



Library Theory and Research Section (LTR)

Practice of Research Data Management Findings from the IFLA LTR Project

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Introduction

Research Data Management (RDM) has emerged as a new functional responsibility for researchers, librarians, and information professionals in the digital library environment

- The concept of “data curation” as a superordinate framework for organizing RDM services emerged in the 1990s from the management of scientific information and e-science
- Its usage has since spread to other disciplines, including digital humanities.

This study is part of a research project undertaken by the Library Theory and Research (LTR) of the International Federation of Library Associations (IFLA) The primary objective of this multi-phase project is:

- To identify the roles and responsibilities of data curators in both international and interdisciplinary contexts.

Methods

The study was designed using mixed-method approach and included:

- Systematic literature review and data mining
- Quantitative content analysis of 441 job announcements for RDM professionals from 34 countries
- Qualitative interviews with professionals working as data librarians, data curators, or research data managers
 - 24 Interviews with 26 professionals (two interviews included a team of two people).

Purpose

- To explore the practice of research data management from the perspective of the professionals working in the field
- To identify core vocabulary defining data curation and RDM profession.

International Coverage

Countries Represented in the Interview Sample

No.	Country	No. of Sites
1	Australia	3
2	Austria	1
3	Canada	3
4	Germany	2
4	Netherlands	2
6	Sweden	2
7	Switzerland	1
8	United Kingdom	5
9	United States	5
		24

Findings

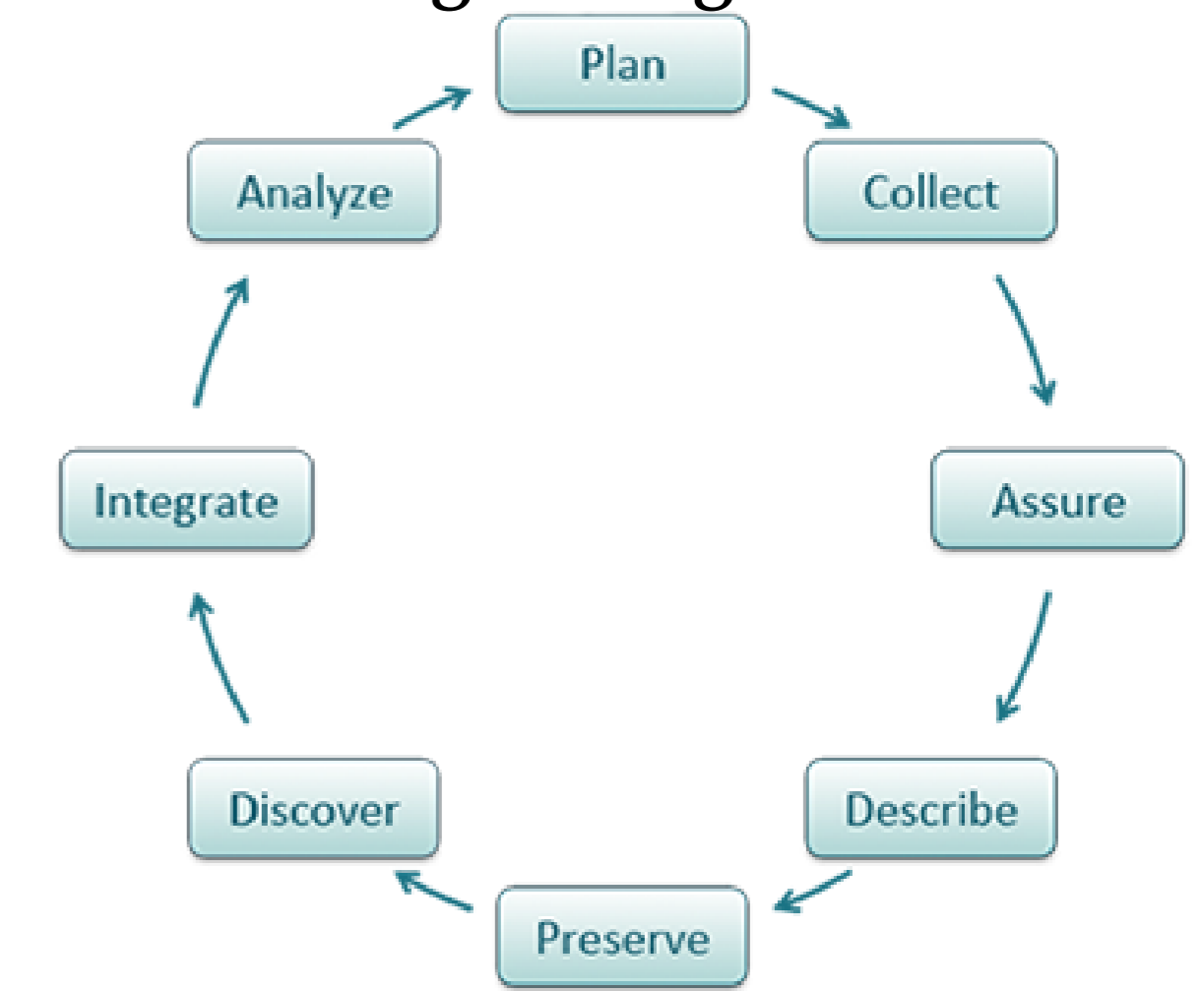
RDM as an evolving practice involving:

- Both consultative and technical services
- A range of social activities and policy initiatives.

RDM Service Location

Location	No. of Sites
University library	17
Campus-wide research data service center	3
University department - embedded service	3
Data archive	1
Research center	1
Total	24

The concept of the research data lifecycle plays a central role in organizing services



The DataONE data life cycle
Source: DataONE <https://www.dataone.org/data-life-cycle>

Vocabulary

Term	Definition	Related Term	WIKIDATA Code
Research Data Management (RDM)	Activities around the life cycle of research-related data	Research Data: collection of facts produced through systematic inquiry (Q15809982)	(Q30089794)
Data curation	Work performed to ensure meaningful and enduring access to data	Digital curation: selection, preservation, maintenance, collection and archiving of digital assets (Q5276060)	(Q15088675)
Data management	All disciplines related to managing data as a valuable resource	Data Management Plan (Q17085509)	(Q1149776)
Digital Preservation	Formal endeavor to ensure that digital information of continuing value remains accessible and usable	Preservation: maintenance of objects as closely as possible to their original condition also called conservation (Q1479406)	(Q632897)
Data Science	Interdisciplinary field about processes and systems to extract knowledge or insights from data	Data Scientist: a person studying and working with data (Q29169143)	(Q2374463)

Practices

Consultation Services

All participants were engaged in consultative / informational services

- Early in the data life cycle

Guidance and support in:

- Compliance with funders’ requirements
- **Data management plans (DMP)**

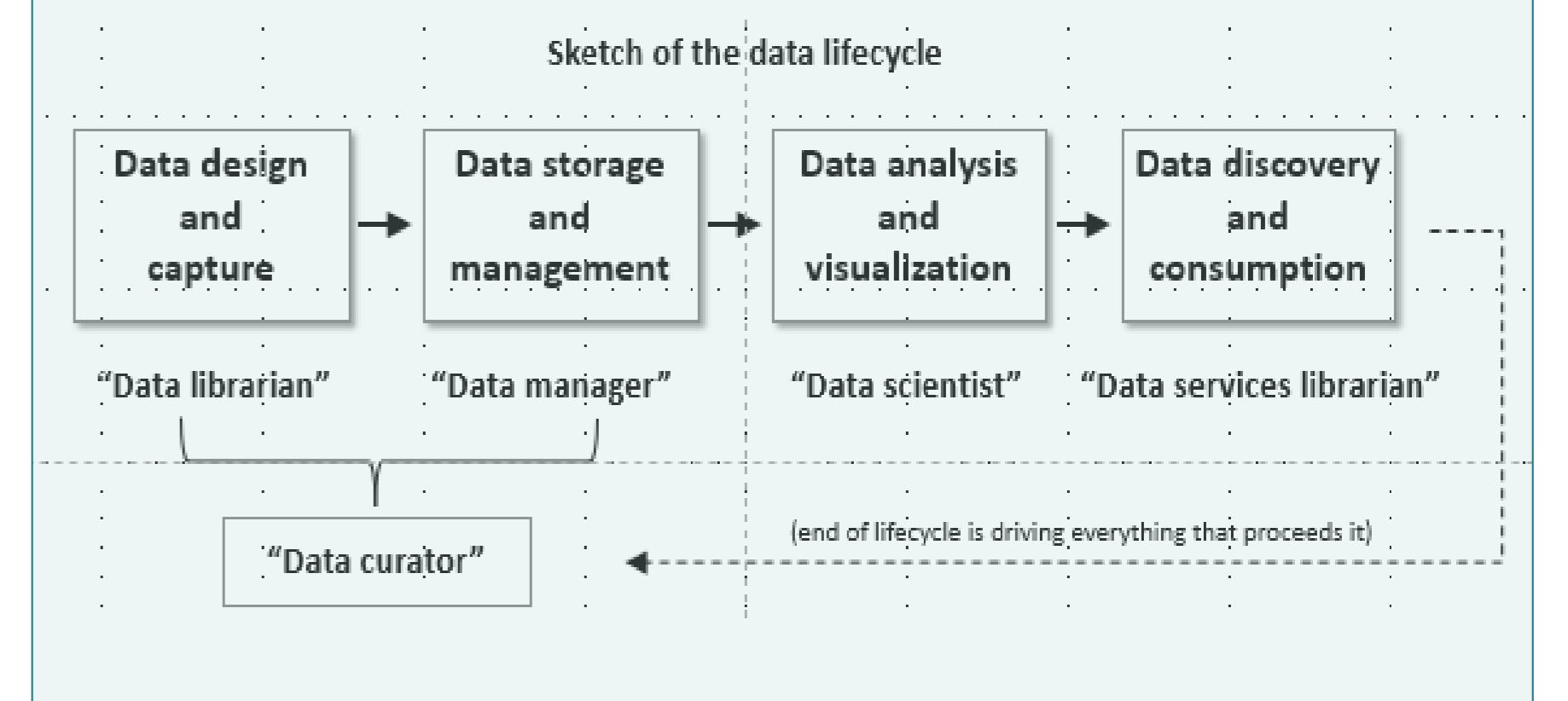
Other areas include:

- Metadata
- Data release, sharing, and re-use
- Digital preservation and archiving.

Technical Services

Technical infrastructure and the level of support depend on institutional settings

- Limited number of participants were involved in offering technical services
- Usually at the end of data life cycle.



Conclusion

This study demonstrates a significant variation in terminology, level of policy development, models of RDM services, and technical infrastructure across institutions and countries

- Common themes in social aspects of RDM
 - Especially around efforts in raising awareness of open research data and changing research culture
- European services are characterized by a higher degree of collaboration with other units within institution and with external partners.