Institutional Repositories Metadata: approaches and challenges in University libraries in Kenya

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INSTITUTIONAL REPOSITORY (IR)

Archive for collecting, preserving, and disseminating digital copies of intellectual outputs of institutions, particularly research institutions.\[1\]

**IR Content Types**

- Monographs
- E-prints of academic journal articles - before (preprints) and after (postprints) undergoing peer review
- Electronic Theses and Dissertations (ETDs)
- Digital assets generated by academics e.g. datasets
- Administrative documents
- Course notes
- Learning objects
- Conference proceedings

**Mandates**

Deposit of material in IR sometimes mandated by an institution.\[2\]
**METADATA**

Data that provides information about other data but not content of the data, such as the text of a message or the image itself.

### Types

**Descriptive** - Used for discovery and identification. Elements e.g. title, abstract, author, and keywords.

**Administrative** - for managing resources, e.g. resource type, permissions, and *when* and *how* it was created.

**Statistical** - also called *process data*, may describe processes that collect, process, or produce statistical data.[6]

**Structural** - About containers of data and indicates how compound objects are put together, e.g. how pages are ordered to form chapters. Describes types, versions, relationships and other characteristics of digital materials.

**Reference** - Information about the contents and quality of statistical data.

**Legal** - Information about creator, copyright holder, and public licensing, if provided.
1. Selected 10 IRs of Kenyan Universities
   **Categories:**
   1. Public (5)
   2. Private (5)
   Total no. of institutions selected = 10 out of 45 (22.22%)

2. Inspection of IR Content on:-
   i. Metadata employed
   ii. Quality

3. Identification of challenges
Most Universities promoting discovery of institutional research outputs through Institutional Repositories (IRs)

45 IRs in Kenya promoting discovery through openDOAR (Directory of Open Access Repositories).
**APPROACHES - 2**

**TECHNOLOGY**
- **DSpace**
- 93% Usage

**DC METADATA SCHEMA**

- **Dublin Core Elements**
  - Rights
  - Contributor
  - Creator
  - Subject
  - Coverage
  - Title
  - Publisher
  - Identifier
  - Description
  - Type
  - Date
  - Source
  - Relation
  - Format
  - Language

**KNOWLEDGE ORGANIZATION**
- Communities
- Collections
- Naming = institution-specific

**OPEN DOAR**
- Promoting discovery through
  - Directory of Open Access Repositories (openDOAR)

**INFORMATION ACCESS**
1. Restricted
2. Public domain

**TECHNOLOGY**
- **93% Usage**

**DC METADATA SCHEMA**
- **5, 6, 7**

**KEYWORD INDEXING**
- Keywords assigned with `dc.subject` element
CHALLENGES

TECHNOLOGY

Is D-Space best solution?

US 17%, UK 15%, Germany 14%, Japan 8%, France 7%

KNOWLEDGE ORGANIZATION

Categorization unclear in some cases e.g. Books categorized under Communities instead of Collections.

AUTHORITY CONTROL

Inconsistent entries in Author and Corporate Author fields

KEYWORD INDEXING

Vocabulary Encoding Schema not indicated

Author-assigned? LCSH? AAT? TGN? etc…
RECOMMENDATIONS

Knowledge Organization
- Organize Communities based on Users e.g. Departments, Schools, Faculties within Institution
- Organize Collections in terms of:
  - Subjects
  - Content Types

Value Vocabularies
- Controlled vocabulary from value vocabularies
- LCSH, AAT, TGN, Agrovoc...etc.

Authority Control
- Standardize author and corporate author entries based on authority files e.g. VIAF, LOC, NACO
- Indicate authorities used for name-authority control
- Link name values to associated name authority files via hyperlinks

Facilitate Discovery
- Hyperlinks to concepts from value vocabularies
CONCLUSION

IRs = Positive step toward enhancing discovery of research outputs from Africa

Scope for more work to maximize discovery of IR content through semantic web
REFERENCES


4. OpenDOAR


8. DCMI Usage Board. 2020. DCMI Metadata Terms.