Research Domain Interest Group in KAUST Library
Data definition
Models for developing RDM services
Develop RDM services using a domain perspective
Timeline and membership

Started Dec 2017
Phase_1 end Feb 2018

Members

• SDS Manager
• 4 SDS staff
• 2 Subject librarians
Propose on how we could provide **domain specific RDM support** based on

- **institutional** models for
  - RDM service **delivery**
  - engaging researchers in RDM
- **RDA** recommendations relevant to KAUST research
- KAUST research community **needs**
Explore

- **institutional** models for
  - RDM service **delivery**
  - engaging researchers in RDM

- **RDA** recommendations relevant to KAUST research

- KAUST research community **needs**
Institutional models for RDM services

Research Data Management
Service Categories

EDUCATION
Raise awareness of RDM's importance, encourage RDM skill-building, and disclose RDM tools and resources

EXPERTISE
Decision support for, and customized solutions to, specific research data management problems

CURATION
Technical infrastructure and related services that support data management throughout the research cycle

A tour of RDM Service Space (OCLC Research)
What we did
explored a long list of institutions to identify domain specific RDM services

What we found

✓ No institution identified has made a clear concerted effort to create discipline specific advice and support.
✓ Discipline specific support comes as a response to needs expressed by individual groups and is maintained through active communication channels
Types of discipline specific services

- **Training** sessions
- Credited **courses**
- **Bespoke** support/ on demand training
  - for specific groups/ labs/ individuals
- **Libguides**
- **Pointing to external sources** ([DCC](https://www.datacouncil.org/), **DataONE** ([DataONE](https://www.dataone.org/)), **DataCarpentry** ([DataCarpentry](https://datacarpentry.org/)) etc)
- **Funded short term projects** for case studies and recommendations
Explore:

- institutional models for
  - RDM service delivery
  - engaging researchers in RDM

- RDA recommendations relevant to KAUST research

- KAUST research community needs
Institutional models for engaging researchers in RDM

Data **conversations** at Lancaster University

Data **Champions** at Cambridge University

Data **Stewards** at TU Delft
Challenges to effecting good research data practices

- Cultural change among researchers: 80%
- Technological change: 20%

EOSC (European Open Science Cloud) High Level Expert Group (2017)
Library’s goal:

create **active links** with the research community to:

- enhance understanding of **needs**
- inform **decisions** on
  - **what** services to develop
  - **how** to market them
  - **how to measure** their success

Library’s role: initiate, facilitate, support, coordinate
Data Conversations at Lancaster University
Data Conversations at Lancaster University

Participation

Setting

Communication

Research event
Data Champions at the University of Cambridge

researchers who voluntarily advocate for good data management and sharing practice within their department
Data Champions at the University of Cambridge

- Requirements
- Support
- Results
Group of disciplinary experts embedded within faculties led centrally by the Data Stewardship Coordinator in the Library
Explore

- **institutional** models for
  - RDM service *delivery*
  - *engaging* researchers in RDM

- **RDA** recommendations relevant to KAUST research

- KAUST research community *needs*
Dynamic data citation methodology outlines how databases can support citation of the results of queries on dynamic data.

Wheat data guidelines

Best practices, tools, recommendations and examples to create, manage and share data related to wheat (ex. interoperability in plant science data)
FAIRsharing
a registry interlinking **standards**, data repositories, and **policies** for all domains

Metadata standards directory
a collaborative, open directory of **metadata standards** applicable to scientific data to help address infrastructure challenges
Relevant RDA Groups By Research Area

• **Agriculture:**
  plant science, bioscience, environmental science)

• **Chemistry**

• **Marine Science**
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Faculty consultations

• **structured interviews** with selected faculty from all divisions

• **asked about managing** and **sharing** research practices needs
Faculty consultations

Adapted and used with permission from Han (2018).
Conclusions
Need for **new skills**

RDM **support** models and services **evolving**
Addressing the challenges

Need for new skills

Keep learning: conferences, webinars, MOOCs, books, journals, blogs, twitter, learn from peers

RDM support models evolving

Identify those that are:

- the most relevant to your institution’s culture and research portfolio
- better suited according to your available resources
How to start? Some ideas

Start on the mindset:
this is a learning process - no need to do everything at once

[Photograph of low hanging fruits] (2016).
Retrieved from https://inbound.org/blog/how-to-get-an-influencer-to-write-for-you
What we need:

- **staff** willing to take **new roles** and responsibilities
- consider other **resources**
- **balance** caution – initiative
- get high **buy-in** (senior fac, admin)
- **brand** smart
- make sure you **address existing needs**
Stay connected with our:

**Institutional** stakeholders
- research community
- service providers (i.e. IT)
- administration bodies (i.e. grant offices etc)

**National and regional** peers

**International** peers
Sustainability and success
Opportunity

challenge
THANK YOU

Eirini Mastoraki
Resources
Conferences

https://www.rd-alliance.org/plenaries
http://www.dcc.ac.uk/events/
https://www.asist.org/rdap/
https://www.scidatacon.org/
http://www.iassistdata.org/conferences
https://www.force11.org/fsci
Some books


- **The Data Librarian’s Handbook**: Robin Rice and John Southall.

- **The Accidental Data Scientist**: Amy Affelt. Foreword by Thomas H. Davenport.

- **Data Management for Researchers**: Kristin Briney.
Online courses

Coursera RDM course

MANTRA

RDMRose

Essentials 4 Data Support
23 Things About RDM
DCC-RDM for librarians
How to Develop RDM Services - a guide for HEIs
DataOne RDM education modules
RDM Self-Education for Librarians
Disciplinary RDM Training
References
References


References


Han, L. Y. (2018). Gleaning Wisdom from Faculty Consultation Materials for Suggested Follow-Up Actions [PowerPoint Slides].
Additional slides with more detailed information
DCC Curation Research Lifecycle Model

1. Create or receive
2. Appraise and select
3. Ingest
4. Preserve
5. Store
6. Access, use and reuse
7. Transform
1. **Create** or **receive**: receive data and metadata from researchers

2. **Appraise** and **select**: evaluate data and select for long-term preservation

3. **Ingest**: transfer data to a repository

4. **Preserve**: take steps to ensure long term preservation and integrity/authority/usability of data

5. **Store**: Store data securely according to relevant standards

6. **Access, use** and **reuse**: ensure data is accessible to both designated users and reusers. Robust access controls and authentication procedures may be applicable.

7. **Transform**: create new data by migration to new formats, by creation of subsets, by selection or query
Data Conversations at Lancaster University

A platform where researchers can talk about Open Data & RDM on real life examples (come and share your stories)

- event organized 3 times per year
- 2 hours with lunch pre-event and networking break
- 25-30 researchers
- 4-6 lighting talks (recruited by open call)

Outcomes

- Facilitates peer-led support for aspects of the research process including RDM
- encourages interdisciplinary research
- sparks new ideas
Requirements

• run at least one RDM workshop per year
• act as a local expert in their community
  – advise researchers on RDM
  – forward questions to the central RDM team
  – advocate for good RDM practice and support FAIR principles
• act as a local representative in their community
  – represent their organization at the University Data Champions For
  – um
  – participate in the development of data management tools or other open research studies
• encouraged to participate in / liaise with international activities
Data Champions at the University of Cambridge

Support

- **RDM workshop** template
- **training**
  - presentation skills, workshop creation
  - GitHub workshop, software management, e-Lab notebooks
- **Participation in University’s Data Champion bi-monthly forum**
  - opportunity to discuss and RDM related issues and successes
  - good practice and feedback exchange
  - networking
- **Central RDM team to help** at anytime
Rewards

✓ Training opportunities
✓ Invitations to give talks in conferences and events
✓ Opportunity to write blog posts and papers
✓ Exposure via twitter
✓ Custom E-mail signatures
✓ Acknowledge contribution to heads of dpts

Risks

! Not enough rewards
! Lack of local senior support
! More resourcing
Roles of Data Stewards

- Assisting in planning the collection, management and publication of data in new and ongoing projects
- Helping writing Data Management Plans (and Paragraphs)
- Linking to other sources of expertise in university (ICT, Legal, advice on Tools)
- Persuading researchers on the importance of data management
- Understanding broader trends in research data management across their faculty and advising on potential solutions across faculties or university as a whole
- Running faculty or department specific training
- Connecting with Data Stewardship community, and maintaining regular contact with 4TU.Centre for Research Data, especially over publication of research data
- Providing advice on specific issues related to data and publication practices in faculty disciplines
- Gathering quantitative and qualitative metrics to assess the success of Data Stewardship
Role of Data Stewardship Coordination – { Library’s role }

- Building and sustaining a **network** of data stewards across TU Delft
  - Creating an **ongoing forum** for all data stewards to meet and share knowledge on research needs and requirements
  - Identifying where **synergies** exist across the university, and how to build upon them
  - Providing data stewards within on up to date information on **data publication** processes
  - Providing data stewards information on **national** and **international** updates on research data
- **Drawing in necessary expertise** within other university services, particularly on **ICT** and **legal** issues
- Staying up to date with **funder policies**, but also informing those policies
- Influencing **policy** within TU Delft on **Data Stewardship**
- Working with **national** and **international** networks to share and inform best practice