RDA Libraries for Research Data (L4RD) Interest Group

9th Plenary Meeting - Barcelona
April 7, 2017 9:00-9:30 a.m

Link to programme: https://www.rd-alliance.org/ig-libraries-research-data-rda-9th-plenary-meeting
Bringing Research Data Management into the Library Mainstream
Libraries for Research Data (L4RD) Interest Group
Breakout #7 - Friday, April 7  9:00 - 10:30am - Plenary Room

Meeting agenda
1. Introduction to the L4RD group - Kathleen Shearer
2. Lightning talks - moderated by Wolfram Horstmann
   • Monica Lassi, Lund University Library, Sweden
   • Mariëtte van Selm, University Library, University of Amsterdam, Netherlands
   • Angelina Kraft, German National Library of Science and Technology, Germany
   • Fieke Schoots, Leiden University Libraries, Netherlands
   • Malcolm Wolski, Griffith University, Australia
   • Amy Nurnberger, Columbia University, United States
3. Discussion: Bringing research data management into the library mainstream
   - moderated by Kathleen Shearer
4. Welcome to new chairs - Michael Witt
RDA L4RD Quick Overview

- Chairs: Kathleen Shearer, Wolfram Horstmann, Michael Witt
- Wiki: [https://rd-alliance.org/node/1633/all-wiki-index-by-group](https://rd-alliance.org/node/1633/all-wiki-index-by-group)
- Subscribers: 300+ people!
- RDA P2 first BoF meeting - Washington, D.C.
- RDA P3 BoF: Research Data Skills in Libraries - Dublin
- RDA P4 BoF: Research Data Solutions in Libraries - Amsterdam
- RDA P5 IG: Organizational Models for Data Services - San Diego
- RDA P6 IG: Developing and Adapting to Research Data Policies in Libraries - Paris
- RDA P7 IG: Applying Global Information-sharing and Collaboration in Libraries to Local Practice – Tokyo
- RDA P8 IG: International Data Week—Denver
Examples of L4RD associated activities/outputs:

- IFLA Journal Special Issue on Research Data Services
- 23 Things: Libraries for Research Data
- Joint RDA-IFLA program in August 2015 at the 81st IFLA World Library and Information Congress
- RDA Sloan DataShare internship ‘Exploring Organizational Approaches to Research Data in Academic Libraries’
- How to Establish Research Data Solutions in Libraries briefing paper
- How to Maximize Research Data Skills in Libraries briefing paper
- Engagement within RDA jointly with other interest and working groups: Data Rescue, Repository Platforms, Domain Repositories, etc.
- Engagement between RDA and library community, e.g., open call, IFLA, ALA, LIBER, IASSIST, ASIST RDAP, etc.
Register in the online program!

7th April 2017 - RDA 9th Plenary Meeting - Day 3

09:00 - 10:30

Breakout 7 - WG/IG/BoF Working Meetings
Participants list sign-up

- Discussion on Health Data and Blockchain: Making use of Blockchain in dealing with Health Data - Room MR14
- WG on a Software Source Code focus group: Sharing, Preservation and Reproducibility - Room MR1 - Remote participation available

- WG Agrisemantics: Landscaping the support of semantics for data interoperability in agriculture - Room MR5
- WG Data Description Registry Interoperability: DDRI Roadmap and Integration with Linked Data and Graph-based platforms - Room MR7
- WG QoS-DataLC Definitions: Review of technologies and working towards a more complete vocabulary - Room MR2
- IG Data Fabric: Recommendations Session - Room MR8
- IG Libraries for Research Data: Bringing research data management into the library mainstream - Plenary Room
- IG RDA/CODATA Legal Interoperability: Open Access through Legal Interoperability - Next Steps - Room MR12
- IG Weather climate and air quality: roadmap definition and future plans - Room MR6

10:30 - 11:00

Coffee break

11:00 - 12:30

Breakout 8 - WG/IG/BoF Working Meetings
Bringing Research Data Management into the Library Mainstream

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Developing research data services at Lund University Library

MONICA LASSI  MONICA.LASSI@UB.LU.SE
Let $\leq$ define a TIC

if $i \neq \mu(i)$ and $j \in \mu(i)$

$\Rightarrow (\mu(i), M(i))$ MATCH
“Can you help me understand?”
Research data management support services at UvA/AUAS Library

Mariëtte van Selm
RDM Support Services Coordinator, UvA/AUAS Library // Institutional RDM Programme Manager

Research Data Alliance (RDA) 9th Plenary meeting // Interest Group Libraries for Research Data, April 7th, 2017
Institutional RDM programme

- **clarity:** researchers know what is expected of them
- **understanding:** researchers understand what is important, when, why and to whom
- **ability:** researchers have the facilities they need to meet expectations
RDM Support Services

**website**
- rdm.uva.nl: general and discipline specific information on RDM, available 24/7 in Dutch and English

**service desk**
- one stop shop for all RDM questions:
  - tailored advice during office hours
  - from university-wide network

**training**
- elective introductory workshops on RDM for researchers from all disciplines, in Dutch and English

**repository**
- institutional repository for storing, sharing and publishing data (2017)
Service desk

• One stop shop for researchers
• ‘Plan B’ for liaison librarians
• One phone number, one email address
• Institutions wide network of experts, coordinated by the Library
Building a network

- Desktop research: who knows what and is where?
- Make contact, gauge interest in collaboration
- One on one conversations, presentation in staff meeting
- Follow up: document what has been agreed upon
- Maintenance: keep in touch
“I am trying to understand how much I need to do for the data management section of this grant proposal. Can you help me understand what is wanted / required?”

“I interview people in Europe and America. How will a conflict with a respondent be resolved: according to Dutch law or according to the law of his or her country?”

“What is the best way to store digital images and make them accessible? What are the best archiving programs?”

“How do I encrypt my data?”

“Where can I safely store paper consent forms?”

“Our article has been accepted by PLOS ONE. Do you know of any ethical or legal restrictions that are acceptable to PLOS as a reason not to publish our data, so we can prevent being ‘scooped’?”
Thank you!

Mariëtte van Selm | selm@uva.nl
Enabling Scientific Publication and Citation – Role of Libraries

Angelina Kraft
9th RDA Plenary, 5-7 April, Barcelona
Libraries for Research Data Meeting
German National Library of Science and Technology (TIB)

Research library for science and technology, architecture, chemistry, computer science, mathematics and physics

Member of Leibniz Association, 500 members of staff

Global supplier for scientific and technical information

Founding member of DataCite

- 55,345 journal subscriptions (15,967 print; 39,378 digital)
- 9.1 m items, 17.3 m patents & standards

https://tib.eu/
Managing digital resources

→ Non-textual material referenced via discovery portal (https://tib.eu)

TIB foci: Science and technology, architecture, chemistry, computer science, mathematics and physics: Includes Research Data, 3D objects, AV media, ...

Tools for data management

RDM guidelines, DOI service + repository

Research objects

Data
Metadata
Audio-Video
3D Objects
Software
...

Tools for AV media

TIB AV-PORTAL
DOI Service & Data Cite Business Office

DOIs registered via TIB (by March 2017)

- Total 1,165,411
  - 62 % Research data
  - 37 % Grey literature
  - 1 % AV media

Registering data centers

- Total 139 data centers
  - Major research centers i.e. Pangaea, WDCC and ESO
  - 65 universities/university libraries
    → RDM requirements at smaller/long-tail institutions?

→ Challenges of ‘long-tail’ data:

- Heterogeneous
- Unique standards
- Costs: Set-up and maintenance of long-term research data infrastructure
Example: RADAR – Research Data Repository

What is RADAR?  
An interdisciplinary repository for
- archival of research data as a generic service
- trustworthy preservation & traceable publication

Focus:  
Long Tail – Repository for specialized research disciplines, addition to big data archives, within German legal framework

Duration:  
September 2013 – August 2016, project funded by German Research Foundation

Live System:  
Provided by FIZ Karlsruhe

Support:  
Provided by TIB

Project:  
https://www.radar-projekt.org
System:  
https://www.radar-service.eu
Example: TIB AV-Portal

• Web-based platform for quality-tested scientific videos

• Automated video analyses enable pinpoint searches within the video content

• Search, cite, publish and download

• The TIB AV-Portal currently contains 7,300 videos

• Media Fragment Identifier – MFID allows precise citation:

  resolver  DOI  MFID
  http://dx.doi.org/10.5446/12717#t=00:27,00:38

https://av.tib.eu/
Summary: RDM at TIB

Digital CV / CRIS

Data & AV Repository

Portal
Lessons learned & outlook

Communities: Variety of scientific & technical research objects
→ Unique characteristics & life cycle
→ Varying capability of accepting & managing new media formats

→ Essential: Trust

Roles of TIB:
• Provide assurance & support for institutions planning to submit their data & media to datacentres & publishers
• Upgrade established workflows for indexing, cataloguing, digital preservation, DOI names, licensing
• Systematical collection of non-textual materials
• Develop innovative, media-specific portals
• Linking non-textual materials to other research information such as full texts & research data via the specialist portals & CRIS
• Engage in communities, provide training & open educational resources

→ Trust in libraries as preservers of knowledge & research objects
Thank you!

Contact:
Angelina Kraft
T +49 511 762-14238, angelina.kraft@tib.eu
RDM Services catalogue @ Leiden University

Fieke Schoots & Laurents Sesink
Centre for Digital Scholarship, University Libraries Leiden

April 7, 2017

Discover the world at Leiden University
Leiden University RDM Program

RDM policy implementation
2017 - 2019

RDM Services catalogue

• Help researchers make a reasoned choice between all services (DMP)

• Help institution spot and fill the gaps

• Improve conversation with suppliers / partners
Useful information for researchers at Leiden University:

- **Which services can I use during the various stages of my research project?**
- **Which services are suitable for my discipline?**
- **Which services adhere to my institution's data management policy?**
- **Under which conditions?**

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(Inter)national collaboration

Common goal for all HEI: provide facilities for the entire research life cycle

Working group: Data services & infrastructure
Generic

On a (inter)national level we share:

• Drivers
• Principles
• Requirements
• Law and Regulations

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Specific

There are also differences:

• Organisation

• Process

• Discipline
Generic

But the solutions are common:

• Data services
• Data vaults
• Repositories
• Etc.
Catalogue of data management services

- 50 services have been described
- Different views
- Evaluated according to policies & evaluation protocols
- Descriptions are all in English

https://vre.leidenuniv.nl/vre/lrd/
Information sheets

Information about:

• Organisation
• Legal aspects
• Storage
• Target groups
• Phase in the research process
• Funding
• Depositor and user agreements
• Metadata schemas
• Supported formats
• Costs
• Preservation strategy
• Etc...

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Evaluation of services

DURING
- Integrity
- Confidentiality
- Access
- Persistent identifiers
- Certification
- Sustainability

AFTER
- Metadata
- Long term guarantees
- Long term mission and finance
**Views on services: UKDA Life cycle**

**UKDA Research data Life Cycle**

Het UKDA Life cycle model is geschikt om de datamangement voorzieningen te positioneren ten aanzien van het onderzoeksproces: welke voorziening(en) staat/staan de onderzoeker in aan bepaalde fase van het onderzoek ter beschikking. Het helpt bovendien om bij het inventariseren en beschrijven van de voorzieningen de activiteiten te benoemen waarmee de voorziening kan worden gebruikt. Dit kunnen activiteiten uit meerdere fasen zijn.

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**Research data Life Cycle: 4. Preserving data**

- ✓ Meets all requirements
- ? Partly meets all requirements
- ✗ Does not meet all requirements
- ❓ Not applicable

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Views on services: Phase

Before the research project

During the research project

After the research project

During the research project

✓ Meets all requirements

? Partly meets all requirements

✗ Does not meet all requirements

= Not applicable

Local
- ✓ ✗ Bulkstorage
- ? ✗ Dataagil Cell Observatory
- ✓ = Departments
- ✓ = Template DMP Leiden
- ✓ ? Virtual Research Environments
- ✓ ✗ Workgroups

National
- ✓ ? Dutch Dataverse Network (DDN)
- = = Essentials 4 Data Support
- ✓ = NWO datamanagementplan
- ✓ ✗ SURF Data Archive
- ? ? SURFdrive
- ✓ ✓ The Language Archive

International
- ? ? B2DROP
- ? ✗ B2SAFE
- ? ✗ B2STAGE
- = = DMP Online
- = = Dryad
- ✗ ✗ Infrared Space Observatory data archive
- = = MANTRA
- ✓ ? SeaDataNet
- ✓ ? World Data Centre for Soils (WDC-Soils)
- ✓ ? Zenodo

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Views on services: Data Curation Continuum

Data curation continuum

Het data curation continuum model kan helpen om de voorzieningen in de inventarisatie en de activiteiten in datamanagement te plaatsen in verhouding tot drie onderscheiden domeinen: het privédomein, het gedeeld onderzoeksdomein en het publieke domein. Dit model maakt vooral goed duidelijk dat de overgangen kritische momenten zijn in het proces.

Data curation continuum: 3. Shared Research Domain

- ✔ Meets all requirements
- ? Partly meets all requirements
- ✗ Does not meet all requirements
- Not applicable

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Views on services: discipline

View by Faculty

- Archaeology
- Campus The Hague
- Humanities
- Law
- LUMC/Medicine
- Science
- Social and Behavioural Sciences

## Archaeology

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<td>✓ EDNA (National)</td>
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<td></td>
<td>✓ Departments (Local)</td>
<td>❓ Figshare (International)</td>
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<td>✓ Dutch Dataverse Network (DDN) (National)</td>
<td>❌ Figshare (International)</td>
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<td>❓ Figshare (International)</td>
<td>❌ SURF Data Archive (National)</td>
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<td>✓ SURFdrive (National)</td>
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<td>✓ Virtual Research Environments (Local)</td>
<td>❓ SURFdrive (Local)</td>
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<td>❓ Workgroups (Local)</td>
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</tbody>
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Recommended by this faculty
Catalogue @ Leiden University

- Researchers: **DMP** -> choose from services to comply with RDM requirements

- Faculties / Research Institutes: implement RDM protocol (preferred facility)

- Institution / ICT: identify gaps and provide adequate facilities under **architecture**

- Partners / vendors: better coordinate **demand and supply**
Thank you!

And thanks to Peter Verhaar ...
A place that all environmental, climate and biodiversity data is **dynamically and natively** available to common analysis tools.

A place where researchers can **view, query** data **regardless of location**.

A place where researchers can get accurate and up-to-date **scientific and technical** user support.

**EcoCloud for Researchers**

m.wolski@griffith.edu.au
<table>
<thead>
<tr>
<th>Requirement</th>
<th>Requirement Elaboration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unfragmented access to data for ecoscience research</td>
<td>• Ability for researchers to find, visualise and use datasets from many disparate sources in one online cloud environment</td>
</tr>
<tr>
<td>Access to scalable compute resources</td>
<td>• Ability for researchers to access scalable compute resources to: execute modelling and statistical analysis</td>
</tr>
</tbody>
</table>
| Sustainable and scalable resources | • Primary foundation and architecture should harness existing technologies and services that are comprehensively established and fully supported  
• Operational burden reduced |
| EcoCloud to support individual users and institutional users | • Caters for individual users such as researchers, modellers, ecosystem synthesis and forecasters (e.g. individuals can upload, share and manage their own data)  
• Caters for institutional researchers (e.g. institutions can upload, share and manage their own data) |
| Trust and credibility of the service for both users and developers | • Trust and credibility is crucial to the uptake and utilisation from data providers, individual researchers, research groups and institutions as well as software developers and those in the ecosciences technical community  
• Three main elements 1) Security, 2) Privacy, 3) Performance. |
| Access to data closer to compute | • Ability for researchers to access to data in their preferred compute platform without a necessity to download source data from different services. |
Component Architecture
Welcome, John Doe
to your EcoCloud Launch Platform

What would you like to do?

Launch RStudio
Start up an RStudio web-instance with access to preloaded ready-to-go data and extra compute power

Launch a Virtual Desktop
Start up a virtual desktop with access to preloaded software applications, ready-to-go data and extra compute power

Launch Jupyter Notebook
Start up a Jupyter Notebook web-instance with access to preloaded ready-to-go data and extra compute power
New in the EcoStore
A few of our recently added datasets ready for use in the EcoStore

- CRU Clim Global Climate layers
- WorldClim Global climate layers
- Australian Major Vegetation Groups
- Fraction of Photosynthetically Active Radiation (fPAR)

View all datasets

New in your EcoDrive
A list of all your datasets available in your EcoDrive space

- Whistling Kite (Haliastur sphenurus) occurrences
- Occurrence of Broad-tailed Gecko
- Dynamic Land Cover - Victoria only
- Acacia aptaneura trait and environment variable data

View all datasets
Where does the Institution fit in?

- Faculty librarians will need to know what is in this solution (data and tools) – a “trusted” service provider
- Used by undergraduates, postgraduates and researchers
- Local institutional repositories interact (probably manually in the first instance)
- Published institutional data
MISSION IMPOSSIBLE

What do you do when the data doesn’t fit the repository?
• Larger than expected data collection

• Heritage data collection

Amy Nurnberger, Columbia University
It grew...

• Expected data increased by 2x and an order of magnitude
• IR no longer an acceptable solution
• Budget did not accommodate increase
So, we have this data...

- Data center with 20 years of data
- Unique metadata scheme, user interface/workbench, data products, sole copies of source data
- Sustainability concerns (personnel, funding, etc.)
What do you do?
Image credits

www.flickr.com/photos/linneberg/8992626459
L4RD New Co-Chair Process

- Proposed process at P8 in Denver
- Options: bloodless coup, violent overthrow, or Qualtrics survey
- Nominations taken until October 16, 2016
- Ballot constructed from accepted nominations with candidate name, link to RDA profile, region, and statement of interest
- Link to ballot emailed to 263 individual members of L4RD on January 17, 2017
- Asked to select two candidates from different regions
- 97 votes cast: introducing new chairs for the next two years, Birgit Schmidt and Andi Ogier!
- Replacing Wolfram Horstmann and Kathleen Shearer, election process will begin again after next plenary to replace Michael Witt
- Feedback on improving the process very much welcomed!