



research
data
netherlands

Essentials 4 Data Support:

A fine course in FAIR Data Support

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Content

- E4DS, FO/BO
- Explain FAIR
- Explain how FAIR is incorporated in the course

Essentials 4 Data Support

- **Essentials 4 Data Support** is an introductory course for those people* who (want to) support researchers in storing, managing, archiving and sharing their research data.

- Librarians,
- IT Staff,
- Policy Makers/Advisors,
- Researchers



- Essentials 4 Data Support is a product of Research Data Netherlands

4TU.Centre for Research Data

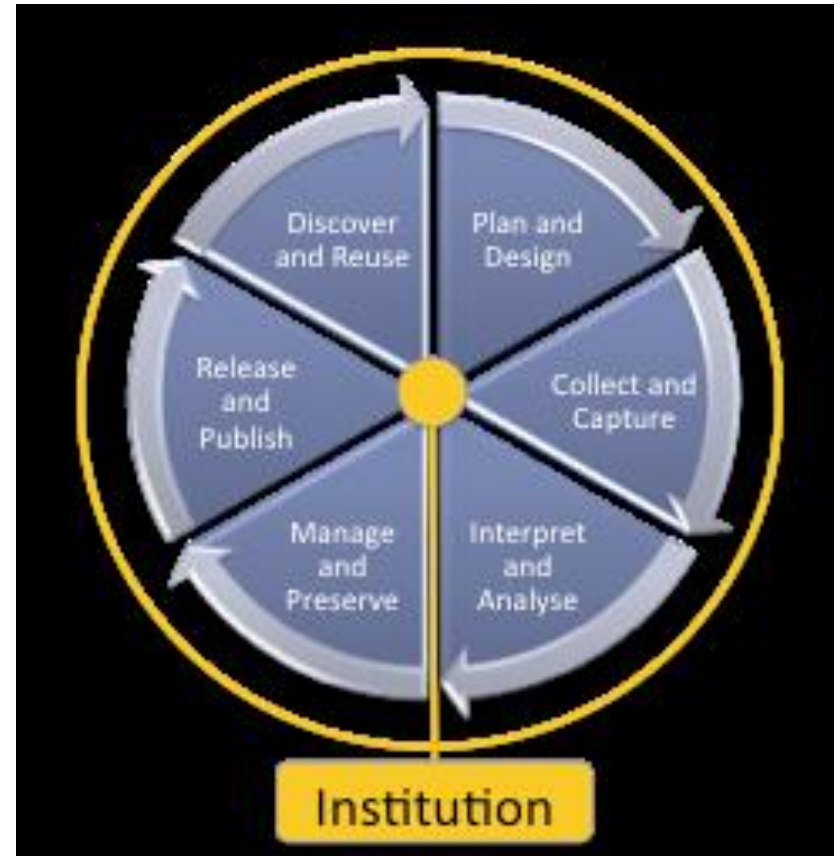
Data Archiving and Networked Services
DANS

SURF SARA

- E4DS started at 4TU.Centre for Research Data, 2011

Topics

- Definitions
- Planning phase
- Research phase
- User Phase
- Legislation and policy
- Data Support



Three ways to take the course

1. Online only
2. Online only with user profile



3. Full course (6 weeks)

- online content
- 2 face to face days:
 - fellow course participants
 - coaches
 - experts in the field
- private forum:
 - assignments and discussions
- certificate

Study load is about 50 hrs in total.





but now and than also in house training, upon request

- School of Applied Science, Utrecht
- National Forum for
Research Data Management, Denmark
- Medical-technical organization in the Netherlands
- Planning: School of Applied Science, Utrecht



Danmark



Competencies

Skillfully handles ICT

Shows entrepreneurship

Sees from the whole

Consulting skills

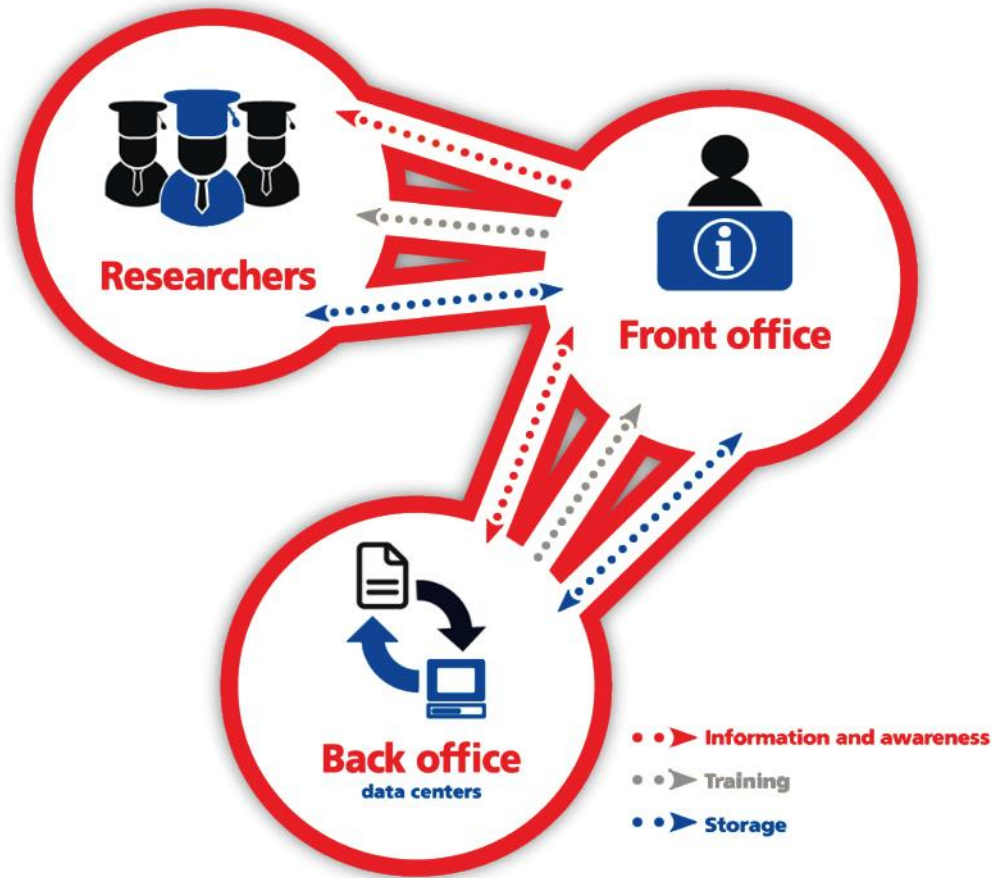
Co-operative skills





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(CC BY-SA 4.0)

Data supporter in the institution



FAIR

MENU ▾

SCIENTIFIC DATA 



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The FAIR Guiding Principles for scientific data management and stewardship

Mark D. Wilkinson, Michel Dumontier [...] Barend Mons 

FAIR, 2016

“There is an urgent need to improve the infrastructure supporting the reuse of scholarly data.”

“ ... FAIR Principles put specific emphasis on enhancing the ability of machines to automatically find and use the data, in addition to supporting its reuse by individuals.”

Source:

Wilkinson, M. D. et al. The FAIR Guiding Principles for scientific data management and stewardship.

Nature, Scientific Data 3:160018

doi: [10.1038/sdata.2016.18](https://doi.org/10.1038/sdata.2016.18) (2016)

Open
data
is about
MORE
THAN
DISCLOSURE
it must be
Fair

- Findable
- Accessible
- Interoperable
- Reusable

Findable

- (meta) data are assigned globally unique and persistent identifiers
- Data are described with rich metadata
- Metadata clearly and explicitly include the identifier of the data it describes
- (meta)data are registered or indexed in a searchable resource

Accessible

- (meta)data are retrievable by their identifier using a standardized communication protocol.
- The protocol is open, free and universally implementable
- The protocol allows for an authentication and authorization when required
- Metadata should be accessible even when the data is no longer available

Interoperable

- (meta)data use a formal, accessible, shared and broadly applicable language for knowledge representation
- (meta)data use vocabularies that follow the FAIR principles
- (meta)data include qualified references to other (meta)data.

Reusable

- meta(data) are richly described with a plurality of accurate and relevant attributes
- (meta)data are released with a clear and accessible data usage license.
- (meta)data are associated with detailed provenance
- (meta)data meet domain-relevant community standards

F in E4DS

Module: Research Phase

Data documentation and metadata



Data documentation is describing the characteristics of a dataset

- Research process
- Data itself
- Changes of dataset in time

- ‘Metadata is a love note to the future’

(source: UK Higher Education Research Data Management (RDM) Survey,
<http://t.co/J80ySXEsf5>)

A in E4DS

Module: User Phase

Persistent identifiers:
a unique label that is linked to
a digital object.

So, the object can always be found,
even if the name and place change.



Photo by Paul Vierkant [CC-BY](#)

I in E4DS

- Common formats
- Machine-readable!



- The history of digital storage provides a wonderful insight into the limitations of information carriers. If software/hardware is no longer used, data can become unreadable. In order to prevent this, it is vital to choose an **open format**: that is a software format that is not attached to a certain software supplier (proprietary software).

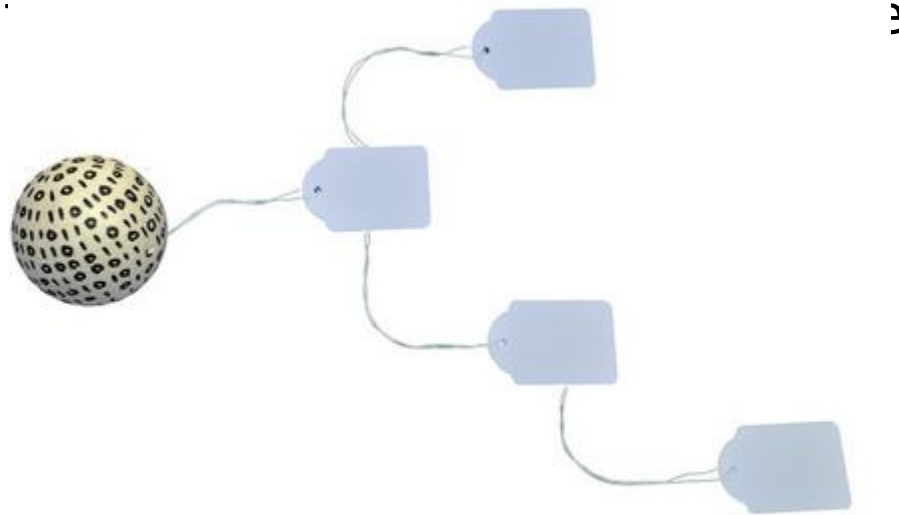
R in E4DS

Module: User phase

Metadata in data archives:

Apply schedules and standards to link the metadata to other files and automatically search familiarity of the data.

Many communities have their own schedules



Metadata scheme

Module: Legislation and policy

Information on:

- Licensing agreements
- Privacy issues
- Ownership of data



Conclusion

Fair is a 'code of conduct' for researchers

E4DS is a course for supporters

E4DS educates supporters so that researchers can be FAIR!



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