Research Data Management at Unisa

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UNISA | university of south africa

Research Data Management (RDM)

- "Research data management concerns the organisation of data, from its entry into the research cycle through to the dissemination and archiving of valuable results. It aims to ensure reliable verification of results, and permits new and innovative research built on existing information."

- http://www2.le.ac.uk/services/research-data/rdm/what-is-rdm

- It concerns how you:
- Create data and plan for its use,
- Organise, structure, and name data,
- Keep it – make it secure, provide access, store and back it up,
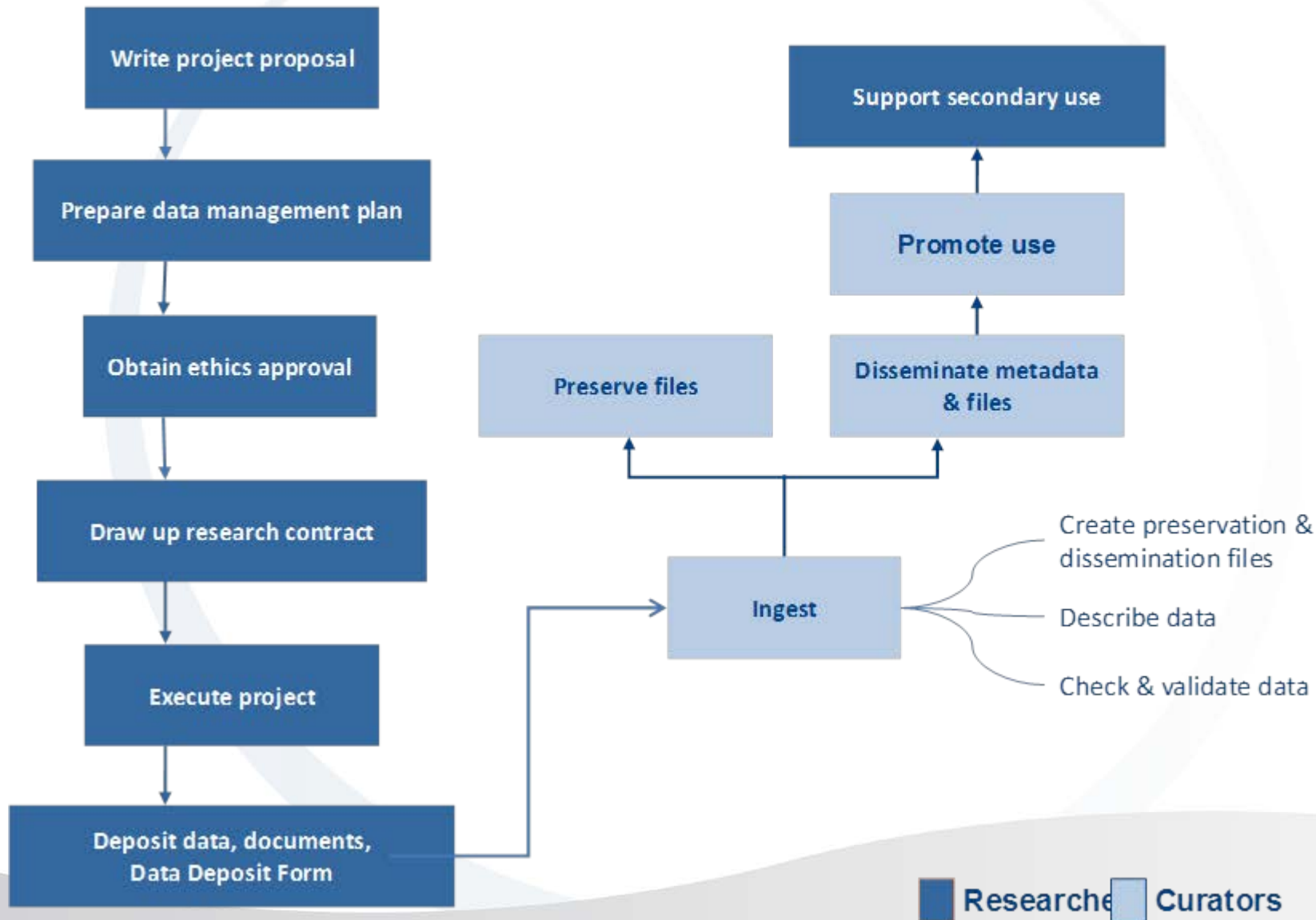- Find information resources, and share with collaborators and more broadly, publish and get cited.

Data Curation

"[Data] curation is the selection, preservation, maintenance, collection and archiving of digital assets"

http://www2.le.ac.uk/services/research-data/rdm/what-is-rdm/digital-curation

- [Data] curation generally refers to the process of establishing and developing long term repositories and preservation of digital assets for current and future reference by researchers, scientists, historians, and scholars

- Data Curation is an element in RDM

- Unisa Library to focus on Data Curation

Data management process flow

Funders Require RDM

Curation policies and support services of the main UK research funders

Research Funders	Policy coverage		Policy stipulations					Support provided			
	Published outputs	Data	Time limits	Data plan	Access / sharing	Long-term curation	Monitoring	Guidance	Repository	Data centre	Costs
Arts and Humanities Research Council	●	●	●	●	●	◐	○	●	○	◐	○
Biotechnology & Biological Sciences Research Council	●	●	●	●	●	●	●	●	●	◐	●
Cancer Research UK	●	●	●	●	●	●	●	◐	●	○	○
Engineering and Physical Sciences Research Council	●	●	●	◐	●	●	●	◐	○	○	●
Economic and Social Research Council	●	●	●	●	●	●	●	●	●	●	◐
Medical Research Council	●	●	●	●	●	●	○	◐	●	○	○
Natural Environment Research Council	●	●	●	●	●	●	●	●	●	●	◐
Science and Technology Facilities Council	●	●	●	●	●	●	●	◐	●	◐	○
Wellcome Trust	●	●	●	●	●	●	●	●	●	◐	●

Terminology clarifications

Published outputs: a policy on published outputs e.g. journal articles and conference papers
Data: a data policy or statement on access to and maintenance of electronic resources
Time limits: set timeframes for making content accessible or preserving research outputs
Data plan: requirement to consider data creation, management or sharing in the application
Access / sharing: promotion of OA journals, deposit in repositories, data sharing or reuse
Curation: stipulations on long-term maintenance and preservation of research outputs
Monitoring: whether compliance is monitored or action taken such as withholding funds

KEY:

● full coverage

◐ partial coverage

RDM in South Africa

Entities

- Higher Education Institutions (SU, UNISA, UP, WITS)
- Research councils (CSIR, ARC, HSRC)
- Government entities (DST, NRF, DHET, SANPARKS, SANBI)
- National Research facilities (SAEON, SAIAB, iThemba LABS)
- Data centres/libraries (projects, funders, themes, disciplines)

Lucia Lotter (HSRC):http://www.dcc.ac.uk/training/digital-curation-101/liasa-rdm-workshop/liasa-research-data-management-workshop-27-march-20

Unisa Library Project : Background

- Tasked to investigate Data Curation
- This investigation commenced as a pilot project.
  - the raw research data of identified researchers will be stored, preserved and made searchable.
- Data Curation (2011)
- Research Data Management (2012)

Team members: - Makaba Macanda

                    - Modiehi Rammutloa

                    - Ronell Bezuidenhout

Extended to : Library Technology Services, Search Librarians,
Client Services (Research), Research Planning Quality.

RDM Survey

The library conducted and completed a survey report on Research Data Management practices at Unisa March-July 2011: https://www.surveymonkey.com/s/BGX9L2N

70% of the respondents were willing to submit data and

30 % uncertain and below are some of their reasons why

not:

- Confidentiality was considered when planning the research
- Sensitivity and ethical concerns
- Depends on the project at hand, but it could also be used out of context

Business requirements

1. Workspace
2. Preservation of data = Short-term

$$= \text{Long-term}$$

3. Retrieval/Discovery/Dissemination
4. Security and access control
5. Management information
6. General

Business case

- Business need

- Business criteria

- Risk analysis

- Recommended solutions

System to pilot

OpenText Collections Server

In the trial period of testing the system with the help and guidance of ICT

Client Services 'role (Data management section) once policies and systems are in place

- Provides information and guidance for researchers about creating data management plans
  - This will include:
    - General elements of a DMP
    - Why the researcher needs a DMP
    - What is meant by data
    - Requirements of the various funding agencies
    - Unisa's DM policy

Microsoft Word Document

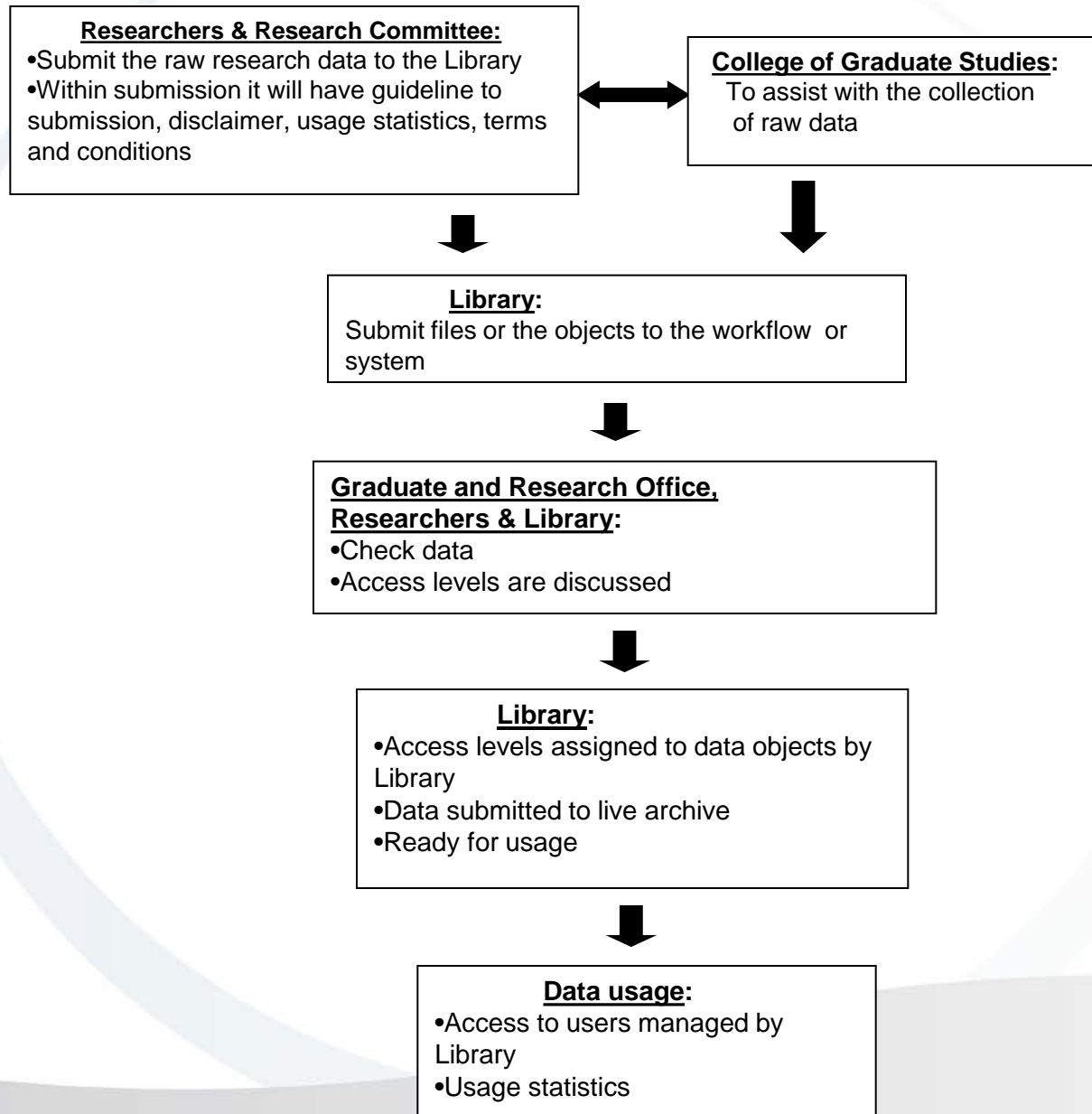- Provide guidance on storing and retrieving the data

  This will include

  Short-term storage and back-up

  Long term storage (archiving and access)

- Ethical and legal issues

Proposed Pilot Workflow

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Researchers & Research Committee:
•Submit the raw research data to the Library
•Within submission it will have guideline to submission, disclaimer, usage statistics, terms and conditions

College of Graduate Studies:
To assist with the collection of raw data

Library:
Submit files or the objects to the workflow or system

Graduate and Research Office, Researchers & Library:
•Check data
•Access levels are discussed

Library:
•Access levels assigned to data objects by Library
•Data submitted to live archive
•Ready for usage

Data usage:
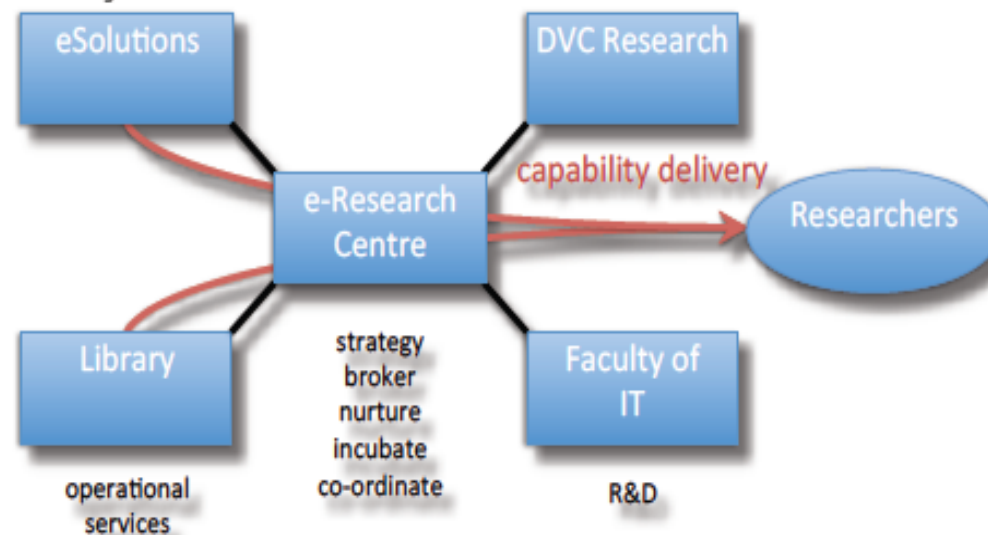•Access to users managed by Library
•Usage statistics

Monash University

The Monash eResearch Model

- The first (established by DVCR 2007) and still the most successful eResearch engagement model in Australia: **research-led** and based around strong **partnerships**

- The Monash e-Research Centre's primary role is to **partner** with research groups around the University, working with them to raise or **enhance** their research/e-Research capabilities to the next level, and then **connect** them to the most appropriate mechanisms or services to allow that research group to **sustain** that capability.

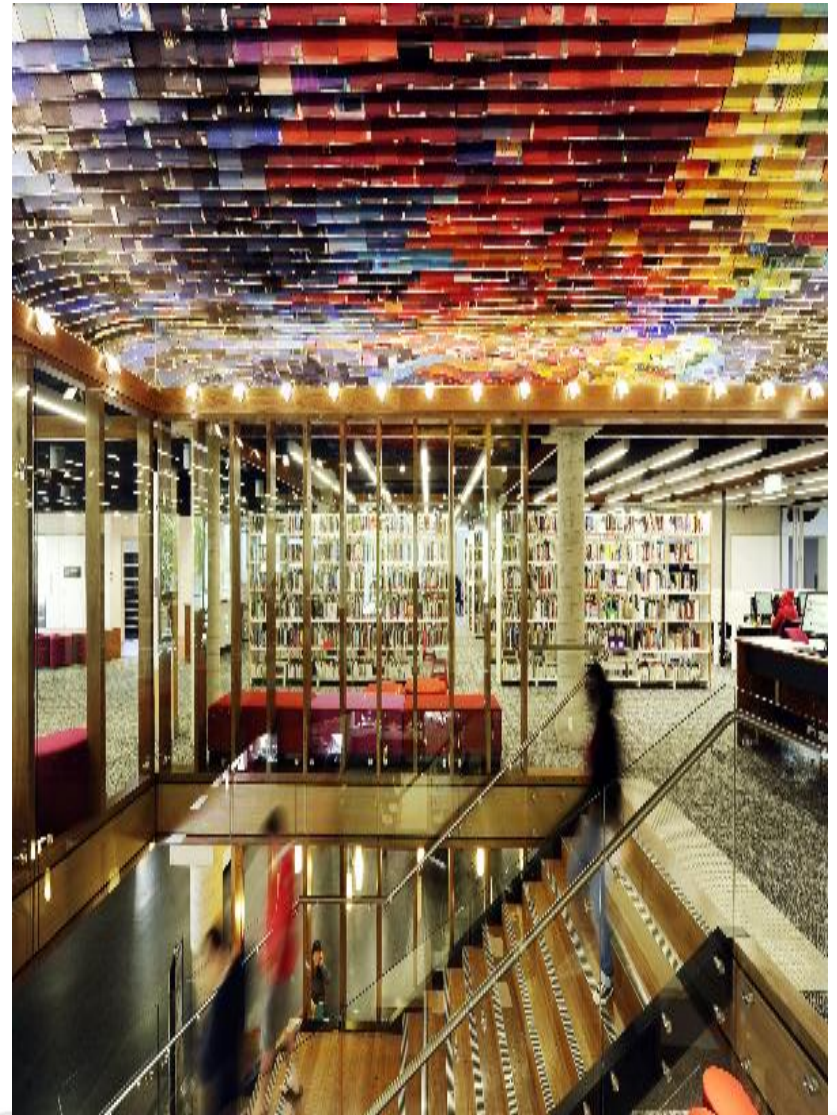# Queensland University of Technology
Framework for research support

- Library and ITS collaboration
- Associate Director (Information Resources and Research Support)
- Associate Director (High Performance Computing and Research)

QUT's Framework for research continued..

- Library Research Support Team

- Research Support Committee

- 8 of 26 Liaison Librarians have a lead role in research support

Digital Curation Centre (DCC)

- A UK service to support the Higher Education sector with Research Data Management (RDM)

- Since commencement of the institutional engagement programme the DCC has worked with twenty-one HEIs / groups

- Geographic spread – several in London, South England, Scotland, Wales and Northern Ireland

- Library services were involved in all of the engagements and were often leading RDM work:

  50% of the engagements have senior academic champions

  Team leaders - Library

                     - Research office

                     - IT services

  Major support - Records management

                     - Repository management

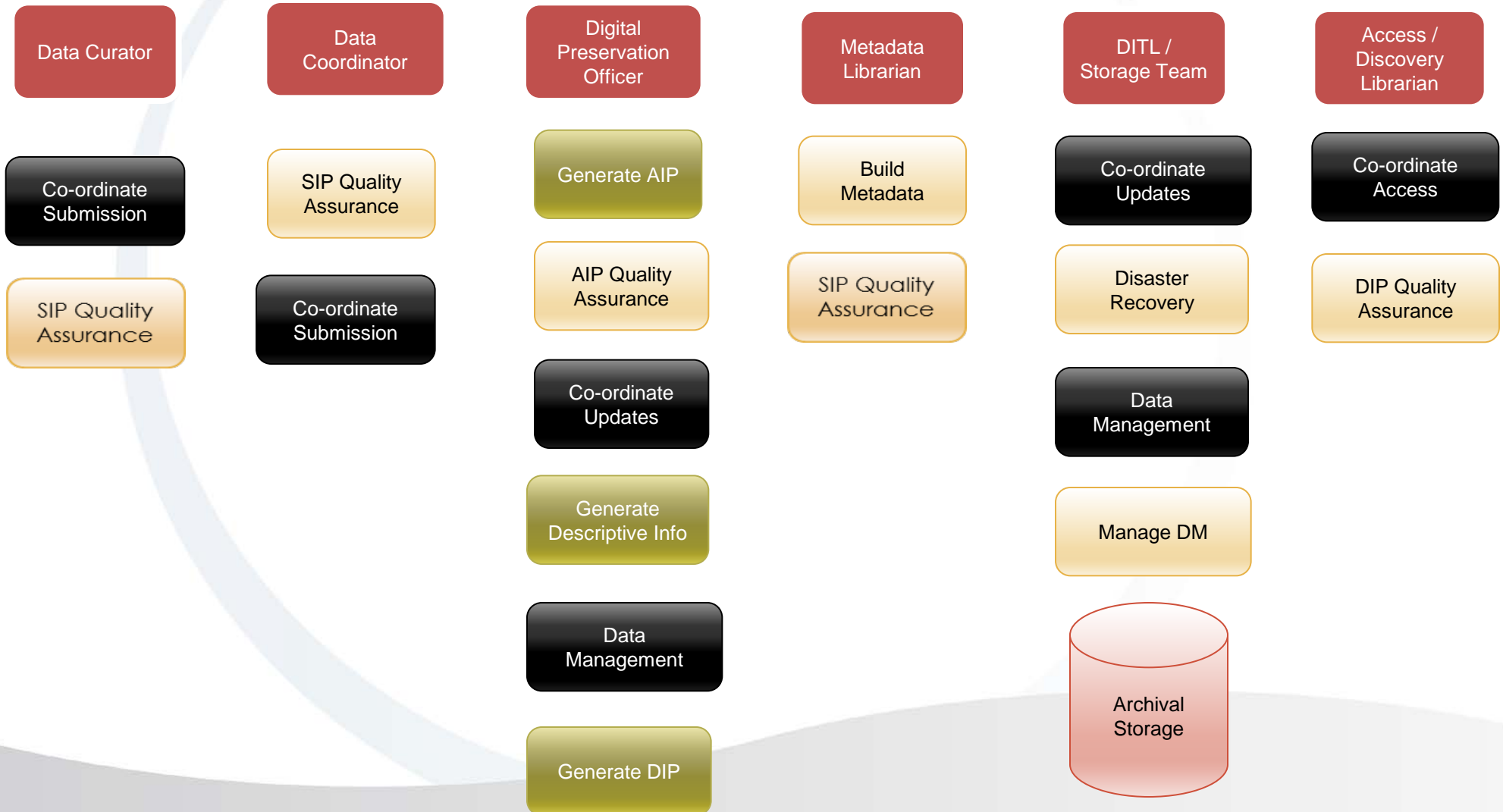# International perspective – University of Alberta

- University of Alberta collaborated with other institutions to procure Archivematica and dataverse systems
- Approach - top to bottom, project resides in the Library
- RDM driven from the office of the Vice-President (Research).

University of Alberta continued..

- Dedicated Unit for digitization projects including RDM

- Mutual relationship exist between the Library and Researchers

- RDM Champions identified within academic departments
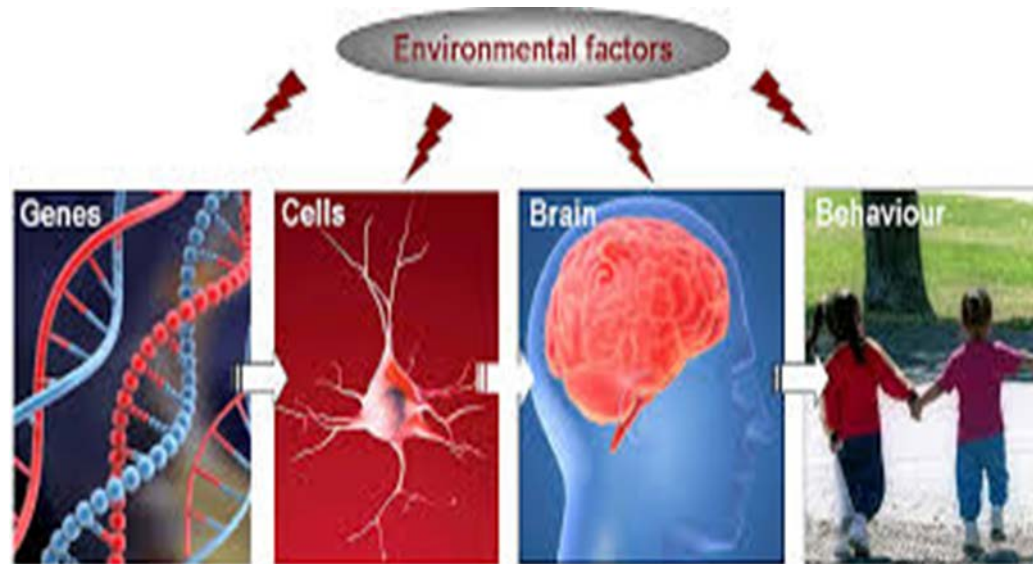
UA ROLES AND RESPONSIBILITIES

Data Curator	Data Coordinator	Digital Preservation Officer	Metadata Librarian	DITL / Storage Team	Access / Discovery Librarian
Co-ordinate Submission	SIP Quality Assurance	Generate AIP	Build Metadata	Co-ordinate Updates	Co-ordinate Access
SIP Quality Assurance	Co-ordinate Submission	AIP Quality Assurance	SIP Quality Assurance	Disaster Recovery	DIP Quality Assurance
		Co-ordinate Updates		Data Management	
		Generate Descriptive Info		Manage DM	
		Data Management		Archival Storage	
		Generate DIP			

Researchers need help to manage their data. This is a really exciting opportunity for libraries...."

Liz Lyon, VALA
2012

Conclusion

- Librarian's are not born with RDM genes.

Acknowledgements

- Human Sciences Research Council

*www.**hsrc**.ac.za*

- Digital Curation Centre

www.dcc.ac.uk/

- University of Alberta

*www.u**alberta**.ca*

- Queensland University of Technology

*https://www.**qut**.edu.au*

- Monash University

*www.**monash**.edu.au*

Thank you

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