Research Data Literacy

or: Take a ride on the RDL Line!
Overview

- Information Literacy and Research Data Management
- Information Literacy and Data Curation Skills
- Building a Flexible Curriculum
- The RDL line
Information Literacy and Research Data Management

Research data management is a method that enables the integration, curation and interoperability of data created during the scientific process, i.e. the production, access, verification, persistent storage and reuse of this data with the help of adequate and easy-to-use tools in virtual research infrastructures.
Data or Information?

- Research data management is interested in raw data from creation until extinction or archiving;
- Information literacy has always been interested in the proper understanding and use of data that - only through the ability to use it - is converted into information.
- The argument to recognize research data as information was proposed in the 2011 report of the Research Information Network;
- Data management and data curation can be seen as a logical extension of information literacy concepts.
Data or Information?

• Both the data and the context create - due to their innate relationship - the famous “difference that makes a difference”.

• The problem of dissociation of data from its context is at the heart of the data management problem: if the context is lost, the reuse becomes difficult, if not impossible.
Information Literacy and Data Curation Skills

- Big 6 of Information Literacy as Essential Skills (Eisenberg)

- Seven Pillars of Information Literacy as a Core Model for Higher Education (SCONUL)

- DPOE curriculum: «Train the trainer program in Digital Curation» (established by the Library of Congress)
Essential Skills for Research Data Literacy

- Provide
- Identify
- Scope
- Plan
- Store
- Protect
- Evaluate
- Manage
## Information Literacy and Data Curation Skills

<table>
<thead>
<tr>
<th>Big 6</th>
<th>Seven Pillars</th>
<th>DPOE curriculum</th>
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</thead>
<tbody>
<tr>
<td>Clarify</td>
<td>Identify</td>
<td>Identify</td>
</tr>
<tr>
<td>Locate</td>
<td>Scope</td>
<td>Select</td>
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<tr>
<td>Select /Analyze</td>
<td>Plan</td>
<td>Store</td>
</tr>
<tr>
<td>Organize / Synthesize</td>
<td>Gather</td>
<td>Protect</td>
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<tr>
<td>Evaluate</td>
<td>Evaluate</td>
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<tr>
<td>Create / Present</td>
<td>Present</td>
<td>Manage</td>
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<td>Provide</td>
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## Allocation of Curation to Literacy Skills

<table>
<thead>
<tr>
<th>RDL</th>
<th>Data Management Competences</th>
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<tbody>
<tr>
<td>Identify</td>
<td>Documentation (research environmental, temporal) / Context / From Information Management to Knowledge Management</td>
</tr>
<tr>
<td>Scope</td>
<td>Monitoring Process / Extracting Information from Data Models (and People)</td>
</tr>
<tr>
<td>Plan</td>
<td>Data Modeling / Meta Data / Standards Development</td>
</tr>
<tr>
<td>Store</td>
<td>Data Analysis and Manipulation / Merging, Mashing, Integration</td>
</tr>
<tr>
<td>Protect</td>
<td>Data Preservation / Data Security / Access Authentication / Conditions of Use / Data Legislation</td>
</tr>
<tr>
<td>Evaluate</td>
<td>Data Appraisal and Retention / Value of Data / Economic Issues</td>
</tr>
<tr>
<td>Manage</td>
<td>Complaints and Expectation Management / Coordination of Practice across Institution / Negotiation Skills / Risk &amp; Disaster Management / Contingency / Advocacy, Promotion, Marketing</td>
</tr>
<tr>
<td>Provide</td>
<td>Facilitation, Communication / Raising Awareness</td>
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## Building a Flexible Curriculum for RDL

<table>
<thead>
<tr>
<th></th>
<th>Provide</th>
<th>Identify</th>
<th>Scope</th>
<th>Plan</th>
<th>Store</th>
<th>Protect</th>
<th>Evaluate</th>
<th>Manage</th>
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<tbody>
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<td><strong>2 hour unit</strong></td>
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<td><strong>Full course</strong></td>
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<td><strong>Full module</strong></td>
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<td><strong>Specialization</strong></td>
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<td><strong>Full study</strong></td>
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# Building a Flexible Curriculum for RDL

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<tr>
<th></th>
<th>2-hours unit</th>
<th>Full course</th>
<th>Full module</th>
<th>Specialization</th>
<th>Full program</th>
<th>Diploma</th>
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<tbody>
<tr>
<td>Any Bachelor student</td>
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<td>Any Master student</td>
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<td>LIS Bachelor Students</td>
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<tr>
<td>LIS Master Students</td>
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<td>Data Creators</td>
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<td>Data Scientists</td>
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<tr>
<td>Data Librarians</td>
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<tr>
<td>Data Managers</td>
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Take a ride on the Research Literacy Line!

Let’s say that:
1. Literacy Skills are like Metro Lines
2. Curation Skills are like Stops
Provision Line
Promotion
Advocacy
Raising Awareness
Facilitation
Communication
Marketing
Provide
Planning Line
Scope

Provide

Identify

- From IM to KM

Plan

- Advocation
- Promotion
- Raising Awareness
- Meta Data
- Extracting Information

Facilitation

- Documentation
- Data Modelling
- Standards Development

Communication

- Context
- Access Authentication

Raising Awareness

Awareness

Marketing

Meta Data

Standards Development

Extracting Information

From IM to KM

Monitoring Process

Access Authentication

Communication

Meta Data

Standards Development

Context

Access Authentication

Monitoring Process

Scope

Plan

Provide

Identify
Storage Line
Protection Line
Evaluation Line
Take a ride on the Research Literacy Line!

Let’s say that:
1. Literacy Skills are like Metro Lines.
2. Curation Skills are like Stops.
3. Teaching units are like zones.
4. Programs are like validity.
Two hours validity
Full course / workshop Ticket
Full module Ticket
Full ticket
(two years validity)
Identify

Evaluate

Plan

Provide

Manage

Scope

Storage

Protect

Data Security

Conditions of Use

Retention

Appraisal

Negotiation Skills

Standards Development

Data Modelling

Manipulation

Mashing

Merging

Communication

Facilitation

Raising Awareness

Advocacy

Promotion

Integration

Access Authentication

Data Preservation

Extracting Information

Context

Data Analysis

Meta Data

Risk and Disaster Management

Coordinated Practice

Data Legislation

Monitoring Process

Complaints & Expectation Management

Marketing

Economic Issues

Value of Data

From IM to KM

Negotiation Skills

Standards Development

Data Modelling

Manipulation

Mashing

Merging

Communication

Facilitation

Raising Awareness

Advocacy

Promotion

Integration

Access Authentication

Data Preservation

Extracting Information

Context

Data Analysis

Meta Data

Risk and Disaster Management

Coordinated Practice

Data Legislation

Monitoring Process

Complaints & Expectation Management

Marketing

Economic Issues

Value of Data

From IM to KM
Thank you for your attention!

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