

# **Populating Institutional Repositories in Nigeria using Research Data: Challenges and Prospects**

By •

**ABDULDAYAN Fatimah Jibril**

**Department of Library Information Technology,  
Federal University of Technology, Minna, Nigeria**

# Outline

- What is Institutional Repository (IR)?
- Overview of Institutional Repositories
- Content of IRs in Nigeria (Adam & Kaur, 2019)
- Definition of Research Data
- Why Manage Research Data?
- Data Citation in Mendeley
- Research Data Management (RDM) Stakeholders
- Challenges of depositing Research Data in IR
- Prospects and Possibilities of IR and RDM

## What is Institutional Repository (IR)?

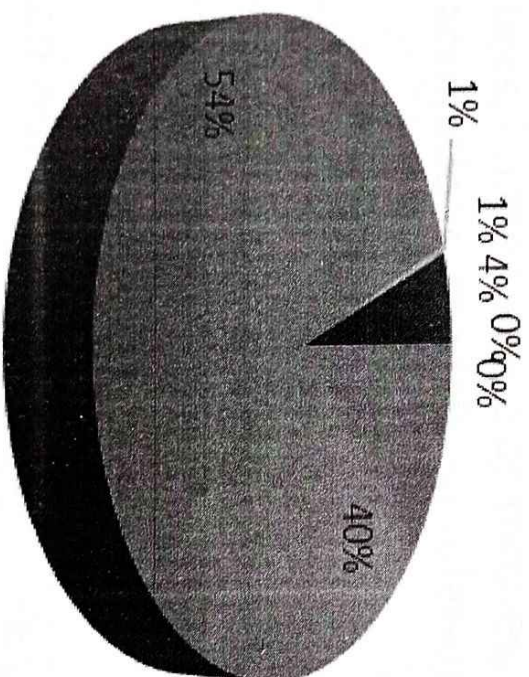
- Repository is a central place in which an aggregation of data is kept and maintained in an organized way, usually in computer storage;
- Institutional repositories are digital collections of the scholarly outputs created within a university or research institution;
- Repositories may be institutionally-based enhancing the visibility (especially in web ranking) and impact of the institution and researchers;
- They may be public for any domain of study; and
- They may be centralised, or subject-based collections.

# Overview of Institutional Repositories

- Recommended by the Berlin Declaration 2003.
- Contain un-refereed preprints, refereed post prints, or both.
- Removes access barriers to literature thereby accelerating research.
- Authors may archive their preprints without anyone else's permission and make their contents freely available to the world.
- There are currently just over 1,400 repositories around the world.
- In Nigeria, 25 IRs are found online, 23 are registered on ROAR, openDOAR, only 16 are active (Adam & Kaur, 2019)
- The statistics on numbers and where they are can be found in the Registry of Open Access Repositories (ROAR) and in the Directory of Open Access Repositories (OpenDOAR).

# Content of IRs in Nigeria (Adam & Kaur, 2019)

Total Deposit by types of Information Resources



- Thesis
- Article
- Book
- Conference or Workshop Paper
- Others
- Videos
- Image

# Definition of Research Data

An extremely broad category of material:

“... any information that can be stored in digital form, including text, numbers, images, video or movies, audio, software, algorithms, equations, animations, models, simulations, etc.” (National Science Board, 2005)

“They are data collected, observed or created for the purposes of analysis to produce and validate original research results” (Abduldayan *et al*, 2019)

– In practice, it can mean almost anything.

# Why Manage Research Data?

- Part of the normal research process:
  - The need for others to validate and replicate research
  - In some disciplines, supporting data is routinely made available to reviewers and linked from journal papers
  - Principles of sharing and openness are firmly embedded in some disciplines
- Part of funders (**return on investment ROI**) and publishers (**data archiving policy DAP**) requirement.

# Why Manage Research Data?

- Extrinsic and intrinsic value;
  - High investment in research
  - Data can be very expensive to capture and analyse
  - Data is impossible to recreate once lost
  - Observational data (by definition) is irreplaceable
  - Current generations of instruments can gather more data than can be analysed.
- Datasets can be uploaded on IR e.g. DSpace dataset community, Mendeleley Data, Fig Share, GITHUB etc

# Data Citation in Mendeley

The screenshot shows a web browser window with the Mendeley Data website. The address bar shows the URL: [data.mendeley.com/research-data/?search=research%20data%20management%20the%20Nigerian%20perspective](https://data.mendeley.com/research-data/?search=research%20data%20management%20the%20Nigerian%20perspective). The page title is "research data management: the Nigerian perspective". Below the title, it says "Advanced search help" and "10964 results".

**Filter Results**

**DATA TYPES**

- Document (5453)
- Dataset (3025)
- Tabular Data (2397)
- Image (2089)
- Other (548)
- Collection (333)
- Text (84)
- Software/Code (58)
- Video (45)
- File Set (36)
- Slides (15)
- Geospatial Data (9)

**Research Data Management: The Nigerian Perspectives**

**Details**

- ATBU 01.docx
- ATBU 05.docx
- MAUTECH (2).docx
- FUTA 04.docx
- FUTU 06.docx

**Contributors:**  
Fatimah Abduldayan

**Date:**  
2020-10-09

**Description:**  
This data set is on the interview session held with chemistry researchers in the five federal universities of technology in Nigeria namely Federal University of Technology, Akure (FUTA), Federal University of Technology Minna (FUTMx), Federal University of Technology, Owerri (FUTO), Modibbo Adama University of Technology, Yola (MAUTECH), and Abubakar Tafawa

At the bottom right of the page, there are links for "FAQ", "Create account", and "Sign In". The browser's taskbar at the bottom shows the time as 2:40 PM and the date as 12/8/2020.

Abduldayan, F.J. (2020). "Research data management: The Nigerian perspectives", Mendeley Data, V2, doi: 10.17632/74ckghv5fn.2, <http://dx.doi.org/10.17632/74ckghv5fn.2>

# Research Data Management (RDM) Stakeholders

The following are stakeholders in research data management

- Researchers (data creator)
- Libraries (data curators, advocacy & IR managers)
- Information Technology units (technological backbone and support)
- Research Offices (information on research best practices)
- University Management (IR & policy development & sustainability)

# Challenges of depositing Research Data in IR

- The “file-drawer problem” of researchers
- Data stored on personal hard-drives or on media which are largely undocumented
- Data creators not always aware of its potential value
- Copyright and intellectual property rights issues
- Lack of IR or poor management of available IR
- Librarians competency and willingness (advocacy and training)

## **Prospects and Possibilities of IR and RDM**

- The open access principles and awareness of the benefits of increased visibility and citations among researchers.
- Development of copyright statement around the use of IR in some universities.
- Request for an online link to researchers publications for promotions and related appraisals.
- Incorporating research best practices to meet up with global standards for collaboration and sharing.

## **Final Words...**

- Time for librarians and information professionals to start the RDM conversations with researchers;
- Time for library and university management to resuscitate efforts towards developing and sustaining the Institutional Repository (IR) and formulating policies that supports research data deposit on the IR.
- That time is NOW!!!