Unit 1: Open Access Repositories

Objective: This unit briefly discusses implementing an Open Access Service to make research openly accessible for all, aligned with the strategy of an organization.

Learning Outcomes

After going through this topic, the participants are expected to be able to:

- Explain the concept of repositories;
- Identify the types of OA repositories;
- List Open Source repository software;
- Compare the features of some open source repository software;
- Carryout needs analysis for OA repository and list the features of OA repository software;
- Prepare a business plan for deployment of repository software; and
- Take appropriate steps to install and manage repositories.

Areas of focus

- Open Access Repositories
  - Institutional repositories
  - Subject/discipline specific repositories
  - Data repositories
- Open Source Repository Software
  - Repository software
  - Criteria for the evaluation of an institutional repository
  - Comparison of repository software
- Deployment and Implementation
  - Needs assessment (analysis)
  - Business Case (Plan)
- Software Installation, Management and Services

Open Access Repositories

- There are mainly two routes to Open Access, namely the green and the gold routes.
- Open Access repositories are referred to as the green route to Open Access, while publishing in Open Access journals is referred to as the gold route to Open Access. Institutions such as universities and research organisations can implement either or both - not only to support Open Access, but also to preserve the digital research assets of the institution.

  The three main categories of repositories are:
  - Institutional repositories;

- Subject/discipline specific repositories
- Data repositories.

Institutional repositories

> *"… a university-based institutional repository is a set of services that a university offers to the members of its community for the management and dissemination of digital materials created by the institution and its community members. It is most essentially an organizational commitment to the stewardship of these digital materials, including long-term preservation where appropriate, as well as organization and access or distribution."*

Activity: in Groups visit OpenDOAR - http://www.opendoar.org/find.php search for your institution's IR – if it is not there, search other institutions in Uganda, East African, then Africa – what is your opinion of the IR coverage by Content – then National

Subject/ Discipline specific repositories

Activity: in Groups visit SSOAR - http://www.ssoar.info/en/home/about-open-access/types-of-repositories.html study the database – what is the coverage by subjects in your institutions – programme of study – relate to areas of specialization in your institution

Other Subjects IRs – CiteSeer http://citeseerx.ist.psu.edu/index - ; arXiv - http://xstructure.inr.ac.ru/ - what subjects are covered?

Data Repositories

- Same principle as IRs and Subject/ Discipline specific IRs
- This focuses on providing access to datasets
- Visit – Busitema University List of datasets – statistical databases

A dataset is a set of files containing both research data - usually numeric or encoded - and documentation sufficient to make the data reusable.

The documentation can refer to any digital files such as a codebook, technical or methodology report or user guide, which explain the research data's production, provenance, processing or interpretation.

Examples of data repositories:

- Edinburgh DataShare – University of Edinburgh - http://www.ed.ac.uk/schools-departments/information-services/research-support/datalibrary/data-repository/definitions
- National Geographic Data Center
- Dryad

Open Source Repository Software

There are mainly two different categories of repository software:

- Open Source software, e.g. DSpace, Fedora, EPrints; and
- Hosted solutions, e.g. Digital Commons, SimpleDL, ContentDM, DSpaceDirect.

Benefits of using OSS for IR

a) It promotes collaboration and knowledge sharing amongst communities;

b) All participants benefit, and not only the vendor;

c) The product belongs to all and lots of support is available from the OSS community;

d) No marketing is involved, therefore there is no salesman involved selling the product only focusing on the positive features, and not the limitations;

e) With OSS what you see is what you get;

f) OSS is flexible, its source code is open, and can be customized to be interoperable with other software at an institution;

g) It is open for scrutiny, and can be installed and tested before taking a final decision;

h) It can be implemented by institutions with minimal resources; and

i) World standards and open standards are used, which makes it a favorable choice.

Number of Repository Instances according to software

	DSpace http://www.dspace.org/	**EPrints http://www.eprints.org/**	**Digital Commons http://digitalcommons.bepress.com/**
OpenDOAR http://www.opendoar.org/	1 049 instances	369 instances	116 instances
ROAR http://roar.eprints.org/	1 414 instances	517 instances	187 instances

Activity: During your free time, especially when you return to your institutions, find time and review studies comparing repository software pp. 11

- Creating an Institutional Repository: LEADIRS Workbook – pp. 12 – 16
- Writing a business plan – pp. 17 – 40 – review and discuss

Software installation, management and services

Key issues to consider

- Decide on a URL for the repository
- Register with a handle server e.g. CNRI handle server – handles are persistent identtifiers for internet resources – DOIs by DataCite – (*DataCite Resources shall be shared on Friday session*)

- Install the software – Examples of repository software systems

	Download	Documentation	Mailing Lists	Bug Reports
DSpace 3.2	http://www.dspace.org/latest-release	https://wiki.duraspace.org/display/DSDOC3x/	http://www.dspace.org/Mailing-Lists	http://www.dspace.org/jira
EPrints 3.3.12	http://files.eprints.org/	http://wiki.eprints.org/w/EPrints_Manual	http://wiki.eprints.org/w/Contact	https://github.com/eprints/eprints
Digital Commons (Bepress)	Hosted solution http://www.bepress.com/	http://digitalcommons.bepress.com/subscriber_resources/	Not available	Not available

- Repository system Backup & Monitoring (Disaster Recovery Planning)
- IR Policy – See Busitema University IR Policy
- OA Policy - See Busitema University OA Policy – see UNESCO policy guidelines for the development and promotion of OA, 2012
- Optimization and registration with harvesters – see table below for directories and harvesters to register a repository with

Software Specific Directories e.g. DuraSpace (DSpace)	http://registry.duraspace.org/register-repository
OAIster	http://www.oclc.org/oaister/contribute.en.html
ROAR	http://roar.eprints.org/cgi/register
OpenDOAR	http://www.opendoar.org/suggest.php
Open Archives Initiative	http://www.openarchives.org/Register/ValidateSite
Google Scholar	https://support.google.com/scholar/troubleshooter/2898950?rd=1
re3data.org	http://www.re3data.org/suggest/

- Marketing – LEADIRS Workbook contains a comprehensive section on marketing a respository
- Training and user support – for librarians, researchers, academics, administrators
- Populating the repository

Activity: Review a set of questions – check your progress later in the evening – you can work as a group – pp. 50-51