



The Nexus between Training and Institutional Repository Practices: the University of Nigeria Imperative

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Introduction



Open Science

- The concept of Open Science is not new, it has existed over three hundred years (ISC, 2020).
- The open science movement grew out of concern about research integrity, repeatability and transparency across all aspects of research (Gilbert, 2017).
- The open science movement is a response to the replication crisis in science due to poor research practices.
- Through the culture of sharing (open science) we are able to examine, criticise, refine, improve — or even reject — our models and theories.

Some Definitions

There is no single doctrine or paper that definitively and completely captures open science, however...

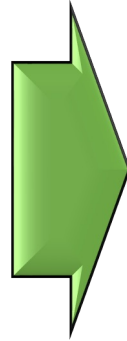


- It is defined as a set of practices that increases the transparency and accessibility of scientific research (van der Zee & Reich, 2018).
- And the means of openly sharing and re-using scientific knowledge created by researchers as the result of publicly funded research projects ([Kuprienė](#) & [Petrauskienė](#), 2018).

Open Access

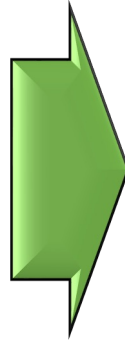
Open Access Repository (OAR)

A collection of full-text documents available in online databases on the Internet that can be accessed freely and instantly.



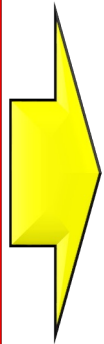
Open Institutional Repository (OIR)

Open Institutional Repository (OIR) is an online store for collecting, preserving and disseminating in digital form, the intellectual output of an institution (Akintunde cited in Iwundu, 2012).



Opening Science with Institutional Repositories

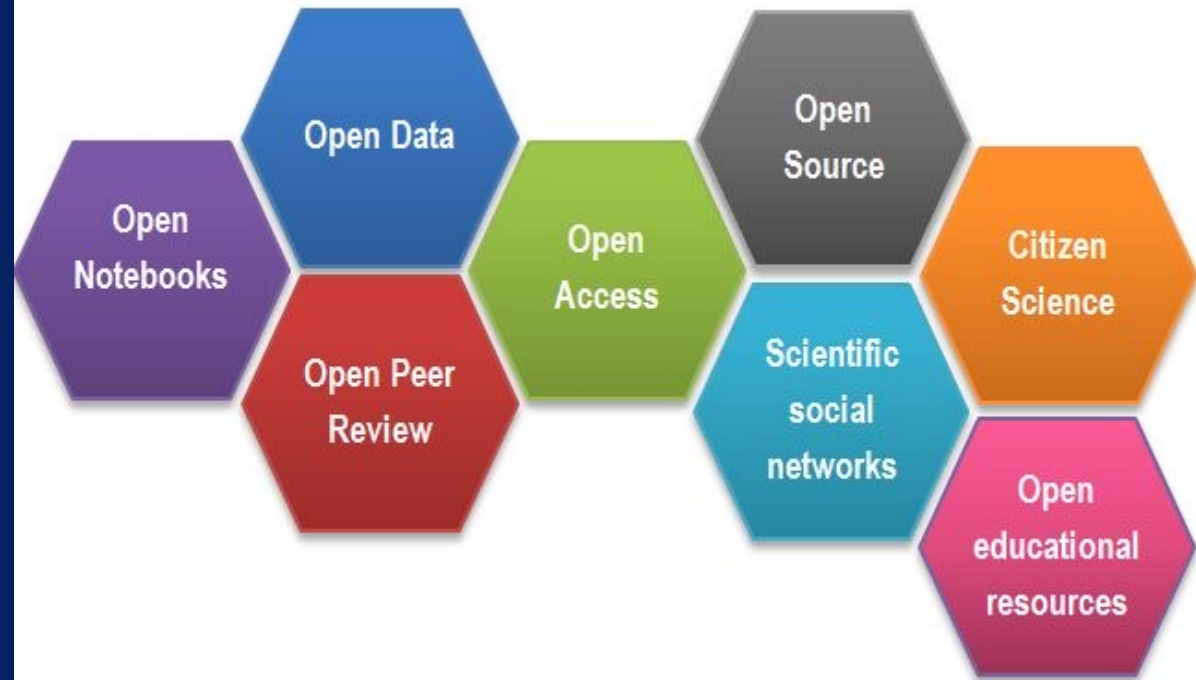
Globally, university libraries took the lead in the development and deployment of OIR.



Provision of institutional repository infrastructures and services



libraries strategy for promoting open science



Emergence of Open Institutional Repositories in Africa

- The origin of Open Institutional Repository in Africa has been traced back to the massive open access journal initiative (Nyambi & Maynard, 2012)
- Advocacy of open access initiative in Nigeria commenced in workshops organized by Electronic Information for Libraries (elFL) and Nigeria Universities Libraries Consortium (NULIB) between 2008 and 2009 (Gbaje, 2010).
- This led to the development of Open Institutional Repositories in many Nigerian Universities.



**The University of Nigeria
Scenario**

Justification for digitization of local contents for uploading on UNN Institutional Repository



- Provision of open access to institutional research output of the University, its Faculty, students, staff and other researchers
- Creation of global visibility for the research output of the Institution and members of its community
- Preservation of unpublished assets of UNN and especially grey literature which may be easily lost and cannot be retrieved from any publishing outfit
- Institutional Repositories serve as digital libraries since they perform the functions of collecting, classifying, cataloguing, preserving, and making accessible digital contents.

Materials that are selected for OIR

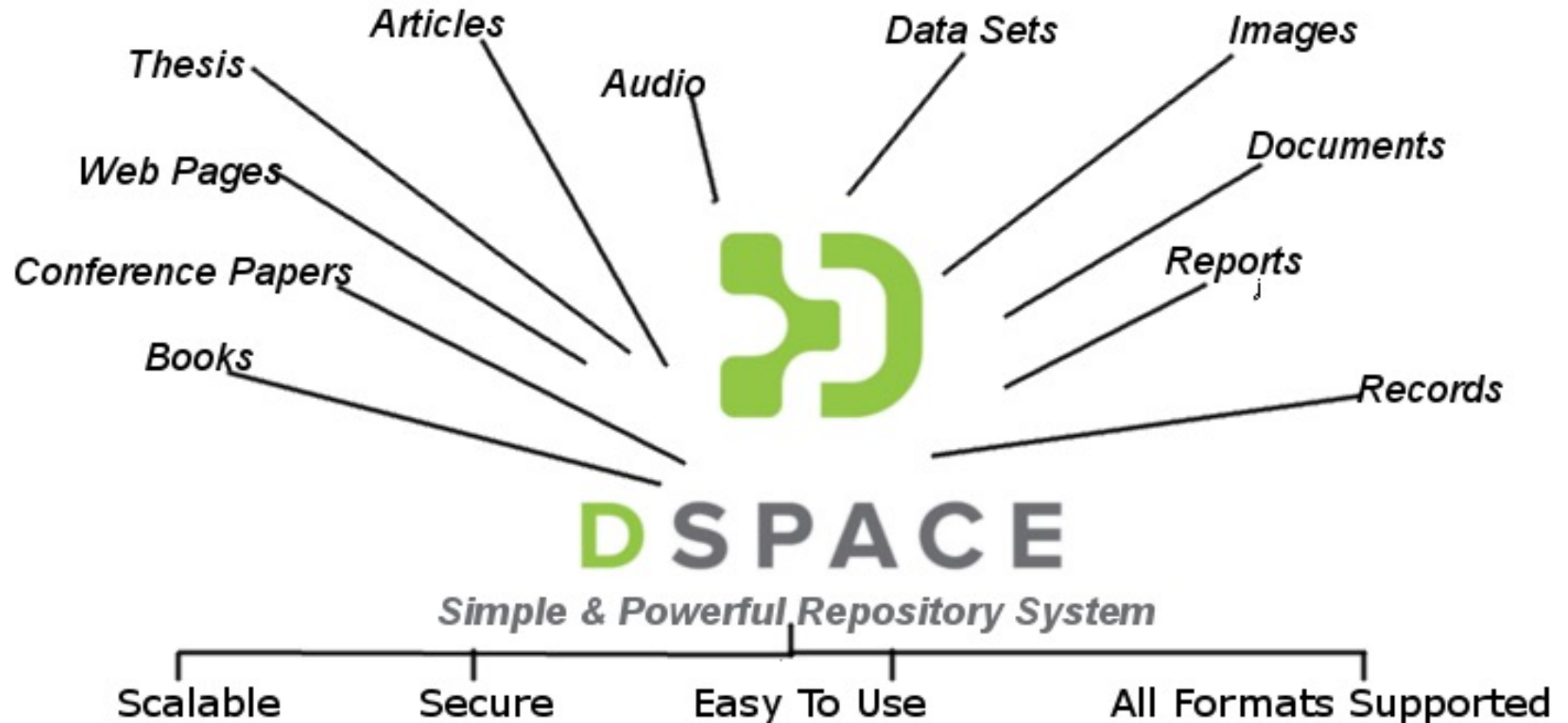
- Theses
- Dissertations
- Projects
- Journal articles
- Conference proceedings
- Seminar papers
- Convocation lecture papers
- Inaugural lectures

Digitization of local content in UNN

- Software: Dspace
- HP Scanjet 9210
- HP Scanjet 5510
- Computers: Desktops, Laptops
- Adobe Acrobat Software
- Server
- UPS



Software in use





1



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8



9

Training & Collaboration

The Nexus



- Librarians were trained by the ICT and MIS departments. (Collaboration between MIS, ICT and the library).
- The digitization of theses, dissertations, projects, founders day lectures, UNN people-biodata, inaugural lectures, etc. was made possible because of the various trainings that came through ICT and MIS Depts.
- If there were no such trainings, the story of digitization and IR in UNN would have become a story for another day.



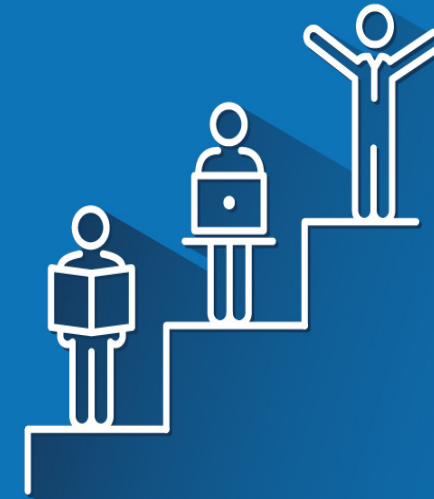
The digitization project of the University of Nigeria kicked off in 2008

Target: to upload 500,000 files in the website

To achieve success, staff were trained in-house by ICT and MIS Departments in the areas of



- Data entry
- Careful unraveling of bound theses
- Digitization
- Scanning
- Uploading
- Book marking on metadata files
- Paper capturing/rasterization
- Setting the resolution for the scanning process (in order to capture the paper)
- Signing of digital signature
- Uploading and linking documents to the university website



**Train
to Grow!**

- Improved morale and confidence
- Reduced supervision
- Few errors were recorded
- Increased productivity

Impact of the training

Barely a year after (2009), 14,553 files had been uploaded in the University website (Eke, 2011). The increase in uploading was tremendous but our plans were devastated by a huge data loss. However, there is a Data Centre presently for storage purposes.

Today, both public and private universities in Nigeria pay study visits to UNN to understudy the Institutional Repository in order to learn or benchmark the existing practices in their own libraries.

Therefore:



Therefore, there is Need for Training and Re-training in the following Areas for Continuous Improvement in Open Institutional Repository Practices in UNN

- Material submission
- Metadata application
- Access control
- Discovery support
- Distribution
- Preservation
- Storage
- Content management
- Digital conservation
- RFID technology for system security and inventory

- Software products for archiving, stocking and management of documents
- Management of resources and use of vending machines





The Nexus



Open Science

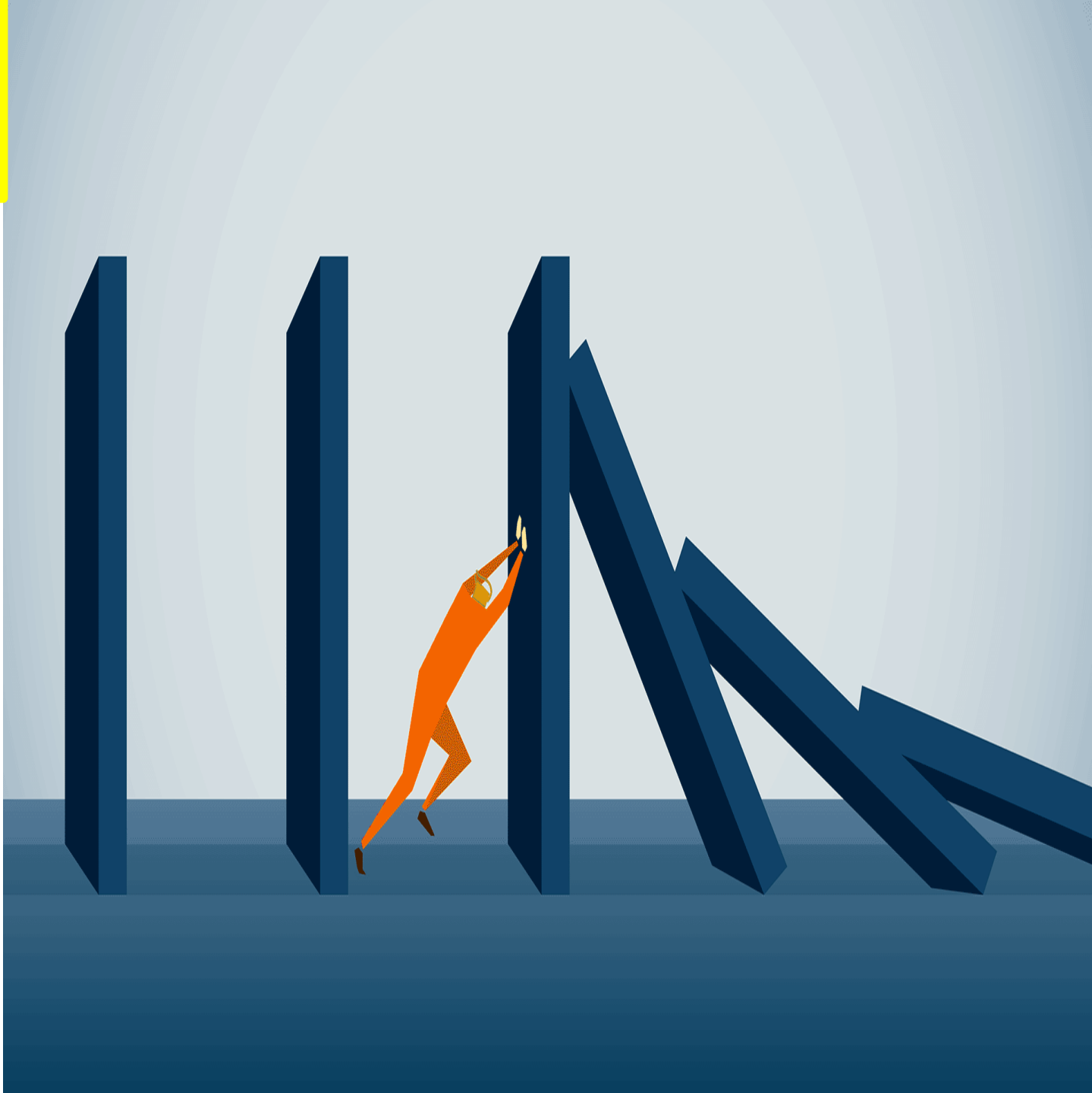
**Training and
retraining of
librarians**

**Institutional
repositories
infrastructures and
services**



Challenges

- Fund
- Incessant power outage
- Low Internet Bandwidth
- Inadequate ICT facilities
- Technophobia



Recommendations

- Funding: There are organizations that can help in funding training in Open Access through Open Institutional Repository. This is particularly important in developing countries like Nigeria. Since a lot depends on funding, I call on Federal Government, UNESCO, World Bank, Alumni Associations, Donor Agencies (Ilo, 2022) to support with fund required to put things in place. This can be done through sponsoring training programmes for local and international conferences.
- Digital Science and Technology Network (DSTN) should help to support with network and ICT infrastructure to enable in-house training.
- Increased Bandwidth for internet connectivity: WACREN, Ekokonnnect and NGREN can be of tremendous assistance in this regard.

Recommendations

- WACREN, Eko-Konnnect and other organizations that have passion for Open Science should also provide trainings for the librarians, not only in UNN but in other universities in Nigeria. I have participated in their workshops and trainings and trust they can help.
- There is need for wider publicity in Nigeria, concerning Open Science initiatives and trainings organized by LIBSENSE, EIFL-OA and others in different countries of the world. They should also plan programmes towards training librarians in challenges peculiar to the establishment and maintaining of Open IR in developing countries.

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