6 tips to take researchers along on the journey to FAIR

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Slides
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Questions?
www.slido.com
#F1029
Disclaimers

• Aim is not to tell you about things we do at TU Delft to support Open Science/FAIR data (boring?)

• Instead: entirely biased selection of 6 (hopefully interesting?) things/reflections

• This work is (almost exclusively) done by others – I will try to attribute everyone appropriately

• I am not an expert
Who is familiar with the FAIR principles?
Who feels comfortable to explain what FAIR data really means in practice?
Reality check:
The State of Open Data Report 2019

How familiar are you with the FAIR principles?

<table>
<thead>
<tr>
<th>Year</th>
<th>Familiar</th>
<th>Previously Heard</th>
<th>Not Familiar</th>
<th>Never Heard</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018</td>
<td>25%</td>
<td>25%</td>
<td>30%</td>
<td>59.64%</td>
</tr>
<tr>
<td>2019</td>
<td>25%</td>
<td>25%</td>
<td>30%</td>
<td>54.33%</td>
</tr>
</tbody>
</table>

- I am familiar with the FAIR principles
- I have previously heard of the FAIR principles but I'm not familiar with them
- I have never heard of the FAIR principles before now

https://doi.org/10.6084/m9.figshare.9980783.v1
1. Policies are useful when they go hand in hand with practice

It is *un*FAIR (and not useful) to simply expect researchers to make their research FAIR, without providing appropriate support.
2. Research and researchers are central

Researchers are under various types of pressures

Investing in people: Data Steward with a PhD experience at every TU Delft faculty

- Understanding researchers
- Providing discipline-specific advice on Open Science and FAIR data
3. Small, incremental (realistic!) steps can make a big difference

Diffusion of Innovations; Rogers, 1963
Objective: improve daily practice, not compliance
“Change happens one person at a time”

“To a large extent, researchers are not interested in data management planning. Apart from the fact that they have to do it for grant proposals, they’re generally not interested in sharing data. They want their problems to be solved (...) So our aim (...) is to help researchers where they want help. While helping them we have the opportunity to talk to them about data management planning and data sharing”

Engaging Researchers with Data Management: The Cookbook, DOI: 10.11647/OBP.0185
What do the Data Stewards do?

Personal approach:

- They are there for any data questions
- Help researchers who “don’t have data” and who “don’t have problems”
- Places: coffee machine, canteen, lift, doorway…
- Every occasion is good!

Change happens one person at a time
Does it make a difference to have a Data Steward?

Are you aware of funders’ expectations for Findable, Accessible, Interoperable and Reusable (FAIR) data?
Results 2017 & 2019

- PhDs
- Postdocs/Res.
- Professors

Percentage

Heather Andrews, Data Steward at Faculty of Aerospace Engineering, TU Delft
4. Champions are powerful allies

Diffusion of Innovations; Rogers, 1963
Data Champions

• Local advocates of good data management and Open Science

• No requirements: everyone who wishes to join is the right person

• Principle: Recognition for the work done anyway

What do the Data Champions do?

Launch of TU Delft Open Hardware Community

https://gitlab.com/go-commons/delftopenhardware
What do the Data Champions do?

Champions the use of new tools

Keep calm and go paperless:
Electronic lab notebooks can improve your research.

What do the Data Champions do?

Deliver discipline-specific carpentry workshops: Genomic Data Carpentry

What do the Data Champions do?

Talk about their experience with Open Science (and inspire each other)

https://openworking.wordpress.com/data-champions/
5. Both central and disciplinary efforts are essential

Policy Development

TU Delft Research Data Framework Policy

- Roles and responsibilities at the university level
- Several compulsory statements
- Template for faculties
- Published

8 separate Faculty Data Policies
- Roles and responsibilities at the faculty level
- Reflecting disciplinary differences
- In development

Bottom-up departmental policies

Open Data Policy of the Quantum Nanoscience Department, TU Delft

Akhmerov, Anton; Steele, Gary

The text of the open data policy and a brief guideline on preparing and publishing datasets.

https://doi.org/10.5281/zenodo.2556949
Vision for training

Ad-hoc RDM training
RDM elements and reproducible workflows, data analysis and data publication applied within a specific field/discipline.

RDM workflows
Hands-on sessions exploring tools and RDM best practices applied to research workflows when working with specific data types.

Basics
Essential knowledge on different aspects within RDM which are necessary when commencing a research project.

Introduction
Research Data Management is presented in a general context such as information skills and open science.

Genomics*
Geospatial Research*
Social Sciences*

Tabular Data*
Research Software*
Qualitative Data*

RDM Essentials
Software Carpentry
Working with Personal Data in Research

The Informed researcher
Open Science MOOC

Content Specificity

6. No need to reinvent the wheel (and ask for help)
There is so much out there!
6 tips to take researchers along on the journey to FAIR:

1. Policies are useful when they go hand in hand with practice
2. Research and researchers are central
3. Small, incremental steps can make a big difference
4. Champions are powerful allies
5. Both central & disciplinary efforts are essential
6. No need to reinvent the wheel
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