more accessible; and
 - (3) communicate effectively within (e.g. interactions among members) and beyond the OSC (e.g. with university support staff, policy makers, and research funders)”
- Gain institutional support through:
 - Funding, e.g. the ECR champion is paid full- or part-time for their efforts
 - Or being embedded in an existing research/academic unit (e.g. library or research support)
 - Institutional recognition for their role

LIBSENSE on-campus OSCs

- Institutional Representative in key HE institutions across the country
- Led by a LIBSENSE-trained ECR Champion
- Able to progress LIBSENSE strategic priorities for open science in the country
- Demonstrates commitment to LIBSENSE open science values and principles
- Can commit to a plan of action to progress:
 - LIBSENSE-promoted national open science policies at the institutional level
 - Capacity building initiatives on campus among peer groups
 - Infrastructure support activities through engagement and promotional activities
 - Senior management engagement with open science principles, policies and practices

Useful Links

- Link to grassroots OSCs worldwide:
https://docs.google.com/spreadsheets/d/1LNF5_bOkRV-RLIF4HYmu-gOemla4IdfXEer89fM-Vy8/edit?usp=sharing
- Link to an international OSC: <https://osc-international.com/>
- Link to open science resource centre on OSCs: <https://opensciency.github.io/sprint-content/open-tools-resources/lesson5-open-science-communities.html#:~:text=Some%20examples%20of%20open%20science%20communities%20include%20GitHub%20discussions%20Discourse%20StackOverFlow%20and%20Slack%20spaces>