Research data management at the Flemish universities: state-of-affairs

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on behalf of
VLIR WG Research Data Management & Open Science
Research data management, an essential step towards Open Data

and ultimately Open Science
FLEMISH UNIVERSITIES WORKING TOGETHER

Research data management, an essential step towards Open Data

RDM Survey:
State of affairs in Flanders, depict RDM needs & requirements

Onderzoeksmanagement aan de Vlaamse Universiteiten, TH&MA (3), 47-51, 2017

Collaboration on practical issues:
DMPonline.be
DMP templates

Joint Policy statements:
Research data management en de Vlaamse Universiteiten: White paper, VLIR-WG RDM & Open Science
RMD @ the Flemish universities: State of affairs

Survey set-up

Questions

Consistent with foreign surveys so that benchmarking is possible

Two tier system:

Survey to principal investigators (n=224)

Survey to researchers (n=425)

5 dimensions:

- Data formats
- Archiving, storage
- Ethical & Legal
- Infrastructure & Services
- Collaboration and Reuse
Policies

AD HOC RATHER THAN ORGANISED

Do you make a data management plan before the start of a project?

- Never: 21%
- Hardly ever: 8%
- Mostly: 34%
- Yes, always: 26%
- Yes, when requested: 11%

Data management policy

- Formal: 57%
- Informal: 38%
- Non: 5%
DIVERSITY IN DATA TYPES AND STORAGE DEVICES

**Formats**

<table>
<thead>
<tr>
<th>Format</th>
<th>Ideal</th>
<th>Current</th>
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<tbody>
<tr>
<td>Spreadsheets</td>
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<tr>
<td>Configuration data</td>
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</table>

**Storage Device**

- **PC or laptop**
- **Individual device**
- **Central research unit**
- **Central university**
- **Cloud external**
- **Cloud university**
- **External data center**
- **Other**
- **Discipline specific**
- **Regional national**
Access
MORE BASED ON “NEED TO” THAN ON “WANT TO”

DATA ACCESSIBILITY: TO WHOM

Selected members of my institution
Interested persons by request
Peer reviewers
All members of my institution
No one
The scientific community
The public
Other

DATA ACCESSIBILITY: MEDIUM

Via email
Via cloud applications
Via physical disks
Via remote server or share drives
Via data archive/repository
As linked supplementary material for publications
Via personal or institutional website
Other
Not at all
Opinions concerning openness
DIVIDED BUT HOPEFUL

- What is your opinion on storing (a selection of) the research data of your unit in an open access data repository so that they can be reused by other researchers?
Sharing

Advantages are recognised but legal issues and lack of time.

What keeps you from sharing data?

- Privacy violation
- Increased effort of time and/or cost
- Increased competition in the "publish or perish"
- Other legal restrictions (e.g. copyright, patent law,...)
- Danger of misuse
- Risk of misinterpretation and/or falsification of data
- Lack of infrastructure
- Potentially undesired commercial use
- Lack of motivation for sharing
- Missing data standards
- Missing data processes
- Other
- Use of rare data formats

Open data sharing incentives

- Increased visibility and impact of your own research...
- New contacts and/or opportunities for cooperation...
- Consideration of research data as relevant scientific...
- Recognition in the scientific community
- User friendly infrastructure
- Establishment of standards for accountability and...
- Support in the process of making the data accessible
- Financial incentives (bonus, expense allowance)
- None
- Other
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Data management plan

- Software initially developed by Digital Curation Centre (DCC)
- Shared tool for DMP Belgium Institutions, coordinated by UGent
  - 7 founding members, 5 new members in 2018
  - Hosted on BELNET servers

DMPONLINE.BE
Data management plan

Phase details

Title: Full DMP
Order of display: 2
Description: Supervisors of fundamental and strategic basic research projects (from the application round 2018) and PhD/postdoctoral fellows (from the application round 2020) are expected to:

- submit a full DMP no later than 6 months after the start of the research project or the PhD/postdoctoral fellowship
- append a final DMP, which may have been updated since the first version of the full DMP, to the final report on the completed research

Researchers writing a full DMP for the FWO (both the 6-month and the final DMP) can use this "Full DMP" template.

For more information, see the FWO DMP website.

Version details

Title: Full DMP version 1
Published: true
Created at: 05.03.2018
Last updated: 05.03.2018

1. General information
2. Data description
3. Ethical and legal issues
4. Documentation and metadata
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Massive change of the way research works

Is it Utopia or can RDM be facilitated?
Research Data Management

RECOMMENDATIONS

1. **INVEST IN INFRASTRUCTURE**
   1. Data = intellectual capital
   2. EOSC is great, if your data repository is interoperable with this service
   3. Data services: 1.000.000 £ set up, 500.000 £ recurrent cost

   Q: What data repositories?
   Q: Joint supported initiative (DANS) or multiply costs for all research institutions (i.e. 5X Flem. universities,...)

2. **INVEST IN EDUCATION**
   1. RDM skills are lacking: 100.000 data stewards, researchers, ...

   Q: If nobody has the skills, how can we make RDM work in a qualitative manner?
3. PROVIDE CLEAR & UNIFORM LEGISLATION
   1. GDPR → Belgian law
   2. EU Copyright & TDM reforms

   Q: Don’t make it complicated for researchers to do research
   Q: Provide support

4. PROVIDE INCENTIVES FOR OPEN SCIENCE
   1. There’s more to (academic) life then publications, IF-factors, ... Data = intellectual capital
   2. Open data is better than sharing data, sharing data is better than dead data

   Q: Provide incentives, re-think evaluation models for research(ers)
RESEARCH DATA MANAGEMENT

INFRASTRUCTURE – EDUCATION – LEGISLATION - INCENTIVES

Flemish level

- Infrastructure
- Cost models
- Code of conduct for scientific research

Institutional level
The collaborating members

KULeuven (Hannelore Vanhaverbeke; Joke Claeys)
UAntwerpen (Jord Hanus; Marianne De Voecht)
UGent (Inge Van Nieuwerburgh; Myriam Mertens)
UHasselt (Sadía Vancauwenbergh; Hanne Elsen)
VUB (Lucy Amez; Kyle Van Gaeveren)

With the kind support of

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