Library Research Data Management Services
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Research Data Services Ecosystem

- Research management systems (eg Research Master)
- Publication repositories and Current Research Information Systems (eg DSpace CRIS)
- Dataset management systems (Figshare, Mendeley data, WikiData, Dataverse, PimCore)
- National Services –eg ARDC – Australian Research Data Commons (ANDS)
- External Discovery systems
- Data warehouses
- External identity services
  - OrcId
  - DOI
  - Handle
- Local Identity information systems (HR, SAML, OpenID Connect)
Open data standards

The IFLA and the IT section has been engaged in open data interchange standards since the inception of library automation.

- Cataloguing standards (MARC, etc)
- Authorities, Classification standards, Linked data
- National research ontologies (usually linked to funding) – eg Field of Research (FoR)

Data standards

- Licensing (Creative Commons)
- Metadata standards for archiving – METS (Metadata Encoding and Transmission Standard)
- Metadata for sharing/education - SCORM & EdX
- Case report forms (CRFs)
The role of Open Source

The virtues of open source:

1. Scrutiny
2. Deployment flexibility
   1. Host on-prem (“Roll your own”)
   2. Host in the cloud managed by yourself
   3. Host by a service provider
3. Reduced cost
4. Open in data as well as source
CRIS
Current Research Information Systems

Linking Researchers to
- Publications
- Funding
- Departments
- Datasets

Storing datasets in Amazon S3
Open source platforms

**DSpace CRIS** – Institutional Repository

**Archivematica** – Systematic preparation of items for archiving in open standards

**PIMCORE** – Data management system/Plans

**Open Journal System** – journal management and publishing

**Zotero** – Reference management system

**Dataverse** – Dataset management

**Figshare** – Dataset management
All that glistens is not gold

“Free is not necessarily “Open”

- Who owns your data sets?
- Who owns the content owns the client – “free” is not necessarily “open”
- Monopolies do not in the long term act in the interests of their clients.
Where next?

- Integration
- More integration
- Even more integration
- Artificial Intelligence
Thank you everyone!!!

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Resources:

Open Data Handbook
http://opendatahandbook.org/

Research Data Alliance
https://rd-alliance.github.io/metadata-directory/standards/

UNESCO
https://en.unesco.org/themes/building-knowledge-societies/oer